 Archimedes

Archimedes is considered one of the greatest \_\_\_\_\_\_\_\_\_\_\_ (1) of all time. He is also famed for his \_\_\_\_\_\_\_ (2) and for the colorful—though unproven—ways he is believed to have made them.

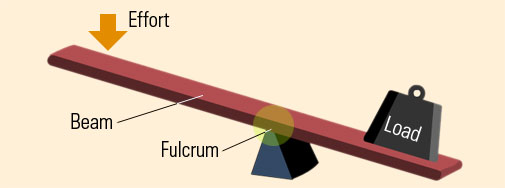
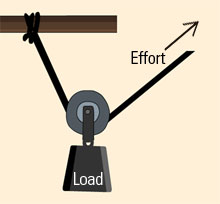
Little is known about Archimedes's life. He probably was born in the \_\_\_\_\_\_ (3) of Syracuse, a Greek settlement on the island of [Sicily](http://www.notablebiographies.com/knowledge/Sicily.html) in the Mediterranean Sea. He was the son of an \_\_\_\_\_\_\_\_ (4) (someone who studies outer space, such as the stars) named Phidias. He may also have been related to Hieron, King of Syracuse, and his son Gelon.

Archimedes \_\_\_\_\_\_ (5) in the learning capital of Alexandria, Egypt, at the school that had been established by the Greek [mathematician](http://www.notablebiographies.com/knowledge/Mathematician.html) [Euclid](http://www.notablebiographies.com/knowledge/Euclid.html). He later returned to live in his native city of Syracuse.

There are many stories about how Archimedes made his \_\_\_\_\_\_\_\_\_\_ (6). A famous one tells how he uncovered an attempt to cheat King Hieron. The king ordered a golden \_\_\_\_\_\_ (7) and gave the crown's maker the exact amount of gold needed. The maker delivered a crown of the required weight, but Hieron suspected that some silver had been used instead of gold. He asked Archimedes to \_\_\_\_\_\_\_ (8) about the matter. One day Archimedes was considering it while he was getting into a \_\_\_\_\_\_\_ (9). He noticed that the amount of water \_\_\_\_\_\_\_\_\_ (10) the tub was \_\_\_\_\_\_\_\_\_ (11) to the amount of his body that was being immersed. This gave him an idea for solving the problem of the crown. He was so thrilled that he ran \_\_\_\_\_\_ (12) through the streets shouting, "Eureka!" (Greek for "I have discovered it!"). .

There are \_\_\_\_\_\_\_\_\_ (13) Archimedes may have determined the amount of silver in the crown. One likely method relies on an idea that is now called Archimedes's principle. It states that a body immersed in a fluid is \_\_\_\_\_\_\_\_\_ (14) by a force that is \_\_\_\_\_\_\_\_\_ (15) to the weight of fluid that is displaced by the body. Using this method, he would have first taken two equal weights of gold and silver and \_\_\_\_\_\_\_\_\_ (16) their weights when immersed in water. Next he would have compared the weight of the crown and an equal weight of pure silver in water in the same way. The difference \_\_\_\_\_\_\_\_ (17) these two comparisons would indicate that the crown was not pure gold.

Archimedes also studied aspects of the \_\_\_\_\_\_\_ (18) and \_\_\_\_\_\_\_ (19). A lever is a kind of basic machine in which a bar is used to raise or move a weight, while a pulley uses a \_\_\_\_\_\_ (20) and a \_\_\_\_\_\_(21) to lift loads.

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1. Mathematicians
2. [inventions](http://www.notablebiographies.com/knowledge/Inventions.html)
3. seaport city
4. [astronomer](http://www.notablebiographies.com/knowledge/Astronomer.html)
5. studied
6. discoveries
7. crown
8. think
9. bathtub
10. overflowing
11. proportional
12. naked
13. several ways
14. pushed up
15. equal
16. compared
17. between
18. lever
19. pulley
20. wheel
21. rope