

Read the story of Archimedes and his bath and complete the text with the correct past tense of the verbs in brackets.

Archimedes, the Greek mathematician, is probably most famous for the story of King Hieron II of Syracuse and the gold crown. The king ¹ _____ (want) to give a gold crown as a gift to the gods, and ² _____ (give) a carefully weighed amount of gold to a goldsmith. The man ³ _____ (produce) a beautiful crown, but the king was worried that the craftsman ⁴ _____ (not use) all the gold to make the crown. Dishonest craftsmen often ⁵ _____ (mix) gold with silver, which was cheaper, but the king could not find a way of proving that the man ⁶ _____ (do) this. He ⁷ _____ (ask) Archimedes to solve the problem.



Archimedes ⁸ _____ (know) that gold and silver have different densities. The problem was that nobody could calculate the mass of an object like a crown. While Archimedes ⁹ _____ (think) about this problem, he decided to go to the public baths to relax. While he ¹⁰ _____ (climb) into the bath, he ¹¹ _____ (notice) some water on the floor. It ¹² _____ (spill) over the side of the tub and he ¹³ _____ (realize) that he ¹⁴ _____ (solve) the problem by accident. The total amount of water that ¹⁵ _____ (spill) out of the bath must be the same as the volume of his body. He could use a piece of pure gold and calculate its volume, and then test the crown and see if it was the same. According to the story, he ¹⁶ _____ (jump) straight out of the bath and ¹⁷ _____ (run) down the street calling 'Eureka – I've found it.' The goldsmith soon ¹⁸ _____ (admit) that he ¹⁹ _____ (cheat) the king and was punished. Archimedes ²⁰ _____ (discover) the principle of buoyancy.