**Test: Tools of Geometry**

Do all of the problems. Circle the ones you have trouble with so we can talk about them in class. The test next week will be questions like these.

**Vocabulary**

Write the term that best completes each statement.

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

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

**10)**

Points:

Lines:

Planes:



**11)**

Points:

Lines:

Planes:

*Accurately draw and label the geometric figures described in problems #12 & #13.*

**12)** Points *R*, *S*, and *T* are collinear such that point *R* is located halfway between points *S* and *T*.

**13)** Points *D*, *E*, and *F* are collinear such that point *E* is between points *D* and *F* and the distance between points *D* and *E* is half the distance between points *E* and *F*.

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

  

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

**16)**





*Show your work by starting with each step on the labeled lines, and then in the end checking.*

**17)** Given that *JK =* 2*x*, *KL = x* + 20, and *JL = 35*. Find the value of *x, JK,* and *KL.*

*K*

*L*

*J*

Geometry:

Substitute:

Solve algebra:

*x =*

*JK =*

*KL =*

Check:

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

Geometry:

Substitute:

Solve algebra:

*x =*

**

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Check:

**19)** Given  as shown in the figure. Solve for *x* and the measures of the two angles. Show the steps and check your result.

1 2

Geometry:

Substitute:

Solve algebra:

*x =*

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Check:

**20)** Given *PQ* = 12 and *QR* = 3*x* + 3. Points *P, Q,* and *R* are collinear and *Q* bisects . Solve, check.

Geometry:

Substitute:

Solve algebra:

*x =*

*PQ =*

*QR =*

Check:

*The following pairs do not mean the same thing. Explain what they mean and what the difference is. Use complete sentences.*

**21)  , **

**22)  , **





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