

 $Vab = 1 \ge (K+r) = \ge E$ 

### LIFE

Thales of Miletus was a pre-Socratic Greek/Phonecian philosopher, mathematician and astronomer from Miletus in Asia Minor (present-day Milet in Turkey). The current historical consensus is that Thales was born in the city of Miletus around the mid 620s BC from Phoenician parents .He was one of the Seven Sages of Greece. He was the founder of the Ionian school of philosophy in Miletus, and the teacher of Anaximander.

# WORKS **Electricity**:

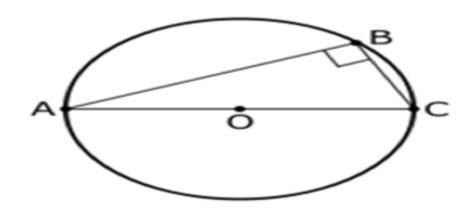
Thales, the earliest known researcher into electricity

Thales of Miletus made a series of observations on static electricity around 600 BCE, from which he believed that friction rendered amber magnetic, in contrast to minerals such as magnetite, which needed no rubbing. Thales was incorrect in believing the attraction was due to a magnetic effect, but later science would prove a link between magnetism and electricity

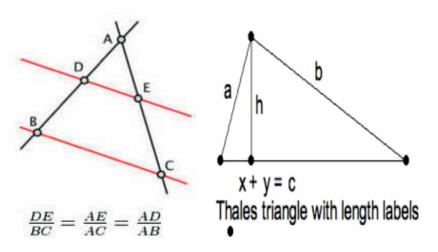
#### **Geometry**:

He is the first known individual to use deductive reasoning applied to geometry, by deriving four corollaries to Thales' theorem. He is the first known individual to whom a mathematical discovery has been attributed.

# **Thales Theorem :**



Thales' theorem states that if A, B and C are points on a circle where the line AC is a diameter of the circle, then the angle <ABC is a right angle.

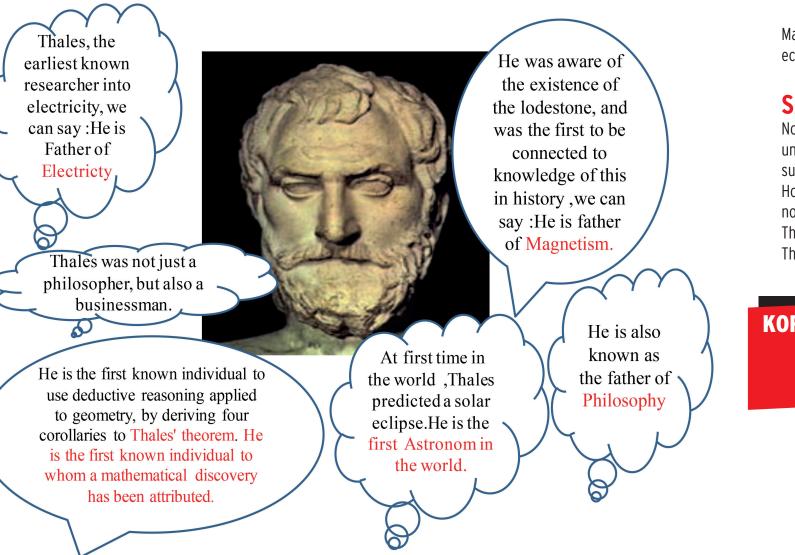


#### **Intercept Theorem**

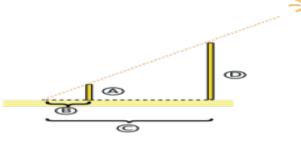
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# THALES

**Born & Died: C. 624 - C. 546 BC** Main Interest: Metaphysics, Mathematics, Astronomy **Shcool:** Ionian, Miletus School **Notable Ideas:** Water is the "Arke", Thales Theorem, Electricity, **Intercept** Theorem



Height of the Cheops Pyramid According to some historical sources the Greek mathematician Thales applied the intercept theorem to determine the height of the Cheops' pyramid.



An illustration of the geometric intercept theorem, attributed to Thales.

\*\*\*\*\*\*In many textbooks on the history of mathematics Thales is credited with five theorems of elementary geometry.

- i. A circle is bisected by any diameter.
- ii. The base angles of an isosceles triangle are equal.

iii. The angles between two intersecting straight lines are equal. iv. Two triangles are congruent if they have two angles and one side equal.

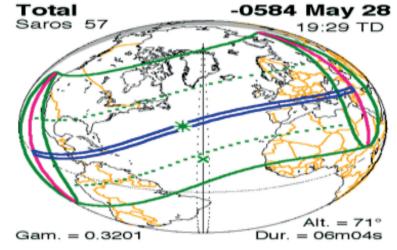
v. An angle in a semicircle is a right angle

#### **Astronomy:**

 $V_{C} = I_{m} \sin \left[ \omega t + \frac{\omega}{2} \right]$ 

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\*\*\* Thales accurately predicted a solar eclipse, according to The Histories of Herodotus. This eclipse is the earliest recorded as being known in advance of its occurrence



Five Millennium Canon of Solar Eclipses (Espenak & Meeus)

Many historians believe that the predicted eclipse was the solar eclipse of May 28, 585 BC

## SAYINGS

Nothing is more active than thought for it travels over the universe and nothing is stronger than necessity for all must submit to it

Hope is the only good that is common to all men;those who have nothing else possess hope still.

The most difficult thing life is to know yourself The greatest is space, for it holds all things

#### **KORKMAZ YIGIT ANATOLIAN HIGH SCHOOL Physics Teacher: HATICE KIRMACI**



Arranging two similar triangles, so that the intercept theorem can be applied