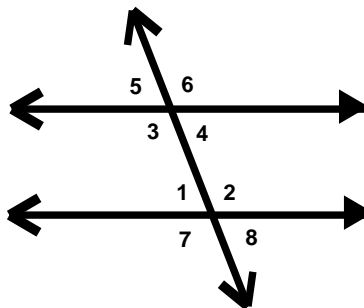


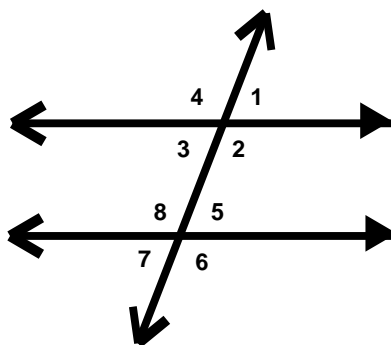
## Angles Associated with Parallel Lines

1. Two lines that are not coplanar are called \_\_\_\_\_
2. Two coplanar lines that do not intersect are called \_\_\_\_\_

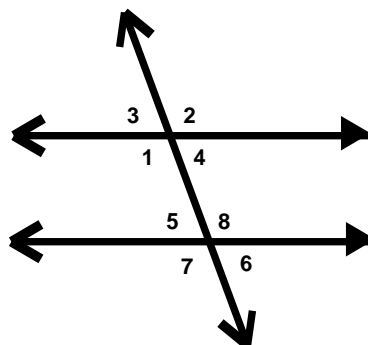
3. (a)  $\vec{t}$  is called the \_\_\_\_\_
- (b)  $\angle 1, \angle 2, \angle 3$  and  $\angle 4$  are called \_\_\_\_\_
- (c)  $\angle 1$  and  $\angle 4$  are called \_\_\_\_\_
- (d)  $\angle 1$  and  $\angle 5$  are called \_\_\_\_\_
- (e)  $\angle 2$  and  $\angle 4$  are called \_\_\_\_\_



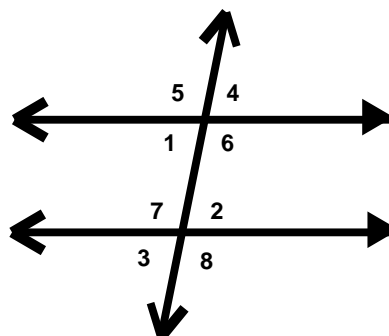
4. (a)  $\angle 8$  and  $\angle 2$  are called \_\_\_\_\_
- (b)  $\angle 6$  and  $\angle 2$  are called \_\_\_\_\_
- (c)  $\angle 8$  and  $\angle 4$  are called \_\_\_\_\_
- (d)  $\angle 8$  and  $\angle 3$  are called \_\_\_\_\_
- (e)  $\angle 5$  and  $\angle 3$  are called \_\_\_\_\_
- (f)  $\angle 5$  and  $\angle 2$  are called \_\_\_\_\_
- (g)  $\angle 4$  and  $\angle 2$  are called \_\_\_\_\_



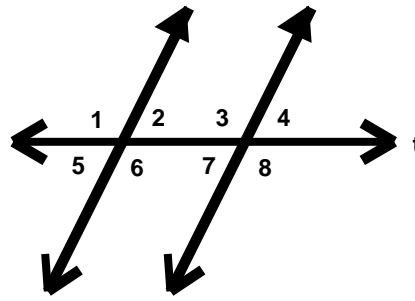
5. (a)  $\angle 1$  and  $\angle$  \_\_\_\_\_ are interior angles on the same side of the transversal.
- (b)  $\angle 7$  and  $\angle$  \_\_\_\_\_ are corresponding angles
- (c)  $\angle 8$  and  $\angle$  \_\_\_\_\_ are alternate interior angles.
- (d)  $\angle 3$  and  $\angle$  \_\_\_\_\_ are corresponding angles.
- (e)  $\angle 4$  and  $\angle$  \_\_\_\_\_ are alternate interior angles
- (f)  $\angle 8$  and  $\angle$  \_\_\_\_\_ are interior angles on the same side of the transversal.



6. (a)  $\angle 3$  and  $\angle$  \_\_\_\_\_ are corresponding angles.
- (b)  $\angle 1$  and  $\angle$  \_\_\_\_\_ are alternate interior angles.
- (c)  $\angle 8$  and  $\angle$  \_\_\_\_\_ are corresponding angles.
- (d)  $\angle 4$  and  $\angle$  \_\_\_\_\_ are corresponding angles.
- (e)  $\angle 6$  and  $\angle$  \_\_\_\_\_ are alternate interior angles.
- (f)  $\angle 3$  and  $\angle$  \_\_\_\_\_ are vertical angles.
- (g)  $\angle 7$  and  $\angle$  \_\_\_\_\_ are interior angles on the same side of the transversal.



7. (a)  $\angle 1$  and  $\angle$  \_\_\_\_\_ are corresponding angles.  
 (b)  $\angle 6$  and  $\angle$  \_\_\_\_\_ are alternate interior angles  
 (c)  $\angle 8$  and  $\angle$  \_\_\_\_\_ are corresponding angles.  
 (d)  $\angle 2$  and  $\angle$  \_\_\_\_\_ are interior angles on the same side of the transversal.  
 (e)  $\angle 2$  and  $\angle$  \_\_\_\_\_ are alternate interior angles.



8. In each of the following,  $\vec{a} \parallel \vec{b}$ .
- Tell what type of angles are illustrated (alternate interior angles, corresponding angles, IASSOTS, vertical angles, linear pair)
  - State the relationship between the angles (congruent, supplementary)
  - find "x".

(a)

Type: \_\_\_\_\_  
 Relationship: \_\_\_\_\_  
 x = \_\_\_\_\_

(b)

Type: \_\_\_\_\_  
 Relationship: \_\_\_\_\_  
 x = \_\_\_\_\_

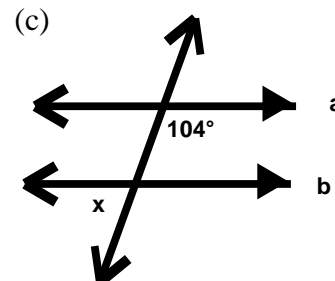
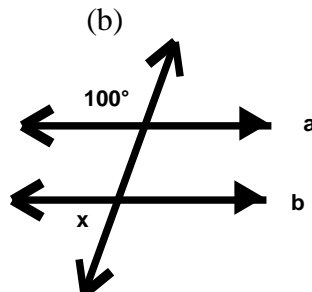
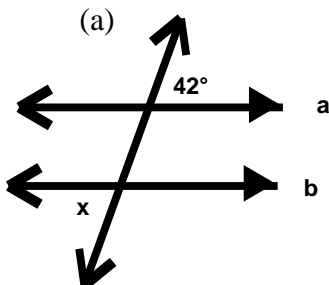
(c)

Type: \_\_\_\_\_  
 Relationship: \_\_\_\_\_  
 x = \_\_\_\_\_

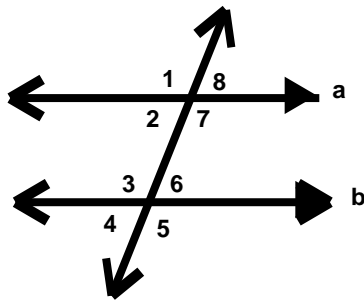
(d)

Type: \_\_\_\_\_  
 Relationship: \_\_\_\_\_  
 x = \_\_\_\_\_

9. In each of the following,  $\vec{a} \parallel \vec{b}$   
 Move the angles to their vertical angle position as necessary and find "x":



10.  $\vec{a} \parallel \vec{b}$



If  $m\angle 1 = 100^\circ$ ,

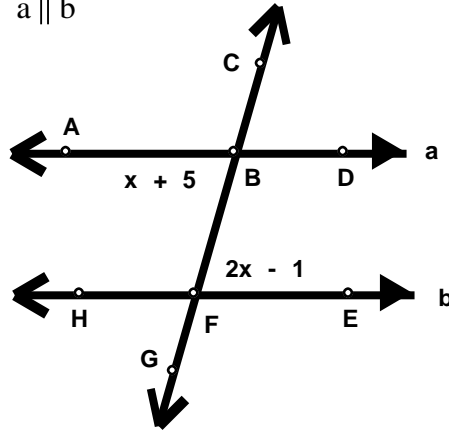
$m\angle 2 = \underline{\hspace{2cm}}$      $m\angle 6 = \underline{\hspace{2cm}}$

$m\angle 3 = \underline{\hspace{2cm}}$      $m\angle 7 = \underline{\hspace{2cm}}$

$m\angle 4 = \underline{\hspace{2cm}}$      $m\angle 8 = \underline{\hspace{2cm}}$

$m\angle 5 = \underline{\hspace{2cm}}$

11. In the diagram,  $\vec{a} \parallel \vec{b}$

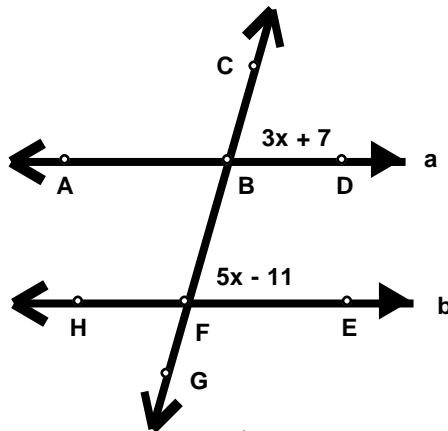


$x = \underline{\hspace{2cm}}$

$m\angle CBD = \underline{\hspace{2cm}}$

$m\angle DBF = \underline{\hspace{2cm}}$

12. In the diagram,  $\vec{a} \parallel \vec{b}$

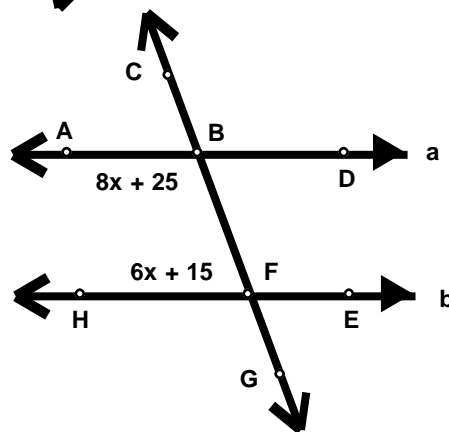


$x = \underline{\hspace{2cm}}$

$m\angle CBA = \underline{\hspace{2cm}}$

$m\angle HFG = \underline{\hspace{2cm}}$

13. In the diagram,  $\vec{a} \parallel \vec{b}$

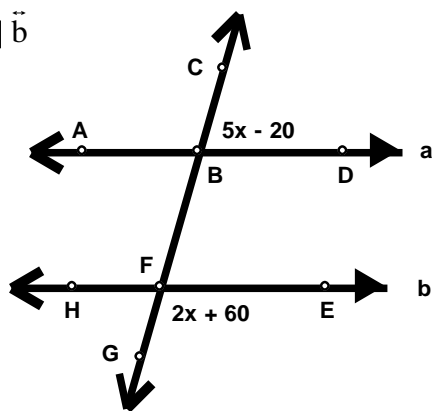


$x = \underline{\hspace{2cm}}$

$m\angle DBF = \underline{\hspace{2cm}}$

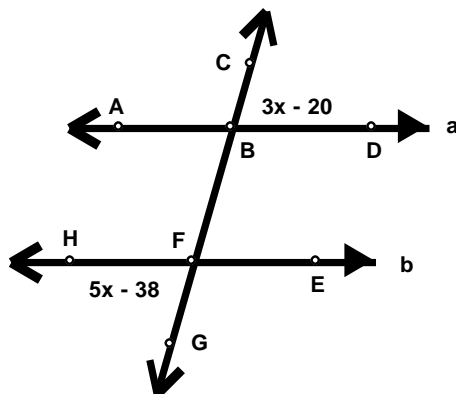
$m\angle GFE = \underline{\hspace{2cm}}$

14. In the diagram,  $\vec{a} \parallel \vec{b}$



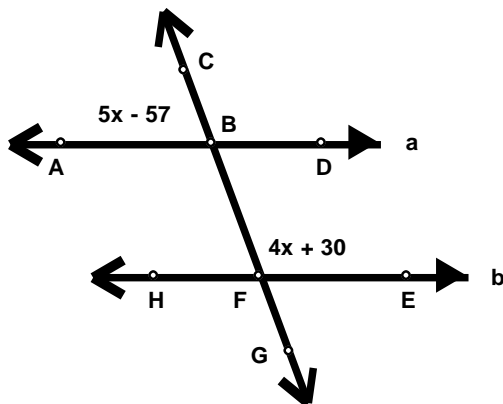
$x = \underline{\hspace{2cm}}$   
 $m\angle DBF = \underline{\hspace{2cm}}$   
 $m\angle ABF = \underline{\hspace{2cm}}$

15. In the diagram,  $\vec{a} \parallel \vec{b}$



$x = \underline{\hspace{2cm}}$   
 $m\angle CBD = \underline{\hspace{2cm}}$   
 $m\angle ABF = \underline{\hspace{2cm}}$

16. In the diagram,  $\vec{a} \parallel \vec{b}$ .



$x = \underline{\hspace{2cm}}$   
 $m\angle CBD = \underline{\hspace{2cm}}$   
 $m\angle BFH = \underline{\hspace{2cm}}$