Unit 7, Lesson 8

The Size of An Angle, in Degrees

Let's describe the size of an angle, using degrees.

Warm-up

What Do You Know about 360?

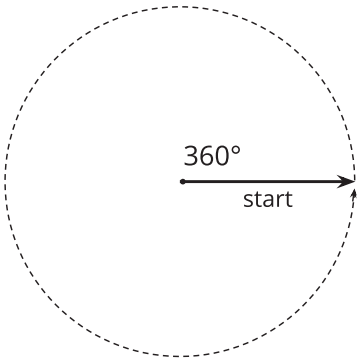
What do you know about 360?

Activity 1

A Full Turn

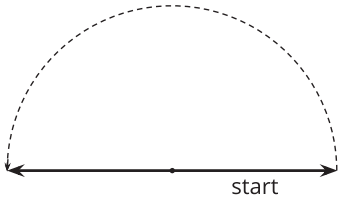
A ray that turns all the way around its starting point has made a full turn.

We say that the ray has turned 360 **degrees**.

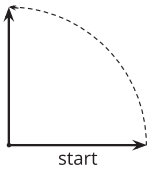


1. How many degrees has the ray turned from where it started?

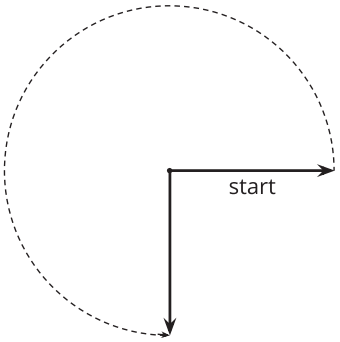
a



b



c

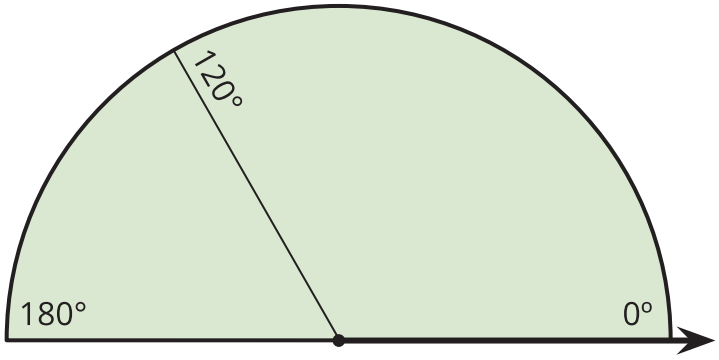


2. Sketch 2 angles:
   a. an angle where a ray has turned 50°
   b. an angle where a ray has turned 130°

Activity 2

Make a Measuring Tool

Your teacher will give you a sheet of paper in the shape of half a circle. It shows a 120° angle and a 180° angle from the ray on the bottom right.



On the half-a-circle paper:

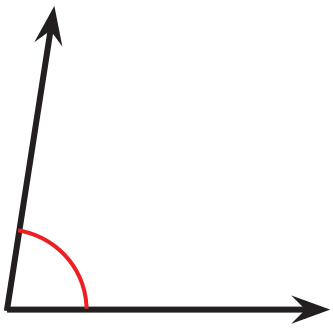
1. Draw a line segment to show a 90° angle from the same ray. Label it with the measurement. Be as precise as possible.
2. Draw line segments to show the following angles (measured from the same ray). Label the measurement on each segment.

   60° 45° 30° 150° 135°
3. Can you find a 1° angle from that same ray? Explain or show how you know.

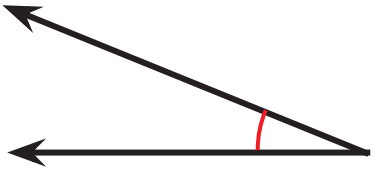
4. You just made a measuring tool!

   How is it used to estimate the size of an angle? Discuss your ideas with your group. Then use your tool to estimate the sizes of at least 2 angles.

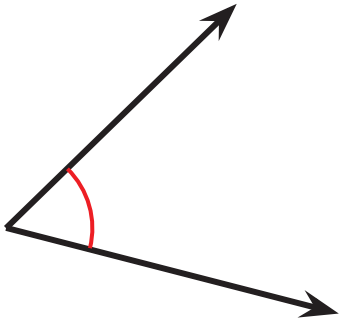
a.



b.



c.



d.

