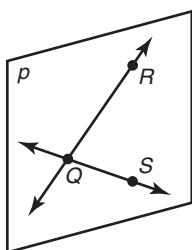


### Quiz: Tools of Geometry

Write the term that best completes each statement.

- 1) A(n) \_\_\_\_\_ is a portion of a line that begins with a single point and extends infinitely in one direction.
- 2) Two or more line segments of equal measure are \_\_\_\_\_.
- 3) The points where a line segment begins and ends are the \_\_\_\_\_.
- 4) A(n) \_\_\_\_\_ is a portion of a line that includes two points and all of the collinear points between the two points.
- 5) A(n) \_\_\_\_\_ is a straight, continuous arrangement of an infinite number of points.
- 6) Two or more lines located in the same plane are \_\_\_\_\_.
- 7) Points that are all located on the same line are \_\_\_\_\_.
- 8) A location in space is a \_\_\_\_\_.
- 9) A flat surface is a(n) \_\_\_\_\_.
- 10) Identify the point(s), line(s), and plane(s) in the figure. Use proper notation. Separate items in each list with commas.

Points:

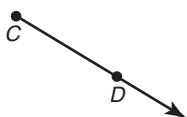


Lines:

Planes:

- 11) Identify each geometric figure using symbols (not words).

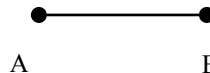
a)



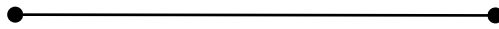
b)



c)



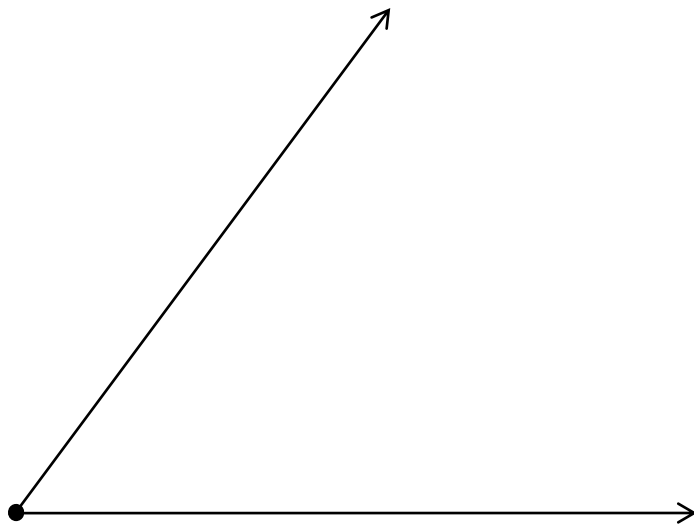
- 12) a)** Construct an equilateral triangle with the given line segment as the base using only a compass and straight edge.



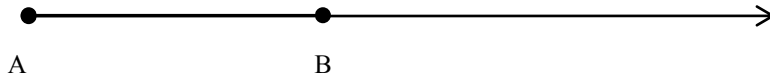
- b) Write down the steps. (hint: label the end points and use geometric notation)

- c) Explain how we know it is an equilateral triangle.

- 13)** a) Construct an angle congruent to the given angle below using the given ray as one side.  
b) Write down the steps.  
c) Explain how we know the angles have the same measure.



- 14) Given  $\overrightarrow{AB}$  and that  $A$ ,  $B$ , and  $C$  are collinear. Construct the point  $C$  using your compass so that point  $B$  is located halfway between points  $C$  and  $A$ .



- 15) What was the name of the famous Greek teacher of mathematics who wrote the geometry textbook, *Elements*, which has been published more than any other mathematics textbook ever?