Math Mole

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Quotes:

Obvious is the most dangerous word in mathematics. - E.T. Bell

An engineer thinks that his equations are an approximation to reality. A physicist thinks reality is an approximation to his equations. A mathematician doesn't care. -Unknown

Puzzles:

One: Jane is 54 years old, and her mother is 80. How many years ago was her mother three times the age of her daughter Jane?

Two: John needed some small bills because he was traveling. He went into a bank and gave the teller a $100 bill. He told her, "I need some two-dollar bills, ten times as many one-dollar bills, and the rest in five-dollar bills." How many of each did the teller give him?

Mathematician of the Day

Henri Poincaré (1854-1912)

- Henri Poincaré was born April 29, 1854 in Lorraine, France and was weak and seriously ill for much of his childhood.

- He earned his doctorate in mathematics from the University of Paris in 1879.

- His unique visual thinking process and mathematical skills make him one of the greatest geniuses of all time.

- He contributed to mathematics, celestial mechanics, fluid mechanics, the special theory of relativity, and the philosophy of science.

- He is one of the founders of algebraic topology and is responsible for the Homotopy theory.

- The Poincaré conjecture was only recently solved in 2006 as one of the seven Millennium Prize Problems.

- He is responsible for the theory of analytic functions of several complex variables as well as automorphic functions.

- Along with Albert Einstein and Hendrik Lorentz, Poincaré is acknowledged as a co-discoverer of the special theory of relativity.

- He presented the first mathematical description of the chaotic motion which laid the foundation for modern chaos theory.

- "It is by logic we prove, it is by intuition that we invent"

Info From: http://www-history.mcs.st-andrews.ac.uk/Biographies/Poincare.html

Career Spotlight: Surveyor

Job Description: Surveyors measure and draw what the earth's surface looks like. Surveyors do different types of work. Some measure land, air space, and water areas. They describe where a certain area of land is. They explain what it looks like, and how much is there. They put these facts in deeds, leases, and other legal documents. They also define air space for airports. In addition, they measure construction and mineral sites. Surveyors might lead survey parties (or surveying projects). This job extends to many different jobs such as Geoditic Surveyors, cartographers, geographic information specialist, and such.

Education: To become a surveyor, you need training and you need to pass tests. most surveyors need a 4-year college degree. You need basic algebra, geometry, trig, drafting, mechanical drawing, and computer science skills.

Work Condition: They spend a majority of their time outdoors surveying the land. For those surveyors such as cartographers, their time is spent in their office generating maps and such using computers. They prepare reports, which will be used to determine the maps that are to be drawn.

Salary: The average surveyor makes between $35,720 and $63,990 in 2006. The lowest 10% were paid less than $26,690 and the top 10% earned more than $79,910. Generally, surveying and mapping technicians made less than the average surveyor did and the cartographer made more.

Job Outlook: As time goes on, the number of jobs for surveyors will increase more than the average job. These jobs range from working for firms to being self-employed.

Source: `http://www.bls.gov/k12/math03.htm`