



# Math Mole

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Picture Day

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## This issue

- Mathematician of the Day
- Quote
- Puzzles
- Today's Editor: Dakota
- Tuesday: Michael

## Puzzles:

**Arithmetic?** How can it be possible that  $1 + 1 = 10$ ?

**Letter Arithmetic:** Each letter represents a digit (0-9) with no repeats. Find the replacements so this makes sense:  $FUN + IS = MATH$ .

## Mathematician of the Day



Blaise Pascal 1623-1662

- Born on June 19, 1623, in Clermont, Auvergne, France and died on August 19, 1662, in Paris, France.
- Blaise Pascal's father taught his son himself. Etienne Pascal decided that Blaise was not to study mathematics before the age of 15 and all mathematics texts were removed from their house. Blaise however, his curiosity raised by this, started to work on geometry himself at the age of 12. He discovered that the sum of the angles of a triangle are two right angles and, when his father found out, he relented and allowed Blaise a copy of Euclid.
- Pascal is probably best known for the Pascal triangle. Although Pascal was not the first to study the Pascal triangle, his work on the topic in *Treatise on the Arithmetical Triangle* was the most important on this topic and, through the work of Wallis, Pascal's work on the binomial coefficients was to lead Newton to his discovery of the general binomial theorem for fractional and negative powers. Pascal died at the age of 39 in intense pain after a malignant growth in his stomach spread to the brain.

Info from: ???

## Career Spotlight: Actuary

**Job Description:** Actuaries are experts in evaluating the likelihood of future events, designing creative ways to reduce the likelihood of undesirable events, and decreasing the impact of undesirable events that do occur. Actuaries are the leading professionals in finding ways to manage risks. They are the brains behind the financial safeguards that protect us from life's catastrophes. The insight into risk that actuaries have helps to ensure that our savings are working hard for us, so that everything we love and cherish can grow and flourish.

**Education:** Actuaries need a strong background in mathematics and general business. Usually, actuaries earn an undergraduate degree in mathematics, statistics or actuarial science, or a business-related field such as finance, economics, or business. While in college, students should complete coursework in economics, applied statistics, and corporate finance.

**Work Condition:** Actuaries have desk jobs, and their offices usually are comfortable and pleasant. They often work at least 40 hours a week. Some actuaries—particularly consulting actuaries may travel to meet with clients. Consulting actuaries also may experience more erratic employment and be expected to work more than 40 hours per week.

**Salary:** Median annual earnings of actuaries were \$82,800 in May 2006. The middle 50 percent earned between \$58,710 and \$114,570. The lowest 10 percent had earnings of less than \$46,470 while the top 10 percent earned more than \$145,600. According to the National Association of Colleges and Employers, annual starting salaries for graduates with a bachelor's degree in actuarial science averaged \$53,754 in 2007.

**Job Outlook:** Employment of actuaries is expected to increase by about 24 percent through 2016. Because the stringent qualifying examination system restricts the number of candidates, job opportunities should remain good for those who qualify. Employment growth in the insurance industry the largest employer of actuaries is expected to continue at a stable pace, while more significant job growth is likely in other industries, such as health care and consulting firms.

Sources:

Sources: <http://www.bls.gov/oco/ocos041.htm#training>

<http://www.beanactuary.org/about/whatis.cfm>