

Assignment

Write

Write the term that best completes the statement.

1. _____ means to have the same size, shape, and measure.
2. A(n) _____ is a ruler with no numbers.
3. _____ are line segments that have the same length.
4. A(n) _____ is described as a straight continuous arrangement of an infinite number of points.
5. A(n) _____ is part of a circle, or the curve between two points on a circle.
6. A(n) _____ is a tool used to create arcs and circles.
7. When you _____ a geometric figure, the figure is created without the use of tools.
8. A(n) _____ is described as a location in space, and it has no size or shape.

Remember

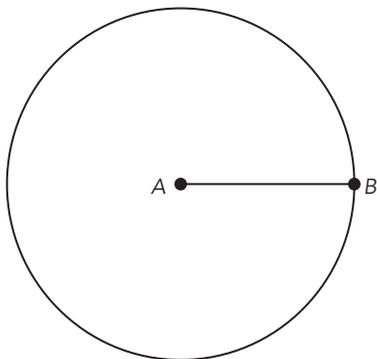
Euclid was a Greek mathematician who lived more than 2000 years ago. He put together a collection of ideas about geometry in a book called *The Elements*.

Euclid used special drawings, called *constructions*, to explain and prove geometric statements. Constructions are created using only a *compass* or a *straightedge* or both.

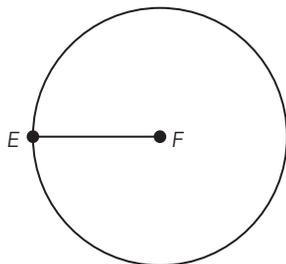
Practice

Construct and label each circle with the given radius and center.

1. Construct a circle using \overline{AB} as the radius and A as the center.



2. Construct a circle using \overline{EF} as the radius and F as the center.



Construct and label each line segment using the given information.

3. Duplicate \overline{AB} .

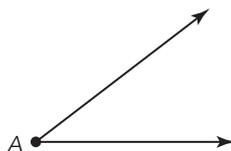


4. Duplicate \overline{CD} .

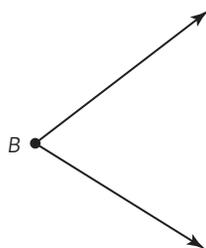


Construct and label each angle using a compass and a straightedge.

5. Construct an angle that is congruent to $\angle A$.

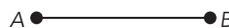


Construct an angle that is congruent to $\angle B$.



Stretch

In *The Elements*, Euclid demonstrates how to use only a compass and straightedge to construct an equilateral triangle from a given segment. Show how this can be done.



Review

- A game requires spinning a spinner numbered 1 through 10 and rolling a 20-sided playing die.
 - What is the probability of spinning a prime number and rolling an even number?
 - What is the probability of spinning an odd number and rolling an odd number?
 - What is the probability of spinning a number less than 6 or rolling a number less than 6?
 - What is the probability of spinning a number less than 1 or rolling a number less than 10?
- Solve each inequality and graph the solution.
 - $-3x - 4 \leq 19$
 - $\frac{x}{8} + \frac{3}{4} > 7$