## Thales of Miletus - 625 BC

$\checkmark$ 1. The First Mathematician
a. Required proof
b. Oldest "proof" is his
v 2. Began the stereotype of the absent-minded genius
a. Never married
b. Was one "well" of a mathematician
3. "The most difficult thing to know in life is yourself."
v. Proved:
a. Angle inscribed in a semi-circle is a right angle.
b. Base angles of an isosceles triangle are equal.
c. If two straight lines intersect, the opposite angles are equal.
d. Angle sum of a triangle is two right angles.
5. Many of his theorems were perhaps known to the Egyptians, and conventional history seeks to look for some individual to whom the "miracle" can be ascribed -
 Thales is the natural candidate. He certainly contributed much to the rational organization of geometry (the deductive method).
6. The orderly development of theorems by rigorous proof was new and unique to Greek mathematics.

## Thales

1. Visited Egypt, made indirect measurement of the height of the Great Pyramid by means of shadows.
2. Predicted solar eclipse in 585 BC , or did he?
3. Perhaps taught Pythagoras everything he knew.


Extra Credit:
Implement this, in an animation in Desmos.
Due: Wednesday @ class

Thales' Theorem:
A triangle inscribed on a diameter of a circle is right.
we know:
Base angles of isoceles $\Delta$ are night

$$
\begin{aligned}
& \Rightarrow \quad \angle B=\angle A \\
& \Rightarrow \quad \angle C=\angle D
\end{aligned}
$$

Angle Sum $=180^{\circ}$

$$
\begin{array}{r}
\angle A+\angle B+\angle C+\angle D=180^{\circ} \\
\angle A+\angle A+\angle C+\angle C=180 \\
2 \angle A+\partial \angle C=180 \\
\angle A+\angle C=90^{\circ}
\end{array}
$$


https://todayinhistory.blog/tag/eclipse-of-thales/

"The most difficult thing in life is to know yourself."

Thales

Thales of Miletus: 625 BC


