

**1/KING:** These are terrible days. A Roman general has announced his plans to take over our city of Syracuse.

**2/ADVISOR:** Oh King, Syracuse, the main city of Sicily, is close to Italy. That's why Rome wants to claim our city. We do not want to be a part of the Roman empire, we've always preferred to be free thinkers.

**1/KING:** Thank you, my trusty advisor, but how will we defend the city? Who can help us?

**2/ADVISOR:** Let's ask Archimedes for advice. He is nicknamed 'Alpha' after the first letter in the Greek alphabet. He is called that because he is the most knowledgeable person in the area.

**1/KING:** I know Archimedes was a good friend to the previous ruler, King Hieron. Tell me about Archimedes and how he might help us.

**2/ADVISOR:** His first task for King Hieron was to empty a ship of water. Archimedes invented a device called Archimedes' screw.

**1/KING:** How did it work?

**2/ADVISOR:** A long screw with a handle at one end was placed inside a cylinder. The bottom of the cylinder, which was open, was placed in the water. As the handle was turned, the water would spiral to the top of the cylinder.

**1/KING:** I'm familiar with that invention. Farmers use it for irrigation. They take the water from canals or rivers for their crops.

**2/ADVISOR:** That was just his first feat. His second was even more impressive. He singlehandedly moved a three-masted ship loaded with cargo and crew from land to water.

**1/KING:** NO! That's not possible. Perhaps the gods helped him.

**2/ADVISOR:** My friend was there. He saw the whole operation.

**1/KING:** I have heard rumors of this event.

**2/ADVISOR:** My friend said Archimedes made a compound pulley, a series of rope machines which magnify force. He tied one end to the ship and he pulled on the other. The ship went into the water!

**1/KING:** Call Archimedes. He is the man we need in this time of crisis.

**2/ADVISOR:** He is already here. Bow before your king, Archimedes.

**3/ARCHIMEDES:** I am at your service. The last king asked me to solve a problem about gold missing from a crown. Do you have such a problem for me to solve?

**1/KING:** I do have a problem, but mine is more difficult. Before I explain, please tell me the story of the crown.

**3/ARCHIMEDES:** King Hieron gave a certain amount of gold to the local goldsmith to use in making a crown.

**2/ADVISOR:** The crown was made and the craftsmanship was superb.