# Pythagorean Mathematics

Pythagoras is certainly an interesting historical character, and many people have researched his life to try to divine fact from fiction. For instance, perhaps the most famous mathematical theorem is called "The Pythagorean Theorem", but scholars debate how early the theorem was known. Perhaps it was known to the Babylonians, with scholars citing Plimpton 322 as evidence. Perhaps some cases were known to the Egyptians, where legend says they used a 3-4-5 triangle to ensure their buildings had square corners. Some people argue that the first known proof of the theorem comes from the school Pythagoras founded, while other scholars find the evidence for this claim to be thin.

In this section, we will focus on the school Pythagoras founded, sometimes called the Pythagorean Society, the School of Pythagoras, or the Pythagorean Cult. We will examine their beliefs, particularly concerning numbers and geometry, and see what came out of what was perhaps the first school of mathematics in the ancient world.

## Readings

First Reading: The Cult of Pythagoras

Second Reading: Greek Mathematics - Pythagoras

Third Reading: The End of a Perfect Number

Fourth Reading: Means Appearing in Geometric Figures

## Questions

**Question     1**   *What is the harmonic mean of* $\frac{1}{2}$ *and* $\frac{3}{4}$? $\boxed{0.6}$
given

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Learning outcomes:

Author(s):

See The Cult of Pythagoras at http://classicalwisdom.com/cult-of-pythagoras/

See Greek Mathematics - Pythagoras at http://www.storyofmathematics.com/greek_pythagoras.html

See The End of a Perfect Number at http://www.jstor.org.proxy.lib.ohio-state.edu/stable/27957201

See Means Appearing in Geometric Figures at http://www.jstor.org.proxy.lib.ohio-state.edu/stable/3219084

**Question    2**   *Which of the following was not a supposed belief or practice of the Pythagoreans?*

***Multiple Choice:***

(a)  *Not eating beans.*

(b)  *Never passing an ass lying in the street.*

(c)  *Only wearing the color red.*  ✓

(d)  *Vegetarianism.*

**Question    3**   *What are the most important points of this reading?*

***Free Response:***