

Archimedes and the Kings Crown

Despite his mathematical prowess, Archimedes is perhaps best remembered for an incident involving the crown of King Hiero.

As the story goes, the king of Syracuse had given a craftsman a certain amount of gold to be made into an exquisite crown. When the project was completed, a rumor surfaced that the craftsman had substituted a quantity of silver for an equivalent amount of gold, thereby devaluing the crown and defrauding the king. Archimedes was tasked with determining if the crown was pure gold or not. The Roman architect Vitruvius relates the story:

While Archimedes was considering the matter, he happened to go to the baths. When he went down into the bathing pool he observed that the amount of water which flowed outside the pool was equal to the amount of his body that was immersed. Since this fact indicated the method of explaining the case, he did not linger, but moved with delight, he leapt out of the pool, and going home naked, cried aloud that he had found exactly what he was seeking. For as he ran he shouted in Greek: Eureka! Eureka! (eureka translated is "I have found it").

Although there is speculation as to the authenticity of this story, it remains famous. Probably no other tale in all of science combines the elements of brilliance and bareness quite so effectively. Whether the story is true or not, there is no doubt to the truth of Archimedes understanding of buoyancy.

