

MATHS TREATS

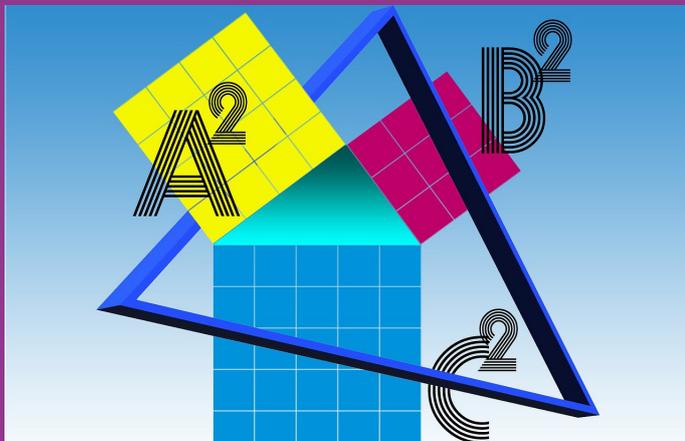
BY LUCIANA
THE POSSUM



WHO WAS THE FIRST MATHEMATICIAN?

Arithmetic, algebra, and geometry were used as early as 3000 BCE in ancient Mesopotamia and Egypt for trade, taxation and astronomy. However, mathematics only became a formal discipline of study for its own sake in the sixth century BCE. Thales of Miletus (now Milet in Turkey) was a Greek philosopher, mathematician and astronomer who lived from approximately 624-546 BCE, which was around the time of Socrates. Thales is often credited as being the first true mathematician because he is the first to have mathematical discoveries attributed to his name.

PYTHAGORAS' THEOREM



The most well-known early mathematician was another Greek, Pythagoras of Samos, who lived from approximately 582-507 BCE. He founded the Pythagorean school and believed that the world could be explained by mathematics. Their motto was 'All is number'. Whilst the theorem was known in ancient times, we call it Pythagoras' theorem because the Pythagoreans provided the first known proof. The Pythagoreans also coined the word 'mathematics', originating from the ancient Greek μάθημα (mathema) meaning 'subject of instruction'.

ACTIVITY

Can you remember how you first learnt Pythagoras' theorem? Based on the mathematics you have learnt, how many different ways can you prove Pythagoras' theorem? Try using visual, graphical, geometrical, or algebraic methods. Can you explain your proof to someone else?

REFERENCES AND FURTHER READING

https://en.wikipedia.org/wiki/Pythagorean_theorem

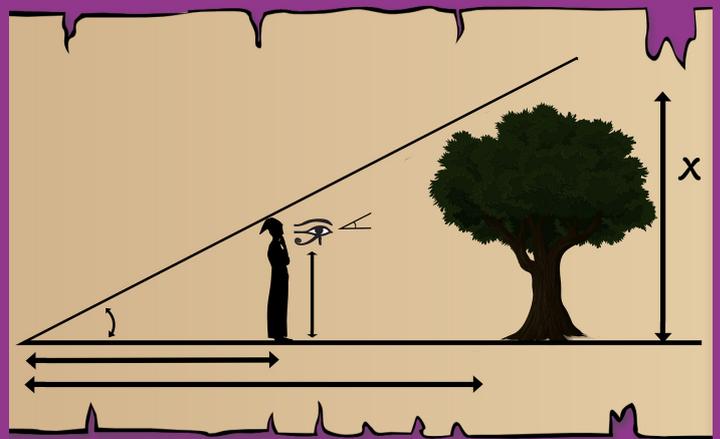
Biography of Pythagoras www.mathopenref.com/pythagoras.html

100+ proofs of Pythagoras' theorem www.cut-the-knot.org/pythagoras/#84

Measure any distance with Pythagoras' theorem <https://betterexplained.com/articles/measure-any-distance-with-the-pythagorean-theorem/>

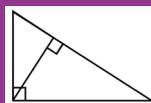
Surprising uses of Pythagoras' theorem <https://betterexplained.com/articles/surprising-uses-of-the-pythagorean-theorem/>

APPLICATIONS AND EXTENSIONS



Pythagoras' theorem can be used for many real-life applications, e.g., to calculate the shortest distance between two points, how tall a ladder needs to be to safely reach a high part of a wall or the 'size' of a television or computer screen. It is used in many fields, including architecture, construction, science, engineering, art, and navigation.

ACTIVITY



How could you use Pythagoras' theorem to measure the distance between two points on the surface of different solid 3D shapes? Is there any 3D version of Pythagoras' theorem?

Does Pythagoras' theorem work when the shapes are not squares? Can you see how Einstein used this diagram to prove Pythagoras' theorem?

History of mathematics www.youtube.com/watch?v=iNS4NtM_pI8 and www.youtube.com/watch?v=cy-8IPVKLIo

https://en.wikipedia.org/wiki/History_of_mathematics

50 Centuries in 50 minutes (A Brief History of Mathematics) www.youtube.com/watch?v=YsEcpS-hyXw

IMAGES

Leadbeater possum - Steve Kuitert
Pixabay