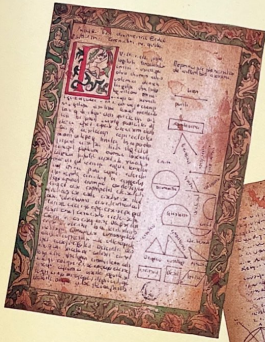


## MATHEMATICS AND PHYSICS

Many basic mathematical rules were first thought out by Greek scholars, such as Euclid, Pythagoras and Archimedes. Pythagoras devised a theorem for calculating the size of the angles in triangles and introduced the symbol  $\pi$  for determining the area and the circumference of a circle.



Archimedes discovered an important law of physics when he noticed that the water in his bath tub overflowed. From this, he deduced that an object displaces its own volume of water.

This is a demonstration of one of Archimedes' inventions: a large screw which acts as a water pump, raising water from one level to another.



## MEDICINE

The first "doctors" were priests of Asclepius, the god of healing. Sick people visited one of his temples, where priests tried to cure them with prayers. The first man to adopt a more practical, scientific approach was Hippocrates of Kos. He tried to search for the causes of illnesses and to find out how the body worked. His followers opened schools where his ideas were taught. They prescribed herbal medicines, a special diet, rest or exercise. They performed operations too - but without painkillers, so this was both dangerous and painful.

These pages are from *Elements*, a famous book by Euclid. Part of the book sums up the work of the mathematicians before him.

## ASTRONOMY

An astronomer named Aristarchus reckoned that the Earth revolved on its axis and that it moved around the Sun. At this time, most people believed that the Sun moved around the Earth, and so his ideas were rejected as he had no evidence to prove them.

Another astronomer, named Anaxagoras, realized that the Moon did not produce its own light, but reflected the light of the Sun. He also calculated that eclipses were caused by the Moon blocking the light as it passed between the Sun and the Earth.