



Math Mole

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Forecast: Hot!!!

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Quotes:

i says to π , "Be rational," while π says to i , "Get real."

If I have seen further than others, it is by standing upon the shoulders of giants - Sir Isaac Newton

Puzzles:

Day Camp: Joey leaves his house in the morning to go to day camp.

Just as he is leaving his house he looks at an analog clock reflected in the mirror.

There are no numbers on the clock, so Joey makes an error in reading the time since it is a mirror image. Joey assumes there is something wrong with the clock and rides his bike to day camp.

He gets there in 20 minutes and finds that just as he gets there the day camp clock has a time that is $2\frac{1}{2}$ hours (2 hours and 30 minutes) later than the time that he saw in the mirror image of his clock at home.

What time was it when he got to day camp? (The clock at camp and the clock at home were both set to the correct time.)

Against The Wind: A bicycle rider went a mile in three minutes with the wind, and returned in four minutes against the wind. How fast could he ride a mile if there was no wind?

Mathematician of the Day



Muhammad ibn Mūsā al-Khwārizmī - Persia c.780 to c.850

- There are few details known about his life, but he did study and work as a scholar in the House of Wisdom in Baghdad. Not even his exact birthdate is known.
- He is considered the father of algebra.
- He wrote Algebra, which literally translated from its Arabic title means The Compendious Book on Calculation by Completion and Balancing, the first book on the systematic solution of linear and quadratic equations; he was the first to solve such equations using general methods.
- He helped spread the use of Hindu numerals through his book On the Calculation with Hindu Numerals
- Systemized and corrected Ptolemy's data in geography.

Info From: http://en.wikipedia.org/wiki/Muhammad_ibn_Mūsā_al-Khwārizmī

Math Spotlight: Fermat's Last Theorem

Is it possible to have $x^n + y^n = z^n$, such that x , y , and z are integers and $n > 2$?

That was one of the most difficult questions that mathematicians ever had to face. The specific question is called Fermat's Last Theorem. Pierre de Fermat was one of the math world's most famous number theorist and first proposed a solution to the problem. He stated, in the margin of his copy of Arithmetica by Diophantus, "I have discovered a truly remarkable proof which this margin is too small to contain." It is estimated that Fermat wrote this note around 1630. No mathematician was able to prove or disprove this claim until nearly 400 years later. Finally in 1994, Andrew Wiles and Richard Taylor were able to prove that it is impossible. They employed many techniques that had been found in the past century in the proof. Because of the use of very modern techniques, it is now thought that Fermat could not have proved it. Still it is one of the math world's most famous theorems.

Info from: O'Connor and Robertson. "Fermat's last theorem."

<http://www-groups.dcs.st-and.ac.uk/~history/HistTopics/Fermat's_last_theorem.html>.