The GREATS – the men and women who made science
– and who are still making it today

THE GREATEST EVER

Mathematicians

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Illustrations by Ann Scott

Pythagoras, Fibonacci, Pascal, Euler, Ramanujan, Hopper, Chung

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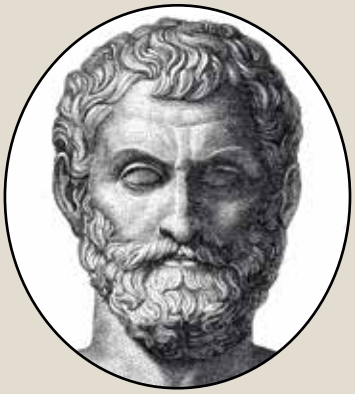
Old punch cards used for programming the first computers

Thales of Miletus

who was the first to use geometry to make calculations



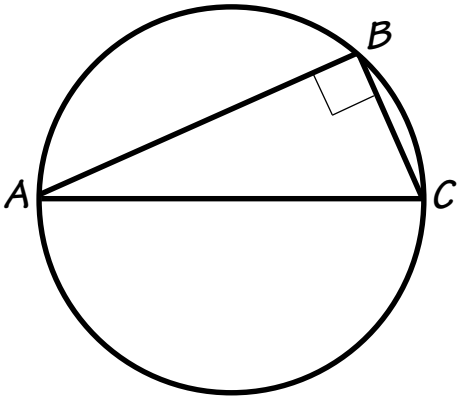
Fact Box

(624–546 BC)
Thales of Miletus is best remembered as one of the first Greek philosophers. He was also a great mathematician. He lived in a part of Asia we now call Turkey.

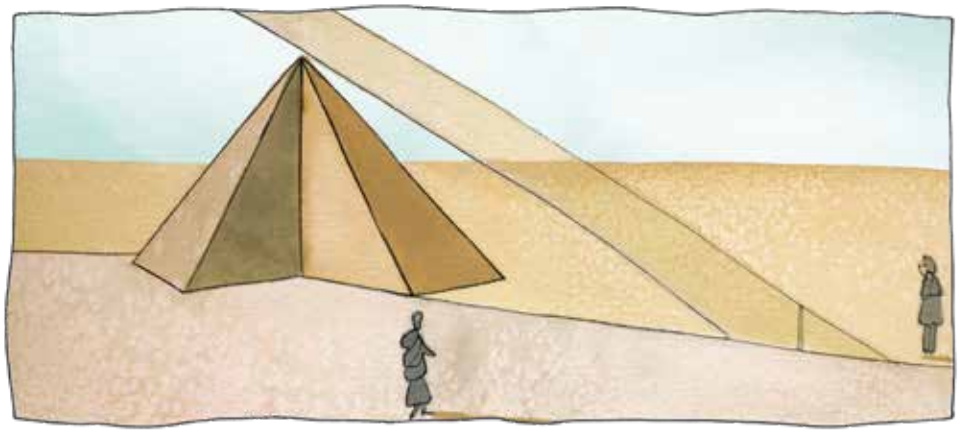
Thales was a teacher of Pythagoras. He travelled widely in the Mediterranean region, including to Egypt, which was the dominant power in that area..

Thales was one of the first philosophers to suggest that the existence of the world was based on science and not on the old stories based in mythology. In fact, he is considered to be one of the first true scientists.

He was a great mathematician who understood a great deal about triangles and angles. He used this knowledge to make calculations, and Thales' theorem is named after him.



Thales' theorem shows that if A, B and C are points on a circle and the line A–C is the diameter, then the angle at B will be a right angle.

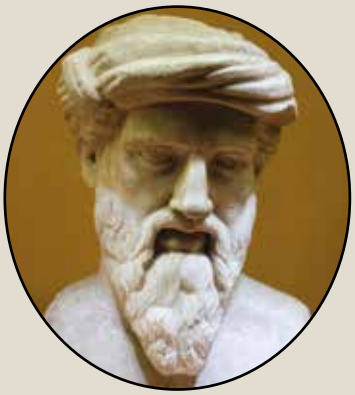


Thales used an Egyptian measure in geometry, called the seked, to calculate the heights of the pyramids. He did this by measuring the shadow of the structure at exactly the same time of day, when his own shadow was equal to his height.

Pythagoras

who used mathematics to prove his theories

Pythagoras was born on the Greek island of Samos. In about 530 BC, he travelled to Croton (now Crotone, in southern Italy) and founded a school where he taught philosophy and mathematics. During this time, he may have made discoveries in the areas of music, astronomy and medicine, and most important of all, he worked on his famous Pythagorean theorem.



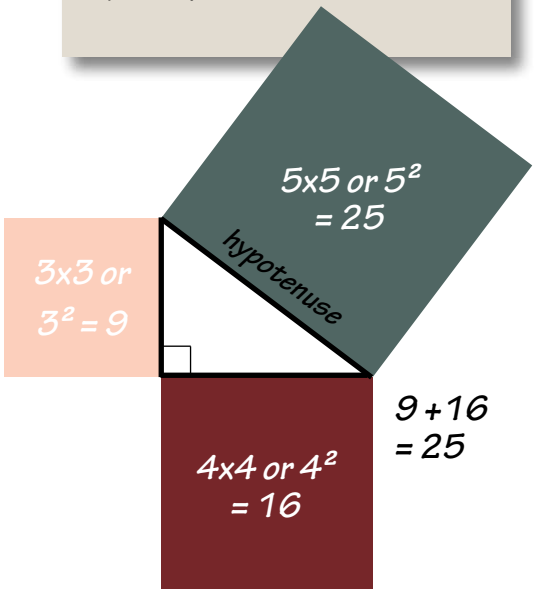
Fact Box

(570–495 BC)

Pythagoras was a Greek philosopher who is thought to have made many mathematical and scientific discoveries. His best-known formula is the Pythagorean theorem.

The political and religious teachings of Pythagoras influenced many important philosophers after him, including Aristotle. However, he was most famous for making mathematical discoveries, particularly in geometry.

Although it has often been argued that he may not have contributed as much as originally thought, his name was given to the well-known Pythagorean theorem. This states that the area of a square drawn on the longest side of a right-angled triangle – opposite the right angle and called the hypotenuse – is equal to the sum of the area of the two squares drawn on the other two sides.



The Pythagorean theorem