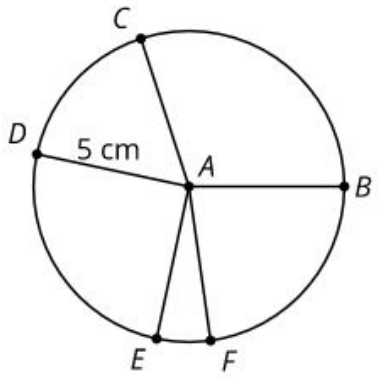
Unit 3 Glossary Terms

circle

A circle is made out of all the points that are the same distance from a given point.

For example, every point on this circle is 5 cm away from point A , which is the center of the circle.



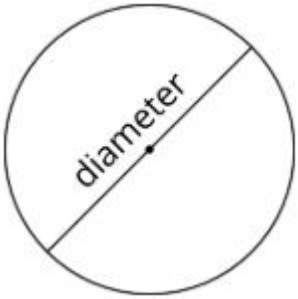
circumference

The circumference of a circle is the distance around the circle. If you imagine the circle as a piece of string, it is the length of the string. If the circle has radius r then the circumference is$2\pi r$.

The circumference of a circle of radius 3 is $2 \cdot \pi \cdot 3$, which is 6π , or about 18.85.

diameter

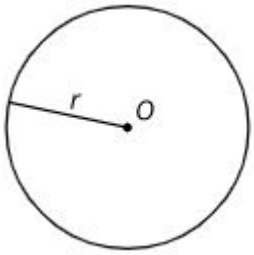
A diameter is a line segment that goes from one edge of a circle to the other and passes through the center. A diameter can go in any direction. Every diameter of the circle is the same length. We also use the word *diameter* to mean the length of this segment.



radius

A radius is a line segment that goes from the center to the edge of a circle. A radius can go in any direction. Every radius of the circle is the same length. We also use the word *radius* to mean the length of this segment.

For example, is the radius of this circle with center O.

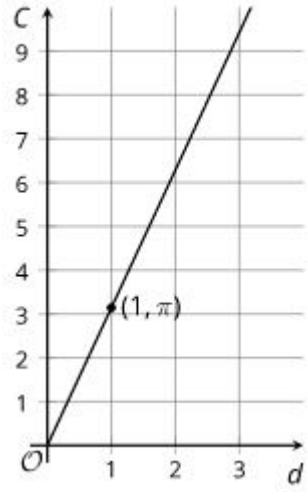


Pi(π)

There is a proportional relationship between the diameter and circumference of any circle. The constant of proportionality is pi. The symbol for pi is π .

We can represent this relationship with the equation $C = \pi d$, where Crepresents the circumference and d represents the diameter.

Some approximations for π are $\frac{22}{7}$, 3.14, and 3.14159.



area of a circle

If the radius of a circle is r units, then the area of the circle is πr^2square units.

For example, a circle has radius 3 inches. Its area is $\pi 3^2$ square inches, or 9πsquare inches, which is approximately 28.3 square inches.

Squared

We use the word *squared* to mean "to the second power." This is because a square with side length s has an area of $s \cdot s$, or s^2 .