

# UNIT 1: Tools of Geometry

NAME: \_\_\_\_\_

## CORRECTIVE ASSIGNMENT

DATE: \_\_\_\_\_

**Make sure you know ALL of this vocab!**

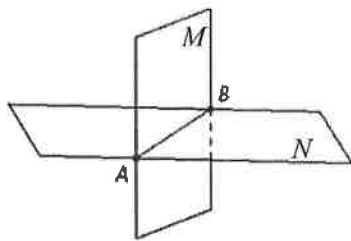
<ul style="list-style-type: none"> <li>• acute, right, obtuse straight angle</li> <li>• adjacent angles</li> <li>• angle bisector</li> <li>• collinear points</li> <li>• coplanar</li> <li>• complementary angles</li> <li>• congruent</li> </ul>	<ul style="list-style-type: none"> <li>• distance</li> <li>• line</li> <li>• linear pair</li> <li>• measure of an angle</li> <li>• midpoint</li> <li>• plane</li> <li>• point</li> <li>• postulate</li> </ul>	<ul style="list-style-type: none"> <li>• ray, opposite rays</li> <li>• segment</li> <li>• segment bisector</li> <li>• sides of an angle</li> <li>• space</li> <li>• supplementary angles</li> <li>• vertex of an angle</li> <li>• vertical angles</li> </ul>
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These formulas will be given on the test. You're welcome.

$$M = \left( \frac{x_1+x_2}{2}, \frac{y_1+y_2}{2} \right)$$

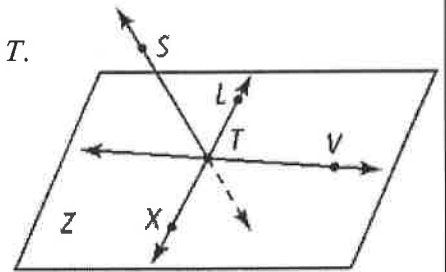
$$d = \sqrt{(x_2 - x_1)^2 + (y_2 - y_1)^2}$$

1. What is the intersection of plane  $M$  and plane  $N$ ?



2. Use picture to answer the following:

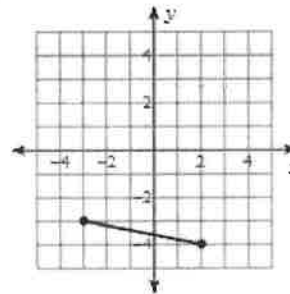
- Name a ray with endpoint of  $T$ .
- Are  $L, V, S,$  and  $T$  coplanar?
- Draw  $\overleftrightarrow{LV}$ .
- What is the intersection of  $\overleftrightarrow{LX}$  and  $\overleftrightarrow{TV}$ ?



**Find the midpoint and distance between each pair of points.**

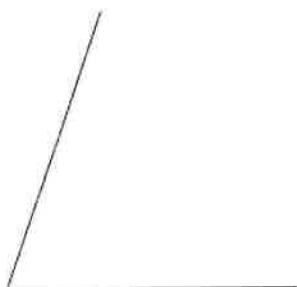
3)  $(-7, -6), (2, 5)$

4)

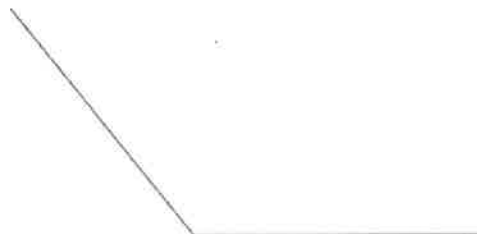


**Find the measure of each angle to the nearest degree. Classify the angle as obtuse, acute, straight, or right.**

5)

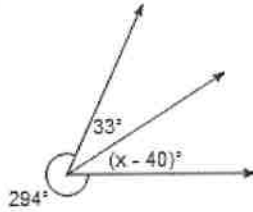


6)

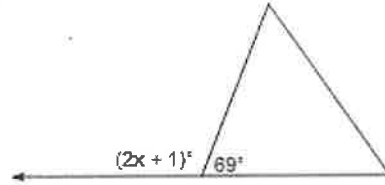


Find the value of  $x$ .

19)



20)



21.

**Given**

$I$  is the midpoint of  $\overline{WN}$  

$$WI = 4x - 12$$

$$IN = 2x + 6$$

**Find  $x$**

**Find  $WI$**

22.

**Given**

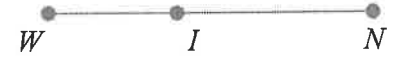
$$WN = 5x + 1$$

$$IN = 12$$

$$WI = 6x - 14$$

**Find  $x$**

**Find  $WI$**



## APPLICATIONS

### 1. Coordinate Geometry

- Graph the points  $A(1, 1)$  and  $B(5, 7)$  and  $C(7, 5)$
- Connect the points in order to make a triangle,  $\triangle ABC$
- Find  $BA$ .
- Find the midpoint of  $\overline{BC}$ . Plot on graph as point  $D$ .
- Draw  $\overline{BD}$  on the graph.

