

Very little is known about the background of Euclid. It is, however, known that he taught in an Egyptian university called Museum. The library of Alexandria, which served Museum, is said to have had 600,000 papyrus rolls!

-Archimedes, the son of an astronomer, was the greatest scientist and mathematician of ancient times, and his equal did not arise until Isaac Newton, two thousand years later."39 Archimedes went to Museum. Despite his many inventions, he was more interested in pure mathematics. A remarkable feat of his was solving problems of differential calculus. He invented the water screw, pulleys, and levers and formulated the laws of buoyancy. He also worked on  $\pi$  decimals and invented basic limits. Some of his major works are: The sand reckoner, which demonstrates that any number can be mathematically expressed; The cattle problem, a challenge to a rival, Apollonius, it has 8 variables with 8 equations with an answer billions of trillions of digits long; The law of the lever, concerning the behavior of levers; On floating bodies, set down laws of buoyancy. He once said "give me another earth to stand on and I shall lift this one" in reference to the powers of levers and pulleys. He also designed remarkable weapons including catapult to hurl 10 ton and 10 pound stones, cranes which could lift and throw ships, and lenses to ignite ships miles away!

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39 Isaac Asimov, Asimov on Numbers, page 173