

# Noesis

## The Journal of the Mega Society

October/November 2004

Issues 174/175



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**no·e·sis** – Greek  $\nu$  understanding – to perceive. *Psychology*  $\nu$  the cognitive process

The Mega Society was founded in 1982 and has been documented in **the GUINNESS BOOK OF WORLD RECORDS** during the 1980s as the most exclusive society. Mega means million and denotes the one-in-a-million status of its members. Presently, the only viable adult-level admissions test is the Titan Test, developed by its founder, Ron Hoeflin – where 43/48 correct answers corresponds to the minimum accepted IQ level of 176. See [www.megasociety.org](http://www.megasociety.org) Since its **GUINNESS** "distinction" in the 1980's, the Mega Society with its 99.9999 percentile member status, remains "the most elite ultra-high IQ Society."

### Editorial Introduction to **NOESIS** Issues #174/175 – October/November 2004

Greetings avid readers to the combined 9<sup>th</sup> and 10<sup>th</sup> issue of *Noesis* (174 and #175) for October/November 2005. In this special "combined set of holidays" issue everyone will find something of interest for themselves and the special people in their lives!

We open this issue with **Halloween Memories** by the editor – and although this fun day has passed by, its magical nostalgia has not. Here you'll learn the art of pumpkin carving, among other things.

We then move to **Mathematical Quickies** from the famous math problem developer, Charles W. Trigg. We select some of the more challenging problems Charles has devised over the years.

As we move toward the next big American holiday (Thanksgiving), we celebrate it with the article **A Time for Thanksgiving**. In this section we share recipes for an *Apple Bavarian Torte* and *Cream of Pumpkin Soup*!

Everyone liked the insightful quotes by Joe Griffith presented in the past publications. We continue with three areas of interest to all types of business – via the article **Quotes on R&D (Research and Development), Risk, and Technology**.

A short item by Albert Einstein will inspire our readers titled **Three Rules of Work**.

Myrna Reid Grant offers encouraging **Poems for a Good and Happy Life**.

Next, a real treat for our readers of *Noesis*, is a Star Trek original TV series quiz. The exercise was developed by the editor after about 40 hours of viewing the 1<sup>st</sup> season, taking copious notes, and typing the article titled **Start Trek Quiz – 1<sup>st</sup> Season (1966-1967)**. This is a rare article that captures dialog in the first year's shows that are not readily available elsewhere – a real collector's treat!

I saw a book for "75 percent off" in price at the Barnes & Nobel bookstore a couple months ago titled: "*The Art of Spelling – The Madness and the Method*," by Marilyn vos Savant. Publisher is W. W. Norton & Company, 2000, ISBN 0-393-04903-5. In the back inside jacket cover of the book we read:

Marilyn vos Savant is listed in *The Guinness Book of Records* Hall of Fame for her record IQ score: 228. Her "Ask Marilyn" column appears weekly in *Parade*, the Sunday magazine for 341 newspapers, with a circulation of 37 million and a readership of 81 million: the largest in the world.

After reading Marilyn's accolades, a fantastic idea came to mind. Read about it in the article **Pending Inquiry to Marilyn vos Savant on Publishing the Titan Test in Parade Magazine**.

I want to thank Mega Society member Chris Cole for loading many of this year's *Noesis* journal issues onto the Mega Society website ([www.MegaSociety.org](http://www.MegaSociety.org)) – and for enhancing the method

to monitor the number of visitors to the site. Early October was the last time I worked on this final, combined *Noesis* journal issue for October [#174] / November [#175] until November 14<sup>th</sup> – after I returned from Germany. My desire is to release the combined issue the week of Thanksgiving. The Mega Society “hit counter” has improvements, via Chris Cole,

**“Now that there are more *Noesis* issues online, the search engines are picking up the site and we’re getting more visitors. I had to move it to a new server to handle the load. One of the features of the new server is that it has better reporting tools.”** (10-1-04) by Chris Cole

In early October when I went into the “hit counter” the bar graph read as follows:

Day	Wednesday	Thursday	Friday
Date	9/29	9/30	10/1
Count	150	209	98 (as of 6:30 a.m.)

We next continue with an article we developed – titled ***German Made Simple – Let’s Test It!***

Schmidt Company of Nuremberg, Germany is among the leading bakers and distributors of Lebkuchen – gingerbread in simple words. Schmidt distributes their baked products via many companies around the world. We share Schmidt products via material in the web site by USA mail-order-house *German Food Specialties*. My 15-piece “*Festive Chest*” order arrived November 12<sup>th</sup> – and I plan to share its contents when I go to New Jersey for the Christmas holiday. See the article ***Lebkuchen by Schmidt, Nuremberg, Germany***.

The editor next shares the way he got into his present physical regimen via the insightful and encouraging article ***Those Green Sweat Pants***.

Mega Society member Chris Cole sent a heads-up on the article ***Google Entices Job-Searchers with Math Puzzle***.

The editor next shares some terrific mathematical relationships for the mathematical constant,  $\pi$ , via a new book by Posamentier and Lehmann titled “ $\pi$ .” Besides many mathematical facts on  $\pi$ , you’ll learn a song about  $\pi$  and a mnemonic to remember the decimal places of  $\pi$  via a German language development.

Fred Metcalf shares *really humorous* jokes via the article ***Gentle Jokes***. For those who like Christmas, you’ll enjoy several of Fred’s quips centered around this joyful holiday!

Next, the editor shares a short article on herbs – ***Nature’s Medicine Chest***. The editor purchased this index-card herb set at a health seminar in the early 1990s.

Dr. Paavo Airola shares an article whose information can be incorporated by our readers to select healthy foods – ***Acid-Alkaline Foods***.

An invaluable book by David Niven is used to share with our readers of *Noesis* and those they know – ***Some Secrets of Successful People***. The editor selects a handful of unique statistics Dave presents in his hard-cover book.

As the editor was preparing for his 3+ week trip to Germany (Dresden and Berlin) in October, he shared a wishful prayer with the readers in the article titled ***May We Foster the Healing Process*** prior to leaving for Germany.

The editor had a rich, simple childhood and Christmas has remained a landmark ingredient each year for him. He shares this via the colorful article ***The Wonders of Christmas***.

Food surrounds our lives – especially the holidays. Folks will like a few recipes and corporate contacts to obtain great foods for the holidays and in the New Year – via articles like – ***Berliner Pfannkuchen***.

The television program *CSI – Las Vegas* shows us the art and skill of logical deduction and lateral thinking to reconstruct complex crime scenes. We continue with this topic via the article ***Lateral Thinking Puzzles*** – presented three times – puzzles, clues and then answers. Readers may desire to have a friend read the progressive clues (per puzzle) to maximize the amount of genuine thought you expend on these. The authors of the material used for this article are Ed Harshman, Des MacHale and Paul Sloane.

*Brainstorming* company offers insightful ways to “brainstorm” – via ***Welcome to the Random Word Tutorial***. An interesting, effective way, to brainstorm is presented. General Electric Company developed training courses in “brainstorming” as an integral part of its creative thinking program during the 1950s and 1960s.

*Mind Tools* company has something to offer in lateral thinking as well. See the article titled ***Lateral Thinking***.

The editor continues with ***White Christmas – Part II*** as this joyful season is coming fast upon us.

Some of the best quotes by famous people have been captured over the past years by Reader’s Digest – and the editor shares a handful in ***Reader’s Digest Quotable Quotes***.

The editor was a member of a SPEBSQSA barbershop chorus in Utica, NY during the early 1980s. Here he shares the first song he heard, learned, and remembers to this day – ***A House with Love in It***.

The first (of two) technical papers the editor presented at the *Military Sensing Symposium* in Dresden was distributed in *Noesis* early this year. The abstract for the second paper is presented in this issue titled: ***Enhancing The Commander’s Decision Aid To Meet Future Combat System Platform Protection System Requirements***.

Next we hear from Dai Takeuchi in Japan. Dai is a member of several hi-IQ societies – including the Prometheus Society and provides us the article *written in German* – titled ***Leben als Sinn von Sein***. The editor was in Kyoto, Japan in 1985 to present a technical paper at a Controls Conference.

The editor next shares a short article titled ***Stellar-IQ People*** and then Linda Gottfredson shares an article ***Schools and the g Factor***.

Integer sequences surround us – and here we share an invaluable resource available both as a book and computer online asset by Neil J. A. Sloane and folks – ***The Encyclopedia of Integer Sequences***.

We received some “*Pony Express*” mail and “voicemail” messages – by Dr. Ron Hoeflin and Paul Maxim – and we share this correspondence with our readers. Dr. Hoeflin shares about a new book “*The Know-It-All*” where several pages the author A. J. Jacobs discuss Jacobs’ meeting with Dr. Hoeflin. Energetic non-member subscriber Paul Maxim from the “*Big Apple*” reaches into our nostalgic mental libraries from the Prometheus Society’s *Gift of Fire* journal.

The editor and his mom were able to find Roland Muller’s home in Seiffen, Germany! A short and colorful story will raise smiles from all readers in ***A Visit to Seiffen – Land of Nutcracker Artisans***.

From early childhood, the editor continues to revolve around many pens to correspond and do work on paper. He shares a high-tech writing instrument in the article ***My Crave for Pens***.

John J. Watkins in 2004 put out a terrific book on linking graph theory and chess – loaded with theorems and the like. Dr. Watkins sent a color photo of the book jacket cover (inside and out) and we share briefly some tidbits about his book in the final article of this issue of *Noesis* titled ***Across the Board – The Mathematics of Chessboard Problems***.

## Noesis Dues Status – Last Paid Issue

Active Mega Society Members		
1	Bloom	176
2	Corley	176

3	Erlandson	178
4	Morrison	176
5	Woolsey	192
6	Bruni	208
7	Harding	185
8	Cole	176
9	Ward	Officer - Administrator
10	Langdon	Officer - Internet
11	Lee	175
12	Inada	175
13	May	174
14	Dr. Hoeflin	Founder/Editor Emeritus
15	Yannone	Officer – Editor/Publisher
16	Wooten	176 [1]
Non-Member Subscribers		
1	Maxim	178
2	Sockut	184
3	Morris	178
4	Park	176
5	Schwartz	176
6	V. Yannone	175
7	F. Yannone	175

[1] new member 8/04 – receives a free issue (175+1=176)

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### Halloween Memories by Editor

When we were kids in elementary school, the thrill of Halloween was elevated due to a number of reasons. The temperature was generally cooler, loads of leaves were on the ground in the neighbor’s yards and in huge mounds along the street-side curbs. We’d walk through these huge mounds of leaves as we trekked to all the neighbor’s houses for the long-anticipated treats. But a few weeks before October 31<sup>st</sup> was



**Problem 90 – A Surprising Square (page 27)**

In what system(s) of numeration is 11111 a perfect square?

**Problem 99 – A Skeleton Product (page 29)**

The product of three consecutive even integers is  $87****8$ . Find the integers and supply the missing digits in the product.

**Problem 120 – Feeding Three Truck-drivers (page 34)**

Three truck-drivers went into a roadside café. One truck-driver purchased four sandwiches, a cup of coffee and ten doughnuts for \$1.69. Another truck-driver purchased three sandwiches, a cup of coffee and seven doughnuts for \$1.26. What did the third truck-driver pay for a sandwich, a cup of coffee and a doughnut?

**Problem 177 – Tetrahedron through a Straw (page 49)**

Given a flexible, thin-walled cylinder, such as a soda straw, with diameter  $d$ . What is the edge  $e$  of the largest regular tetrahedron that can be pushed through the straw?

**Problem 215 – Superposed Radical (page 59)**

Evaluate  $\sqrt[3]{11+4\sqrt[3]{14+10\sqrt[3]{17+18\sqrt[3]{\dots}}}}$

**Problem 221 – Rhombic Dodecahedrons (page 60)**

Show that space can be filled with rhombic dodecahedrons.

**Problem 236 –How Old Is Willie? (page 64)**

"Did your teacher give you that problem?" I asked. "It looks rather tedious."  
 "No," said Willie, "I made it up. It's a polynomial equation with my age as a root. That is,  $x$  stands for my age my last birthday."  
 "Well, then," I remarked, "It shouldn't be so hard to work out – integer coefficients, integral root. Suppose I try  $x = 7$  . . . No, that gives 77."  
 "Do I look only seven years old?" demanded Willie.  
 "Well, let me try a larger integer . . . No, that gives 85, not zero."  
 "Oh, stop kidding!" said Willie, looking over my shoulder. "You know I'm older than that."  
*How old is Willie?*

**Problem 249 – The Bonus Fund (page 67)**

It was planned to distribute fifty dollars of a bonus fund to each employee, but the last man would have gotten only forty-five dollars. In order to effect an equitable distribution, forty-five dollars was given to each person, and ninety-five dollars was kept in the fund for the following year. How much money was in the fund to begin with?

**Problem 266 – When Is the Division Exact? (page 72)**

For what positive integral values of  $n$  does  $2n + 1$  divide  $n^4 + n^2$ ?

## A Time for Thanksgiving

by Editor

**Thanksgiving** is a special time of year for people in America. It gives them a time to reflect back to the forefathers – the Pilgrims – who traveled under extreme conditions for apparent freedom. In today's world, the term "freedom" has been re-defined in a multitude of ways. In an age of persistent war and terrorism, Americans, and people in countries all over the globe, continue to find peace-of-mind by "looking up" to God. People find God a loving Shepard – who provides and cares for His flock. In whatever 'state' we find ourselves, with God by our side, we can know stability of mind. Because our mind is the 'rudder' of our being, it is important to have it linked with Divine Omnipotence. There are thousands of things to be "thankful" for – many of these items go undetected – all too easily. In this section we present a small variety of items we hope will console, cheer, and reinforce the meaning of Thanksgiving.

### Psalm 100

Make a joyful noise unto the  
 Lord, all the lands!  
 Serve the Lord with gladness!  
 Come into his presence with singing!  
 Know that the Lord is God!  
 It is he that made us, and we are his;  
 we are his people,  
 and the sheep of his pasture.  
 Enter his gates with thanksgiving  
 and his courts with praise!  
 Give thanks to him, bless his name!  
 For the Lord is good;  
 his steadfast love endures for ever,  
 and his faithfulness to all generations.



## THE PLYMOUTH THANKSGIVING STORY

John Burrows - Director, Fourth World Documentation Project

<http://www.2020tech.com/thanks/temp.html>

When the Pilgrims crossed the Atlantic Ocean in 1620, they landed on the rocky shores of a territory that was inhabited by the Wampanoag (Wam pa NO ag) Indians. The Wampanoags were part of the Algonkian-speaking people. The Wampanoags moved several times during each year in order to get food. In the spring they would fish in the rivers for salmon and herring. In the planting season they moved to the forest to hunt deer and other animals. The basic dress for men was the breech clout, a length of deerskin looped over a belt in back and in front. Women wore deerskin wrap-around skirts. Deerskin leggings and fur capes made from deer, beaver, otter, and beaver. There were two language groups of Indians in New England at this time. The Iroquois were neighbors to the Algonkian-speaking people. Leaders of the Algonquin and Iroquois people were called "sachems" (SAY chems). These Indians of the Eastern Woodlands called the turtle, the deer and the fish their brothers. They respected the forest and everything in it as equals. Whenever a hunter made a kill, he was careful to leave behind some

<b>Compliments of AMICA Insurance</b>	
<b>T</b>	<b>houghts of the fall</b>
<b>H</b>	<b>ave led us to</b>
<b>A</b>	<b>familiar place</b>
<b>N</b>	<b>ear our hearts;</b>
<b>K</b>	<b>nowing that we'll</b>
<b>S</b>	<b>oon be home to</b>
<b>G</b>	<b>ive to one another</b>
<b>I</b>	<b>n our unique ways;</b>
<b>V</b>	<b>isiting old places,</b>
<b>I</b>	<b>nventing new memories,</b>
<b>N</b>	<b>ear to each other,</b>
<b>G</b>	<b>rateful for life's bounty.</b>

We can only guess what the Wampanoags must have thought when they first saw the strange ships of the Pilgrims arriving on their shores. But their custom was to help visitors, and they treated the newcomers with courtesy. Squanto was originally from the village of Patuxet (Pa UK et) and a member of the Pokanokit Wampanoag nation. Patuxet once stood on the exact site where the Pilgrims built Plymouth. In 1605, fifteen years before the Pilgrims arrived, Squanto had been kidnapped by a Portuguese ship. One year later, in the spring, Squanto and Samoset were hunting along the beach near Patuxet. They were startled to see people from England in their deserted village. For several days, they stayed nearby observing the Pilgrims. The Pilgrims were not in good condition. They were living in dirt-covered shelters, there was a shortage of food, and nearly half of them had died during the winter. They obviously needed help and the two men were a welcome sight. By the time fall arrived things were going much better for the Pilgrims, thanks to the help they had received. The corn they planted had grown well. There was enough food to last the winter. They were living comfortably in the forest. The Algonkian tribes held six thanksgiving festivals during the year. The beginning of the Algonkian year was marked by the Maple Dance which gave thanks to the Creator for the maple tree and its syrup. This ceremony was held in the fall. Captain Miles Standish, the leader of the Pilgrims, invited Squanto, Samoset, Massasoit (the leader of the Wampanoags), and their immediate families to join them for a celebration, but they had no idea how big Indian feasts were. For three days the Wampanoags feasted with the Pilgrims. It was a special time of friendship between two very different groups of people. A peace and friendship agreement was made between Massasoit and Miles Standish. It would be very good to say that this friendship lasted a long time; but, unfortunately, that was not to be. More English people came to America, and they were not in need of help from the Indians as were the original Pilgrims. It is sad to think that this happened, but it is important to understand all of the story and not just the happy part. Today the town of Plymouth Rock has a Thanksgiving ceremony each year in remembrance of the first Thanksgiving.

**"Today is a time of celebrating for you – a time of looking back to the first days of white people in America. But it is not a time of celebrating for me. It is with a heavy heart that I look back upon what happened to my People. When the Pilgrims arrived, we, the Wampanoags, welcomed them with open arms, little knowing that it was the beginning of the end. That before 50 years were to pass, the Wampanoag would no longer be a tribe. That we and other Indians living near the settlers would be killed by their guns or dead from diseases that we caught from them. Let us always remember, the Indian is and was just as human as the white people.**

**Although our way of life is almost gone, we, the Wampanoags, still walk the lands of Massachusetts. What has happened cannot be changed. But today we work toward a better America, a more Indian America where people and nature once again are important."**

<b>Psalm 111</b>
<b>Full of honor and majesty in his work, and his righteousness endures for ever. He has caused his wonderful works to be remembered; the Lord is gracious and merciful He provides food for those who fear him; he is ever mindful of his covenant. He has shown his people the power of his works, in giving them the heritage of the nations. The works of his hands are faithful and just; all of his precepts are trustworthy, they are established for ever and ever, to be performed with faithfulness and uprightness.</b>

He sent redemption to his people;  
 he has commanded his covenant for ever.  
 Holy and terrible is his name!  
 The fear of the Lord is the beginning of wisdom;  
 a good understanding have all those who practice it,  
 His praise endures for ever!

- STUDY AND DISCUSSION QUESTIONS – The Thanksgiving Story**
1. Who lived on the rocky shores where the Pilgrims landed?
  2. The Wampanoags were part of what culture area?
  3. In what type of homes did the Wampanoags live?
  4. Explain what the Wampanoags did to obtain food during the different seasons of the year?
  5. What was the basic dress for the Wampanoag people?
  6. Describe the Iroquois system of government.
  7. Who later used this system of government as a model?
  8. What courtesies did the Wampanoag people extend toward all visitors?
  9. Who was "Tisquantum" and what village was he from?
  10. Explain how Squanto learned to speak English.
  11. Why did Squanto and Samoset go to live with another Wampanoag village?
  12. Tell four ways in which Squanto helped the Pilgrims.
  13. Describe the "First Thanksgiving" in your own words.
  14. Why was this really the fifth thanksgiving feast for the Indians that year?
  15. What do you think would have happened to the Pilgrims if they had not been helped by the Indians?
  16. After studying about the culture of the Wampanoags, how would you react to a thanksgiving picture showing tipis and Indians wearing feathered headdresses?
  17. Quickly re-read the lesson and as you read, make a list of vocabulary words that are new to you and write a definition for each one.

**Apple Bavarian Torte**

**Submitted by:** Terri

"This torte is made in a *spring form* pan. Cream cheese, almonds, and apples deck this to the nines! Enjoy this dessert with your loved ones during the holidays." Original recipe yield: 12 servings.

**INGREDIENTS:**

- 1/2 cup butter
- 1/3 cup white sugar
- 1/4 teaspoon vanilla extract
- 1 cup all-purpose flour
- 1 (8 ounce) package cream cheese
- 1/4 cup white sugar
- 1 egg
- 1/2 teaspoon vanilla extract
- 6 apple - peeled, cored and sliced
- 1/3 cup white sugar
- 1/2 teaspoon ground cinnamon
- 1/4 cup sliced almonds

**DIRECTIONS:**

Pre Pre-heat oven to 450 degrees F(230 degrees C).

C Cream together butter, sugar, vanilla, and flour. Press crust mixture into the flat bottom of a 9-inch spring for form pan. Set aside. In a medium bowl, blend cream cheese and sugar. Beat in egg and vanilla. Pou Pour cheese mixture over crust. Toss apples with sugar and cinnamon. Spread apple mixture over all.

Bake for 10 minutes. Reduce heat to 400 degrees F(200 degrees C) and continue baking for 25 minutes. Sprinkle almonds over top of torte. Continue baking until lightly browned. Cool before removing from pan.

<b><i>Cream of Pumpkin Soup</i></b>	
Southern Lady Presents "Tea Time"	
Fall 2004 – USD \$4.95; page 45	
1/2 cup onion, chopped	2 tablespoons margarine, melted
2 (14.5 ounce) cans of vegetable broth	1 (15 ounce) can pumpkin puree
1/4 cup brown sugar	1/2 teaspoon salt
1/4 teaspoon cinnamon	1/8 teaspoon fresh ginger, grated
1 cup half and half	<i>Enjoy it!</i>

**Quotes on R&D, Risk and Technology**  
 Compiled by Joe Griffith

Joe Griffith's "Speaker's Library of Business Stories, Anecdotes, and Humor," dated 1990; ISBN 0-7607-1956-X. Three sections (R&D, Risk, and Technology) are presented here to provoke thought for Brainstorming sessions.

**Research And Development**

"I never perfected an invention that I did not think about in terms of the service it might give others." **Thomas Edison**

► *Speeding up product development can mean additional profits*

"If you get to market sooner with new technology, you can charge a premium until the others follow." **John Handy, vice president, AT&T**

► *A valued trademark name doesn't always assure the success of a new product*

RCA is a well-known trademark name for radios and televisions, but when RCA tried to market kitchen appliances in the 1940s, it failed. The consumer didn't connect radios and televisions with refrigerators.

► *You can be successful without spending lots of money on research and development*

Crown Cork and Seal relies on top customer service to succeed, and they do little basic research and don't pioneer new products. Instead, its R&D department is used to solve specific customer problems quickly and to imitate new product innovations created by competitors.

► *It's not enough to develop new products, you also need the money to exploit their potential*

IBM didn't invent the personal computer but had the resources to succeed against those who were early entrants into the market.

► *Companies that create new products often discover that the largest market was not originally known*

When Alfred Nobel was developing dynamite, he was trying to discover a better explosive for the military. As it was, dynamite turned out to be too dangerous for the military but eventually was used by the mining and construction industries, along with the railroad, to replace the pick and shovel.

► *The most successful companies are those that invest in research labs*

The idea of research labs was implemented for General Electric in 1905. Next came Bell Labs, later Du Pont, and then IBM.

"Basic research is what I am doing when I don't know what I am doing." **Wernher von Braun**

► *New products don't always come from research and development*

In 1957, Vic Barouh's company made carbon paper. One day he saw a secretary use chalk to erase a mistake. This is how the idea for Ko-Rec-Type was born.

► *Developing a new product is the first step. The second step is getting the potential recognized*

"Xerography, invented by patent attorney and amateur physicist Chester Carlson in his New York City kitchen, was patented in 1937, but IBM, RCA, Remington Rand, and General Electric, among others, rejected it." Mark Green and John F. Berry, *The Challenge of Hidden Profits*

► *Develop products that are needed*

"Competition from the Japanese is just one of a whole bunch of old saws that people use to explain product failure. The key is to find something that will make a difference in your customer's business. Successful products provide instant economic success to the users." Modesto Maidique, *author*

► *New products need to get to market quicker to recoup research and development money faster*

The safety razor took nine years for Gillette to manufacture; television, twenty-two years; radio, eight years; the cotton picker, fifty-three years; nylon, eleven years; the zipper, twenty-seven years.

► *New products come from companies that encourage new products*

The 3M Company has what they call a "10-percent rule." Employees can spend 10 percent of their time on any project, just as long as it's related to 3M's business. You know those little yellow stick-on paper slips everyone uses? They were developed with the 10-percent rule and have been a big success at 3M.

► *When developing a new product, make sure it will fulfill a need*

That's what Betty Nesmith, an executive secretary, did in 1951. The speed of the electric typewriter, new on the market, seemed to multiply typing errors. She concocted a mixture of water-based paint and a coloring agent that blended with the bank's stationery. Soon other employees wanted to use her correction fluid, and by 1956, she was making and selling the product full-time. In 1979, Gillette bought her Liquid Paper Corporation for \$47.5 million.

► *It can be easier to succeed with an improved product than it is with a new product*

It took Polaroid many years to reach \$1 billion in sales with their innovative camera because they had to teach people how to use it.

► *Sometimes technological discoveries occur accidentally*

LTV Corporation's "mistake" occurred in 1958, a landmark year for America's space program. The United States, racing to catch up with the Soviet Union, launched its first satellite. The National Aeronautics and Space Administration was born. And workers at what is now LTV Missile and Electronics Group's Missiles Division in Dallas accidentally left a piece of carbon in a furnace too long.

When LTV workers examined the specimen they nicknamed "burnt toast," they found that instead of burning up in the heat, it was strong. The material, now known as reinforced carbon/carbon, has evolved into key structural material for the space shuttle and may be used on future space vehicles because of its strength and ability to withstand metal-melting temperatures.

► *We can have more breakthroughs in research if we create an environment that encourages it*

Consider how Montgolfier invented the hot-air balloon. Looking into the fireplace, one of the brothers saw burnt paper scraps rise above the flames and up the chimney. Heated air could make a balloon rise from the earth, he realized.

While working on a better way to make glass, British inventor Alastair Pilkington noticed a film of fat floating in his wife's dishwasher. That *idea hook* inspired a process where molten glass is floated on a layer of melted metal to provide an otherwise unachievable smoothness.

Dunlop got the idea for the rubber tire by looking at a garden hose.

Colt invented the revolver after watching a ship's wheel turn.

► *When a new product fails, don't let managerial ego keep it on the market*



Remember when Ford produced the Edsel. It was a major failure. All premarket research indicated that the Edsel would be well received, but the public didn't buy it. Ford quickly dropped the Edsel and thereby cut their losses short. Had management's ego been so big they didn't want to admit their mistake, the Edsel could have stayed on the market and could have eventually made Ford Motor Company the failure and not just the product.

► *The more dominate a company is in its market, the faster they can usually bring out new products*

Black & Decker has a faster rate of new product introduction than any of its competitors in the power tool industry because it has a substantial lead in market share over its competitors.

3M, an office products leader, has over forty-thousand different products.

► *Instead of developing product families, develop product lines*

For example, when Stouffer's rolled out its Lean Cuisine frozen entrees, what was being sold wasn't frozen food. The company very successfully sold the idea of high-class dieting to an increasingly health-conscious populace. Lean Cuisine wasn't targeted at customers looking for frozen entrees and dinners – it was focused on consumers who would be attracted to the idea that the food was convenient, tasty, and compatible with a healthful weight-conscious life-style. The success of the idea is evident by the booming market for low-calorie frozen dinners.

► *The more product research develops, the more you will develop through spin-off uses*

3M's brassiere project in the late 1950s was an attempt to borrow from 3M's nonwoven-fiber technology, which already was used to make decorative ribbons for gift packages. The 3M bra offered good support but not much in the way of styling. Even though the bra wasn't successful, it stimulated additional products that were successful. The shape of the bra cups suggested a surgical mask, and the nonwoven fiber had the necessary porous property to let air in but keep germs from going out.

► *Sometimes a product only has to be improved to increase sales*

Take the fountain pen first introduced in 1884. About sixty years later, after World War II, the ballpoint pen was invented. Then came porous point pens, highlighters, and then mechanical pencils.

No matter how many new word processors or automated office equipment comes to market, pens will always be around in one form or another, as witnessed by the fact that annual sales of pens is near \$3 billion.

► *Give a product a new twist*

The quickest way to create a new product is to give it a new twist to one that already exists. This worked for Weight Watchers. There were already hundreds of diets available, but Weight Watchers added the idea of support groups to dieters.

## Risk

"Behold the turtle. He makes progress only when he sticks his neck out." **James B. Conant**

"Nothing will ever be attempted if all possible objections must be first overcome." **Samuel Johnson**

"There is only one danger I find in life – you may take too many precautions." **Alfred Adler**

"Progress always involves risks. You can't steal second base while keeping your foot on first" **Frederick Wilcox**

► *Sometimes not taking a risk is a risk*

"People who don't take risks generally make about two big mistakes a year. People who do take risks generally make about two big mistakes a year." **Peter Drucker**

► *Risk is necessary for a company to grow and prosper*

Pharmaceutical manufacturers always risk the danger of bringing a killer to market instead of a cure. The Thalidomide drug brought out in the early 1960s left malformed infants. The inoculations in the 1970s for infantile paralysis turned out to be lethal and had to be taken off the market. But because they take these risks, lifesaving drugs have dramatically extended our life expectancy.

► *Everyone has their own level of risk*

"As far as I'm concerned, nothing is worth going broke for." **Warren Avis, founder, Avis Car Rental**

"Excessive caution can stop your potential as much as too much risk-taking." **Robert H. Henry, humorist**

► *It may be better to let others take the risk*

"Never be a pioneer; it doesn't pay. Let the other man do the pioneering and then after he has shown what can be done, do it bigger and more quickly; but let the other man take the time and risk to show you how to do it." **Leo Bakeland, founder Bakelite Corporation**

► *Taking no risk is sometimes the biggest risk*

"Every serious choice that a man or woman makes is a leap, more or less frightening, into contingency. Not to make those choices, not to open oneself to misfortune and the fear of misfortune, is a tempting option, but one gives into it at the risk of never living a fully human life." **Nelson Aldrich, Jr., Old Money**

► *The more we have, the more we have to lose and the less likely we are to take a risk*

Success automatically breeds caution. Listen to some of the sayings: "Don't tamper with success." "If it ain't broke don't fix it." "Don't break up a winning team." "Don't ruin a good thing."

"The people I want to hear about are the people who take risks." **Robert Frost**

"Great deals are usually wrought at great risks." **Herodotus**

"Take risks. You can't fall off the bottom." **Barbara Proctor**

"America is becoming a nation of risk-takers, and the way we do business will never be the same." **Allan A. Kennedy**

► *We can reduce risk by preparation*

Remember the famous saloon scene with W. C. Fields. After watching the canny comedian survey his poker hand, a man asked, "Is this a game of chance?" Fields replied, "Not the way I play it."

► *Perhaps the biggest threat to a successful business is the willingness to remain comfortable and reject the small risk that could lead to greater rewards*

In the 1960s, Campbell Soup Company produced a comfortable profit almost like clockwork. But a man named Gordon McGovern down in a little-known bakery division wasn't satisfied. Before long, McGovern developed a line of premium cookies. Sales shot sky-high. The brand name was Pepperidge Farm.

A few years later, McGovern was named Campbell's chairman, and he quickly produced a line of gourmet soups that opened new markets. Again sales soared. Perhaps more important, McGovern's creative, take-a-risk attitude soon permeated the company.

► *Before taking a risk, think of Rudyard Kipling's words:*

If you can make one heap of all your winnings  
And risk it on one turn of pitch-and-toss,  
And lose, and start again at your beginnings  
And never breathe a word about your loss . . .

► *Without risk, there is no reward*

Academy Award-winning actor George Kennedy reached stardom only after he made a difficult decision to change the direction of his life. He was in the army and had completed fourteen years' service – just six short of retirement – when he decided that what he really wanted was to be an actor.

His family and friends advised him not to do it. "Why give up the security of the army and sure retirement benefits for the insecurity of the actor's world? Why trade the certain for the uncertain? At your age, you're crazy to change careers. How do you know you can ever be an actor?"

"Failure didn't fit into my scheme of things," he said. He ventured to Hollywood, won an Oscar for his role in *Cool Hand Luke* and went on to star in a successful television series. He now earns more from one TV commercial than he did in a year with the Army.

## Technology

► *No matter how technical we become, the customer must be number one*

"IBM is customer- and market-driven, not technology-driven." **Buck Rodgers, former IBM VP, Marketing**

"Television is the triumph of machinery over people." **Fred Allen**

"Automation may be great, but nothing speeds up work like a wastebasket." **Frank Hodur**

► *Technology is no better than the user*

As one manager said: I don't like this darn computer, I wish that they would sell it; it never does what I want it to do, only what I tell it.

► *You can't stop progress*

"Once technology is out of the jar, you can't put it back in." **Ervin L. Glaspy**

► *Technology doesn't have to be based on the space age to be useful*

Ray Kroc built McDonald's with the latest technology for making better hamburgers. Because of technology, he built his fortune in a business, eating out, that was already overcrowded.

► *Technology can save money and boost productivity*

Burger King put TV terminals in their kitchens so that the chefs could read their incoming orders from a screen that were taken from the cash registers out front. As a result, the cooks made fewer mistakes and wasted less food.

► *We can't always see the development of technology until after it occurs*

Thomas Watson, founder of IBM, started out in the 1920s designing, selling, and installing punch-card equipment. He had no idea that technology would take IBM to the forefront of the business world.

► *Technology can give you a competitive advantage*

The radial tire allowed Michelin to challenge Goodyear and Firestone. In typewriters, electronics was the undoing of Underwood and other mainstays.

► *New technology keeps you from sitting on your laurels*

Years ago, Dictaphone was so far ahead in the Dictaphone industry they made the mistake of assuming nobody could catch up. Then IBM bought Dictabelts, which had an advanced magnetic tape technology, and suddenly Dictaphone had to catch up.

Thomas Edison once said that his greatest discovery of all was the discovery of what people wanted to use.

"Technologies that are emerging today will give us the ability to explore, convey, and create knowledge as never before. This has enormous implications for us as individuals, as well as for our institutions. We have had an opportunity that is given to few generations in history. I believe that if we respond with our best creative energies, we can unleash a new renaissance of discovery and learning." **John Scully, chairman, Apple Computer**

► *Technology is what allows people to do things that otherwise would not be possible*

"Technology is how to make and use a knife – how to weave cloth – how to make and control a fire – how to preserve food – and millions of other things, some that seem astounding, and others that are so familiar that they are simply taken for granted as being self-evident." **Jerrier A. Haddad**

"Most economists concur that 50 to 60 percent of our economic growth can be attributed to technological innovations." **Ian M. Ross, president, AT&T, Bell Laboratories**

► *New technology can quickly get outdated*

Technology progresses so fast that sometimes companies spend millions of dollars on equipment that is quickly replaced with new technology. As one executive put it, "It's like building an awesome horseshoe factory after Henry Ford has his insight into the automobile assembly line."

Demand is often waiting for the technology to make it possible. For example, America has been a national society for about twenty-five years, largely because of television. But is never had a national newspaper until *USA Today* appeared, and it filled the demand only after technology made it possible.

► *Technology can achieve total domination or total freedom*

On February 8, 1984, U.S. astronaut Bruce McCandless walked in space . . . totally free of any connection to earth. No ropes to the spacecraft, no planet beneath his feet. For the first time ever, a human being was completely set free by technology.

► *Some companies profit by sharing their technology*

Kodak licensed their camera technology to numerous competitors to help them sell more cameras. Kodak did this to stimulate sales of Kodak film.

Intel licensed IBM and Commodore to make the 8088 microprocessor. This made buyers competitors, but it also scared off more competition in the process.

“Change brought about by new technology is never as important as it may become. For example, when the telephone was invented, the chief engineer of the British Post Office said it might be useful in America, but in England, there was no need for telephones, since ‘we have plenty of messenger boys.’ A similar view was taken by an officer of Western Union, who expected the phone primarily would be used to help telegraph operators communicate with each other. He simply could not visualize the elimination of telegraphers by universal telephone service.” **James H. Rosenfield, senior vice president, CBS Broadcast Group**

► *Technology can bring about a loss of worker pride*

Think back to the days when most workers were craftsmen. They took pride in their work. Let’s follow a man named Jones. Jones was a carriage maker, and one day, out of a job, he appeared at a wagon factory looking for work. Instead of asking him to make the whole wagon, he was asked to only make wagon wheels. The bigger the company got, the less part Jones played in making the wagon. Eventually he only made part of the wheel. He became detached and lost pride since he played such a small part.

“There has always been at each decisive period in this world’s history some voice, some note, that represented for the time being the prevailing power. There was a time when the supreme cry of authority was the lion’s roar. Then came the voice of man. After that is was the crackle of fire. . . . And now, finally, there was heard in the streets of Detroit the murmur of this newest and most perfect of forces, the automobile, rushing along at the rate of 25 miles an hour.

It was not like any other sound ever heard in this world. It is not like the puff! puff! of the exhaust of gasoline in a river launch; neither is it like the cry! cry! of a working steam engine; but a long, quick, mellow gurgling sound, not harsh, not unmusical, not distressing; a note that falls with pleasure on the ear. It must be heard to be appreciated. And the sooner you hear its newest chuck! chuck! the sooner you will be in touch with civilization’s latest lisp, its newest voice.” **Henry Lacey Ford**

*THREE RULES OF WORK:*  
**OUT OF CLUTTER, FIND – SIMPLICITY.**  
**FROM DISCORD, FIND HARMONY.**  
**IN THE MIDDLE OF DIFFICULTY LIES**  
**OPPORTUNITY.**  
 - ALBERT EINSTEIN

### Poems for a Good & Happy Life

Compiled by Myrna Reid Grant [1]

<p style="text-align: center;"><b>Three Words of Strength</b> <i>Friedrich von Schiller</i></p> <p>There are three lessons I would write,              Three words, as with a burning pen,              In tracings of eternal light,              Upon the hearts of men.</p> <p><b>Have Hope.</b> Though clouds environ round,              And gladness hides her face in scorn,              Put off the shadow from thy brow:              No night but hath its morn.</p> <p><b>Have Faith.</b> Where'er thy bark<sup>1</sup> is driven –              The calm's disport,<sup>2</sup> the tempest's mirth –              Know this: God rules the host of heaven,              The inhabitants of earth.</p> <p><b>Have Love.</b> Not love alone for one,              But man, as man thy brother call;              And scatter, like a circling sun,              Thy charities on all.</p> <p><small>1-Sailing ship 2-Play</small></p>	<p style="text-align: center;"><b>Good Deeds</b> <i>William Shakespeare</i></p> <p>How far that little candle throws his beams!              So shines a good deed in a naughty world.</p> <p style="text-align: center;"><small>- Merchant of Venice, Act 5, Scene 1</small></p> <p>Heaven doth with us as we with torches do,              Not light them for themselves; for if our virtues              Did not go forth of us, 'twere all alike              As if we had them not.</p> <p style="text-align: center;"><small>- Measure for Measure, Act 1, Scene 1</small></p>
<p style="text-align: center;"><b>Who Has Not Found the Heaven – Below</b> <i>Emily Dickinson</i></p> <p>Who has not found the Heaven – below –              Will fail of it above –              For Angels rent the House next ours,</p>	<p style="text-align: center;"><b>Be Useful</b> <i>George Herbert</i></p> <p>Be useful where thou livest, that they may              Both want and wish thy pleasing presence still.              - Find out men's wants and will,</p>

Wherever we remove –	And meet them there. All worldly joys go less To the one joy of doing kindnesses.
<p><b>A Rule</b> <i>John Wesley</i></p> <p>Do all the good you can, By all the means you can, In all the ways you can, In all the places you can, At all the times you can, To all the people you can, As long as ever you can.</p>	<p><b>Justice in the Bible</b></p> <p>Learn to do good; seek justice, rescue the oppressed, defend the orphan, plead for the widow. <i>Isaiah 1:17</i></p> <p>But let justice roll down like waters, and righteousness like an ever-flowing stream. <i>Amos 5:24</i></p>

[1] "Poems for a Good & Happy Life - more than 225 poems to inspire and uplift your spirit," compiled by Myrna Reid Grant, hardbound, Gramercy Books, 1997, ISBN 0-517-20367-4; 312 pages.

## Mathematical Quickies – Answers

by Charles W. Trigg

**Problem 85 – The Prize Contest (page 25, answer on page 114)**

One may count the paths "backwards" from the N. In counting the left half of the array, including the center column, there are two choices for each backward step. Thus this portion yields 2 to the 12<sup>th</sup> power paths. Doubling this number and subtracting the center column to keep from counting it twice, yields 2 raised to the 13<sup>th</sup> power – 1 = 8,191 paths.

**Problem 90 – A Surprising Square (page 27, answer on page 117)**

If the base of the system of numeration is B, B>1, then 11111 may be written  $B^4 + B^3 + B^2 + B + 1$ . Now,  $(B^2 + B/2)^2 < B^4 + B^3 + B^2 + B + 1 < (B^2 + B/2 + 1)^2$ . If  $(B^2 + B/2 + 1/2)^2 = B^4 + B^3 + B^2 + B + 1$  then  $B^2/4 - B/2 - 3/4 = 0$  and  $(B - 3)(B + 1) = 0$  and for B = 3, we have 11111 = (102)<sup>2</sup>. V. Thebault, *National Mathematics Magazine*, volume 15 (December, 1940), page 149.

**Problem 99 – A Skeleton Product (page 29, answer on page 121)**

No one of the units' digits of the factors can be zero. (4) (6) (8) = 192 and (2) (4) (6) = 48.  $(87)^{\frac{1}{3}} = 4.4+$  and  $(88)^{\frac{1}{3}} = 4.4+$ . Therefore, the product is (442)(444)(446) = 87,526,608. *Mathematics Magazine*, volume 37 (November, 1964), page 360.

**Problem 120 – Feeding Three Truck-drivers (page 34, answer on pages 131,132)**

The purchases of the first two truck-drivers establish the equations

$$4s + c + 10d = 169 \quad (1)$$

and

$$3s + c + 7d = 126 \quad (2)$$

Then we have:

$$\begin{array}{ll} 2 \text{ times (1):} & 8s + 2c + 20d = 338 \quad (3) \\ 3 \text{ times (2):} & 9s + 3c + 21d = 378 \quad (4) \\ (4) - (3): & s + c + d = 40 \text{ cents} \end{array}$$

which was paid by the third truck-driver. *School Science and Mathematics*, volume 66 (June 1966), page 561.

**Problem 177 – Tetrahedron through a Straw (page 49, answer on pages 158,159)**

In a parallelogram consisting of a strip of four equilateral triangles, lines drawn parallel to a long side have a constant length 2e. When the strip is folded into a regular tetrahedron, it follows that the sections of the tetrahedron made by planes perpendicular to the *join* of the midpoints of two opposite edges have a constant perimeter 2e.

Consequently, when its bimedial coincides with the axis of the cylinder, the tetrahedron may be pushed through a flexible thin-walled cylinder with a circumference  $\rho d = 2e$ . Thus  $e = \rho d/2$ . In practice, it would be helpful to have the end of the cylinder flared out slightly in order to get the job underway.

If the tetrahedron has a different attitude to the axis of the cylinder, some plane perpendicular to the axis will pass through a vertex and cut two edges not issuing from the vertex. (The reader, if interested, needs to get the book to see the little illustration on page 159). The perimeter of a typical section is greater than 2e. Consequently, the tetrahedron cannot pass through the cylinder in this attitude. It follows that the largest tetrahedron that can pass through the cylinder is one with edge  $\rho d/2$ . *mathematics Magazine*, volume 39 (March, 1966), page 133.

**Problem 215 – Superposed Radical (page 59, answer on page 178)**

A general term of the sequence 11, 14, 17, ... is  $8 + 3n$ . A general term of the sequence 4, 10, 18, ... is  $n^2 + 3n$ . The first integer cube greater than 11 is 27 or 3<sup>3</sup>. To get 27 under the first radical sign there has to be  $4^4 = 64$  under the second radical sign, since  $11 + 16 = 27$ . But with  $64 = 14 + 50$  under the second radical sign,  $5^3 = 125$  must be under the third radical sign.

In general, under the  $(n + 1)$ <sup>st</sup> radical sign there must be  $(n + 3)^3$ , in order that there may be  $(8 + 3n) + (n^2 + 3n) \sqrt[n]{(n + 3)^3}$  or  $(n + 2)^3$  under the nth radical sign. Therefore, the value of the given expression is 3. Edgar Karst, *Mathematics Magazine*, volume 32 (January, 1959), page 169.

**Problem 221 – Rhombic Dodecahedrons (page 60, answer on page 181)**

In a compact aggregation of equal cubes (which are *space filling*) pass planes through the six pairs of opposite edges of alternate cubes. Thus these cubes are dissected into six congruent pyramids with square bases and lateral edges equal to one-half the space diagonal of the cube. Each of the nondissected cubes is now faced with six pyramids which together with the cube constitute a rhombic dodecahedron (one face for each edge of the cube) with the edges of the cube as face diagonals. Since the volumes of all the cubes are used in this new assemblage, the rhombic dodecahedrons are space filling.

It follows immediately that the volume of a rhombic dodecahedron is equal to twice the cube of the short diagonal of a face.

**Problem 236 –How Old Is Willie? (page 64, answer on page 188)**

Willie's friend, dispensing with trial-and-error, might make use of the fact that  $a - b$  is an integral divisor of  $P(a) - P(b)$  when  $a, b$  are distinct integers and  $P(x)$  is a polynomial with integral coefficients. Denoting the "larger integer" tried by  $N$  and Willie's age by  $A$ , we have  $N - 7$  divides  $(85 - 77)$  or  $8$ ,  $A - 7$  divides  $77$ ,  $A - N$  divides  $85$  and  $7 < N < A$ . It follows that  $N$  must be one of  $8, 9, 11, 15$  and  $A$  one of  $14, 18, 84$ . Since  $A - N$  divides  $85$ , the second integer tried must have been  $9$  and Willie is fourteen years old. D. C. B. Marsh, *American Mathematical Monthly*, volume 64 (October, 1957), page 593.

The polynomial must have been of the form  $(x-7)(x-9)(x-14)Q(x) - 3x^2 + 52x - 140$ .

**Problem 249 – The Bonus Fund (page 67, answer on page 195)**

In effect, five dollars was taken from the 95/5 or 19 persons, so the fund contained  $20(50) - 5$  or 995 dollars.

**Problem 266 – When Is the Division Exact? (page 72, answer on page 204)**

$$f(n) = \frac{n^4 + n^2}{2n + 1} = \frac{n^2(n^2 + 1)}{2n + 1} = \frac{n^2}{4} \left[ \frac{4n^2 + 4}{2n + 1} \right] = \left( \frac{n}{2} \right)^2 \left[ 2n - 1 + \frac{5}{2n + 1} \right]$$

Clearly,  $n$  and  $2n + 1$  have no common factor other than 1. So  $f(n)$  cannot be an integer unless  $5/(2n + 1)$  is, that is, when  $n = 2, 0, -1, \text{ or } -3$ . For the only positive integral value,  $n = 2, f(n) = 4$ .

**Star Trek Quiz – 1<sup>st</sup> Season (1966-1967)**  
by Editor

When the original television series of Star Trek came out, I was not interested in it. I gravitated to the spy programs like *The Man from U.N.C.L.E.*, *The Wild, Wild West*, *Mannix*, *The CAT, I Spy*, *Mission Impossible*, *Secret Agent*, *Voyage to the Bottom of the Sea*, and others. Somehow, I eventually began watching *Star Trek* – and liked it. What intrigued me the most was the "personal chemistry" between the main characters – Captain Kirk, Mr. Spock, Dr. Bones, and Scotty the chief engineer. The space technology was great, and the consistency of the ship, the bridge, and ship layout were comforting. I felt like I was a member of the crew. But it was the dialog, the monologue, and interaction of the logic and emotion the key officers had among themselves and with those they interacted with – be they other humans on other planets and ship vessels, or the aliens (good and bad) they encountered. Recently, the original TV *Star Trek* series has been released on DVD. In reviewing several DVDs from the first (1966-1967) television series almost four decades later, my initial love for the "personal chemistry" between the main characters – the Captain Kirk, Mr. Spock, Dr. Bones, and Scotty the chief engineer – remains 100 percent in place. Here I share the "chemical dialog" from the first season – via a matching exercise. Avid *Star Trek* enthusiasts will match these quickly and confidently. The first year series has 24+ hours of viewing material.

<b>The Squire Of Gothos</b> [1/12/67]	<b>The Corbomite Maneuver</b> [11/10/66]
<b>Arena</b> [1/19/67]	<b>The Menagerie – Part I</b> [11/17/66]
<b>Where No Man Has Gone Before</b> [9/22/66]	<b>The Conscience Of The King</b> [12/8/66]
<b>The Naked Time</b> [9/29/66]	<b>Balance Of Terror</b> [12/15/66]
<b>Dagger Of The Mind</b> [11/3/66]	<b>Tomorrow Is Yesterday</b> [1/26/67]
<b>The Man Trap</b> [9/8/66]	<b>Mudd's Women</b> [10/13/66]
<b>What Are Little Girls Made Of?</b> [10/20/66]	<b>The Devil In The Dark</b> [3/9/67]
<b>Miri</b> [10/27/66]	<b>The Menagerie – Part II</b> [11/24/66]
<b>A Taste Of Armageddon</b> [2/23/67]	<b>Shore Leave</b> [12/29/66]
<b>Space Seed</b> [2/16/67]	<b>The Galileo Seven</b> [1/5/67]
<b>The Return Of The Archons</b> [2/9/67]	<b>Charlie X</b> [9/15/66]
<b>This Side Of Paradise</b> [3/2/67]	<b>Court Martial</b> [2/2/67]
<b>Errand Of Mercy</b> [3/23/67]	<b>The Alternative Factor</b> [3/30/67]
<b>The City On The Edge Of Tomorrow</b> [4/6/67]	<b>The Enemy Within</b> [10/6/66]
<b>Operation Annihilate</b> [4/13/67]	

[ ] indicates date it appeared on TV

QUOTE SETS	
<b>B</b>	"428, to be exact." "I'd like to see your ship now." "It's my favorite, where did you get it? They don't have any in the ship's store." "Go to your quarters." "Yes sir. There's a tiger, tiger burning bright – in the forest of the night." "Leave my crew alone." "I want to stay." ▶ <i>Music composed and conducted by Fred Steiner</i>
<b>H</b>	"... earth-type radio signals coming from a planet which apparently is an exact duplicate of the earth." "It's broke . . . somebody broke it." "How old is this thing? About 300 years." "Life prolongation project." ". . . a person would age only 1 month in every 100 years." "You're acting like them." "I never get involved with older women." ▶ <i>Music composed and conducted by Alexander Courage</i>

**Space: The Final Frontier. These are the voyages of the starship Enterprise. Its Five year mission: to explore strange new worlds, to seek out new life and new civilizations. To boldly go where no man has gone before. (The year is 2264.)**

**Star Trek Quiz – 1<sup>st</sup> Season (1966-1967) - continued**  
by Editor

QUOTE SETS	
<b>A</b>	"My blood cells are quite different." "Go to GQ4." "They needed salt to stay alive." "The Enterprise has been invaded by a creature capable of assuming any form, with the capacity to paralyze and draw life from any one of us." "Lord, forgive me." ▶ <i>Music composed and conducted by Alexander Courage</i>
<b>C</b>	"He's kept alive mechanically. Battery-driven heart." "This is TOP SECRET and scramble." "Sometimes a man will tell his barber things he'll never tell his doctor." "This is Vena. Her parents are dead."

	<p>"Lock him up."                  ► <i>Music composed and conducted by Alexander Courage</i></p>
D	<p>"Invisibility is theoretically possible . . . but the power cost is enormous."                  "First study the enemy . . ."                  "I hope we won't need your services, Bones."                  "Same as before Mr. Sulu. Stay with them."                  "Hold your position. Play dead."                  "I regret that we meet in this way. You and I are of a kind. In a different reality, I could have called you friend."                  ► <i>Music composed and conducted by Alexander Courage</i></p>
E	<p>"Sir, contact with an object moving toward us."                  "It's blocking the way."                  ". . . an unexplained cubical object blocked our vessel's path."                  ". . . we've been held here motionless for eighteen hours."                  "No further communication will be accepted."                  "Not chess, Mr. Spock. Poker."                  "A very interesting game, this poker."                  "This is Trania. I hope you relish it as much as I."                  ► <i>Music composed and conducted by Alexander Courage</i></p>
F	<p>"Cover him with our deflector screen."                  "Not yet sir, but we hooked on to something."                  "Almost a million gross tons of vessel depending on a hunk of crystal the size of my fist."                  "Lithium replacements are imperative."                  "And lithium crystals my dear are worth 300 times their weight in diamonds."                  ► <i>Music composed and conducted by Alexander Courage</i></p>
G	<p>"Finding a needle in a haystack would be child's play."                  "We may be here for a very long time, doctor."                  "You mean they should have respected us."                  "Strange. Step by step I have made the correct and logical decisions. And yet two men have died."                  "10, 12 feet in height."                  "An hour from now, we may be right where we started from."                  "Mr. Spock. That was a good gamble. Perhaps it was worth it."                  ► <i>Music composed and conducted by Alexander Courage</i></p>
I	<p>"How are you on ESP?"                  "The ship's space warp ability, gone."                  "I outlined her whole campaign."                  "There'll be no discussion of this with the crew."                  "Visitor – a very foolish man."                  ► <i>Music composed and conducted by Alexander Courage</i></p>

**Star Trek Quiz – 1<sup>st</sup> Season (1966-1967) - continued**  
 by Editor

QUOTE SETS	
J	<p>"It's like nothing we dealt with before."                  "Your attitude is all wrong."                  "Magnetic field continuing to change."                  "Intestinal damage wasn't that severe."                  "I'll take you home again, Kathleen."                  "I am in control of my emotions."                  ► <i>Music composed and conducted by Alexander Courage</i></p>
K	<p>"The Keeper has taken over control of our screen."                  "You now see the primitive fear-threat reaction."                  "We soon begin the experiment."                  "You can have whatever dream you want."                  "When dreams become more important than reality, you give up travel, building, and creating . . ."                  "We're like Adam and Eve."                  "I must also vote guilty as charged."                  "No, and at the moment I agreed with the reasons."                  "Thank-you sir. From both of us."                  ► <i>Music composed and conducted by Alexander Courage</i></p>
L	<p>"We may have an intruder aboard."                  "Head back for Tantalus Colony."                  "Dr. Helen Noel; Captain, we've met?"                  "I'm not a criminal."                  "Neural neutralizer."                  "He can reshape any mind he chooses."                  ► <i>Music composed and conducted by Alexander Courage</i></p>
M	<p>"Kodus the executioner."                  "Thank you Captain. I'm eternally grateful."                  "Star light; star bright. I wish I may; I wish I might."                  "A song. Make it a love song."                  "I was a tool. Wasn't I?"                  "There's no time to sleep."                  ► <i>Music composed and conducted by Alexander Courage</i></p>
N	<p>"Gravity is 1.1 of earth."                  "This is Dr. Rodger Corby . . ."                  "I'm Andrea. You must be Christine. I always thought how beautiful your name is."                  "Watch carefully."                  "Programming. A different word. Same old promises made by Genghis Khan, Julius Caesar, Hitler, Ferris, Vativus."                  "Mind you own business Mr. Spock."                  ► <i>Music composed and conducted by Alexander Courage</i></p>
O	<p>"I couldn't of prescribed better."                  "It's like something out of <i>Alice in Wonderland</i>."                  "All right Jimmy boy."                  "Ruth? Ruth!"                  "I'd like to see you in it. Put it on."                  "This man is my problem."                  "I'm the caretaker of this place."                  "The more complex the mind, the greater the need for simplicity of play."                  ► <i>Music composed and conducted by Alexander Courage</i></p>
P	<p>"I guess we have a real UFO on our hands."                  "That was in the late 1960s." "Apparently, Captain. So are we."                  "There are only twelve like it in the fleet."</p>

<p>"You're as much a prisoner in time as I am."                  "Maybe some chicken soup."                  "The Enterprise is home. Kirk out."                  ► <i>Music composed and conducted by Alexander Courage</i></p>
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**Star Trek Quiz – 1<sup>st</sup> Season (1966-1967) - continued**  
by Editor

QUOTE SETS	
<b>Q</b>	<p>"Code 710 means that under no circumstances are we to approach that planet."                  "We're going in gentlemen. Peacefully I hope. But peacefully or not, we're going in."                  "With whom are you at war?"                  "This is no game Captain. Half a million people have just been killed"                  "It has been classified destroyed by a tri-cobalt satellite explosion."                  "A disintegration machine."                  "Sir. There's a multi-legged creature crawling on your shoulder."                  "The best diplomat I know is a fully activated phaser bank."                  "General order 24!"                  "Feeling is not much to go on."                  "Sometimes a feeling, Mr. Spock, is all we humans have to go on."                  ► <i>Music composed and conducted by Alexander Courage</i></p>
<b>R</b>	<p>"You bet your pointed ears I am."                  "Never mind me. Protect my ship."                  "This is no drill. This is no drill."                  "Warp factor seven."                  "Warp factor eight."                  "An unidentifiable power."                  "Bare-handed against the Gorn, I have no chance."                  "Potassium nitrate . . . sulphur . . . ordinary coal."                  "You demonstrated the advanced trait of mercy."                  ► <i>Music composed and conducted by Alexander Courage</i></p>
<b>T</b>	<p>"The last such vessel was built centuries ago . . . back in the 1990s."                  "All decks go to full alert."                  "S. S. Botany Bay."                  "How long . . . ?" . . . "Have you been sleeping? Two centuries."                  "Insufficient facts always invites danger, Captain."                  "Superior ability breeds superior ambition."                  "Social occasions are only warfare concealed."                  ► <i>Music composed and conducted by Alexander Courage</i></p>
<b>S</b>	<p>"Burned to a crisp."                  "You think the creature is trying to push the colonists off the planet?"                  "We are dealing with a silicon creature of the deep rocks – capable of moving through solid rock as easily as we move through the air."                  "To kill it, would be a crime against science."                  "Captain. There are approximately 100 of us engaged in this search. The odds of both you and I being killed are 2,228.7 to 1."                  "Come on over Mr. Spock."                  "It calls itself a horta."                  "You're a healer. There's a patient. Heal it."                  "The greatest natural miners in the universe."                  ► <i>Music composed and conducted by Alexander Courage</i></p>
<b>U</b>	<p>"Greetings and Felicitations."                  "They're like wax figures."                  "Do you know that you're one of the few predator species who preys even on itself?"                  "Get off my ship."                  "And Captain. I never miss."                  "You always stop me when I'm having fun."                  ► <i>Music composed and conducted by Alexander Courage</i></p>

**Star Trek Quiz – 1<sup>st</sup> Season (1966-1967) - continued**  
by Editor

QUOTE SETS	
<b>V</b>	<p>"I should have felt it in the air like static electricity."                  "The prosecution will build its case on the basis of Kirk vs. the computer."                  "Thousands of books."                  "But, that's not the way it happened."                  "Why, thank you, doctor. I've just won my fourth game."                  "I submit to you that Commander Finney is not dead."                  "She's a very good lawyer."                  ► <i>Music composed and conducted by Alexander Courage</i></p>
<b>W</b>	<p>"We have 45 colonists here."                  "Mr. Spock and I have met before."                  "It's like a jigsaw puzzle – all one color. No keys where the pieces fit in."                  "I've never understood the female capacity to avoid a direct answer to any question."                  "Spores?"                  "I love you." . . . "I can love you."                  But I never stopped to look at clouds before."                  "This is mutiny, Mr."                  "Who wants to counteract paradise, Jim boy?"                  "Had enough?"                  "Well, if we're both in the brig, who's going to build the subsonic transmitter?"                  "Three years wasted."                  "For the first time in my life, I was happy."                  ► <i>Music composed and conducted by Alexander Courage</i></p>
<b>X</b>	<p>"Paradise."                  "It's the will of Landru."                  "Then you're not of the body."                  "You will be absorbed."</p>

	<p>"He goes to joy, peace, and tranquility."                  "Freedom is never a gift. It has to be earned."                  ► <i>Music composed and conducted by Alexander Courage</i></p>
Y	<p>"Code 1." "Ahead warp Factor seven."                  "Curious lack of interest."                  "The Klingons are a military dictatorship."                  "We have no defenses Captain; nor are any needed."                  "This is a laboratory specimen of an arrested culture."                  "Good, honest, hatred."                  "It's a mind-sifter, or mind-ripper; depending on how much force is used."                  "Captain of the USS Enterprise. A starship commander."                  "Go climb a tree."                  "Extreme heat."                  "All instruments of violence on this planet now radiate a temperature of 350 degrees."                  "Fascinating. Pure energy. Pure thought. Totally incorporeal. Not life as we know it at all."                  "I should say the Organians are as far above us on the evolutionary scale as we are above the amoeba."                  ► <i>Music composed and conducted by Alexander Courage</i></p>
Z	<p>"The entire magnetic field of this solar system simply 'blinked'." <i>Music composed and conducted by Alexander Courage</i>                  "What you're describing is . . . . . "Non-existence."                  "Star-Fleet Command. Code Factor 1, sir." "Repeat." "Code Factor 1." "Invasion status."                  "You mean. We're the bait?"                  "I confess I am at a loss for words. It may be described though, loosely and inaccurately, as a rip in our universe."                  "Those crystals are the very heart of the power of my ship."                  "My spaceship – is more than just that . . . a time chamber . . . time ship . . . I am a time traveler. . . . and I . . ."                  "Another universe, perhaps in another dimension, occupying the same space at the same time."                  "Almost as if he were two men."                  "Jim, madness has no purpose or reason . . . but it may have a goal."                  "Matter and anti-matter."                  "Exactly what did I pass through? "It's hard to explain Captain. I call it an alternative warp . . . sort of a negative magnetic corridor where the two parallel universes meet. Sort of a safety valve . . . keeps eternity from blowing up."</p>

**Star Trek Quiz – 1<sup>st</sup> Season (1966-1967) - continued**  
 by Editor

QUOTE SETS	
AA	<p>"On the order of 10,000 centuries old."                  "Incredible power."                  "I am the Guardian of Forever."                  "A time portal, Captain, a gateway to other times and dimensions if I am correct."                  "As correct as possible for you."                  "If that is a doorway back through time, could we somehow take Bones back a day in time, and then . . . . . "Re-live the accident."                  "All that you know is gone."                  "We're totally alone."                  "It was called 'Depression,' circa 1930."                  "In this zinc-plated, vacuum-tubed culture?"                  "One day soon, man is going to be able to harness incredible energies, maybe even the atom . . . energies that could ultimately hurl us to other worlds in . . . in some sort of spaceship."                  "Good night sweetheart, though I'm not beside you, Good night sweetheart, still my love will guide you . . . Dreams enfold you . . ."                  "Sieg Heil! Sieg Heil!" "Because all this lets them (Germany) develop the A-bomb first."                  ". . . all this because McCoy came back, and somehow kept her [Edith Keeler] from dying."                  "Spock . . . I believe . . . I'm in love with Edith Keeler."                  "You deliberately stopped me Jim. I could have saved her."                  ► <i>Music composed and conducted by Alexander Courage</i></p>
BB	<p>"A duplicate of me."                  "I said give me the brandy."                  "One gentle, . . . one mean and fierce."                  "If this should happen to a man."                  "Only one logical answer. We have an imposter aboard."                  "The surface temperature of that planet goes down to 120 degrees below zero at night."                  "Captain . . . no disrespect intended, but you must surely realize you can't announce the full truth to the crew. You're the Captain of this ship. You haven't the right to be vulnerable in the eyes of the crew." . . . "You can't afford the luxury of being anything less than perfect. If you do, they lose faith, and you lose command."                  "And what is it that makes one man an exceptional leader? We see here indications that it is his negative side which makes him strong. That his evil side, if you will, properly controlled and disciplined, is vital to his strength. Your negative, removed from you, the power of command begins to elude you."                  "Now 41 degrees below zero."                  "Surface temperature is 75 degrees below zero, still dropping."                  "Sulu . . . here, one hundred . . . seventeen be-low . . ."                  "Get those men aboard fast." . . . "Right away, Captain."                  "Thank you, Mr. Spock . . . from both of us."                  ► <i>Music composed and conducted by Alexander Courage</i></p>
CC	<p>"Warp Factor eight." ► <i>Music composed and conducted by Alexander Courage</i>                  "Outer hull now 480 degrees and rising."                  "So are we. Hull temperature 1,000 degrees and rising."                  "Take us to Deneva."                  "Jim, your brother Sam, his family, aren't they stationed on this planet?"                  "Oh . . . Sam . . . It is my brother, was my brother."                  "What . . . kind of things?"                  "As though something is exerting pain to stop her."                  "Set your phasers on Factor 3, to kill."                  "Incredible." . . . "And it can bear up to full phaser power."                  "Evidently, when the creature attacks, it leaves a stinger much like a bee or a wasp, leaving one of these in the victim's body."                  "The creature, with all its thousands of parts, even now is pressuring me."                  "Mr. Spock . . . your logic, as usual . . . is inescapable."                  A one-cell creature resembling, more than anything else, a huge individual brain cell."                  "We've got 14 science labs aboard this ship. The finest equipment and computers in the galaxy."                  "I want that third alternative."                  "Something in the sun killed that thing before the Denevan died."                  "Suppose they're sensitive to light."                  "A string of satellites around the planet, with burning tri-magnesite and trevium."                  ". . . one million candles per square inch." "And I almost also quite blind."</p>



## Pending Inquiry to Marilyn vos Savant on Publishing the Titan Test in Parade Magazine

by Editor

We are always on the prowl for ways to disseminate the Mega Society admissions Titan Test. We tried the American Mathematics Competition (AMC) avenue (<http://www.unl.edu/amc/>) back earlier this year – no responses yet. One obvious avenue would be via a former member who obviously is proud of her high-IQ accomplishment of 228 – Marilyn vos Savant. Marilyn was a member in the mid-1980s and was the Society's secretary as well. She appreciated the get-together with Mega Society founder Dr. Ronald K. Hoeflin and several other members in New York City back then as well. She was honored to be among the member's company based on a summary article she composed. Marilyn "enjoys" the attention and role and position she has as the *Parade* magazine "Ask Marilyn" column each week. If there is consistency in a person who came from the Mega Society, enjoyed the role(s) played in the Mega Society, wrote the *Omni I.Q. Quiz Contest* book covering the different hi-IQ societies (culminating with the Mega Society), then it would be logical that Marilyn would continue a sense of benevolence toward her alma mater, the Mega Society. The "Ask Marilyn" column appears weekly in *Parade*, the Sunday magazine for 341 newspapers, with a circulation of 37 million and a readership of 81 million: the largest in the world. Theoretically, we have 81 potential "candidates" out there (excluding the current or former Mega Society members who read Marilyn's column). The following email was sent to Marilyn with the simple inquiry as of September 24, 2004. We'll see if there is a reply – of any kind – before I publish this final, combined (October/November) issue of *Noesis* in mid-November.

### Automated Email Response to the "Ask Marilyn" Column – sent 9-24-04 8:34 a.m.

Thank you for your interest. Please type in your message for Marilyn here:

Hello Marilyn. I am the current editor and publisher for the Mega Society journal, "Noesis." I was wondering if you would consider running the **Titan Test** in *Parade* magazine?

The wide circulation would be terrific! I see they maintain your *Guinness Book of Records* accomplishment of 228. So you *obviously* are appreciative of this standing.

I understand you took the **Mega Test** in the past – and appreciated the mental stimulation. You were a former officer in the Mega Society as well – secretary I think.

If the **Titan Test** were published in *Parade* magazine, there could be rewards for all – the millions of test takers, yourself as a former Mega Society member and officer and strong proponent of "intellectual" accomplishment and its gift, *Parade* magazine with the influx of responses, Dr. Ronald K. Hoeflin – founder and developer of the **Titan Test**, and general publicity. I am certain something can be arranged with Dr. Hoeflin regarding grading fees and rights to use the **Titan Test** and *Parade* magazine.

Would you consider the impact you can have by promoting this idea and get back to me at your earliest convenience? I will be on travel to Germany between October 15 and November 6<sup>th</sup>.

Sincerely yours,  
Ron Yannone  
9/24/04

To ensure that your email gets responded to in a timely manner, please fill out the following information.  
Name: Ronald Yannone City: Nashua State: New Hampshire Zip Code: 03060 Age: 50

## "German Made Simple" – Let's Test It!

by Editor, Eugene Jackson and Adolph Geiger

With over ½ million copies sold, the revised (by Robert D. Vanderslice) edition of "**German Made Simple**" by Eugene Jackson and Adolph Geiger is purported to have a forty-year record of making it easy to learn the German language. I figured we give them a try! I selected one lesson and created a 'matching test' to exercise the Publisher's stamp: "*Made Simple Books.*" The 8½-inch by 11-inch by ½-inch thick, 190-page paperback book is USD \$12.95, originally published in 1965 by Doubleday, a division of Random House, Inc.; ISBN 0-385-19911-2.

Die Wohnung von Herrn Clark		The Home of Mr. Clark	
1	Die Wohnung von Herrn Clark ist ein Einfamilienhaus mit Garten.		It has seven rooms: the living room, the dining room, the kitchen, three bedrooms, and a study for Mr. Clark.
2	Das Haus ist nicht gross.		The living room is large, bright and beautifully furnished.
3	Es ist aber schon und bequem.		The dining room is not as large as the living room.
4	Es hat sieben Zimmer: das Wohnzimmer, das Esszimmer, die Küche, drei Schlafzimmer und ein Arbeitszimmer für Herrn Clark.		The table is round.
5	Ausserdem hat das Haus zwei Badezimmer.		That is for the parents.
6	Das Wohnzimmer ist gross, hell und schon mobliert.		The house is not large.
7	Es hat zwei Fenster.		Both children's bedrooms have two little beds, two little tables, two chairs, a wardrobe, a chest of drawers and some pictures.
8	Durch die Fenster sieht man einen Garten.		One bedroom is rather large.
9	Das Esszimmer ist nicht so gross wie das Wohnzimmer.		Two bedrooms are somewhat smaller.
10	Hier sieht man u. a. einen Tisch, ein Buffet und sechs Stühle.		Yes, the house of Mr. Clark is really beautiful and comfortable.
11	Der Tisch ist rund.		Through the windows one sees a garden.
12	Die sechs Stühle stehen um den Tisch.		The six chairs stand around the table.
13	Ein Schlafzimmer ist ziemlich gross.		Those are the children's bedrooms, one for the two boys and one for the two girls.
14	Das ist für die Eltern.		Here one sees, among other things, a table, a sideboard, and six chairs.
15	Zwei Schlafzimmer sind etwas kleiner.		It has two windows.

16	Das sind die Kinderschlafzimmer, eins für die zwei Knaben und eins für die zwei Mädchen.	The home of Mr. Clark is a one-family house with a garden.
17	Beide Kinderschlafzimmer haben zwei Bettchen, zwei Tischlein, zwei Stühle, einen Kleiderschrank, eine Kommode, und einige Bilder.	In addition, the house has two bathrooms.
18	Ja, das Haus von Herrn Clark ist wirklich schön und bequem.	It is, however, beautiful and comfortable.

pages 26-27.

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**Those Green Sweat Pants**  
by Editor

About 12 years ago, my mom was encouraging me to accompany her to the YMCA in Red Bank, New Jersey. I kept pushing it off. I did a 2-mile walking program in the neighborhood several days a week – and figured this was about right. I was 38 years old then. Back in 1986, I moved to NH as part of the team from General Electric in Utica, NY to team with [then] Sanders Associates on a Joint Venture Program. While in NH, December 1986, I attended a *spiritual revival* seminar where I learned the positive benefits of man's first diet (in the *Garden of Eden*) and over the course of about 7 months went from a weight of 225 pounds to 170 pounds. I've been about this weight since. In NH, the first winter, I tried a jogging program in the winter before going to work. I was foolish, and only wore short pants, a short-sleeve undershirt with sweatshirt – but no sweat pants. The routine was to get out of a warm, cozy bed, and immediately go out in the frigid, early morning winter weather and jog 4 miles. I'd return, somewhat sweaty, and jump into a hot shower, get dressed, and go to work. It took its toll on my body. I began to have excessive pain in my joints – especially knees, ankles, and at the top part of the feet near the toes. This pain persisted for years. The best I could do was a short 2-mile walk – in warmer weather. In the winter, I'd do this same 2-mile walk with some pain, and the lingering pain lasted through the day. It was hard to stand for long periods of time – "long" being half an hour at times. I really *crippled* myself. To this day, my body runs 'cold' – in that the slightest breeze over my back and/or neck – and initial body fatigue – give me aches in the center of my upper back between my shoulder blades, and my fingers and toes are sensitive to the cold if exposed for more than half an hour. I may have produced an arthritic condition that was set up by jogging in the extreme cold without the right protection – especially in short pants.

When I returned to GE in Utica in 1989, I was an instructor - doing in-plant courses during and after work – and to stand for two to three hours wasn't easy. The pain in the ankles and knees persisted. When I went to the 3-month Medical Missionary Training program in Klamath Falls, Washington in 1991, I was with a health group. They could only suggest hot/cold hydrotherapy treatments – where I'd place my feet and legs into separate buckets of water as hot as I could stand for about 3 minutes, and then quickly transfer them into buckets of ice water for about 30 seconds. The hot water drew blood to the feet, the cold water repelled the blood away. This was a form of massage therapy – to get the blood circulation moving to and from the feet. The effect of the treatments would be great for a few hours. During this training program, we were assigned physical duties on the property – to clean up fallen branches, rake and bag dead leaves, repair stone walls, etc. To stand and walk on the irregular earth was extra hard. I'd easily sprain my ankle and/or put my knees out-of-whack. I felt like a crippled person – but

mentally felt I should be in better shape. It was nearly impossible to find shoes and sneakers that were comfortable and did not "hurt" or "cut-in" near the toes. I returned eventually to my parent's home in 1992 or so when I learned my dad had cancer. I tried to help him using herbal teas, naturally sweetened with licorice root – to 'cover' the awful taste of the brewed mixture of strong herbs I used. I was fortunate that dad loved licorice! While home, I'd make trips to other locations – like Albia, Iowa for a few months, and to Russia for a 1-month trek in October (1992 I think) to distribute Bibles and Christian literature for a church group. When I learned of this trip, I immediately thought how will I possibly endure the cold and hours standing/walking all day? God sustained my 5,000-mile trek across the Soviet Union – 3,000 miles by bus, and 2,000 miles on the Trans-Siberian railroad.

For most of my childhood, my mom was a heavy person – about 300 pounds. My dad was very concerned – and continually suggested she look into an exercise program, among other ideas. Each of us sometimes grows a "deaf ear" to counsel – and it generally takes some other "orthogonal" event in our lives to wake us up. For mom it was learning that her weight placed her as a "borderline diabetic." This forced her to start to go to the boardwalk 4 miles from the house and begin walking. It was grueling – every step. Fear of having to depend on needles to inject herself with insulin, coupled with the tremendous effort it took to begin any form of exercise program, compounded the situation. Everyone in the family "felt" my mother's demise. Mom fervently prayed for God's help as she trekked the boardwalk – oftentimes red as a beet and sweating profusely.

When winter was nearing, mom looked into joining the local YMCA in Red Bank – about 10 minutes from where she worked. This wasn't cheap; it took stern discipline to go after work – being already tired, and then journeying 12 miles home in the cold and dark. A hearty meal wasn't always awaiting her, but many times it was. My dad began cooking, and we all pitched in. After a meal, mom would go into the living room, begin to watch the news, and fall off to sleep for an hour or so. The regimen, brutal as it was, brought her weight under 200 pounds – to a safe level. Each time, leaving her desk at work, she'd walk to her car in the parking lot – deciding to either go home, or to the YMCA. Even reaching the YMCA parking lot, mom had to decide either to get out of the car or give into going to her warm, cozy home.

Like a born-again Christian, mom began encouraging everyone to join the YMCA. Everyone in the family drew a deaf ear. It often takes that "wake-up call" for feeble human beings to get out of their ruts. As I progressed with my 2-mile walk almost daily, I still experienced the pains in the ankle and toe joints. I really did not sweat during my walk – and I did not want to because I did not want to have to take a shower afterward, and use more clean clothes.

One evening, while I was sitting on the couch, mom presented me with a pair of green cotton sweat pants. Money was tight, and for her to go-the-extra-mile to outlay money placed me in an awkward position. She then encouraged me to simply "try" the YMCA once – accompanying her as a guest. I pondered a bit. I introspected my life – and knew deep-down that I needed to do more – to do something – to improve my physical condition. I decided to give it a try. I started on the treadmill because it was the closest to what I was already doing. I found I was comfortable with a 4 mile-per-hour (mph) pace – which stacked up with my usual 15 minutes-per-mile I'd clocked myself at outdoors. My walking regimen duration was predictable – which I liked – and was comfortable with. Working in one's "comfort zone" can be dangerous. We develop a pattern that can turn into a dead-end if we aren't careful. We program ourselves into false, lowered levels of competence – and don't move further sometimes due to fear – fear of failure. But as we learned in *Noesis* #171 (page 51), "Of all the liars in the world, sometimes the worst are your own fears." [Rudyard Kipling]

The first "positive" thing the YMCA gave was *seeing* people of all ages there – infants learning to swim to 90+ year olds doing the same! As if their lives depended on this facility, they worked faithfully at their regimen. You could feel for them – and in so doing – feel for yourself as well – the importance of a consistent, physical regimen. I ventured over to the stationary bike – having seen my mom and others do it. It was an easy transition for me. Next, to my surprise, was seeing my mom use the rowing machine! *Like, wow!* This took me off-guard – and I was impressed – really. My regimen increased. The treadmill was like a continual "carrot" out in front of the horse (me). I increased the walking pace to 4.2 mph – then used the inclination of 1 percent along with the raised walking pace. The rowing machine – about 14 pulls per minute for 5 minutes was hard. My wrists ached! It became a little bit of a game now. Eventually I reached 5 mph walking pace (not jogging! – where one foot was on the treadmill as the other foot was in the air) with an inclination of 3 percent. I was thrilled as my body freely was sweating! Sweating was a terrific feeling! I knew afterward the reward would be a shower that had excellent water pressure (unlike the water pressure in the shower we had at home), followed by the steam room (more sweating!), ending with a shower. My rowing machine program built up as well – to about 15 minutes and almost 20 pulls per minute. The stationary bike was a 25-minute 'relaxer' – although pressing to pedal faster and faster. Another reward was the whirlpool. AaaHHH.

Without a doubt, I was getting hooked. My mom, as parents who see their children advance toward good things they recommend for their children must feel, was beaming too. My enthusiasm for the YMCA propelled mom as well. Good things beget more good things.

I recall the grand event. Going down stairs to the 6-lane pool. Folks of all ages were swimming laps. The "tone" of the pool was "seriousness." People were going back and forth with vigor and rigor. I was able to swim the length of the pool *under* water. I could not swim a third of the length *above* water though. I mentally tried to pacify myself that being able to swim the length under water that I was "part-of-the-swim-gang" – but my conscience wouldn't let me remain content very long. The second time going to the YMCA, I mentally was charged to give it a try – to swim the length of the pool once, rest, and repeat this as best I could. I wore a mask that covered my eyes and nose. I looked freakish compared to all the other "serious" swimmers in the other 5 lanes. They wore goggles. I was always afraid of water getting up my nose as I swam as a child. And because I was under the water more than above, I liked being able to see the bottom – be it in a pool or at the ocean. I worked with the mask. After about a month at it, I built up to a mile – 36 laps of the pool in 45 minutes. It was a terrific regimen. Treadmill for half an hour, rowing machine for 15 minutes, the stationary bike for 20+ minutes, a mile swim, shower, steam, shower. This was about twice a week. Between YMCA sessions, I'd do my 2-mile casual walk at home. The program grew to include weights down in the basement of the YMCA as my starter. When time allowed, I did 2-mile swims – about 90 minutes. I really needed a catnap when I got home after these visits to the YMCA – and afterward a "farmer's lunch."

My dad passed away in 1993. Because of the improvement in strength and circulation to my feet, hands, and knees, I was able to take on a new adventure. My mom saw a newspaper ad for a volunteer math tutor at the Asbury Park Middle school – less than 4 miles away from my mom's home. The school was in jeopardy - as the average grade was 43 on a critical standardized NJ math test the students needed to pass. I volunteered by trying two 6<sup>th</sup>-grade math classes once a week. I was apprehensive because it was hard to stand for a 40-minute class duration at the blackboard. But this wasn't bad if I rested between classes. The role extended to all seven 6-th grade classes – twice a week. In the end, the average score of the test, after being there from around late January to May, was 93 percent. The school principal and vice-principal were elated – as were the parents of many of the students, as well as the students and the student's teachers. The graduation ceremony was a special event for all in attendance. The YMCA program prepared me for this mutually-rewarding adventure.

In August 1995, an engineer (Bruce Partin) from [then] Sanders Associates called me at home inquiring if I would be willing to come up to Nashua, NH for 2 weeks as a contract engineer. I did, and my concern was maintaining my YMCA regimen even during this short stay. I stayed at the Residence Inn about 5 miles away. I immediately inquired at the front desk where the closest YMCA was. Fortunately, less than 2 miles – and the hotel had a special arrangement for me to get 5 free visits to the YMCA. The 2-week assignment turned out to be 7 months living in the Residence Inn. The YMCA regimen increased to 3 times a week, alternating the treadmill and pool at each session. I would go after work. I was working 60-hour weeks as well – and this was really hard. My reward was to go out to nice restaurants on the weekend.

No one can predict the future. Today, about 11 years after my mom presented me **those green sweat pants** – my regimen is summarized below – approximately 20,000 leg/arm movements!

Ron's (the Editor) Present YMCA Regimen (every other day of the week – 4 times a week) Time: before work or early on weekends		
1	Treadmill – 30 minutes at 5 mph walking pace and 3 percent 'grade'	12,000 leg/arm "swings" - total - 200 steps per minute - 200 arm "swings" per minute
2	Rowing Machine [1] – 25 minutes	65 pulls per minute (1,650 pulls)
3	Weights – 5 different weights	light program
4	Shower	¾
5	38-minute 1-mile Swim (alternating crawl and backstroke per lap)	Approx. 2,300 arm strokes Approx. 5,000 leg strokes
6	Shower	¾
7	Steam Room	5 minutes
8	Shower	¾

[1] I frequently do up to 80 pulls per minute during the 25-minute session

Even with this terrific aerobic regimen, I do not consider myself in top physical shape. It's all relative. I can't climb a rope 20 feet to the ceiling if it were available, nor do 10 chin-ups or pull-ups. The above regimen is very "clean" in that it is all in a nice line – it does not involve dodging across a field on rough terrain. Nor does it involve scaling walls with a 50-pound backpack! When we say someone is in "good shape" – I think of trained U.S. Navy Seal members, for example. In their peak training regimen they will consume 7,000 calories of food a day and still lose weight.

I saw a 2005 calendar offered by the YMCA last week (9/1/04) that has interesting, and inspirational, facts. I share some of these with our avid readers – in hope they may be encouraged as well – for themselves or someone they know.

<p><b>Collectively, YMCAs are the largest not-for-profit community service organization in America.</b> YMCAs are at the heart of community life in neighborhoods and towns across the nation. They work to meet the health care and social service needs of nearly 19 million men, women and children.</p>
<p><b>Ys help people develop values and behavior that are consistent with Christian principles.</b> Ys are for people of all faiths, races, abilities, ages, and incomes. No one is turned away for inability to pay. YMCAs' strength is in the people they bring together.</p>
<p><b>International:</b> YMCAs are at work in more than 120 countries around the world, serving more than 30 million people. Some 230 local U.S. Ys maintain more than 370 relationships with Ys in other countries, operate international programs and/or contribute to YMCA work worldwide through the YMCA World Service campaign.</p>
<p><b>Firsts and foremost:</b> YMCAs have played a significant role in the history of America. YMCAs invented basketball, volleyball and racquetball, and pioneered camping, physical fitness and swimming lessons. YMCAs helped found the USO, Boys Scouts of America and Camp Fire Girls. YMCA volunteers provided support and services to millions of soldiers in many major wars, including the Civil War, World War I and World War II. In 2001, YMCAs celebrated their first 150 years in America.</p>
<p><b>2002 Statistics:</b> A total of 972 member YMCAs (also called corporate Ys) operated 1,568 branches, units and camps. These 2,540 Ys were run by 54,550 volunteer policy-makers serving on Y boards and committees, plus 569,665 volunteer program leaders and uncounted other volunteers, all of whom worked with paid professional staff members. These volunteers and staff members worked not only out of YMCA buildings and resident camps but also out of rented quarters, parks, and playgrounds. Some Ys have no building at all.</p>
<p><b>History:</b> The YMCA was founded in London, England, in 1844 by George Williams and some friends who lived and worked as clerks in a drapery, a forerunner of dry goods and department stores. Their goal was to help young men like themselves find God. The first members were evangelical Protestants who prayed and studied the Bible as an alternative to vice.</p>
<p><b>The first U.S. YMCA</b> was started in Boston in 1851, the work of Thomas Sullivan, a retired sea captain and lay missionary. From Boston, YMCAs spread rapidly across America, many of which started opening their doors to boys and men of all ages. Some YMCAs were started to serve specific groups such as railroad and factory workers, as well as African Americans, Native Americans, and recent immigrants. After World War II, women and girls were admitted to full membership and participation. Today, half of all YMCA members are female, and half are under age 18.</p>

#### YMCA – Across America

- ▶ The Clark County YMCA in Vancouver, Washington, serves its members through a total health approach. The Y offers a relaxation studio, healthy cooking classes and a wellness resource center in addition to a full exercise facility.
- ▶ When budget cuts forced schools in Oakland, CA, to eliminate P.E. classes, the YMCA of the East Bay stepped in to operate exercise activities for 4,000 kids at seven area schools.
- ▶ People struggling with arthritis, fibromyalgia, and hip and knee replacements can exercise and socialize at the YMCA of Grand Island, Nebraska, which offers a specialized aquatics program.
- ▶ Young adults facing hard times can turn to a transition program of the YMCA of Greater Seattle. Participants live in the Downtown Branch YMCA's studio apartments while the Y helps them find jobs.
- ▶ In New Haven, Conn., the Central Connecticut Coast YMCA renovated historic homes into 35 apartments for large, low-income families.
- ▶ Through the Cyber Y program, the YMCA of San Diego County is bridging the digital divide by helping young people, families and older adults learn valuable computer skills in a caring and supportive environment.
- ▶ The Dryades YMCA in New Orleans operates the School of Commerce, which prepares thousands of people to enter the clerical, nursing and hospitality fields.
- ▶ The YMCA of South Hampton Roads in Norfolk, VA, transformed a bus into a rolling computer lab and library that visits low-income communities to offer computer classes and job-hunting assistance.
- ▶ Germany's Hannover YMCA and the Reading, Pennsylvania and Berks County Metro YMCA expand the world views of young people through exchange programs that bring the two countries together at camps in Germany and Pennsylvania.
- ▶ Camp Kon-O-Kwee/Spencer in Fombell, Pennsylvania, serves more than 50,000 campers per year, including 10,000 with special needs. The camp offers features designed especially for campers with disabilities.
- ▶ More than 2,500 middle-schoolers participate in enriching after-school recreation, free of charge, through the YMCA of Wichita, Kansas.
- ▶ To help ensure that its staff and volunteers live the mission, the YMCA of Albuquerque incorporates questions about character values during hiring interviews and discussions with potential board members.
- ▶ In West Palm Beach, Florida, Y staff and board members serve Thanksgiving dinner, donated by local restaurants, to members of the older adults program.
- ▶ The Neighbor-to-Neighbor program of the YMCA of Greater St. Petersburg, Florida, encourages families to "adopt" less fortunate families on a one-to-one basis. Six hundred families receive grocery and toy certificates, ornaments describing the adoptive family and a live Christmas tree to replant.
- ▶ Every year, staff from the Beaver County YMCA in New Brighton, Pennsylvania, take children from 12 low-income families on a shopping spree to buy basic necessities for their neighbors. Then the Y hosts a pizza party during which staff distribute purchases and offer subsidized memberships to all 12 families.

## Google Entices Job-Searchers with Math Puzzle

by npr

**Sept. 14, 2004** -- Mysterious banners at a Cambridge, Mass., subway stop have commuters scratching their heads. The signs, challenging passers-by to solve a complicated math problem, are actually a cryptic pitch by Google, which is looking to hire more brainy engineers. Andrea Shea reports.

The message at Harvard Square also appears on a billboard in California's Silicon Valley, but Google's name is nowhere to be found on the ads. It simply states:

**{first 10-digit prime found in consecutive digits of e}.com**

In case you're wondering -- or forgot -- e is the base of the natural system of logarithms, having a numerical value of about 2.71828 (though the number goes on forever).

The correct answer to the banner problem leads to a Web site that poses yet another puzzle. Eventually, the determined problem-solver lands at a Google Web page that asks the smart, or lucky, few for a resume.

related NPR Stories

>> [Math Puzzle Solution Could Impact Encryption Codes](#)

>> [Wanted: Math Solutions](#)

>> [Math Teacher's Mission: To Make Equations Fun](#)

## Star Trek Quiz – 1<sup>st</sup> Season (1966-1967) – Answers

By Editor

U	The Squire Of Gothos [1/12/67]	E	The Corbomite Maneuver [11/10/66]
R	Arena [1/19/67]	C	The Menagerie – Part I [11/17/66]
I	Where No Man Has Gone Before [9/22/66]	M	The Conscience Of The King [12/8/66]
J	The Naked Time [9/29/66]	D	Balance Of Terror [12/15/66]
L	Dagger Of The Mind [11/3/66]	P	Tomorrow Is Yesterday [1/26/67]
A	The Man Trap [9/8/66]	F	Mudd's Women [10/13/66]
N	What Are Little Girls Made Of? [10/20/66]	S	The Devil In The Dark [3/9/67]
H	Miri [10/27/66]	K	The Menagerie – Part II [11/24/66]
Q	A Taste Of Armageddon [2/23/67]	O	Shore Leave [12/29/66]
T	Space Seed [2/16/67]	G	The Galileo Seven [1/5/67]
X	The Return Of The Archons [2/9/67]	B	Charlie X [9/15/66]
W	This Side Of Paradise [3/2/67]	V	Court Martial [2/2/67]
Y	Errand Of Mercy [3/23/67]	Z	The Alternative Factor [3/30/67]
AA	The City On The Edge Of Tomorrow [4/6/67]	BB	The Enemy Within [10/6/66]
CC	Operation Annihilate [4/13/67]		

[ ] indicates date it appeared on TV

π

by Alfred S. Posamentier and Ingmar Lehmann

New material continues to flood the booksellers of the world – as people continue to author creative and entertaining topics. A new release on the mathematical constant, π, is educational and well-written. The book is “π – A *Biography of the World's Most Mysterious Number*,” by Alfred S. Posamentier and Ingmar Lehmann; with *Afterword* by Dr. Herbert A. Hauptman – Nobel Laureate; by Prometheus Books, Amherst, NY, 2004, USD \$26, ISBN 1-59102-200-2; hardbound, 324 pages; 6 ¼ inches wide by 9 ½ inches long by ¾ inches thick (paper portion). The *Epilogue*, pages 245-273, contains π to 100,000 decimal places!

The *Table of Contents* for the book follows. Seeing the number of pages gives a feel for the coverage.

Chapter	Topic	Page
Preface	“““	9
1	What is π?	13
2	The History of π	41
3	Calculating the Value of π	79
4	π Enthusiasts	117
5	π Curiosities	137
6	Applications of π	157
7	Paradox in π	217
Epilogue	“““	245
Afterward by Dr. Herbert A. Hauptman	“““	275
Appendix A	A Three-Dimensional Example of a Rectilinear Equivalent to a Circular Measurement	293
Appendix B	Ramanujan's Work	297
Appendix C	Proof That $e^x > x^e$	301
Appendix D	A Rope around the Regular Polygons	305
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Index	“““	313

Here, I share some of the nifty formulations for pi.

{page 63} “A big change in the computation of π came in 1579, when the French mathematician Francois Viète (1540-1603), using the method developed by the Greeks, considered a regular polygon of  $6 \times 2^{16} = 393,216$  sides and calculated π correct to nine decimal places. He also discovered the first use of an infinite product, to determine the value of π.”

$$\frac{2}{\pi} = \sqrt{\frac{1}{2}} \cdot \sqrt{\frac{1}{2} + \frac{1}{2}\sqrt{\frac{1}{2}}} \cdot \sqrt{\frac{1}{2} + \frac{1}{2}\sqrt{\frac{1}{2} + \frac{1}{2}\sqrt{\frac{1}{2}}}} \dots$$

{page 64} “Earlier we mentioned the work of John Wallis (1616-1703). He was a professor of mathematics at Cambridge and Oxford universities, and published a book, *Arithmetica infinitorum* (1655), where he presented the formula for π (actually π /2, which we then merely double to get π):

$$\frac{\pi}{2} = \frac{2 \times 2}{1 \times 3} \times \frac{4 \times 4}{3 \times 5} \times \frac{6 \times 6}{5 \times 7} \times \frac{8 \times 8}{7 \times 9} \times \dots \times \frac{2n \times 2n}{(2n-1) \times (2n+1)}$$

This product converges to the value of  $\pi/2$ . That means its double gets closer and closer to the value of  $\pi$  as the number of terms increases."

{page 65} "Wallis's results were then transformed into a continued fraction by William Brouncker (ca. 1620-1684) by methods that we are not certain of today. Brouncker obtained the value of  $\pi/4$ :"

$$\frac{\pi}{4} = 1 + \frac{1^2}{2 + \frac{3^2}{2 + \frac{5^2}{2 + \frac{7^2}{2 + \frac{9^2}{2 + \dots}}}}}$$

{page 67} "Our knowledge increased in 1668 when the Scottish mathematician James Gregory (1638-1675) anticipated Germany's greatest mathematician of the seventeenth century, Gottfried Wilhelm Leibniz, by five years when he came up with the following approximation formula for  $\pi$ :

$$\frac{\pi}{4} = 1 - \frac{1}{3} + \frac{1}{5} - \frac{1}{7} + \frac{1}{9} - \frac{1}{11} + \dots$$

This is a very rough approximation, since the series converges very slowly. It would take one hundred thousand terms to get a five-place accuracy of  $\pi$ ."

{page 69} "Although the great German mathematician Carl Friedrich Gauss (1777-1855) also weighed in with calculations of  $\pi$ , he employed Zacharias Dahse (1824-1862), a lightning fast mental calculator, to assist with his research. Dahse, using the formula

$$\frac{\pi}{4} = \tan^{-1}\left(\frac{1}{2}\right) + \tan^{-1}\left(\frac{1}{5}\right) + \tan^{-1}\left(\frac{1}{8}\right)$$

found  $\pi$  correct to two hundred decimal places. **Dahse became a legend with his calculating ability. It is believed that he did these calculations mentally.** He was known to be able to multiply in his head two eight-digit numbers in forty-five seconds. Multiplying two forty-digit numbers required forty minutes of mental calculation time, and he was able to mentally multiply two one-hundred-digit numbers in eight hours and forty-five minutes."

{page 71} "In 1914 the Indian mathematical genius Srinivasa Ramanujan (1882-1920), established many formulas for calculating the value of  $\pi$ . Some were very complicated and had to wait for the advent of the computer to be appropriately used. One such is:

$$\frac{1}{\pi} = \frac{\sqrt{8}}{9,801} \sum_{n=0}^{\infty} \frac{(4n)! (1,103 + 26,390n)}{(n!)^4 396^{4n}}$$

Yet a much simpler formula that Ramanujan produced to calculate the value of  $\pi$  was . . .

$$\sqrt[4]{9^2 + \frac{19^2}{22}} = \left(81 + \frac{361}{22}\right)^{\frac{1}{4}} = \left(\frac{2,143}{22}\right)^{\frac{1}{4}} = 3.141592652\dots$$

which is correct to only eight decimal places, but is relatively easy to calculate."

And yet another formulation – by Chudnovsky (page 115 in book):

$$\frac{1}{\pi} = 12 \sum_{k=0}^{\infty} (-1)^k \frac{(6k)!}{(3k)! (k!)^3} \frac{(13,591,409 + 545,140,143k)}{640,320^{3k + \frac{3}{2}}}$$

{page 72} In the book, page 72, is a table that summarizes the gradual progress made in computing the value of  $\pi$  – now known to a staggering 1,241,100,000,000 (over one trillion) decimal places by Yasumasa Kanada and his nine-person team at the University of Tokyo in September, 2002.

{page 110} "Earlier we mentioned the following formula for deriving the value of  $\pi$ , which was discovered by the famous Swiss mathematician Leonhard Euler:

$$\frac{\pi^2}{6} = 1 + \frac{1}{2^2} + \frac{1}{3^2} + \frac{1}{4^2} + \frac{1}{5^2} + \dots$$

or (after multiplying by a 6 and square root extraction):

$$\pi = \sqrt{6 \cdot \left(1 + \frac{1}{2^2} + \frac{1}{3^2} + \frac{1}{4^2} + \frac{1}{5^2} + \dots\right)} = \sqrt{6 \cdot \sum_{i=1}^{\infty} \frac{1}{i^2}}$$

This formula is sensationally fast in comparison to that of Leibniz. In the case of the Leibniz series, the computer needed more than two and a half hours for  $n=10^8$ ; the Euler series delivers the accompanying approximation value for  $n=10^8$  in virtually zero seconds of computer time!"

On page 116 of their wonderful book, several other discoveries by the genius Ramanujan are listed.

On page 131 of the book is a table "**Frequency Distribution for the Digits of  $\pi$  up to 1,200,000,000,000 Decimal Places**" – it's interesting that there are about 12 billion of each of the 10 digits (0 thru 9) – when all 1 trillion decimal places are used! On page 130 (see online version at <http://www.uoguelph.ca/zoology/devobio/210labs/MeiosisQuiz/pi.html>):

"Here you can see that as the number of digits considered increases, the digits come closer in frequency for all digits. In the first one hundred places, there are many more 9s (fourteen) than there are 0s, 1s, 5s, or 7s. Among the first two hundred places, there is less than half the number of 7s as 8s. And so it goes until we get to a larger number of decimal places."

Further on page 133:

" . . . one should be able to find any combination of numbers among this [even though we now have it only to 1.24 trillion places of  $\pi$ ] sequence of digits. For example, the birthday of

the United States (7-4-1776), that is, 741776, appears beginning with the 21,134<sup>th</sup> decimal place of  $\pi$ . The author's respective birthdays were found among the first 100 million decimal places of  $\pi$  as follows:

October 18, 1942, written as 10181942, was found beginning at the 1,223<sup>rd</sup> place of  $\pi$ , and

December 4, 1946, written as 12041946, was found beginning at the 21,853,937<sup>th</sup> place of  $\pi$ ."

{page 135} "As a parting note on the  $\pi$  enthusiasts, we offer the following: a  $\pi$  song! This song, adapted from Don McLean's "American Pie" by Lawrence (Larry) M. Lesser from Armstrong Atlantic State University, gives historical highlights of the number  $\pi$ ."

{page 139} "It is quite curious that  $\pi$  is related to probability. For example, the probability that a number chosen at random from the set of natural numbers (i.e., the *counting numbers*: 1, 2, 3, . . .) has no repeated prime divisors is  $\frac{6}{\pi^2}$ . This value also represents the probability that two natural numbers selected at random will be relatively prime (when their only common divisor is 1). This is quite astonishing since  $\pi$  is derived from a geometric setting."

**"American Pi"**  
all rights reserved  
lyric © 1997, 1998, 2000 Lawrence Mark Lesser  
May be sung to the tune of Don McLean's "American Pie"  
<http://www.math.armstrong.edu/faculty/lesser/americanpi.html>

**CHORUS: Find, find the value of pi,  
starts 3 point 1 4 1 5 9.  
Good ol' boys gave it a try,  
but the decimal never dies,  
The decimal never dies.....**

In the Hebrew Bible we do see  
the circle ratio appears as three,  
And the Rhind Papyrus does report four-thirds to the fourth,  
& 22 sevenths Archimedes found  
with polygons was a good upper bound.  
The Chinese got it really keen:  
three-five-five over one thirteen!  
More joined the action  
with arctan series and continued fractions.  
In the seventeen-hundreds, my oh my,  
the English coined the symbol Pi,  
Then Lambert showed it was a lie  
to look for rational pi.

He started singing ..... (Repeat Chorus)  
Late eighteen-hundreds, Lindemann shared  
why a circle can't be squared  
But there's no tellin' some people --  
can't pop their bubble with Buffon's needle,  
Like the country doctor who sought renown  
from a new "truth" he thought he found.

The Indiana Senate floor  
read his bill that made ? four.  
That bill got through the House  
with a vote unanimous!  
But in the end the statesmen sighed,  
"It's not for us to decide,"  
So the bill was left to die  
Like the quest for rational pi.

**They started singing ..... (Repeat Chorus)**  
That doctor's ? in the sky dreams  
may not look so extreme  
If you take a look back:  
math'maticians long thought that  
Deductive systems could be complete  
and there was one true geometry.  
Now in these computer times,  
we test the best machines to find  
? to a billion places  
that so far lack pattern's traces.  
It's great when we can truly see  
math as human history --  
That adds curiosity..... easy as ?!  
**Let's all try singing..... (Repeat Chorus)**

## $\pi$ - continued

by Alfred S. Posamentier and Ingmar Lehmann

{page 122 -  $\pi$  Mnemonics} "Most of the mnemonic devices for memorizing the decimal value of  $\pi$  require finding somewhat meaningful sentences where the number of letters per word determines the digit."

**GERMAN Mnemonic Song to Remember Decimal Places in  $\pi$**   
(pages 124-123 book)

**Wie o! dies  $\pi$   
macht ernstlich so vielen viele Muh!  
Lernt immerhin, Junglinge, leichte Verselein,**

**Wie so zum Beispiel dies durfte zu merken sein!**

[How of this  $\pi$   
gives so many people so much trouble!  
Learn after all, young fellows, easy little verses,  
how such, for example, this ought to be memorized!]

**Dir, o Held, o alter Philosoph, du Riesen-Genie!  
Wie viele Tausende bewundern Geister,  
Himmlich wie du und gottlich!  
Noch reiner in Aeonen  
Wird das uns Morgenrot!**

[You, oh hero, oh old philosopher, you great genius!  
How many thousands admire spirits,  
Heavenly as you and godly,  
Still more pure in Aeonon  
Will beam on us  
As in a light dawn.]

**The Authors:**

**Alfred S. Posamentier**, Ph.D., is dean of the School of Education and professor of mathematics education at the City College of the City University of New York. He has published thirty-four (34) books in the area of mathematics and mathematics education, including the acclaimed *Math Charmers: Tantalizing Tidbits for the Mind*.

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**Gentle Jokes**  
by Fred Metcalf

Fred has always had a unique compilation of *light-hearted* jokes. A reference I like is "*The Penguin Dictionary of Jokes*," Penguin Books, 1994, USD \$14, a soft back book - 5 ¼ inch wide, 8 ½ inch long, about 1 inch thick; 310 pages.

1. In our team we have so few hits that if anyone reaches first base, he has to stop and ask the way.
2. My team's lost so many games that when it rains, we have a victory party!
3. Just give me a shave. I haven't got time to listen to a haircut.
4. How much have you got in your bank? Hold on, I'll just give it a rattle.
5. What is the name of your bank? Piggy.
6. A man walks into a bank to cash a check and the cashier says, "OK, but you'll have to identify yourself." So the man looks into a mirror and says, "Yes, that's me alright."
7. When old junk meets new money you've got an antique.
8. Darling, can you get up and go see why the baby isn't crying.
9. A baby is something that gets you down in the daytime and up at night.
10. God made Adam and then He rested. But since Adam made Eve, nobody's rested!
11. All the animals entered the ark in pairs. Except the worms. What do you mean? They entered the ark in apples.
12. I tried to count the candles on his birthday cake, but the heat drove me back.
13. He's a man of few words. The trouble is, he keeps repeating them.
14. I can hardly hear myself speak! Don't worry. You're not missing much.
15. Is your husband outspoken? Not by many.
16. I made a million pounds' profit last year! Honestly? Well, let's not go into that!
17. How do you make money selling your watches so cheaply? Easy. We make a fortune repairing them.
18. Children can be a great comfort in your old age – and they can help you reach it faster too!
19. The only thing my kids ever did to earn money was to lose their baby teeth.
20. Christmas is the time when you buy this year's presents with next year's money.
21. At Christmas I bought my son a train set for me to play with.
22. Christmas? That's when your bank account is seasonally adjusted.
23. Christmas, when people get emotional over their family ties – especially if they have to wear them.
24. I had a fantastic Christmas. I got lots of terrific presents I can't wait to exchange!
25. Most people go through three Santa Claus stages. First, you believe in Santa Claus. Then, you don't believe in Santa Claus. Finally, you *are* Santa Claus.
26. Let's exchange presents this Christmas. Why not. I always exchange yours!
27. Merry Christmas, sir. I'm the one who empties your dustbin. Merry Christmas to you. I'm the one who fills it!
28. What I'm looking for is a spot remover that'll remove the spots left by the other spot removers.
29. He was wearing his Italian-style suit – spaghetti Bolognese all down the front.
30. I have a suit for every day of the year. And this is it.
31. Software can never replace greyware.
32. I've got this great idea for keeping my bills down. What is it? A paperweight!
33. There's a man outside who says you owe him money. What does he look like? He looks like you'd better pay him!
34. I'm sorry, Officer. Was I driving too fast? Either that, or flying too low!
35. The economy is now on a solid foundation – it's on the rocks!
36. Do you exercise after your bath? Yes. I usually step on the soap as I get out!
37. The advantage of exercising every day is that you die healthier.
38. Tell me, have your eyes ever been checked? No, they've always been blue.
39. Owning a farm is what a city dweller dreams of at 5 p.m., never at 5 a.m.



40. You're shaking like a leaf! How do you want me to shake?
41. He'd be the right weight for his height if he was 8 feet 7.
42. I think it's time for me to go on a diet. I've just had to put my full-length mirror sideways.
43. She's so thin, when she wears a striped dress, there's only one stripe.
44. CONTROL TOWER: Please report your height and position. PILOT: I'm 5 feet 11 and I'm in the cockpit.
45. It was a really cheap airline. Instead of a movie, the pilot flew low over drive-in theaters.
46. I'm not a natural flyer. In fact, I get air-sick just licking an airmail stamp.
47. How often do jumbo jets crash? Just the once!
48. You still haven't paid for your auntie's funeral. If you don't pay by tomorrow, up she comes.
49. My grandfather's funeral has cost us 5,000 pounds so far – we buried him in a rented suit.
50. When it comes to giving, some people stop at nothing.
51. What do you give a man who has everything? A burglar alarm!
52. I've got insomnia so bad, I can't even sleep when it's time to get up.
53. I've got no-fault insurance. If I have an accident, I just call the insurance company and they tell me it isn't their fault.
54. In every insurance policy, the big print giveth and the small print taketh away.
55. People who live in glass houses should take out insurance.

## Nature's Medicine Chest

by Editor

Years ago I picked up a recipe-like box for herbal remedies titled "Nature's Medicine Chest – Herb Identification Cards in Living Color" by LeArta Moulton, P. O. Box 482, Provo, Utah 84603, 1974. I thought to share a handful of herbs with our avid readers of *Noesis*. Each card covers an herb with diverse information on one side and a color photo on the other. The chest dimensions contain about 2 ¼ inches thick of alphabetized cards. I share the *beneficial information* on the card. The chest also contains many help cards on ailments and educational information on herbs, harvesting, preparing, etc.

### BURDOCK

Purifying the blood. Has been known to cleanse and eliminate blood impurities very rapidly. The tea taken freely helps in all kinds of skin diseases, boils and venereal diseases. Increases flow of urine. Good for gout, rheumatism, canker sores, leprosy. Use a hot poultice made from the roots or leaves for swellings. Makes a useful salve for skin eruptions, burns, wounds, swellings and hemorrhoids. Helps to reduce fatty flesh. Use the fresh green leaf blended or juiced for tonsillitis, sinus and hay fever. A fresh leaf poultice helps in ring worm and other skin parasites. The burr, which contains the seed, is easier to collect before becoming dried and sticky but both have the same potency. They are used as a Diuretic.

### ECHINACEA

Conditions such as eczema, acne, boils, blood poisoning, and other impurities of the blood. It is said to promote proper digestion and can be tried for fever. As an injection, the extract has been used for hemorrhoids and a tincture of the fresh root has been found beneficial in diphtheria and putrid fevers. Steep the granulated root for external uses – apply or bathe parts concerned

### GOLDEN SEAL

All catarrhal conditions; mouth and skin disorders, stomach ailments, nausea and in combination with capsicum as a remedy for chronic alcoholism. The infusion for a vaginal douche and antiseptic mouthwash. Apply tea with a toothbrush for sore gums or pyorrhea and as an external wash for skin diseases, sores and ringworm (sprinkle powdered root-stock on after washing with tea). Snuff the powder up the nostrils for nasal congestion or catarrh. Small doses taken frequently will help relieve nausea during pregnancy.

## Acid-Alkaline Foods

by Paavo Airola, Ph.D.

(excerpted from How To Get Well)

Balanced body chemistry is of utmost importance for the maintenance of health and correction of disease. Acidosis, or over-acidity in the body tissues, is one of the basic causes of many diseases, especially the arthritic and rheumatic diseases.

All foods are "burned" in the body - more commonly called "digested" - leaving an ash as the result of the "burning", or the digestion. This food ash can be neutral, acid or alkaline, depending largely on the mineral composition of the foods. Some foods leave an acid residue or ash, some alkaline. The acid ash (acidosis) results when there is a depletion of the alkali reserve or the diminution in the reserve supply of fixed bases in the blood and the tissues of the body.

It is therefore, vitally important that there is a proper ratio between acid and alkaline foods in the diet. The natural ratio in a normal healthy body is approximately 4 to 1 - four parts alkaline to one part acid, or 80% to 20%. When such an ideal ratio is maintained, the body has a strong resistance against disease. In the healing of disease, when the patient usually has acidosis, the higher the ratio of alkaline elements in the diet, the faster will be the recovery. Alkalis neutralize the acids. Therefore in the treatment of most diseases it is important that the patient's diet includes plenty of alkaline-ash foods to offset the effect of acid-forming foods and leave a safe margin of alkalinity.

A healthy body usually keeps large alkaline reserves which are used to meet the emergency demands if too many acid-producing foods are consumed. But these normal reserves can be depleted. When the alkaline-acid ratio drops to 3 to 1, health can be seriously menaced. Your body can function normally and sustain health only in the presence of adequate alkaline reserves and the proper acid-alkaline ratio in all the body tissues and the blood.

### ALKALI-FORMING FOODS

- Figs • Potatoes • Soybeans • Pineapple • Lima beans • Cabbage • Apricot • Spinach • Tomatoes • Turnip or beet tops • Peaches • Raisins • Apples • Almonds • Grapes • Carrots • Bananas • Dates • Watermelon • Celery • Millet • Cucumber • Brazil Nuts • Cantaloupe • Coconuts • Lettuce • Buckwheat • Watercress

### NEUTRAL (OR NEAR-NEUTRAL) ASH FOODS

- Milk • Vegetable Oil • Butter • White Sugar

**ACID-FORMING FOODS**

- Oysters • Most grains • Veal • Rice • Most fish • Organ meats • Liver • Natural cheese • Chicken • Lentils • Peanuts • Eggs • Most meats & fowl • Whole wheat or rye bread • Most nuts except almonds & Brazil

**Most grains are acid-forming, except millet and buckwheat, which are considered to be alkaline. Sprouted seeds and grains become more alkaline in the process of sprouting.**

**All vegetable and fruit juices are highly alkaline. The most alkali-forming juices are: fig juice, green juices of all green vegetables and tops, carrot, beet, celery, pineapple and citrus juices. Vegetable broth is an extremely alkalizing drink.**

For additional information go to: [www.poweritup.com/acidalk.htm](http://www.poweritup.com/acidalk.htm)

**“German Made Simple” – Let’s Test It! - Answers**  
by Editor, Eugene Jackson and Adolph Geiger

With over ½ million copies sold, the revised (by Robert D. Vanderslice) edition of *“German Made Simple”* by Eugene Jackson and Adolph Geiger is purported to have a forty-year record of making it easy to learn the German language. I figured we give them a try! I selected one lesson and created a ‘matching test’ to exercise the Publisher’s stamp: *“Made Simple Books.”* The 8½-inch by 11-inch by ½-inch thick, 190-page paperback book is USD \$12.95, originally published in 1965 by Doubleday, a division of Random House, Inc.; ISBN 0-385-19911-2.

Die Wohnung von Herrn Clark		The Home of Mr. Clark	
1	Die Wohnung von Herrn Clark ist ein Einfamilienhaus mit Garten.	4	It has seven rooms: the living room, the dining room, the kitchen, three bedrooms, and a study for Mr. Clark.
2	Das Haus ist nicht gross.	6	The living room is large, bright and beautifully furnished.
3	Es ist aber schon und bequem.	9	The dining room is not as large as the living room.
4	Es hat sieben Zimmer: das Wohnzimmer, das Esszimmer, die Küche, drei Schlafzimmer und ein Arbeitszimmer für Herrn Clark.	11	The table is round.
5	Ausserdem hat das Haus zwei Badezimmer.	14	That is for the parents.
6	Das Wohnzimmer ist gross, hell und schon mobliert.	2	The house is not large.
7	Es hat zwei Fenster.	17	Both children’s bedrooms have two little beds, two little tables, two chairs, a wardrobe, a chest of drawers and some pictures.
8	Durch die Fenster sieht man einen Garten.	13	One bedroom is rather large.
9	Das Esszimmer ist nicht so gross wie das Wohnzimmer.	15	Two bedrooms are somewhat smaller.
10	Hier sieht man u. a. einen Tisch, ein Buffet und sechs Stühle.	18	Yes, the house of Mr. Clark is really beautiful and comfortable.
11	Der Tisch ist rund.	8	Through the windows one sees a garden.
12	Die sechs Stühle stehen um den Tisch.	12	The six chairs stand around the table.
13	Ein Schlafzimmer ist ziemlich gross.	16	Those are the children’s bedrooms, one for the two boys and one for the two girls.
14	Das ist für die Eltern.	10	Here one sees, among other things, a table, a sideboard, and six chairs.
15	Zwei Schlafzimmer sind etwas kleiner.	7	It has two windows.
16	Das sind die Kinderschlafzimmer, eins für die zwei Knaben und eins für die zwei Mädchen.	1	The home of Mr. Clark is a one-family house with a garden.
17	Beide Kinderschlafzimmer haben zwei Betten, zwei Tischlein, zwei Stühle, einen Kleiderschrank, eine Kommode, und einige Bilder.	5	In addition, the house has two bathrooms.
18	Ja, das Haus von Herrn Clark ist wirklich schön und bequem.	3	It is, however, beautiful and comfortable.

pages 26-27.

**Some Secrets of Successful People**

by David Niven, Ph.D.

The editor is always on the prowl for motivational material. One exciting reference is *“The 100 Simple Secrets of Successful People”* by Dr. David Niven. *Gift Books from Hallmark*; 2003; USD \$12.95; about 5 ½ inches wide by under 8 inches long by under an inch thick – handy to deal with. I liked the excerpts from actual studies that Dr. Niven uses at the end of each of the 100 chapters. The reader who really likes these excerpts, and would like to read their supporting studies, should think to buy this book (found in Hallmark stores and many drug stores) for themselves, for their local public libraries, church library, or library at work. The excerpts aren’t too long, but the ideas are insightful and helpful. I share twenty-five of them. The [ ] indicates the page number in David’s book. The first five quotes are on the back cover of the book.

1. Having concrete goals increases confidence by 50 percent.
2. Working with people who have different opinions and approaches increases productivity an average of 14 percent.
3. People who speak slowly are 38 percent more likely to be perceived as well informed.
4. Volunteering for community service results in 25 percent greater job satisfaction.
5. 80 percent of CEOs say a healthy family life is crucial to a productive business life.
6. Good talkers tend *not* to be good listeners. Indeed, people who think of themselves as good talkers tend to rate themselves as extroverted, while good listeners rate themselves as introverted. Good listeners are 60 percent more likely to try to put themselves in the other person’s place – trying to see things through their perspective. [89]
7. People who spend more time thinking about their possible selves, the lives they might be leading if they had made different decisions, are 46 percent less satisfied with their career decisions than people who do not spend much time imagining what might be different. [51]
8. Most Americans have been sleepy at their job, and two in five report making errors because of sleepiness. Inadequate sleep reduces innovative thinking by 60 percent and flexibility in decision making by 39 percent. [59]
9. The ability to accept personal responsibility for work outcomes and to thrive under individual scrutiny improves your chances by 65 percent of successfully making the transition from working for a traditional large company to succeeding in a job at a small firm or as an independent consultant. [61]
10. Corporate inefficiency reduces job satisfaction by 21 percent and increases employee’s desire to find new employment. [65]

11. In a study of recent business school graduates, employee conscientiousness was five times more likely to predict supervisor satisfaction than was employee intelligence. [71]
12. Self-esteem, by itself, does not predict success. In fact, those with particularly high self-esteem are 26 percent more vulnerable to the consequences of failures and setbacks because of the devastating effect negative outcomes can have on their self-image. [73]
13. People who rate themselves as intelligent have a 47 percent higher need for change in their professional world. They regularly see possibilities and opportunities around them but must be wary of allowing boredom to encourage them to pursue change for the sake of change. [87]
14. Career analysts find that 83 percent of midcareer professionals believe chance played a significant role in their ultimate career path and that they highly value staying open for unexpected opportunities. [55]
15. Researchers find that perceived self-interest, the rewards one believes are at stake, is the most significant factor in predicting dedication and satisfaction toward work. It accounts for about 75 percent of personal motivation toward accomplishment. [41]
16. Case study research on business executives reveals that 98 percent see their position as the result of plans and strategy and that more than half credit their use of a successful person as an example to help define that plan. [30]
17. In a survey of high-tech employees, those who spend "a lot" of time worrying about their jobs are 17 percent less productive than workers who "seldom" or "never" worry about their job. [93]
18. Despite the power we associate with the idea of a leader, 93 percent of those who actually lead an organization view themselves at least partially as a servant of the people in their organization. [like the present Editor of *Noesis*] [97]
19. Sixty-eight percent of people who consider themselves successful say that there is at least one area of their job in which they are an expert. [123]
20. Nearly everyone feels some anxiety when starting a new job. However, people who focus their attention on their own identity rather than their uncertain surroundings feel less stress and report becoming comfortable in their new position in half as much time. [137]
21. Nine in ten people who believe they will one day realize their career goals have strong feelings of competence and assertiveness. [181]
22. Satisfaction with work improved by 34 percent when employees felt they were individually responsible for their work output. [165]
23. Of people who feel they have failed to achieve success in their lives, 64 percent point to a specific standard set by others that they were unable to live up to. [163]
24. Confidence, in combination with a realistic self-appraisal, produces a 30 percent increase in life satisfaction. [161]
25. Knowledge gained through workplace experiences was six times more important than grades earned in school in predicting job performance of new employees. [153]

## May we Foster the Healing Process

by Editor

The editor plans to visit Dresden, Germany over the October/November time period. One book the editor is reading is "*Dresden 1945 – The Devil's Tinderbox*" by Alexander McKee; USD \$10.95 paperback; by Barnes & Noble, Inc.; 1982, ISBN 0-7607-2030-4; 339 pages, 13 chapters. To date, Dresden has been bombed twice and flooded (a couple years ago). On the back cover of Alexander's book, we read:

"... Undefended and without strategic significance, this historic city sheltered a million people, half of them refugees. On February 13-15, 1945, 1,300 British and American aircraft dropped 5,000 tons of incendiary and high-explosive bombs, destroying Dresden and causing a 3,000-degree Fahrenheit firestorm. Between 35,000 and 100,000 people died, among them American, British, and Russian prisoners of war.

Survivor's accounts capture the hope and courage that transcended the horror of the raid. In analyzing the rationale and planning behind the raid, McKee dissects the leadership egos, command rivalries, and hidden agendas that insidiously promoted terror bombing as a British policy – a policy later shared by her American ally. And in demonstrating that the Dresden raid's permanent moral cost greatly exceeded its temporary military benefits, he gives contemporary military strategists powerful reasons for restraint."

180 years ago the carol "*Stille Nacht! Heilige Nacht!*" was heard for the first time in a village church in Oberndorf, Austria. (<http://silentnight.web.za/history/>). My hope is, as an American visitor to Dresden in October, that I will be an *ambassador* in several ways – and that when I lay in bed in the hotel room there in Dresden, I can quietly, and meditatively, sing "*Stille Nacht! Heilige Nacht!*".

## The Wonders of Christmas

by Editor

Christmas is a special time for many people around the world. For some it's the saddest time. It is our hope that the little things shared in this holiday section will bring a sparkle to your eye, a chuckle to your lips, and/or a warm thought to your mind. For me, Christmas is throughout the year – as I faithfully and eagerly listen to the dozens of Christmas songs during all four seasons – winter, summer, spring, and fall. Christmas is a nostalgic time for me as well – as I "bathe" in the coziness Christmas offered me over the past decades – being with people I love – family and friends.

**I'll Be Home For Christmas**  
Kim Gannon, Walter Kent (c) 1943

I'll be home for Christmas  
You can count on me  
Please have snow and mistletoe  
and presents on the tree

Christmas Eve will find me  
Where the love light gleams  
I'll be home for Christmas  
If only in my dreams

The words to the above song, like many Christmas songs I know, have a special meaning. Back when it was written, it was the peak of World War II – and U.S. soldiers wanted to get home to their families and friends. Bing Cosby's mellow rendition is among the most moving. The first line – "I'll be home for Christmas" says a lot. When I was in grade school at *Our Lady of Mount Carmel* in Asbury Park, NJ, I wasn't thousands of miles from home. Yet, as I was in the large classrooms, typically with over 60 children, my mind would long for home. Home was less than 4 miles away! And there was no reason why I was not going to be home for Christmas. Yet these words "I'll be home for Christmas" placed an almost invisible barrier in my young mind – that maybe I *wouldn't* be home for Christmas.

As the caring nuns at *Mount Carmel* would deliver the class lessons on the different subjects, my mind would race *forward* in time to when we would have Christmas break. At the same time, my mind slowly walked *backward* as it recalled the happy memories of the previous Christmas celebrations I experienced at home. Although my dad was a faithful, hard working mechanical design draftsman for the U.S. Government, and was kind, my mother *really* made Christmas special to our whole family – my dad, four brothers and I. I recall mom presenting us the Sears winter catalog to look through with amazement – at the toy section! We were usually allowed a certain price limit – which usually amounted to one (or possibly two) item(s). We all wanted way more than the budget allowed, so what we would do is band together – selecting the gifts such that the "union" of the set of objects would be the collective desire of the 5 boys. This usually worked for things like games and puzzles and toys. It did not work for larger items like one's personal bicycle. The "traditions" of Christmas vary for each individual – and how they define "tradition."

**Some of the traditions for me included** the Christmas tree, lights, the train set, candy canes, the precious small box of hard candy given out at the neighborhood fire station, listening to the annual WRFM-105 (radio station in NY city) Christmas music, shoveling snow, building a snowman in the yard, snowball fights, sleigh riding down Hamilton Hill, riding my bike around the neighborhood at night to view in awe the elaborate light displays the more wealthy people in the area provided, the rare glasses of egg nog, watching special favorite Christmas old-time movies and programs, staring at the Yule Log for its 3-hour presentation on TV, stringing up our limited outdoor light display, hearing sleigh bells, doing up Christmas cards at school, hovering around the heat register in the living room on cold mornings, wearing my *Mighty Mack* winter coat, using socks for gloves as the wet pair dried in the kitchen sink, the annual visit to my aunt Minnie and Uncle Joe in Stamford, CT., and the country-like setting and meal they faithfully offered – as my parents, brothers, cousins Claire and Steven all sat around the bountiful dinner table together, and having my aunt Pauline over the house. Yes, Christmas nostalgia should be treasured if it can catapult you forward to make Christmas as special for someone else less fortunate.

When I was in college, only 50 miles away, it seemed like I, too, was *thousands* of miles away like our WW II soldiers. It's all relative. What seems like down-the-road for one person is eons for another! The colder weather, the shortened days, the gray skies, the crisp air, the memories of the coziness of Christmases past, all seemed to crescendo when not at home. Home-sickness in some ways is a luxurious feeling. When I moved away from home the summer of 1976 to work at General Electric Company in Utica, NY, this was the toughest hurdle – the deepest degree of home-sickness for me. In Utica, I was busy, honored to be part of the GE technical team, had terrific friends, loads of snow, a peaceful town – yet that yearning feeling to be with my parents and brothers was immense. The first year in Utica, alone, I made 15 trips home to NJ! There was a magic at the half-way point in the trip. Going down to NJ, my mind was getting excited about the time being home, the home-cooked meals, watching TV together in the same room, going shopping for groceries, window shopping at the local department stores, and going to Delicious Orchards. On the way home I'd often cry till I reached the half-way point back to Utica. My mind would think of my job at GE, class work I was engaged in, volunteer activities, and already looking forward to the next holiday.

### White Christmas

Irving Berlin 1942

I'm dreaming of a white Christmas  
Just like the ones I used to know  
Where the treetops glisten  
and children listen  
To hear sleigh bells in the snow.

I'm dreaming of a white Christmas  
With every Christmas card I write  
May your days be merry and bright  
And may all your Christmases be white.

I'm dreaming of a white Christmas  
With every Christmas card I write  
May your days be merry and bright  
And may all your Christmases be white.

They say that when one finds themselves in any uncomfortable predicament that they should *transfer the focus* on something or someone else. To help me at Christmas time at GE, my letters and cards filled the Pony Express stagecoach faithfully. I would window shop dozens of times at all the major department stores and malls – not knowing *specifically* what gift(s) I was going to get the people I had in mind. Some gifts were for people I'd yet meet in the future – but didn't know who. I recall driving to malls in towns 50 and 100 miles away – and enjoying a nice meal while in route to/from the destination. One gift shop had the original horse sleigh bells – heavy – loud but melodious ring as if you could picture in your mind the horse-drawn sleigh with people wrapped in blankets going for a ride in a 2-foot snowfall setting in the countryside singing carols on a clear moonlit night. These bells were special. As the day before going home came, my excitement likely exceeded that of Santa Claus and all his helpers. I'd pack the car the night before, have my clothes all laid out, and almost never slept late. Among the goods loaded in the small 4-door car would be a box of all the collected Christmas music. Usually I'd take the Christmas records home at Thanksgiving as well – for the holiday excitement hit me just after Halloween (as it still does). Rather than sleep late, I'd always leave when I awoke – some times only after a few hours sleep. When I arrived at home late (midnight or so), I'd quietly enter the house, lay the dozens of gifts under the Christmas tree in the living room, and go back outside. With everyone in the house sound asleep, I ran around the house with the sleigh bells tied around my waist. The lights in the neighboring houses came on, as did the lights in my parent's house. Running over to the living room window, and gazing in, I watched as my parents came into the living room. Like children, their surprised looks were worth all the effort. Isn't life this way? The impromptu acts of kindness or actions, caught in the mind's camera, are irreplaceable!

### Let It Snow!

Sammy Cahn, Jule Styne (c) 1945

Oh, the weather outside is frightful,  
But the fire is so delightful,  
And since we've no place to go,  
Let it snow, let it snow, let it snow.

It doesn't show signs of stopping,  
And I brought some corn for popping;  
The lights are turned way down low,  
Let it snow, let it snow, let it snow.

When we finally say good night,  
How I'll hate going out in the storm;  
But if you really hold me tight,  
All the way home I'll be warm.

The fire is slowly dying,  
And, my dear, we're still good-bye-ing,  
But as long as you love me so,  
Let it snow, let it snow, let it snow.

The look on my parent's and brother's faces was astounding. It did not take long for them to *connect-the-dots*, as they next heard more sleigh bell sounds from outside. Sure enough Santa's sleigh was immediately recognized as they threw open the front door!

Other times I was stealthier. I'd drive slowly to within a block of the house with a 24-foot extension ladder my dad needed, and as dad was just leaving the house to run an afternoon errand, I drove into the driveway, went inside, downstairs to the window by the driveway, slide the ladder in, run down, conceal the ladder with loads of items that were already down there, and leave the house – awaiting my dad's return from his errand. Minutes later I'd drive into the driveway as if just arriving! We'd go through the motions, and Christmas Eve, again like Santa Claus, when all were sound asleep, would sneak down into the basement, slide the ladder quietly out the window, and bring it into the living room, wrap it with Christmas paper as best I could, and go back to bed. My goal over the years was to bring out the "child" in my parents and as many people as I could. To date, my track record has been pretty good – and my name is on a plaque at the secret North Pole toy manufacturing location – for "Magical Christmas Maker." It's indeed an honorable position – not quite the same as my being inducted into the *Royal Elf Society* a few years back.

Yes, "*I'll be home for Christmas*" has a special meaning to me.

## BERLINER PFANNKUCHEN

*One of many NEW YEARS' EVE Traditions in Germany*

<http://community-2.webtv.net/euromom/GERMANCHRISTMAS/>

### INGREDIENTS

3 1/3 cup flour  
 1 envelope active dry yeast  
 2 heaping tbsp. sugar  
 1/2 to 1 cup milk  
 2 tbsp. oil  
 2 egg yolks  
 1 tsp. salt  
 2 tbsp. rum  
 some jam  
 shortening for deep frying  
 sugar for sprinkling  
 if desired also some cinnamon  
 " Approx. 180 calories each "

Sift the flour into a deep bowl, add sugar and salt. Add the yeast, prepared according to instructions, the oil and the egg yolks, and knead these ingredients into a dough. Add rum and continue to knead until dough no longer sticks to bowl. Place in a warm spot to rise. Roll dough into a sheet that is a little thinner than 1/2 inch, then cut out circular shapes with a glass or cookie cutter. Place dough circles on a greased baking sheet in lukewarm oven and let rise until they have doubled in bulk. Fry doughnuts in the hot fat for 2 1/2 to 3 minutes on one side while pan is covered; then remove cover from pan, turn doughnuts and fry for 2 1/2 to 3 more minutes. Squirt Jam into each doughnut from a pastry tube. Sprinkle with sugar.

## LEBKUCHEN

<http://community-2.webtv.net/euromom/GERMANCHRISTMAS/>

### Ingredients:

2 1/3 cup flour  
 250 gram (1/2 lb, plus) blanched, chopped almonds  
 250 gram (1/2 lb, plus) honey  
 3/4 cup sugar  
 2 eggs  
 1/2 cup (packed) candied orange rind  
 some ground cinnamon, nutmeg and cloves  
 some lemon peel, grated  
 2 tsp. baking soda

### For the Icing:

Juice from 1/4 lemon  
 1/2 egg white  
 3 heaping tablespoons powdered sugar  
 jelly beans

Heat honey in top of double boiler, set aside. In a large bowl, combine flour and baking soda, break eggs into mixture, cover with remaining ingredients except those for icing, and quickly knead into a dough. Roll dough into an 11 x 17 - inch rectangle about 3/8 inch thick. Cut dough into 80 small squares and place on a greased baking sheet, crowding them tightly together. Let stand overnight to dry. The next day, bake at "360 F" for approx. 25 minutes. While still hot, break off the individual squares.

**Icing:** Beat egg white 'till stiff. Fold in powdered sugar and lemon juice and brush cake squares with this mixture. Decorate with chopped, red jelly beans and return to a lukewarm oven to let icing bake on.

**OR:** Brush cake squares with sweet, plain chocolate, melted in double boiler, then decorate each square with several whole blanched almonds.

**OR:** Ice one half of the squares with the white icing, the other half with chocolate.

**YIELD:** 80, each at approx. 65 calories.

## Lateral Thinking Puzzles

by Ed Harshman, Des MacHale & Paul Sloane

So often at work we need to solve technical problems that cannot be solved by brute force methods. Creative, alternative applications of known ideas can often be used to solve apparently out-of-field problems. Lateral thinking "opens doors" to innovative, orthogonal solutions. In a book I purchased "Lateral Thinking Puzzles" by Edward J. Harshman, Des MacHale and Paul Sloane, there are many diverse, fun problems. The hardcover book measures 5 ½ inches wide by 6 ¾ inches long by about 1 inch thick (paper portion of book); by Main Street – a division of Sterling Publishing Co., Inc.; 2003, material was adapted from four earlier books (dated 1997, 1997, 1999, 2000); ISBN 1-4027-1062-3. Problems are progressively harder.

**Supposed to Kill** – A man drew a gun, pointed it at another man who was known to be totally law-abiding, and pulled the trigger. Click! The gun wasn't loaded. Everyone present, which included at least ten people, was surprised and outraged. Why was the intended victim blamed for the incident? [p. 4 in book]

**Scared of her Shadow?** – Wacky Wendy, who lives in Florida, finds it particularly important, when she is driving and sees the shadow of her car, to roll down her window. Why? [p. 17 in book]

**Lifesaver** – A politician made a speech that saved his life even before he gave the speech. How? [p. 59 in book]

**The Deadly Dresser** – A healthy man got dressed and then lay down and died. Why? [p. 59 in book]

**Spies are Us** – During World War I, two German spies often ate at the same restaurant, but they never sat together. How did they pass information? [p. 66 in book]

**Scaled Down** – A butcher tried to deceive a customer by pressing down on the scale while weighing a turkey to make it appear heavier than it was. But the customer's subsequent order forced the butcher to admit his deception. How? [p. 119 in book]

**Love Letters** – Why did a woman send out 1,000 anonymous Valentine's cards to different men? [p. 126 in book]

**The World's Most Expensive Car** – The most expensive car ever made is for sale. Although many people want to own it and can afford to buy it, nobody will do so. Why? [p. 136 in book]

**Gertrude** – When Gertrude entered the plane she caused her own death and the deaths of 200 people. Yet she was never blamed or criticized for her actions. What happened? [p. 164 in book]

**Large Number** – Assume there are approximately six billion people on earth. What would you estimate to be the result, if you multiply together the number of fingers on every person's left hand? (For the purposes of this exercise, thumbs count as fingers, for five fingers per hand). If you cannot estimate the number, then try to guess how long the number would be. [p. 169 in book]

**His Widow's Sister** – It was reported in the paper that Jim Jones had married his widow's sister. How did he do this? [p. 176 in book]

**The Deadly Suitcase** – A woman opened a suitcase and found to her horror that there was a body inside. How did it get there? [p. 178 in book]

**Poison Pen** – A woman received a very nasty, anonymous letter containing threats and allegations. She called the police and they quickly found out who had sent it. How? [p. 180 in book]

**The Music Stopped Again** – When the music stopped, he died very suddenly. How? [p. 181 in book]

**Mona Lisa** – Why did a group of enterprising thieves steal the famous painting the *Mona Lisa* and then return it undamaged a few months later? [p. 186 in book]

## Welcome to the Random Word Tutorial

by Brainstorming.co.uk

<http://www.brainstorming.co.uk/contents.html>

[Click here for the free interactive online version of this technique](#)

### How to use the **Random Word** technique

Welcome to the Random Word technique, the most basic and obviously creative technique where you use a random word (hence the name!) to generate new ideas. By getting a random word as a prompt and forcing yourself to use it to solve your problem you are practically guaranteed to attack the problem from a different direction to normal. You take a word from a random word generator, extract its underlying principles and then apply them to your problem to see how they can help. The skill is stopping your mind from (a) thinking this is silly and (b) directly using the actual principles behind the word to your problem without changing them to ones which are easier to apply.

The first thing you need is the random word itself which is classed as the **initial stimulus**. Next, you establish a **bridging idea**, which is an idea based on the stimulus. This is used, as the name implies, as a bridge between the stimulus and an idea which you could actually use on your problem. The simplest way to get a random word if using our dedicated software ([Brainstorming Toolbox](#)) to give you a random word at the touch of a button.

#### Quick example 1:

Using the random word "**Balloon**" in the context of new ideas about **cars**.

A bridging idea could be that you inflate the balloon under the car. The advantages of this would be that the car jack would not puncture rusty cars and that cars could be raised on soft ground.

The resulting final idea could be to have a car jack which spreads its force more evenly under the car and onto the ground.

#### Quick example 2:

Using a random word of "**Spacecraft**" in the context of new ideas about **kitchens**.

A bridging idea would be to consider what would happen if the kitchen was in space and what would happen because of gravity.

The resulting idea could lead to the fact that you would need to stop the pans from floating off the cooker/hob. This could lead to using magnets to hold the pans on (back on the earth's surface). This would stop small children from accidentally pulling the hot pans onto themselves. Or how about using a magnetic field to heat the pan?

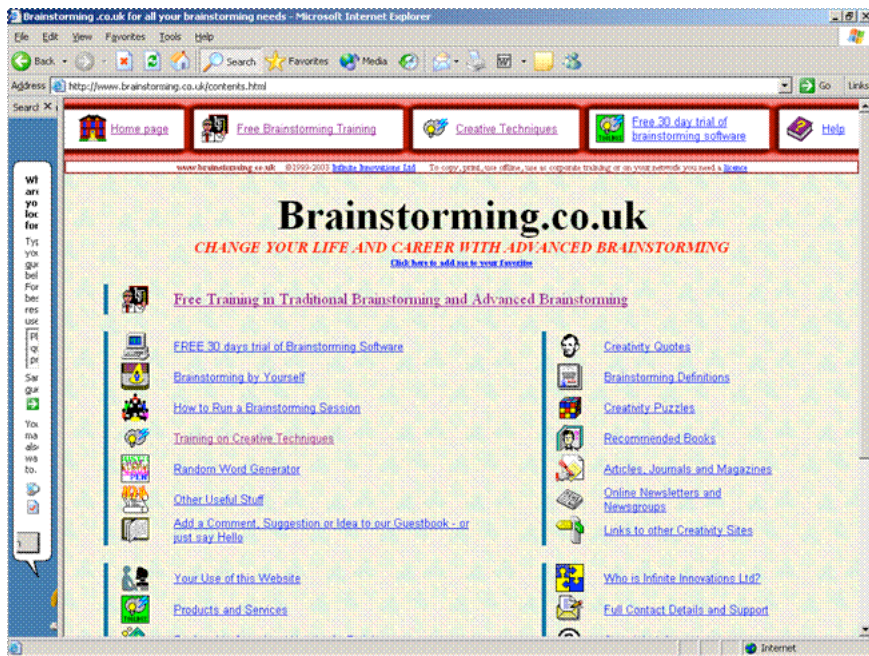
Where you get the random word is up to you. The quickest and most random way to get one is by using computer software. If you don't have that, flip through a dictionary and stop randomly, or pick a random page, paragraph and word from a general interest magazine.

You are welcome to use our [free web version](#) (which contains one hundred words) to show you how useful it can be.

**One you have got a random word, there are many ways of using it, including:**

1. Replacing the problem object with the random noun and imagining what would happen. (NB. It is easier, safer and cheaper to do this first in your mind and than in reality.) Think it over in your mind and see what you can get out of it. What does it remind you of, regarding your own problem? What are the benefits from replacing it? If the benefits are original but not practical, then are there any ways you can get the same effect from a more practical means? If there are no benefits, what are the disadvantages and how might you counter them? (See how powerful this is - whether you think it is good or bad to replace it, both points of view can lead to new ideas!)
2. Looking at the principles behind the random word and reapplying them to your own problem. How does the random object behave? Why does it behave like that? What are its characteristics? Why does it fit its own environment but has not been reapplied elsewhere? Now think of HOW you can apply the principles to your own problem. The skill is in thinking "How can we make this work?" and disregarding any initial thoughts that it won't work.
3. Looking at its benefits. Are they benefits you want? How can you get the same benefits for your own situation? How does the selected word achieve the benefits and how can you use that principle?

<http://www.brainstorming.co.uk/contents.html>



## Lateral Thinking Puzzles - Clues

by Ed Harshman, Des MacHale & Paul Sloane

**Supposed to Kill** – Q1-Did the intended victim run or call for help? A1-No; Q2-Having learned the gun was not loaded, did anyone try to grab it or otherwise forcibly intervene? A2-No; Q3-The incident did not result in death or serious injury. Did anyone want it to? A3-No. [p. 49 in book]

**Scared of her Shadow?** – Q1-Does the sun shine brightly in Florida? A1-Yes; Q2-Is the reason for opening a car window concerned with controlling the temperature in the car? A2-No; Q3-When the sun is shining brightly behind a car, which is not the same as shining in the driver's eyes, is there potential danger because something important cannot be seen? A3-Yes. [pp. 44-45 in book]

**Lifesaver** – (a) Any speech of the same length would have had the same effect. (b) Someone made an attempt on his life. [p. 94 in book]

**The Deadly Dresser** – (a) If he had not dressed, he would not have died. (b) He died by accident. (c) He was poisoned. [p. 88 in book]

**Spies are Us** – (a) They went to the restaurant as paying customers. (b) No codes were used, and they never spoke or sat near each other. (c) They dressed in similar clothes. [p. 101 in book]

**Scaled Down** – (a) The butcher had only one turkey left. (b) He weighed it for the customer. (c) He pressed down on the scale with his thumb to give it an exaggerated weight. [p. 154 in book]

**Love Letters** – (a) She didn't know the men and didn't like any of them. (b) She had malicious intentions. (c) There was potential financial gain for her. [pp. 148-149 in book]

**The World's Most Expensive Car** – (a) The car was used once and is in good condition, but it has not been driven for many years. (b) Most people have seen it on TV, but they can't name the man who drove it. (c) It is not associated with any celebrity or with any remarkable historical event or tragedy, though when it was driven it was a special event at the time. (d) It was developed at great expense for practical use and not for show or exhibition. [pp. 159-160 in book]

**Gertrude** – (a) Gertrude caused a mechanical failure in the plane. (b) It was a jet aircraft. [p. 202 in book]

**Large Number** – (a) The answer can be quickly and accurately deduced. (b) Think about the effect of actually multiplying the number of fingers on the left hands of all the people in the world, one after another. (c) The calculation might start as 5x5x5x5x ... and so on. [p. 204 in book]

**His Widow's Sister** – (a) When Jim Jones died, his wife became a widow. (b) No bigamy is involved and no life after death. (c) He had married his widow's sister quite legitimately. [p. 203 in book]

**The Deadly Suitcase** – (a) The body was that of a child who had died accidentally through suffocation. (b) The woman was poor and had tried to save money. [p. 198 in book]

**Poison Pen** – (a) They examined the letter very carefully. (b) The letter came from a pad of writing paper. [p. 206 in book]

**The Music Stopped Again** – (a) This has nothing to do with tightrope walkers! (b) A game was taking place. It involved music. [p. 205 in book]

**Mona Lisa** – (a) They did it for money. (b) No insurance payment was involved. (c) The thieves did not receive any reward or payment from the police, museum, insurance company, or any public body. [p. 205 in book]

## Lateral Thinking – and more!

by Mind Tools

[http://www.mindtools.com/pages/article/newCT\\_00.htm](http://www.mindtools.com/pages/article/newCT_00.htm)

### Programmed Thinking & Lateral Thinking

Lateral thinking recognizes that our brains are pattern recognition systems, and that they do not function like computers. It takes years of training before we learn to do simple arithmetic - something that computers do very easily. On the other hand, we can instantly recognize patterns such as faces, language, and handwriting. The only computers that begin to be able to do these things do it by modeling the way that human brain cells work. Even then, computers will need to become more powerful before they approach our ability to handle patterns.

The benefit of good pattern recognition is that we can recognize objects and situations very quickly. Imagine how much time would be wasted if you had to do a full analysis every time you came across a cylindrical canister of effervescent fluid. Most people would just open their can of fizzy drink. Without pattern recognition we would starve or be eaten. We could not cross the road safely.

Unfortunately, we get stuck in our patterns. We tend to think within them. Solutions we develop are based on previous solutions to similar problems. Normally it does not occur to us to use solutions belonging to other patterns.

We use lateral thinking techniques to break out of this patterned way of thinking.

Lateral thinking techniques help us to come up with startling, brilliant and original solutions to problems and opportunities.

It is important to point out that each type of approach has its strength. Logical, disciplined thinking is enormously effective in making products and services better. It can, however, only go so far before all practical improvements have been carried out. Lateral thinking can generate completely new concepts and ideas, and brilliant improvements to existing systems. In the wrong place, however, it can be sterile or unnecessarily disruptive.

## White Christmas – Part II

by Editor

I'm dreaming of a White Christmas, just like the ones I used to know . . . The famous 1942 song, *White Christmas*, by Bing Cosby, was the **top "single"** song for 55 years (till 1997) – with sales of \$30 million. According to DK's "The Top 10 of Everything 2004" by Russell Ash, page 116,

"It took 55 years for a record to overtake Bing Cosby's 1942 "White Christmas" although the song, as also recorded by others and sold as sheet music, has achieved enormous total sales that it would still appear in first position in any list of best-selling songs."

For me, a white Christmas has always been welcomed. I realize it's difficult to have snow every year, but when it arrives Christmas eve, it is a special event. The glow and warmth of the crackling fireplace has a magic all of its own. The cozy room, filled with the mellow voices and orchestral masterpieces, makes the aura of Christmas remarkably serene. I have been blessed to live in apartments that had a country setting. One was in upstate New York – on a farm – in the midst of farms and rolling hills. Looking out the window, sipping a cup of hot tea or cocoa, and seeing the white landscape – was mesmerizing to say the least.

I want to pause while I am thinking of it – to extend a warm and memorable Christmas to you and the special people in your life – be they friends, loved ones, family, or new acquaintances. May the "season" be special – and act as the right backdrop for you to enter the New Year – 2005. It seems like a long year – 2004 – as I sit typing this in October.

### White Christmas

Irving Berlin 1942

I'm dreaming of a white Christmas  
Just like the ones I used to know  
Where the treetops glisten  
and children listen  
To hear sleigh bells in the snow.

I'm dreaming of a white Christmas  
With every Christmas card I write  
May your days be merry and bright  
And may all your Christmases be white.

I'm dreaming of a white Christmas  
With every Christmas card I write  
May your days be merry and bright  
And may all your Christmases be white.



## Reader's Digest Quotable Quotes

by Reader's Digest

As a child in elementary school, *Reader's Digest* magazine was a household favorite. Mom read the articles with enthusiasm – as we rarely traveled – and this was a way to experience “adventures” without long car sojourns. Dad liked the *Word Power* section. I liked the way the publisher covered interesting stories in such little space. Mom was also an avid devourer of the *Reader's Digest Condensed Book* series borrowed from the local library. In this section we extract from the *Reader's Digest Quotable Quotes* paperback compilation, a handful of quotes for your gratification. The book is about 5 ¼ inch wide by 7 ¼ inch long by under ½ inch thick. Copyright – 1997; ISBN 0-89577-925-0; USD \$9.95.

[page 12, #11] – Our language has wisely sensed the two sides of being alone. It has created the word “loneliness” to express the pain of being alone. And it has created the word “solitude” to express the glory of being alone. **Paul Tillich**

[page 12, #12] – The man who goes alone can start today; but he who travels with another must wait until the other is ready. **Henry David Thoreau**

[page 20, #7] – Discipline is remembering what you want. **David Campbell**

[page 20, #8] – Goals are dreams with deadlines. **Diana Scharf Hunt**

[page 20, #11] – Don't bunt. Aim out of the ballpark. **David Ogilvy**

[page 21, #1] – When you aim for perfection, you discover it's a moving target. **George Fisher**

[page 21, #2] – Intelligence without ambition is a bird without wings. **C. Archie Danielson**

[page 22, #7] – It's a funny thing about life; if you refuse to accept anything but the best, you very often get it. **W. Somerset Maugham**

[page 23, #7] – Reason deceives us; conscience, never. **Jean Jacques Rousseau**

[page 23, #13] – Self-discipline is when your conscience tells you to do something and you don't talk back. **W. K. Hope**

[page 29, #7] – Midlife crisis is that moment when you realize your children and your clothes are about the same age. **Bill Tammeus**

[page 31, #13] – Count reminiscences like money. **Carl Sandburg**

[page 32, #7] – Keep some souvenirs of your past, or how will you ever prove it wasn't all a dream?” **Ashleigh Brilliant**

[page 34, #4] – Nostalgia is a file that removes the rough edges from the good old days. **Doug Larson**

[page 34, #6] – Nostalgia is like a grammar lesson: you find the present tense and the past perfect. **The United Church Observer**

[page 34, #7] – The essence of nostalgia is an awareness that what has been will never be again. **Milton S. Eisenhower**

[page 34, #9] – Nothing seems to go as far as it did. Even nostalgia doesn't reach back as far as it used to. **Changing Times**

[page 39, #13] – A true friend never gets in your way unless you happen to be going down. **Arnold H. Glasow**

[page 41, #4] – No one is useless in this world who lightens the burden of it for anyone else. **Charles Dickens**

[page 41, #5] – Great opportunities to help others seldom come, but small ones surround us every day. **Sally Koch**

[page 41, #14] – We love those people who give with humility, or who accept with ease. **Freya Stark**

[page 43, #14] – No person who was ever honored for what he received. Honor has been the reward for what he gave. **Calvin Coolidge**

[page 68, #11] – Perpetual optimism is a force multiplier. **Colin Powell**

[page 69, #8] – Optimism is an intellectual choice. **Diana Schneider**

[page 69, #14] – Pessimism never won any battle. **Dwight D. Eisenhower**

[page 70, #4] – The pessimist complains about the wind; the optimist expects it to change; the realist adjusts the sails. **William Arthur Ward**

[page 72, #10] – The principal mark of genius is not perfection but originality, the opening of new frontiers. **Arthur Koestler**

[page 72, #11] – Originality is unexplored territory. You get there by carrying a canoe – you can't take a taxi. **Alan Alda**

[page 72, #13] – You don't get harmony when everybody sings the same note. **Doug Floyd**

[page 72, #14] – Since God made us to be originals, why stoop be a copy? **Rev. Billy Graham**

[page 77, #12] – You cannot do a kindness too soon, for you never know how soon it will be too late. **Ralph Waldo Emerson**

[page 78, #4] – Kindness is never wasted. If it has no effect on the recipient, at least it benefits the bestower. **S. H. Simmons**

[page 78, #5] – Write injuries in sand, kindnesses in marble. **French Proverb**

[page 78, #15] – Tenderness is passion in repose. **Joseph Joubert**

[page 78, #16] – Kindness is a language which the deaf can hear and the blind can read. **Mark Twain**

[page 79, #3] – A warm smile is the universal language of kindness. **William Arthur Ward**

[page 81, #6] – Gratitude is the memory of the heart. **J. B. Massieu**

[page 81, #7] – Swift gratitude is the sweetest. **Greek Proverb**

[page 81, #14] – Appreciation is like an insurance policy. It has to be renewed every now and then. **Dave McIntyre**

[page 82, #13] – Go the extra mile. It's never crowded. **Executive Speechwriter Newsletter**

[page 102, #15] – Let him that would move the world, first move himself. **Socrates**

## Lateral Thinking Puzzles - Answers

by Ed Harshman, Des MacHale & Paul Sloane

**Supposed to Kill** – A scene was being filmed for a movie. For the protection of the actors, it was universally agreed that anyone on the receiving end of a firearm had to load it personally with nonhazardous "blanks." This particular actor had forgotten to load the gun, and the scene had to be refilmed. [p. 224 in book]

**Scared of her Shadow?** – She drives an old car, with taillight lenses that have not been cleaned from the inside for perhaps ten years. Sunlight shining on taillight lenses can make brake and turn signals nearly impossible to see, particularly with dirty lenses or the dim bulbs in very old cars. Hand signals, under those circumstances, are more easily seen. Florida law permits hand signals for sufficiently small cars, even if the taillights work. [pp. 222 in book]

**Lifesaver** – The politician was Teddy Roosevelt, the American president. In 1912, in Milwaukee, he was shot in the chest. He was saved because the bullet was slowed as it passed through the folded manuscript of the speech in his breast pocket. He went on to make the speech later on the same day that he was shot! [p. 232 in book]

**The Deadly Dresser** – The last thing he put on was his shoe. It contained a deadly spider that bit him, and he died soon after. [p. 228 in book]

**Spies are Us** – The German spies wore identical hats with secret information hidden inside the hatband. They entered the restaurant at slightly different times and placed their hats on the hatrack where they could see them. They left at different times – each taking the other's hat. [p. 237 in book]

**Scaled Down** – The butcher had only one turkey left. The customer asked him its weight, and he weighed it. The customer then asked if he had a slightly heavier one, so the butcher put the turkey away and then brought it out again. This time when he weighed it, he pressed down on the scale with his thumb to give it an exaggerated weight. The customer then said, "Fine, I'll take both!" [p. 252 in book]

**Love Letters** – She was a divorce lawyer drumming up business! [p. 249 in book]

**The World's Most Expensive Car** – The most expensive car was the moon buggy used by astronauts to explore the moon. It was left there. Although NASA would like to sell it, no one can retrieve it! [pp. 256 in book]

**Gertrude** – Gertrude, a goose, had been sucked into a jet engine. [p. 264 in book]

**Large Number** – The product of the number of fingers on the left hands of every person is zero. It only takes one person to have no fingers on his left or right hand for the product to be zero, because anything multiplied by zero is zero. [p. 265 in book]

**His Widow's Sister** – Jim Jones married Ella in 1820. She died in 1830. In 1840 he married Ella's sister, Mary. She became his widow when he died in 1850. So in 1820 he had married his widow's sister. [p. 264 in book]

**The Deadly Suitcase** – The body was that of the woman's son. They were flying to the USA to start a new life, but she did not have enough money for the two airfares. She put him in a suitcase with tiny air holes. She did not know that the luggage compartment would be depressurized. [p. 261 in book]

**Poison Pen** – The sheet of paper on which the letter had been written had been taken from a writing pad. On the previous sheet, the culprit had written his address. This caused a slight impression on the sheet below. The address became visible when the policeman gently shaded the sheet with pencil. [p. 267 in book]

**The Music Stopped Again** – He was an insect sitting on a chair seat during a game of musical chairs. [p. 267 in book]

**Mona Lisa** – The thieves handed the *Mona Lisa* back but not before they sold a dozen fake copies to gullible art collectors, each of whom believed he was buying the original. None of the buyers could go to the police because they were guilty of buying goods they believed to be stolen. By returning the original, the thieves ensured that they would get only a light punishment if they were caught. [p. 266 in book]

When I moved from General Electric Company location in Binghamton, New York back to their Utica, New York facility in the early 1981 or so, I quickly befriended many people – as they did me. One person, Tom Polarola, was a member of the SPEBSQSA (barbershop - [http://www.spebsqsa.org/web/groups/public/documents/pages/pub\\_homepage.hcsp](http://www.spebsqsa.org/web/groups/public/documents/pages/pub_homepage.hcsp)) chorus in Utica as well as a member of his own quartet. Tom invited me to join him one evening at practice on a Wednesday evening. I was (and remain) punctual – and a quartet was rehearsing before the chorus rehearsal session in another room – I recall hearing the words to the song – **A House With Love In It** – and the timber of the men's voices was hypnotizing to say the least. I sat quietly in the room as the foursome rehearsed several times this song – for their quartet. I will always recall the moment – thinking after I heard them – that this must be one of the most peaceful and "heavenly scenes" on earth – when men get together to sing in 4-part harmony. I joined the **Utica Crimson Chords** chorus for two years while in Utica, NY.

The world's best chorus, **The Vocal Majority** of Dallas, Texas, (<http://www.vocalmajority.org/2002/index.asp>) have won International Competition ten consecutive times since their first time in 1975. The winning chorus does not compete consecutive years. Their site offers CDs and videos you'll thoroughly enjoy!

### A House With Love In It

*The first Barbershop Song the Editor Heard and Learned  
by Editor*

A house with love in it – is rich indeed

Although there are a thousand things – that house may need.

The carpets may be worn

The rooms so plain and bare.

And yet it's beautiful somehow – when love is living there.

A house with love in it – just seems to bloom.

As if the month of May were filling every room.

So dear friends, through the years, with all my heart I'll pray . . .

A House with Love in it – is where You'll stay!

**ENHANCING THE COMMANDER'S DECISION AID TO MEET  
FUTURE COMBAT SYSTEM PLATFORM PROTECTION SYSTEM REQUIREMENTS**

Ronald M. Yannone

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**ABSTRACT**

Since 1995, BAE Systems IEWS has been developing and demonstrating the Commander's Decision Aid (CDA), a generalized sensor/information fusion processor and resource/response manager for integrated defense of ground combat vehicles. The CDA was developed under several contracts to Prime Contractor United Defense for the U.S. Army Tank-automotive & Armaments Command (TACOM). The CDA performs sensor fusion, threat typing, prioritization, countermeasure response management, and countermeasure effectiveness. To date, the CDA has been exercised in live-fire exercises against numerous threats at Yuma Proving Grounds, AZ. The next step is to extend the CDA to address the Army's Future Combat System (FCS) requirements – namely to grow the CDA into FCS's Platform Protection System (PPS). Where the CDA effort to date has focused on single-vehicle self-defense, FCS will be heavily network-centric – comprised of support vehicles (e.g., C2, multispectral sensors, weapons, resupply, UAVs, bridge laying, countermine, medical), overhead assets (SATCOM), seismic/acoustic unmanned guided sensors (UGS), and JSTARS. The PPS will have to handle a barrage of line-of-sight (LOS) and non-LOS onboard/offboard data. Threats are multispectrally guided and unguided, and PPS response times will be as short as 1/20 second, with likely salvo attacks where the PPS must address simultaneous or near-simultaneous threats. Both cooperative vehicle sensing and countermeasures are required, and handling data with varying levels of accuracy, confidence, time-lines and coordinate systems is required. Responses will include sensor cueing, threat avoidance, and counterfire (use of weapons). Both rural and MOUT (military operations in urban terrain) offer a wide host of challenges for the PPS in that the PPS needs to respond to "real" threat situations – versus false alarms, spoofing, and real threats that are aimed at other vehicles or misguided. In this paper we review the CDA architecture, its functions, and high-level algorithm set. Next we reveal the FCS PPS interface diagram with the basic data available for processing, and delineate the extensions of the CDA to become the PPS. We close the paper by listing FCS/PPS challenges.

## Leben als Sinn von Sein

### Eugen Finks Phänomenologie in der "VI Cartesianische Meditation"

By Dai Takeuchi

#### English Summary

The problem of the "Living" is for Eugen Fink not only a specific field of research, but a universal problem, which has a close relationship with the question about the horizon of the understanding of being. As well known, Heidegger formulated in "*Being and Time*" it as the question about Time as the Sense of Being. The so-called Meontology that Fink sketched at the beginning of the 1930 is an attempt to reinterpret Heidegger's question within the Husserl's thinking framework. Fink understands over the sense of Being also as Living in the Hegel's sense.

In this paper I try to point out, how Fink confront with Husserl and Heidegger, and went his own way, particularly by examining Fink's views over the concept of Living in the "*VI Cartesianische Meditation*".

#### German Summary

Das Problem des Lebens ist für Eugen Fink nicht nur ein einzelner Forschungsbereich, sondern ein universales Problem, das einen engen Zusammenhang mit der Frage nach dem 'Horizont des Seinsverständnisses' hat. Bekanntlich hat Heidegger in „*Sein und Zeit*“ sie als die Frage nach dem Sinn von Sein formuliert. Die sogenannte Meontik, die Fink anfangs der dreißiger Jahre entworfen hat, ist ein Versuch, Heideggers Frage nach dem Sinn von Sein als Zeit im Husserlschen Denkrahmen umzudeuten. Dabei Fink begreift über den Sinn von Sein auch als *Leben* im Hegelschen Sinne.

In dieser Abhandlung versuche ich aufzuzeigen, wie Fink sich mit Husserl und Heidegger auseinandergesetzt hat, und seinen eigentümlichen Weg gegangen ist, besonders indem ich Finks Betrachtungen über den Lebens-Begriff in der „*VI Cartesianische Meditation*“ untersuche.

Das Problem des Lebens ist für Eugen Fink nicht nur ein einzelner Forschungsbereich, sondern ein universales Problem, das einen engen Zusammenhang mit der Frage nach dem 'Horizont des Seinsverständnisses' hat. Bekanntlich hat Heidegger in „*Sein und Zeit*“ sie als die Frage nach dem Sinn von Sein formuliert. Die sogenannte Meontik, die Fink anfangs der dreißiger Jahre entworfen hat, ist m.E. ein Versuch, Heideggers Frage nach dem Sinn von Sein im Husserlschen Denkrahmen umzudeuten. Der Sinn von Sein ist sowohl für Fink als für Heidegger die Zeit. Jeder der beiden versucht, das Sein aus der Zeit zu begreifen. Dennoch ist Fink nicht bloß der Vermittler zweier Lehrmeister, sondern er bereitet seinen eigenen Weg vor. Wer dabei hinter seinem Grundgedanken steht, ist vermutlich Hegel. Fink hatte die Absicht, die phänomenologische Reduktion als die „in die vor aller Individuation liegende Lebenstiefe des absoluten Geistes“(CM1.183) zu charakterisieren, und das Sein der Welt als Gewordene aus dem meontischen Absoluten, oder als Phänomen des Absoluten aufzufassen. Also will Fink über den Sinn von Sein nicht nur als Zeit, sondern auch als *Werden*, *Phänomen* und *Leben* begreifen. Dieses Finksche Problembewußtsein wird uns sofort an die ‚Aufgabe der Philosophie‘ erinnern, die Hegel in „*Differenz des Fichteschen und Schellingschen Systems der Philosophie*“ aufgeworfen hat.

„Die Aufgabe der Philosophie besteht aber darin, (· · ·) das Sein in das Nichtsein —als Werden, Entzweiung in das Absolute—als dessen Erscheinung, das Endliche in das Unendliche—als Leben zu setzen.“<sup>(1)</sup>

Finks Frage nach dem Sinn von Sein stimmt mit der Hegelschen Aufgabe überein, durch die Kritik an der Statik der Substanz Spinozas das Absolute als lebendige Substanz, d.h. als Leben zu begreifen. Dabei bedeutet das Leben kein regional eingeschränktes. Fink verbreitet keinen primitiven Animismus, indem er die Region des Lebens auf der Ganze des Seienden erweitert. Es handelt sich dabei um den Lebens-Charakter des Sein, nicht des Seienden. Später legt er in seiner Vorlesung über die Hegel-Interpretation das Leben als „analogischen“ Ausdruck eines „Waltens des Seins“ aus(HP.155).

In dieser Abhandlung versuche ich aufzuzeigen, wie Fink sich mit Husserl und Heidegger auseinandergesetzt hat, und seinen eigentümlichen Weg gegangen ist, besonders indem ich Finks Betrachtungen über den Lebens-Begriff untersuche. Zuerst mache ich klar, welche Absicht Fink in der „*VI Cartesianische Meditation*“(Künftig: „*VI Meditation*“) verfolgt. Aufgrund der dadurch gewonnenen Einsicht möchte ich untersuchen, wie Fink die Husserlsche Reduktionslehre interpretiert und sie mit der Ontologie Heideggers verbindet.

Bei der „VI.Meditation“ denkt man sofort an ‚die Phänomenologie der Phänomenologie‘, bzw. ‚die transzendente Methodenlehre‘. Zwar ist es klar, daß dieses Buch die Aufgabe der ‚Selbstkritik der Phänomenologie‘ übernimmt, die Husserl im Schlußkapitel der „Cartesianische Meditation“ aufgeworfen hat. Aber Ronald. Bruzina hat schon eine neue Richtung der Forschung eröffnet, indem er „VI.Meditation“ im totalen Zusammenhang mit deren hintergründigen Gedanken, d.h. der Meontik interpretiert hat. In der Tat ist die transzendente Methodenlehre, wie im „Entwurf eines Vorwortes“ klar gesagt ist, bloß eine untergeordnete Frage, die erst „durch den Vorblick auf eine meontische Philosophie des absoluten Geistes“ (CM1.183) gestellt wird. Es scheint mir bedeutsam, daß in diesen Text nach dem Hegelschen Schema der Gang des Phänomenologisierens als Selbsterkenntnis des Absoluten ausgedrückt, und das Verhältnis zwischen dem weltkonstituierenden Ich und dem zuschauenden Ich als Entzweiung und Einheit des transzendentalen *Lebens* erklärt wird.

Im Anfang von Husserls Phänomenologie stand seine Entscheidung für die Voraussetzunglosigkeit und Ungeschichtlichkeit. Aber für Husserl ist in seiner Spätzeit das Problem der Geschichtlichkeit zu einer dringenderen Aufgabe geworden, besonders im Zusammenhang mit der Frage nach der Motivation der Reduktion. So auch betont die „VI.Meditation“, daß der Phänomenologe selbst schon „sich in die Geschichte des Idealismusproblems einordnet“ (ebd.172f.), und daß dies den Anfang des Phänomenologisierens motiviert. Hieraus folgt die Notwendigkeit, durch die kritische Dekonstruktion des „erkenntnistheoretischen Idealismus“, der damals die mundane Situation beherrscht, das eigentliche Motiv des Idealismus aufzuspüren, und die Phänomenologie als „legitime Erben der grossen idealistischen Tradition“ zu zeigen .

Der erkenntnistheoretische Idealismus ist in der „VI.Meditation“ die Denkweise, die die intramundane Subjekt-Objekt-Korrelation thematisiert, und dem Subjekt als einem Seienden den ontologischen Primat gibt. Aber solange man sich in diesem Rahmen bewegt, bliebe das Denken im Welthorizont. Im Gegensatz dazu handelt es sich bei der Phänomenologie im Sinne von transzendentalen Idealismus um die „vor-seienden Konstitution“ (ebd.178) der ganzen Welt, die nicht nur Transzendenz, sondern auch Immanenz umgreift. Dieses Unternehmen, die Phänomenologie als den transzendentalen Idealismus zu charakterisieren, ist m.E. ein Versuch, den intentionalen Phänomens-Begriff im Sinne vom Erscheinen des Objekts für das subjektive Bewußtsein als Weise des Phänomens umzudeuten, wie die Welt für das Phänomen des Absoluten gehalten wird. Der erkenntnistheoretische Denkstil bleibt gleichsam im Denkrahmen des endlichen Verstandes, sofern er unter der Voraussetzung der zwei endlichen Seienden, z.B. Subjekt und Objekt als zweier Pole der Intentionalität nach dem Satz vom ausgeschlossenen Dritten nur dem Subjekt einseitig die Evidenz zuteilt. Dagegen ist das spekulative-vernünftige Denken der Denkstil, der zuerst die Möglichkeit zulässt, daß zwei endliche Seiende sowohl wahr als auch falsch sein können, und dann beides als zwei Momente ins ganze System integriert. Spekulation durchschaut die Welt, die der Boden für intentionale Beziehung selbst ist, als Gewordene aus dem Absoluten. Also ist, so könnte man sagen, die Denkweise von der Spekulation eben die phänomenologische Reduktion selbst im Sinne des transzendentalen Idealismus, nicht die methodische Kunst, die über Husserls Prinzip von der Evidenz hinaus geht und sich dem unanschaulichen Gebiet allmählich nähert. Auch in der „VI.Meditation“ handelt es sich um die „transzendente Neufassung des Begriffs der Apodiktizität“ ( ebd.167f.), und daher wird die Apodiktizität selbst der inneren Erfahrung nicht geleugnet. Das besagt bloß, daß die innere Erfahrung nicht für „ein absolutes Sein“ zu halten ist. Auf der Stufe der Elementarlehre wird das Absolute für sich sein, aber dessen Fürsichsein als solches ist nicht bewußt, daher ist solch ein Absolutes kein Absolutes im prägnanten Sinne. Es bedarf der transzendentalen Methodenlehre, damit das Für-sich-Werden eines transzendentalen Für-sich-Werdens entsteht.

In der „VI.Meditation“ wird der Gang des Phänomenologisierens von der natürlichen Einstellung über die Elementarlehre zur Methodenlehre als Sichselbstbegreifen, bzw. als Selbsterkenntnis des Absoluten ausgedrückt. Dennoch besagt die Selbsterkenntnis des Absoluten durch die Reduktion nicht das Vor-stellen des Absoluten. Wenn man so denken wollte, würde das Absolute dabei zum Relativen für das Erkenntnissubjekt. Die Erkenntnis im Sinne des Vor-stellens ist binnenveltlich und setzt daher schon das Sein der Welt voraus. In dem merkwürdigen Ausdruck ‚Selbsterkenntnis des Absoluten‘ ist keine Personalifizierung ausgedrückt, etwa nach dem Muster: ‚Daß ich den Baum erkenne, ist dasselbe wie, daß durch mich der Baum sich selbst erkennt.‘ Die Erkenntnis des Absoluten besagt vielmehr, daß das Wissen durch die Selbstvernichtung am absoluten Gesichtspunkt angelangt ist, und daraus erneut sich selbst anblickt. In diesem Sinne ist sie die *Selbsterkenntnis*. Da das Absolute eigentlich kein außerhalb hat, ist sowohl Subjekt als auch Objekt seines Erkennens ein und dasselbe Absolute.

Was bedeutet denn die Selbstvernichtung des Wissens? Wie kann das Wissen seinen Grund aus dem Inneren des Wissens zeigen? Dafür muß man nach dem Sein des subjektiven Wissens als solchem fragen, ohne es voraussetzen. Es geht bei Fink um die Frage nach dem Sein des Wissens, nicht um die Kantische erkenntnistheoretische Frage, wie die Reichweite und die Kriterien des Wissens bestimmt werden können. Aber wie kann man denn das Sein des subjektiven Wissens als solches thematisieren? Es scheint mir, daß eben diese Frage mit der transzendentalen Methodenlehre zu tun hat.

Die transzendente Methodenlehre ist keine „wissenstechnische Veranstaltung“ (ebd.28), bei der man, nachdem die Reduktion in der Elementarlehre vollzogen worden ist, sorgfältig überprüft, ob die Methoden richtig angewandt worden sind. Sofern man so denkt, bliebe die Methodenlehre die bloße Wiederholung der höheren Reflexion innerhalb des Welthorizontes. Für Fink ist die Iteration der philosophischen Reflexion zu einer Phänomenologie nicht wesentlich.

Die methodologische Reflexion muß diejenige Reflexion sein, die über das Sein des Wissens hinaus transzendiert, und damit das Sein des Wissens als solches thematisiert. Nach Fink kann die weltkonstituierende Funktion des Wissens als solche erst dadurch thematisiert werden, daß der Zuschauer die Rolle des „funktionellen Exponenten“ (ebd.44) als Medium spielt. Die Methodenlehre thematisiert den Zuschauer. Aber sie ontifiziert ihn nicht. Er ist eigentlich nicht irgendein Seiendes, das mit dem weltkonstituierenden Ich in einer Reihe steht. Hier liegt die Wurzel des folgenden Mißverständnisses, daß man dem Zuschauer gleichsam einen überfliegenden Standpunkt zuweist und daraus eine nicht-phänomenologische Forderung ableitet. Es kommt vielmehr darauf an, zwei Ichs als Entzweiung des einzigen Lebens zu durchschauen.

Es handelt sich bei der Methodenlehre nicht darum, die Anonymität des Zuschauers aufzudecken, und ihn inhaltlich ans Licht kommen zu lassen, sondern seine mediale Funktion als solche zu thematisieren, d.h. das weltkonstituierende Subjekt selbst als ein Phänomen zu durchschauen. Wenn man das vom Gesichtspunkt der Elementarlehre beschreibt, sieht das wie die Selbstvernichtung des weltkonstituierenden Subjekts aus. Es bildet die Vorstufe der Frage nach dem Sein der Welt, durch die mediale Funktion des Zuschauers das Sein des Wissens als solches erscheinen zu lassen. Wie Fink sagt, eben weil der Zuschauer vom weltkonstituierenden Subjekt verschieden ist, wird „die Frage nach dem transzendentalen „Sein“ des Phänomenologisierens“ ( ebd.24f.) geweckt. Das Wissen kann auf das Absolute erst dadurch transzendieren, daß das Wissen auf sich selbst rückbezieht. In diesem Sinne ist die methodologische Reflexion zum Zuschauer der unentbehrliche Umweg für den Vollzug der Reduktion zum Absoluten. Auch der gemeinsame Fragehorizont mit Heidegger wird erst durch solch eine Auffassung von der Reduktion gebildet.

Nach Fink entspricht die phänomenologischen Reduktion Husserls dem „Vollzug der ontologischen Differenz“ Heideggers<sup>(2)</sup>. Aber sofern die Ontologie bloß die Frage nach dem Sein des Seienden bleibe, kann sie das Sein selbst nur negativ bestimmen, und damit ist diese Frage, wie Fink sagt, als Philosophie ungenügend. Daher wird die Meontik gefordert, die nach dem Sinn von Sein, d.h. nach dem ‚Nichts‘ selbst fragt<sup>(3)</sup>. Der Gesichtspunkt selbst, der das Sein einklammert und dadurch das Sein als solches positiv thematisiert, muß über das Sein hinaus stehen. Auch in „Vorbemerkung <zur Habilitationsschrift>“ wird die Frage nach dem „Horizont, von dem her letztlich „Sein“ verstanden werden soll“ gestellt, und dann nach der Zeitigung (ebd. 184). Das Sein ist für Fink bloß das „Resultat“ der Zeitigung des Absoluten<sup>(4)</sup>. Aber auch Heidegger fragt nicht nur nach dem Sein des Seienden. Die letzte Absicht von „*Sein und Zeit*“ ist die Ausarbeitung der Frage nach dem *Sinn* von Sein. Und zwar müßte sie am Anfang als die Analyse von der Temporalität konkretisiert werden. Also zielen Finks Meontik und Heideggers Ontologie auf dieselbe Richtung des Problems darin, nach dem Sinn von Sein zu fragen, und zwar es als Zeitanalyse zu konkretisieren.

#### Anmerkungen

(1) „G.W.F.Hegel.Werke“ Suhrkamp Verlag, Frankfurt a.M.1971,S.25.

(2) Z-IX, 2a, zitiert nach R. Bruzina, ‚Gegensätzlicher Einfluß – Integrierter Einfluß : Die Stellung Heidegger in der Entwicklung der Phänomenologie‘;in „Zur philosophischen Aktualität Heideggers“,Frankfurt a.M.1990.,S.149.

(3) Z-X 24azitiert nach R. Bruzina, Ebd.,157

(4) Z-IX49b, zitiert nach R. Bruzina, Ebd.,156

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##### Eugen Fink

HP „Hegel.Phänomenologische Interpretation der“Phänomenologie des Geistes“,Frankfurt am Main,1977.

CM1 „VI.Cartesianische Meditation. Teil I“,Dortrecht/Boston/London,1988.



**Dai Takeuchi** was born in Japan in 1968. He holds a Masters degree in Philosophy and is just writing a doctoral dissertation. After working as an assistant, he is now a part-time university lecturer. His major is European Philosophy, and special field is Phenomenology. He is interested in metaphysical cosmology, for example, *All, Nothing, Infinity of Time-Space*. He likes listening to classical music (especially J. B. Lully, J. S. Bach, J. Brahms, etc.), and British rock as well as playing the viola and the guitar. Dai is a member of Prometheus, ISPE, and Mensa.

### Stellar-IQ People by Editor

Enthusiastic Mega Society member, Chris Cole, recently (10/7/04) emailed me a URL to an article on people with exceptionally-high IQ (<http://www.physicsforums.com/showpost.php?p=246343&postcount=63> ). In the article presented, what caught my attention were the world-famous chess players – Bobby Fisher and Garry Kasparov. The article mentions they are purported to have IQs in the 180 range. As one can imagine, their visual-spatial aspect prowess has to be among the best of people in the world. Bobby Fisher is deceased – but his legacy lives on. The article mentions Marilyn vos Savant's childhood 228 IQ score being a ratio score vs. a "deviation" score – and with her 46 on the Mega Test places her at around 180 IQ.

Marilyn vos Savant was a former member of the Mega Society – and secretary officer as well. Elsewhere in this issue of *Noesis* we mentioned Marilyn authored the *McGraw-Hill Paperbacks* book "OMNI I.Q. Quiz Contest" – a 148-page book covering intelligence, intelligence testing, and different hi-IQ societies in existence when written (1985). Relative to the article Chris Cole alerted me on, Marilyn covers some famous people in history with exceptional IQ as well. I summarize (from the report Marilyn references) in the table below – those people with IQs  $\geq 150$ . On page 9 of Marilyn's book, for reference,

"In 1926, Catharine Morris Cox, Ph.D., an American psychologist, did a study, published in *Genetic Studies of Genius*, of some of the most eminent men and women who lived roughly between 1450 and 1850 and estimated what their I.Q.s might have been. Her study is essentially an omnibus of genius of one form or another. Here is a selection of those about whom conclusions were drawn . . . "

Extract from "Genetic Studies of Genius" by Catharine Morris Cox [1]	
Person	Estimated IQ
Georg Wilhelm Friedrich Hegel, German philosopher	150
Victor Hugo, French poet	150
Henry Wadsworth Longfellow, American poet	150
Jakob Ludwig Felix Mendelssohn, German composer	150
Wolfgang Amadeus Mozart, Austrian composer	150
Alfred Tennyson, English poet	155
Alexander Pope, English poet	160
John Quincy Adams, U.S. president	165
Thomas Chatterton, English poet and writer	170
Voltaire, French writer	170
Samuel Taylor Coleridge, English poet	175
Blaise Pascal, French philosopher and writer	180
Johann Wolfgang Goethe, German poet	185
Gottfried Wilhelm Leibnitz, German philosopher	185
John Stuart Mill, English writer	190

[1] pages 10-11 in Marilyn's book chapter titled "The Unfulfilled Intellect"

On page 11 of Marilyn's book, we read, after the full table was presented:

"Contrary to what has been widely presumed, these estimates were not based on the person's accomplishments in life nor on his intellectual legacy, but instead, on the degree of intelligence each exhibited before attaining the age of seventeen. Dr. Cox gave these people, in retrospect, a modern intelligence test.

### Schools and the g Factor by Linda S. Gottfredson

In "*The Wilson Quarterly – Surveying the World of Ideas*," summer 2004 issue, USD \$6.95, three excellent, contemporary articles on intelligence appear. *Noesis* readers who either buy or have access to this quarterly via their local library would appreciate this tri-article set. The article titles, and their authors, are listed in the table below. *The Wilson Quarterly* is published by the Woodrow Wilson International Center for Scholars ([www.wilsonquarterly.com](http://www.wilsonquarterly.com)) .

Condensed Synopsis (from Table of Contents):		
"In America, smart people enjoy higher status than ever before. Does brainpower really matter that much? Do IQ tests provide an accurate measure of intelligence? Do America's schools and universities really foster and reward intelligence?"		
Title	Author(s)	Page
3-part article: <i>Do Smarts Rule?</i>	Steven Lagerfeld, Linda S. Gottfredson, and James B. Twitchell	27-59
<i>The Revenge of the Nerds</i>	Steven Lagerfeld	27-34
<i>Schools and the g Factor</i>	Linda S. Gottfredson	35-45
<i>Higher Ed, Inc.</i>	James B. Twitchell	46-59

## The Encyclopedia of Integer Sequences

by Neil J. A. Sloane – Mathematical Sciences Research Center; AT&T Bell Laboratories  
Simon Plouffe – Dept. of Mathematics, University of Quebec at Montreal

Back in the latter 1990s, I saw and purchased Neil Sloane's book "*The Encyclopedia of Integer Sequences*" by Academic Press. There is a website for on-line versions of this now in some 30 languages - <http://www.research.att.com/~njas/sequences/>. New sequences are continually being added. I hope you'll enjoy this powerful resource if you haven't already!

### On $\pi$ – on-line:

<http://encyclopedia.thefreedictionary.com/Pi%20to%20100,000%20places>

## Letter from Dr. Ron Hoeflin

by Editor

Dr. Ron Hoeflin sent a hand-written letter (dated November 5<sup>th</sup>) regarding a new 400-page book titled "*The Know-It-All: One Man's Humble Quest to become the Smartest Person in the World*" by A. J. Jacobs. In this book, pages 243-246, Jacobs relates his meeting with Dr. Hoeflin and the small idiosyncrasies Ron has. I have not had a chance to go to Barnes & Noble yet regarding this book – but Ron says it just came out in October and price is USD \$25 in hardback. Ron indicated that Jacob's read the entire Encyclopedia Britannica and appeared on "Who Wants to be a Millionaire" in preparation for writing his book, as well as interviewing half-a-dozen know-it-alls like Dr. Hoeflin.

<http://www.campusi.com/bookFind/asp/bookFindPriceLst.asp?prodId=0743250605>

ISBN: **0743250605** Author: **A. J. Jacobs**  
Publisher: Riverside, New Jersey, U.S.A.: Simon & Schuster, Format: Hardcover

Part memoir and part education (or lack thereof), *The Know-It-All* chronicles NPR contributor A.J. Jacobs's hilarious, enlightening, and seemingly impossible quest to read the Encyclopedia Britannica [1] from A to Z.

To fill the ever-widening gaps in his Ivy League education, A.J. Jacobs sets for himself the daunting task of reading all thirty-two volumes of the Encyclopedia Britannica. His wife, Julie, tells him it's a waste of time, his f ...

[1] **Synopsis:** 33,000 pages; 44 million words; 10 billion years of history; 1 obsessed man - Jacobs

## Letter from Paul Maxim

By Editor

Paul Maxim, from the "*Big Apple*," left two phone messages (November 6<sup>th</sup>) while I was in transit back from Germany regarding early issues of Prometheus Society's *Gift of Fire* (GoF) – and followed up by postal mailing me a copy of *GoF* issue No.4 – October 1984. At the time of this issue, the Editor was Gregory K. Smith, President was Jeff Ward, Ombudsman was Richard W. May, Treasurer was Gary R. Bryant, Membership Officer was Robert J. Dick, Sr., and Founder Dr. Ron Hoeflin. Paul recommends our avid readers of *Noesis* "feel the nostalgia" for the early days of high-IQ society development and thought. Readers can contact the Prometheus Society officers to track down copies of the early *GoF* issues – or contact Paul Maxim.

## A Visit to Seiffen – Land of Nutcracker Artisans

by Editor

I was able to make it to the *Military Sensing Symposium* (MSS) 2004 held in Dresden, Germany in October (see <http://www.fom.fgan.de/mss2004/>). The day after the symposium, my mom flew into Dresden – where we stayed for six nights. The opportunity to see sights together in "East" Germany was history-making in itself. At 83 years of age (December), mom's mobility was made possible by use of a wheel chair – the wheel being one of man's greatest inventions. We did do some side-trips that included Seiffen – the "land of nutcracker artisans." The route and weather and scenery were ideal for a Sunday morning (October 24<sup>th</sup>) to drive south of Dresden. We initially stopped at the first gift shop in town after having parked the rental car. Proprietors couldn't understand nor speak English. We felt at a loss momentarily until I went across the street where a young lady was operating the cash register in another gift shop. Between her and a colleague, we looked through the local phone book, navigated several maps she had, and found a prospective address for Eva and Roland Mueller – the makers of the nutcracker I ordered in 2002 via a mail order house – discussed in an earlier issue of *Noesis* - <http://www.drosselmeiers.com/index.htm>.

My mom and I eagerly drove a mile or more into the immediate outskirts of the hustle-and-bustle of the many colorful gift shops in town. After an inquiry with an apartment housing resident with the name and address we had written on paper, we found the home of Roland Mueller (<http://www.EKM-seiffen.de/>). Roland spells his last name differently on his site.

**E. K. Müller - Seiffener Holzkunst**  
Oberseiffenbacher Strasse 36  
09548 Seiffen

Telefon: +49 37362 8646 Telefax: +49 37362 76018 E-Mail: [kontakt@ekm-seiffen.de](mailto:kontakt@ekm-seiffen.de)



We knocked on the door (where no cars were parked) – and their German shepherd dog barked from inside. We assumed they were out for the day – as the weather was ideal – sunny and 60's. I was about to take a picture of their sign when my mom exclaimed from the car that a lady was coming from the back yard. It was Eva – Roland's wife! I gave her a hug – and mentioned her husband and family made a nutcracker I ordered (The King Nutcracker) via Betsy Bush's online order house. She smiled and showed us into the house from the part where the lathe work begins (see center photo above with Roland at the lathe).

Then, came her son Veit – a 6<sup>th</sup>-generation Muller nutcracker maker. And then her daughter, Sylvia and then Veit's cute little boy wearing a baseball cap – Christopher. And then Roland! It was a grand reunion – for people who never met! We walked through the home starting at the lathe area – where in no time at all Sylvia (our main English/German interpreter) dialoged between my mom and I and the Muller family. We took some pictures, chatted, and then proceeded toward the finished products (as in the room showed on the right above – with Sylvia and Eva working).

They served us coffee in the museum room where Roland displays all his work-to-date. Roland's family produces about 10,000 nutcrackers annually.

As I saw the many finished products, my eye caught on the hunter with the goose in his left hand. This nutcracker I purchased (see photo below). The King Nutcracker Roland made for me via Betsy Bush (<http://www.drosselmeiers.com/index.htm>) is shown on the right.

This was the **new** nutcracker I bought while at Roland's home in Seiffen, Germany – October 24<sup>th</sup>.



This was the **King** Nutcracker I had Roland make me via Betsy Bush – **Drosselmeier's** in 2002.

And we met Sylvia's baby, Meiko afterwards. Meiko had a bump on the head from falling off a bicycle. If you are getting worried for ideas for Christmas – or an early New Year's 2005 present – you might inquire either with Betsy Bush or Roland (via his website). Sylvia is the one who communicates the best in English. Sylvia presented my mom a product she hand-paints – "opened bells with angels" – see the photo below!



May your Christmas be **Merry and Bright** – all through the year – is my wish to you and yours!

## My Crave for Pens

by Editor

Ever since a child in grammar school, I have been a lover of different pens. Based on a number of factors, my taste varies. I recall frequently going to our local *Garden Pharmacy* drugstore in Neptune, NJ to admire and purchase different pens – as my wallet would allow. The BIC® ([www.BIC.com](http://www.BIC.com)) "regular" clear plastic shaft 19-cent pen was the most used in grammar school – as it was the most affordable writing instrument I **gravitated** toward. The BIC 25-cent orange plastic shaft "Fine Point" pen was my next most-used, as was the BIC® 49-cent white plastic shaft "Accountant Fine Point" pen. The more expensive pens wrote nice – but were "very expensive" to me back then – like the *Parker* and *Cross* pen families. I liked the Parker styling and variety (colors, plastic, and metallic). *Cross* pens were like the elite offered in the *Garden Pharmacy* then. There were other pen manufacturers I tried – but the BIC® *Accountant Fine Point* remains today a favorite of mine. In 1968, my dad got me a gold metallic *Cross* pen (America's oldest manufacturer of fine writing instruments) for grammar school graduation! I still have this very fine mechanical pen! (While our [history](#) is a story all its own, it all began with Richard Cross, who founded the company the same year both the Smithsonian and the sewing machine were born, just as Samuel Morse's magnetic telegraph pushed Westward and America braced for a war with Mexico – [www.Cross.com](http://www.Cross.com)). I have tried the German-made Lamy (<http://www.lamy.de/en/>) pens – some are really nice writing instruments. Most recently, from a *technological view*, a 'neet' one is the **Fisher Space Pen!** See the information below.



The cartridges of conventional ball point pens are open to permit ink to be fed to the point. The secret behind the Fisher Space Pen lies in the unique design characteristics of the ink and the high precision manufacturing tolerances of the ball point and socket. The ink is fed to the ball point by gas pressure permitting the pen to write in any position. An additional benefit of the closed design is that it keeps the pen from drying out giving the *Fisher Space Pen* an estimated 100 year shelf life.



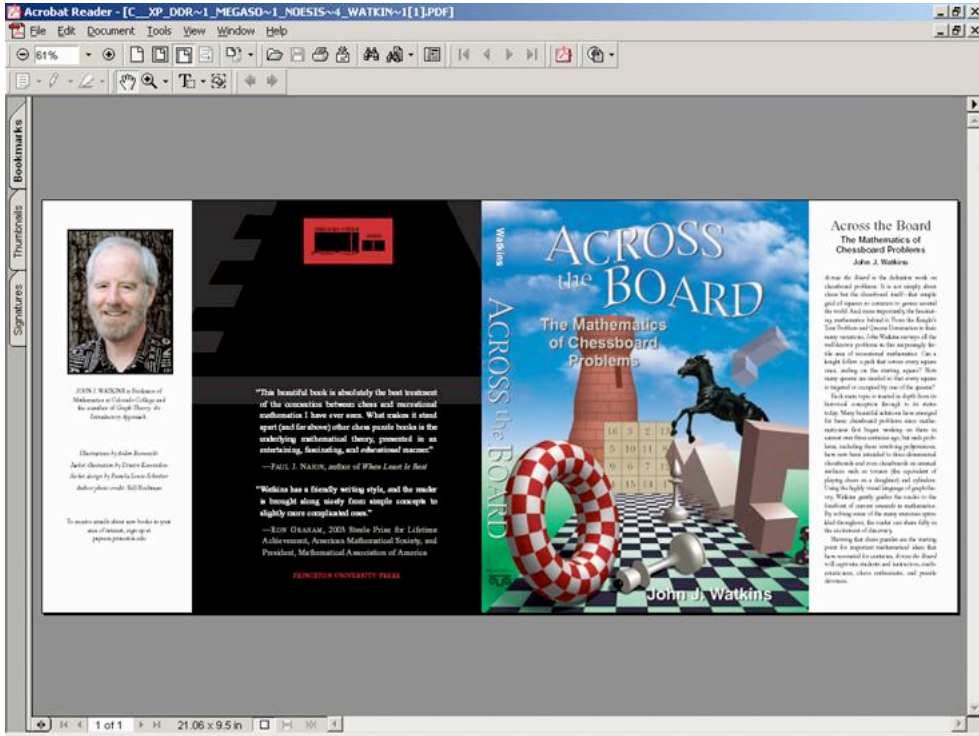
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<http://www.spacepen.com/usa/index2.htm>

In the 1950's there were dozens of ballpoint models, and nearly every one took a different cartridge. In 1953 Fisher invented the "Universal Refill" which could be used in most pens. It was a good seller, since stationery store owners could reduce their stock of assorted refills.

Not content, Fisher continued to work on making a better refill. After much experimentation he perfected a refill using thixotropic ink-semisolid until the shearing action of the rolling ball liquefied it-that would flow only when needed. The cartridge was pressurized with nitrogen so that it didn't rely on gravity to make it work. It was dependable in freezing cold and desert heat. It could also write underwater and upside down. The trick was to have the ink flow when you wanted it to, and not to flow the rest of the time, a problem Fisher solved. Fisher's development couldn't have come at a more opportune time. The space race was on, and the astronauts involved in the Mercury and Gemini missions had been using pencils to take notes in space since standard ball points did not work in zero gravity. The Fisher cartridge did work in the weightlessness of outer space and the astronauts, beginning with the October, 1968 Apollo 7 mission began using the Fisher AG-7 Space Pen and cartridge developed in 1966.

## Across The Board – The Mathematics of Chessboard Problems



**John J. Watkins**

Professor of Mathematics at Colorado College and the coauthor of *Graph Theory: An Introductory Approach*

**Back Cover:**

"This beautiful book is absolutely the best treatment of the connection between chess and recreational mathematics I have ever seen. What makes it stand apart (and far above) other chess puzzle books is the underlying mathematical theory, presented in an entertaining, fascinating, and educational manner."

Paul J. Nahin, author of *When Least Is Best*

## Across The Board – The Mathematics of Chessboard Problems by John J. Watkins

John references a problem from the 1997 (Dover publications) book by Miodrag Petkovic – "*Mathematics and Chess*"; USD \$9.95; 133 pages, soft cover; ISBN 0-486-29432-3 – on page 117, Figure 120.

**Problem 5.5 (page 70 in John's book)**

Given the position of the chess pieces on the *toroidal* chessboard in the figure below, in which it is White's turn to play, find a way for White to win in just four moves, no matter what Black's responses are.

			Bking		
	Wrook			Wqueen	
			Wking		



**Problem 9.5 (page 150 in John's book)**

Show that for any  $n$  of the form  $n = 6k + 1$ , the  $n \times n$  chessboard can be covered on a Klein bottle with  $\left[\frac{1}{3}(n+2)\right]^2 - k$  kings; that is, with  $k$  fewer kings than you need on a regular chessboard.

**Problem 9.6 (page 151 in John's book)**

Show that on a Klein bottle a  $14 \times 7$  board can be covered with thirteen kings; whereas, a  $7 \times 14$  board needs fifteen kings on a Klein bottle.

John's book will appeal to our math-oriented readers because John heavily exploits "graph theory" – and not only gives problems and solutions – but theorems as well. On page 163, chapter 10 is titled "**Independence.**" The opening paragraphs read:

The concept of independence is closely related to that of domination, and is, in its own right, one of the central ideas in graph theory. We call two vertices in a graph *independent* if they are not adjacent, that is, if there is no edge joining them. This quite naturally gives rise to the following definitions.

**INDEPENDENT SETS**

**Definition 10.1** A set  $S$  of vertices in a graph  $G$  is said to be an *independent set* if no two vertices in  $S$  are adjacent. The *independence number* of a graph  $G$  is, then, the maximum size of an independent set in the graph  $G$ . We denote this independence number of the graph  $G$  by  $\beta(G)$ . An independent set with this maximum size is called a *maximum independent set*.

**Problem 11.1 (page 191 in John's book)**

How many of each chess piece can you place independently on a  $2 \times 2 \times 2$  cube? That is, how many independent knights? How many bishops? How many rooks? How many queens? How many kings?

On page 95, chapter 7 is titled "**Domination.**" The opening paragraphs read:

The concept of domination is one of the central ideas in graph theory, and is especially important in the application of graph theory to the real world. Imagine a network of some kind, it could be a communication network such as a cellular phone system or perhaps a network of roads in your local community. Such systems often require vital transmission stations to make them work effectively. A cellular phone company must provide an adequate number of communication links suitably spaced so that customers always have a strong signal for their cell phones. Similarly, your local community needs to provide an adequate number of fire stations suitably spaced so that there is a satisfactory response time to fires anywhere within the community. And, of course, both the phone company and your city council need to do this in a way that is as economical as possible, which means building as few communication links or fire stations as possible.

**DOMINATING SETS**

**Definition 7.1** A set  $S$  of vertices in a graph  $G$  is called a *dominating set* if every vertex in the graph is either in the set  $S$  or is adjacent to a vertex in the set  $S$ . The *domination number* of a graph  $G$  is, then, the minimum size of a dominating set in the graph  $G$ . We denote this domination number of the graph  $G$  by  $\gamma(G)$ . A dominating set with this minimum size is called a *minimum dominating set*.

**Problem 9.1 (page 139 in John's book)**

How many of each chess piece does it take to cover the  $2 \times 2 \times 2$  cube? That is, how many independent knights? How many bishops? How many rooks? How many queens? How many kings?

## Across The Board – The Mathematics of Chessboard Problems - Answers by John J. Watkins

For time on the keyboard, I do not include full explanations. We hope the reader will be enticed to purchase John's book – or have their local library order it.

**Problem 5.5 (Answer, pages 76-77 in John's book)**

We use the standard chess notation which labels the rows 1-8 from the bottom to the top and labels the columns a-h from the left to the right. Thus, a1 is the square in the lower left-hand corner and h1 is the square in the lower right-hand corner. White's first play is to move the white queen to h7. Note that this traps the black queen [king – looks like a typo in John's book – I emailed him 10/10] along the top row since the presence of the white king is preventing the black king from moving up. Thus, the black king has only two choices, move left or right one square.

If the black king moves to the right, that is, to f8, the white queen backs up a step to g6. The black king has only one move, to e7. The white king moves down a row to e1, further squeezing the black king, who is forced to d7. The white queen moves to e8 for the checkmate.

If, on the other hand, the black king originally moves to the left, that is, to d8, the white king moves across to c7. This places the black king in check and forces him back to e8. The white knight moves to h6. The black king, still trapped along the top row, must move to f8. The white queen moves to e1 for the checkmate.

**Problem 9.5 (Answer, page 160 in John's book)**

The idea is exactly the same as for the  $7 \times 7$  board. You cover six rows at a time, taking three rows at the top and three rows at the bottom – working your way toward the center – which

gives you a band of length  $2(6k+1)$  to cover at each stage. Each of these bands can therefore be covered with  $\left[\frac{1}{3}(2(6k+1))\right] = 4k+1$  kings. Since  $n = 6k + 1$ , there are  $k$  of these bands for us to do. This leaves a single row in the middle to be covered, which contain  $6k + 1$  squares, and so it can be covered with  $2k+1$  kings. This is a total of  $k(4k + 1) + (2k + 1) = 4k^2 + 3k + 1$

kings, which can be written as  $(2K + 1)^2 - k = \left[\frac{1}{3}(n+2)\right]^2 - k$ , as claimed. John illustrates the solution in his book on page 160, Figure 9.17 titled "Kings dominating a  $13 \times 13$  chessboard on a Klein bottle."

**Problem 9.6 (Answer, pages 160-161 in John's book)**

The difference between these two boards is that the  $14 \times 7$  board has two bands of length fourteen that can be covered with five kings each, leaving only two rows in the middle to be covered with three additional kings, a total of thirteen kings; whereas, the  $7 \times 14$  board has one band of length 28 that requires ten kings, and leaving a row in the middle which needs another five

kings, a total of fifteen kings. John illustrates this in his book on page 161 in Figure 9.18 titled "Kings dominating a 14 x 7 board and a 7 x 14 board on a Klein bottle."

**Problem 9.1 (Answer, pages 156-157 in John's book)**

3 knights, 4 bishops, 2 rooks, 2 queens, 4 kings

**Problem 11.1 (Answer, pages 208-209 in John's book)**

8 knights, 3 bishops, 3 rooks, 3 queens, 6 kings