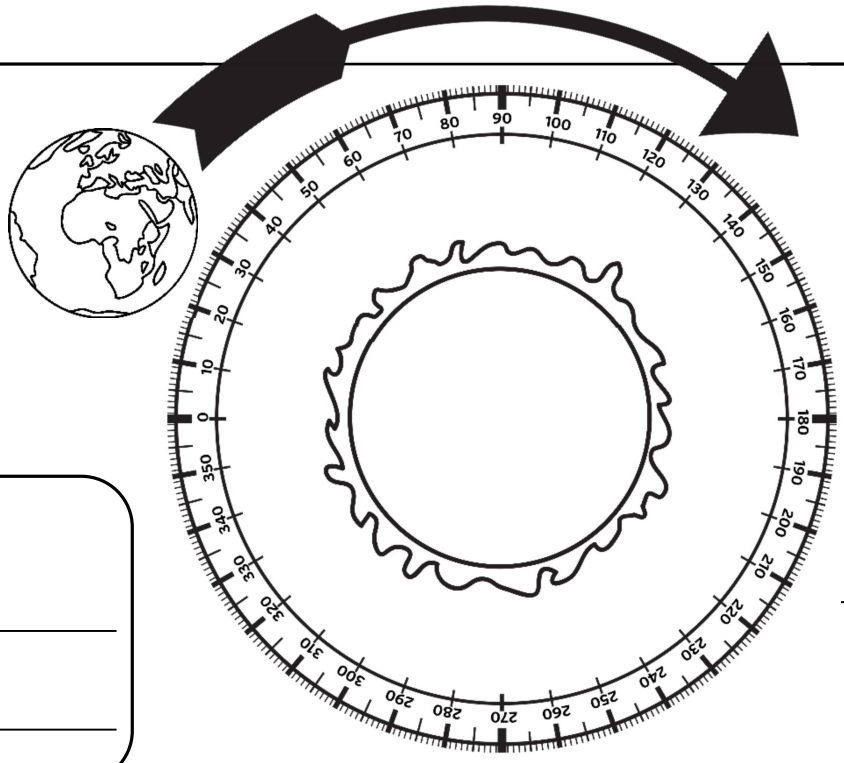
Why is a Circle 360° ?

A little math history lesson:

About 4,000 years ago, the people who lived in Mesopotamia (now present day Iraq) studied the sky. They observed the sun, moon and the 5 planets that are easily visible: Mercury, Venus, Mars, Jupiter and Saturn. They were able to conclude that there was a circular path of the sun across the sky (they didn't realize we were moving and not the sun) that took approximately 360 days to complete before beginning again. They considered the sky one big circle and used 360 degrees to represent the time it took to complete one circular path (called the ecliptic). This made each day's progress of this circular path 1 degree. They did not have the precise tools we have today to measure the perceived movement of the sun across the sky. Today, we know that it takes 365 days, rather than 360 for the earth to orbit the sun. We have changed the days in the calendar to 365, but since so many mathematical formulas were based on a 360 degree circle that number was not changed.



Label the vertex of the circle.

This is a:

_____

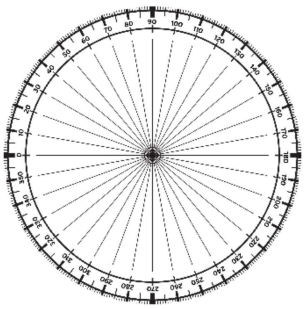
_____

A degree is:

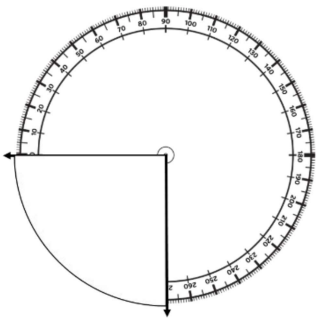
_____

_____

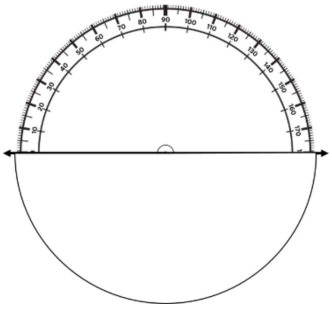
Looking Closely At Angles



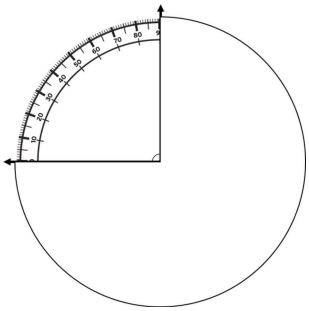
A full circle has _____.



Three-fourths of a circle has _____.



Half of a circle has _____.



One-fourth of a circle has _____.

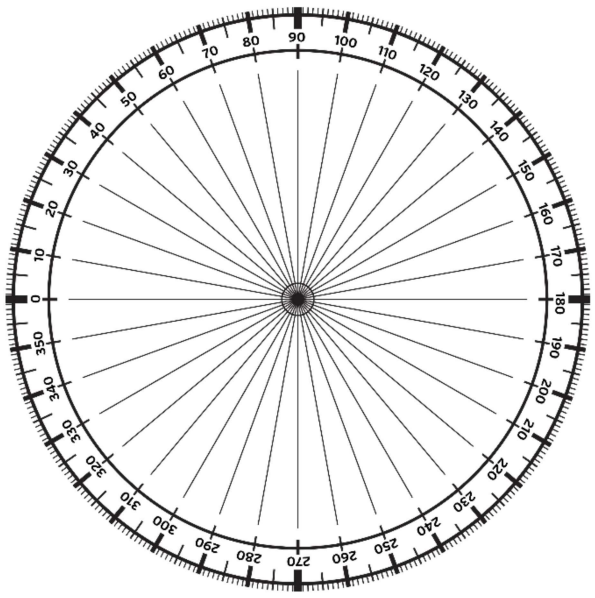
Label the vertex of each circle above. The vertex of an angle is

_____

_____

Place pieces from a fraction circle on the protractor to measure the degrees of a circle each fraction piece is.

Think about equivalent fractions. A degree is really a numerator over 360. Make an equivalent fraction with a denominator of 360 for each of these fractions.



$\frac{1}{2} =$ $\frac{1}{2} \frac{X}{X} \frac{\quad}{\quad} =$

$\frac{1}{3} =$ $\frac{1}{3} \frac{X}{X} \frac{\quad}{\quad} =$

$\frac{1}{4} =$ $\frac{1}{4} \frac{X}{X} \frac{\quad}{\quad} =$

$\frac{1}{6} =$ $\frac{1}{6} \frac{X}{X} \frac{\quad}{\quad} =$