4.1 Investigating Circles

8.4cm
9.3cm
7.3 cm
9.3 cm
center
6.9cm

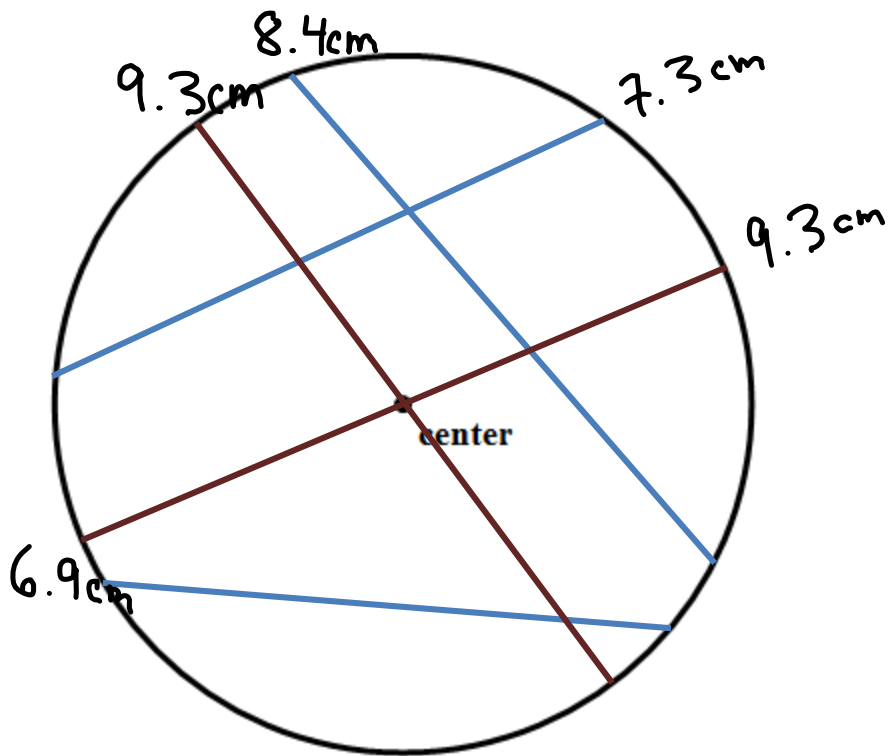**Step 1:** Draw two points on the circle. Use a ruler to draw a line segment that joins the two points.

Step 2: Measure the line segment. Label the line segment with its length.

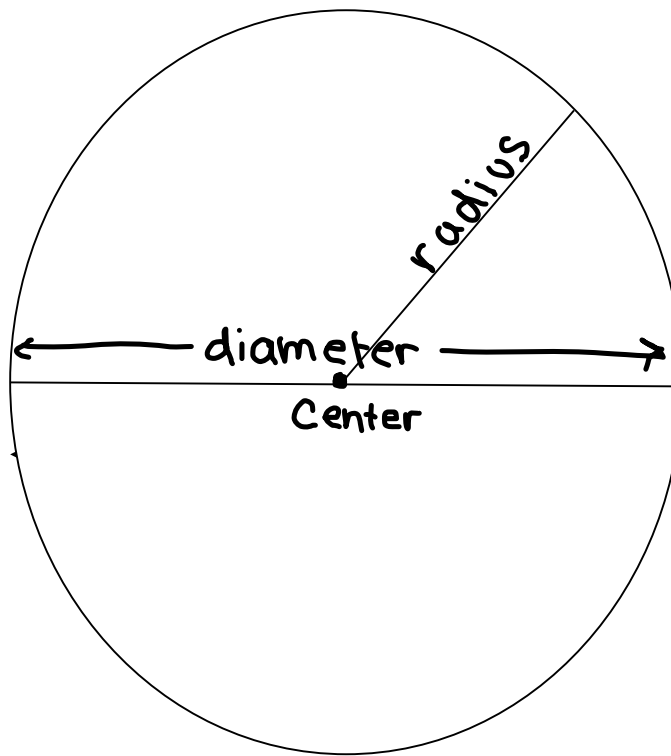**Step 3:** Draw and measure other segments that join two points on the circle.

Step 4: Find the longest segment in the circle.

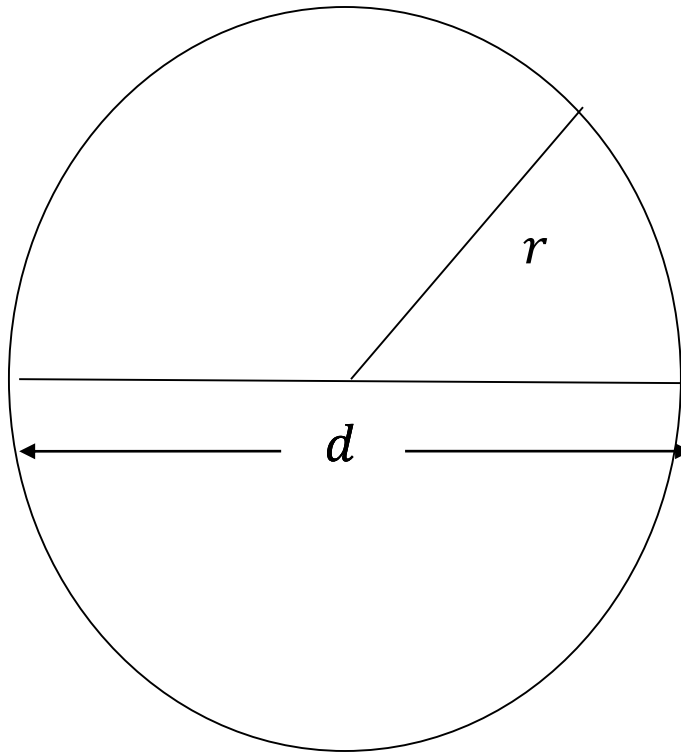**Step 5:** How many other segments can you draw with the longest length?

there is an infinite amount.

Circle Song

It has a __radius__ from center to rim. It's __diameter__ a line

that goes from side to side while passing through the __Center__ . πr^2

sounds like __area__ to me. When I need a __circumference__ I just

use πd.

- The longest line segment in any circle is the __diameter__ of the circle.

- The diameter passes through the __Center__ of the circle.

- The radius is __half__ the length of the diameter.

- The diameter is __double__ the length of the radius.

Let r represent the __radius__, and d the __diameter__.

Then the relationship between the radius and diameter of a circle is:

$$r = d \div 2$$

$$r = \frac{d}{2} \Big\} \text{ diameter divided by } 2.$$

$$d = 2r$$

means 2 times the radius