

Welcome! please grab your  
warmup and ISN!  
please complete the game in  
your Classroom!

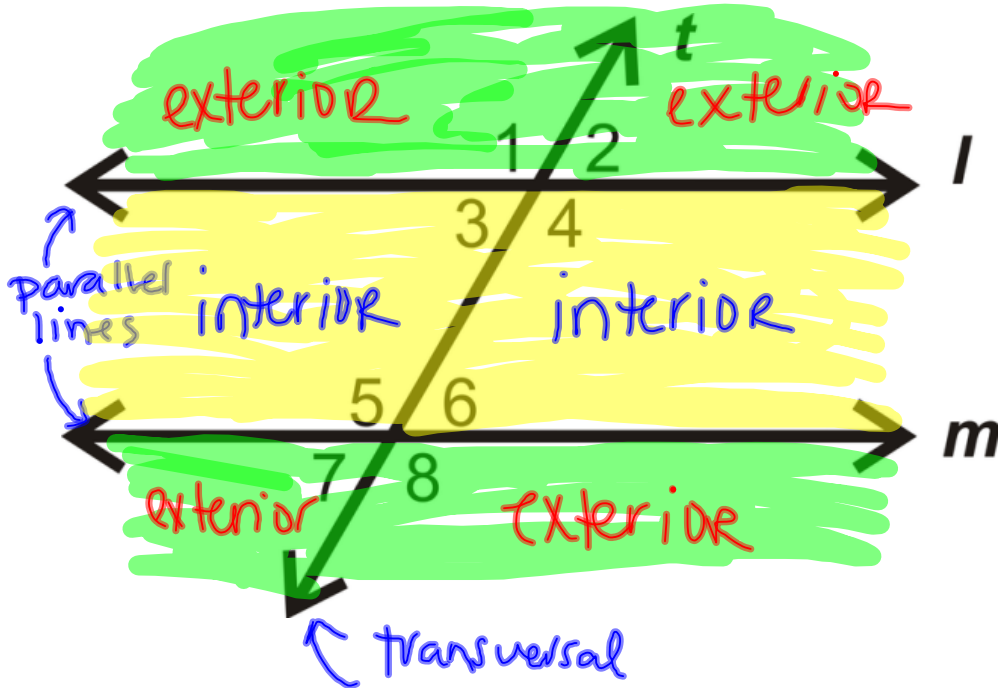
Aug 23-8:39 AM

Given:  $\angle 1 = 90^\circ$   
 $\angle 2 = 34^\circ$   
 $\angle 6 = 137^\circ$

1.  $\angle 3 = 90^\circ$   
2.  $\angle 4 = 176^\circ$   
3.  $\angle 5 = 146^\circ$   
4.  $\angle 7 = 137^\circ$   
5.  $\angle 8 = 43^\circ$

Aug 18-11:37 AM

# TOC 15-16 Parallel Line Angles



Aug 18-2:10 PM

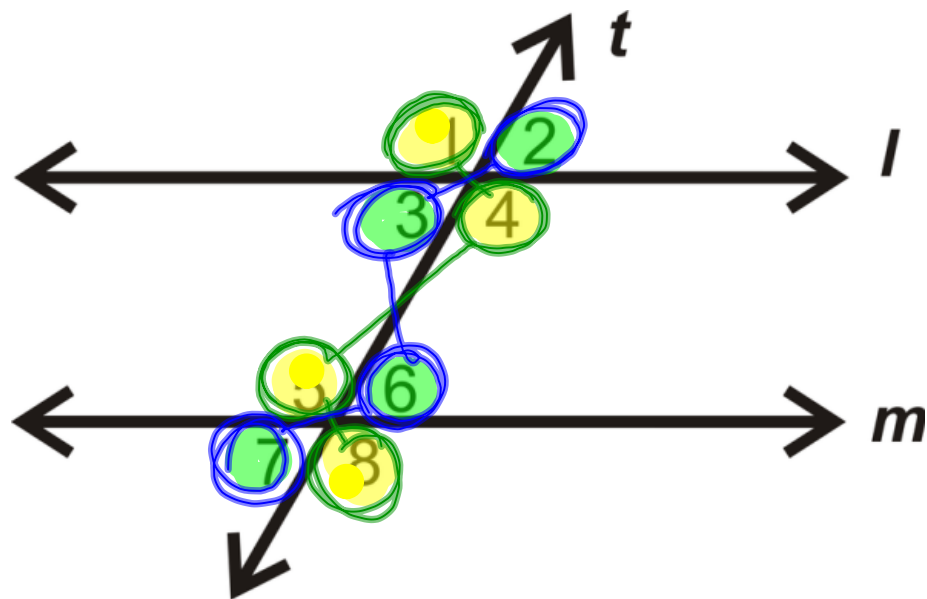
DEFINITION	DIAGRAM
<p><u>Corresponding <math>\angle</math>'s</u></p> <ul style="list-style-type: none"> <li>• same side, same spot, different parallel lines.</li> <li>• Always <math>\cong</math>!</li> </ul>	<p><math>\angle 1 \cong \angle 5</math>   <math>\angle 2 \cong \angle 6</math></p>
<p><u>Alternate Interior <math>\angle</math>'s</u></p> <ul style="list-style-type: none"> <li>• opposite sides of the transversal</li> <li>• inside the parallel lines</li> <li>• Always <math>\cong</math>!</li> </ul>	<p><math>\angle 3 \cong \angle 6</math>   <math>\angle 4 \cong \angle 5</math></p>
<p><u>Alternate Exterior <math>\angle</math>'s</u></p> <ul style="list-style-type: none"> <li>• opposite sides of the transversal</li> <li>• outside the parallel lines</li> <li>• Always <math>\cong</math>!</li> </ul>	<p><math>\angle 1 \cong \angle 8</math>   <math>\angle 2 \cong \angle 7</math></p>

Aug 18-2:13 PM

DEFINITION	DIAGRAM
<u>Same Side Interior <math>\angle</math>'s</u> <ul style="list-style-type: none"> <li>• Same side of the transversal</li> <li>• inside the parallel lines</li> <li>• supplementary (<math>t=180</math>)</li> </ul>	
<u>Same Side Exterior <math>\angle</math>'s</u> <ul style="list-style-type: none"> <li>• Same side of the transversal</li> <li>• outside the parallel lines</li> <li>• supplementary (<math>t=180</math>)</li> </ul>	

Aug 19-2:20 PM

### TOC 15-16 Parallel Lines Angles

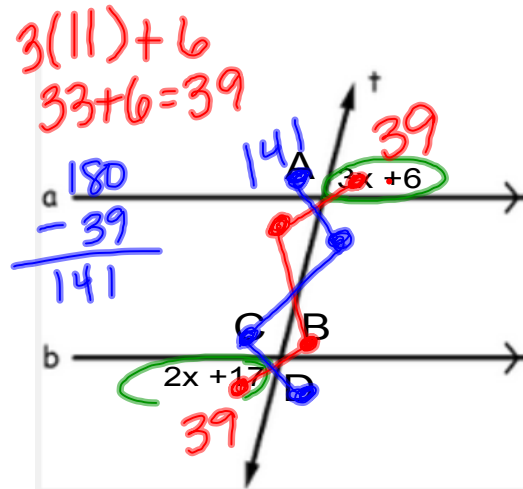


Aug 18-2:14 PM

Ex 1 (pg 15). Find  $\angle A$ ,  $\angle B$ ,  $\angle C$ , and  $\angle D$

$$\begin{array}{r|l}
 3x+6 & = 2x+17 \\
 \underline{-2x} & \downarrow \quad \underline{-2x} \\
 1x+6 & +17 \\
 \underline{\phantom{1x}6} & \downarrow \quad \underline{\phantom{1x}6} \\
 1x & 11 \\
 \hline
 \end{array}$$

$x=11$



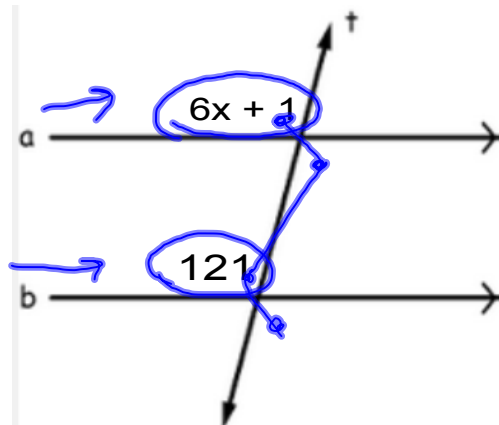
$\angle B = 39^\circ$   
 $\angle A = 141^\circ$   
 $\angle C = 141^\circ$   
 $\angle D = 141^\circ$

Aug 18-2:18 PM

Ex 2 (pg 15). Find x.

$$\begin{array}{r|l}
 6x+1 & = 121 \\
 \underline{-1} & \downarrow \quad \underline{-1} \\
 6x & 120 \\
 \underline{\phantom{6x}6} & \downarrow \quad \underline{\phantom{6x}6} \\
 & 20 \\
 \hline
 \end{array}$$

$x=20$

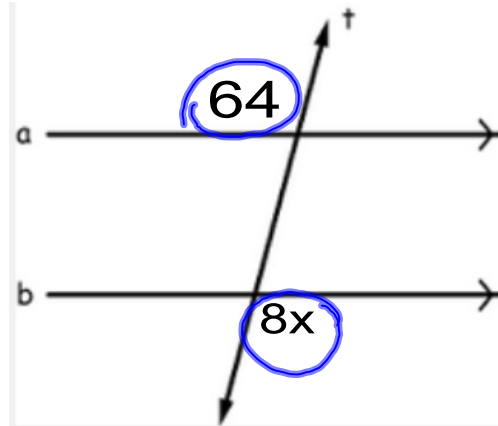


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Ex 3 (pg 15). Find x.

$$\begin{array}{r} 64 = 8x \\ \hline 8 \end{array}$$

$x = 8$



Aug 24-9:35 AM

Name: \_\_\_\_\_

Due Date: \_\_\_\_\_

1

### GEOMETRY A CITY PROJECT

Your task is to design a city that includes several different kinds of lines and angles. You must include the following:

1. City name and population at the top of the project
2. Six parallel streets (each street must be named)
3. Two transversal streets (each street must be named)
4. One perpendicular street (each street must be named)

The following buildings must be placed as directed:

5. The gas station and restaurant must be alternate exterior angles
6. Your house and school must be alternate interior angles
7. Courthouse and bank must be vertical angles
8. Hardware store and church must be corresponding angles
9. Traffic light at two intersections (draw 3 circles on top of each other just like a stop light)
10. Name and label each building
11. Use crayons or colored pencils to draw your city. BE CREATIVE!!!!

#### 12. Design the final city on poster board

13. Once your map is completed you are to write out five directions from one place to another. Each direction must have one of these terms: parallel, intersecting or perpendicular. These directions should be able to get your teacher and classmates from one place to another without getting lost! **Directions must be typed.** Go to the library or make arrangements with me afterschool on ~~Tuesdays~~ or Thursdays.

14. Turn in this sheet with your project

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**GRADING RUBRIC:**

ITEM	POINTS POSSIBLE	POINTS RECEIVED
Parallel streets (named)	6	
Transversal streets (named)	2	
Perpendicular street (named)	1	
Gas station (named/location)	4	
Restaurant (named/location)	4	
House (named/location)	4	
School (named/location)	4	
Courthouse (named/location)	4	
Bank (named/location)	4	
Hardware Store (named/location)	4	
Church (named/location)	4	
Traffic lights (named/location)	2	
General appearance	8	
Five directions (typed)	25	
Late	-10 a day	

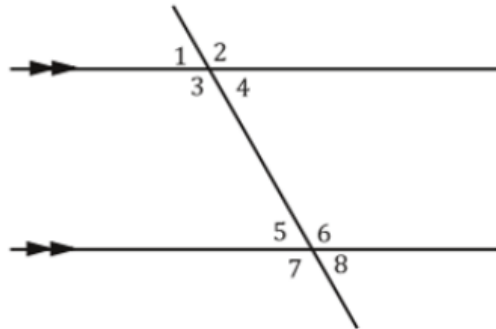
**Extra Credit:**

1. You may build your city using 3-dimensional objects.
2. Include one street that intersects another street to form an obtuse angle.
3. Include one street that intersects another to form an acute angle

**TOTAL  
Worth 1 test grade!**

Aug 24-9:15 AM

For each, state the angle relationship.



1. Angle  $\angle 1$  and  $\angle 8$  are...

alternate exterior angles

2. Angle  $\angle 3$  and  $\angle 5$  are...

3. Angle  $\angle 1$  and  $\angle 5$  are...

\_\_\_\_\_

4. Angle  $\angle 4$  and  $\angle 8$  are...

\_\_\_\_\_

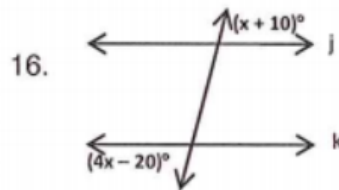
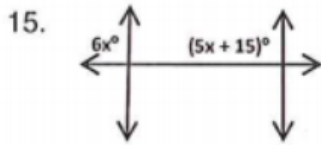
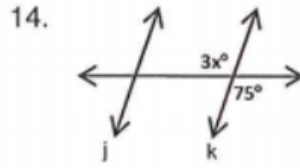
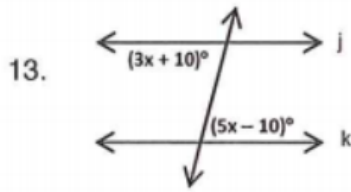
5. Angle  $\angle 2$  and  $\angle 6$  are...

6. Angle  $\angle 4$  and  $\angle 5$  are...

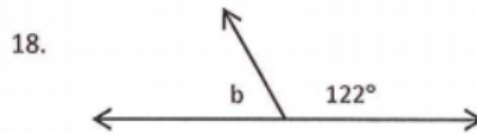
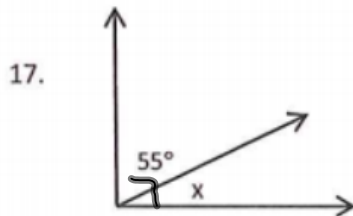
Aug 24-9:36 AM

# Welcome! please grab your warmup and ISN!

Find the value of  $x$  that makes  $j \parallel k$ .



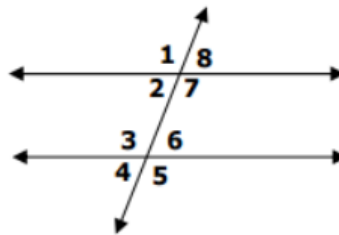
Determine the missing angles.



Aug 27-7:49 AM

# Welcome! please grab your warmup and ISN!

In the figure,  $l \parallel m$ . Find the measure of each angle. Each problem is different.



35) If  $m\angle 7 = 100^\circ$ , then  $m\angle 3 =$  \_\_\_\_\_

39) If  $m\angle 3 = 140^\circ$ , then  $m\angle 8 =$  \_\_\_\_\_

36) If  $m\angle 7 = 175^\circ$ , then  $m\angle 6 =$  \_\_\_\_\_

40) If  $m\angle 4 = 30^\circ$ , then  $m\angle 1 =$  \_\_\_\_\_

37) If  $m\angle 7 = 120^\circ$ , then  $m\angle 5 =$  \_\_\_\_\_

41) If  $m\angle 4 = 40^\circ$ , then  $m\angle 2 =$  \_\_\_\_\_

38) If  $m\angle 4 = 20^\circ$ , then  $m\angle 7 =$  \_\_\_\_\_

42) If  $m\angle 7 = 125^\circ$ , then  $m\angle 4 =$  \_\_\_\_\_

Aug 27-11:47 AM

# Welcome! please grab your warmup and ISN!

Give a pair of angles that satisfies each of the following...

corresponding angles \_\_\_\_\_

alternate interior angles \_\_\_\_\_

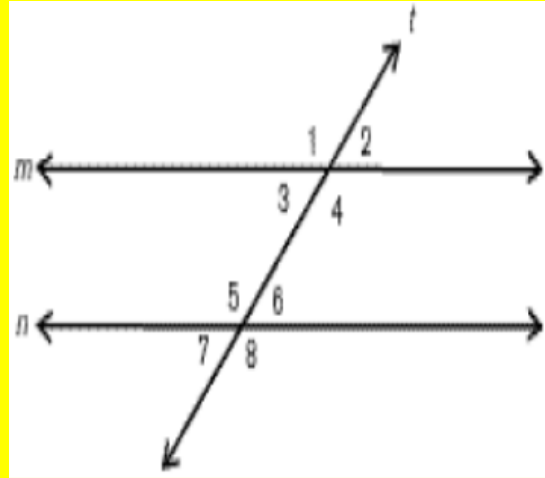
alternate exterior angles \_\_\_\_\_

same side interior angles \_\_\_\_\_

same side exterior angles \_\_\_\_\_

vertical angles \_\_\_\_\_

supplementary angles \_\_\_\_\_



Aug 25-11:35 AM