

SWBAT understand the meaning of a radian.

SWBAT create the beginning aspects of the unit circle.

Agenda

- Warm - Up

- Class Discussion on the foundation of a radian

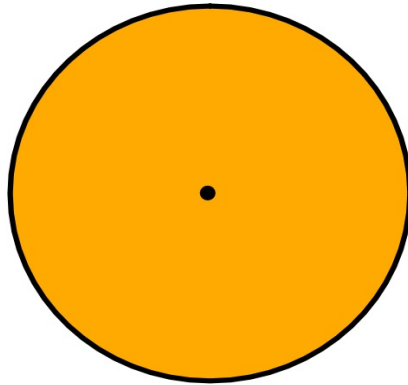
- Define a radian

- Use patterns and the idea of a radian to create the unit circle

- Exit Card

Warm - Up

What do we know about a circle?



According to history:

Blame the Babylonians.

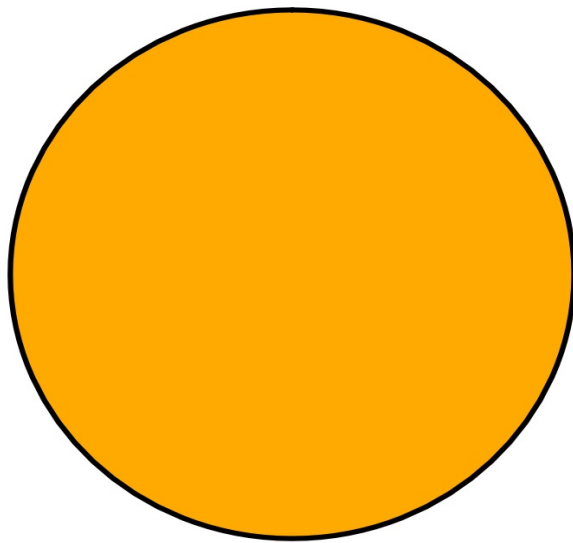
- * They believed that it took the sun 360 days to go around the earth (pretty close)
- * This number also was helpful when using the sexagesimal system (base 60) because 1-6 all divide into it
- * Basically they created this idea based on a guess and convenience

Radians are not arbitrary like degrees, they are components of a circle.

Definition:

A radian is the measure of the central angle subtended by an arc equal to the radius of the circle.

On a dry erase board, create a circle using the plate.



Next find the center of the circle and measure out the radius.

Now take the string and cut a piece the same length as the radius.

So how many times did you go around?

Was it exact? Any left over?

So how many radians in a circle?

HINT:

Now lets create **PART** of the unit circle using radians

Exit Card

In your own words, define radian