**1.2 Homework: Tools of Geometry**

Do all of the problems. Circle the ones you have trouble with so we can talk about them in class.

**Vocabulary**

Write the term that best completes each statement.

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

Identify the point(s), line(s), and plane(s) in each figure. Use proper notation. Separate items in each list with commas.



**10)**

Points:

Lines:

Planes:

**11)**

Points:

Lines:

Planes:

**12)** Draw and label: points *A*, *D*, and *X* are collinear such that point *A* is located halfway between points *D* and *X*.

**13)** Draw and label: points *A*, *B*, and *C* are collinear such that point *B* is between points *A* and *C* and the distance between points *A* and *B* is twice the distance between points *B* and *C*.

**14)** Draw and label an example of each geometric figure.

  

**15)** Use symbols to write the name of each geometric figure.



**16)**

**17)**



Geometry:

Substitute:

Solve algebra:

*x =*

*JK =*

*KL =*

Check:

**18)**  and  are complementary angles. , and . Find the measure of each angle.

Geometry:

Substitute:

Solve algebra:

*x =*

*JK =*

*KL =*

Check:

**19)** Given the figure and measures of the two angles, solve for *x*.

 

**20)** Given *AB* = *x* +5 and *BC* = 3*x* -7. Points *A, B,* and *C* are collinear and *B* bisects . Solve for *x*.





1. When you \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ a geometric figure, you use tools such as a ruler, straightedge, compass, or protractor.