



“The laws of nature are but the mathematical thoughts of God.”

Euclid



School of Athens



- The most prominent persons are **Platon, Aristotle, Socrates, Zoroaster, Pythagoras, Ptolemy**. Raphael, Sodoma and Michelangelo are also present.

University of Alexandria

- In 323 BC Alexander the Great died, and his Empire included Greece, Egypt, Syria, Babylon, and part of India. After his death separate states emerged that were ruled by his former generals. A mixture of traditional culture and new Greek culture was developed in them.
- It was opened in about 300 BC and became the intellectual metropolis of the Greeks for a thousand years.
- It was named after Alexander the great.
- Although it was not called a university it was very much like one.
- There were special lecture rooms, laboratories, museums, gardens, and living quarters.
- The great library with hundreds of thousands of papyruses was its center.
- The best scholars were invited to work there, among them was Euclid.
- Fire destroyed it all.

Why do we have to learn this?

A student questioned Euclid and what they would get from learning the subject.

Then Euclid ordered someone to give him a penny.



“since he must gain from what he learns”



Euclid

- We don't know when he was born or died. We know that he was younger than students of Plato, but older than Archimedes, and that is all.
- One tells that when Ptolemy asked him about a short or quick way to learn geometry.
- Euclid answered there is no king's road in geometry.



Misconceptions

- He was the author of *Elements only*.
- He wrote more than ten other books, and only 5 of them survived. Although the other books are important, His reputation is based on the *Elements*.
- Euclid is generally considered a great mathematician.
- In fact he was not. He was considered the best school teacher in history as written by Van der Waerden. He prepared his textbook that was for adult students, and made it so wonderful that over a thousand editions were made after 1492 when it was first printed. But, he didn't discover them, he used previous discoveries although never named the real authors of the theorems.
- *Elements* is only about geometry.
- That is not true, although algebra as we know it was not in existent. He wrote about algebra and numbers as well.

