

Name \_\_\_\_\_ Per \_\_\_\_\_

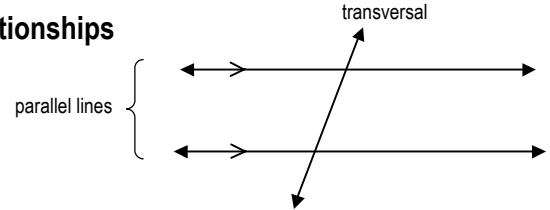
LO: I can identify **angle relationships** involving parallel lines and use the relationships to solve for unknown values.

**DO NOW** On the back of this packet

(1) **Need to Know: Parallel Lines, Transversals, and angle relationships**

**Parallel lines** in a plane do not intersect.

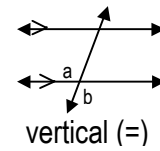
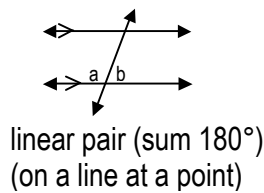
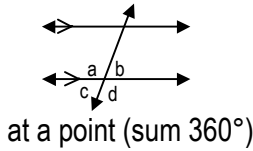
A **transversal** is a line that intersects two or more lines.



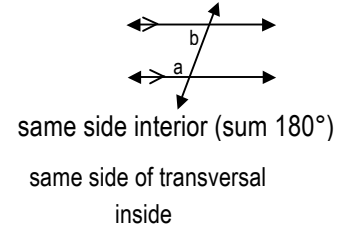
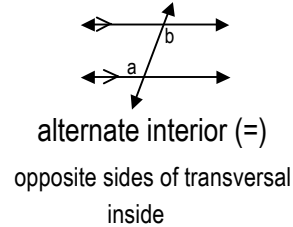
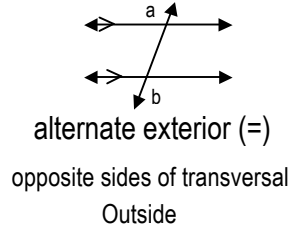
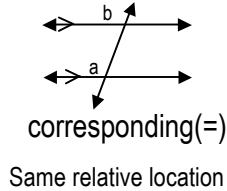
Put a lowercase letter in each angle in the diagram at right:

How many angles are formed by 2 parallel lines and a transversal? \_\_\_\_\_

What do we know about angles already?



What new relationships do we have when lines are parallel?



(2) **Angles: Identifying angle relationships** Write the relationship name and =, sum 180, or sum 360

transparencies, dry erase markers, erasers

1. \_\_\_\_\_

2. \_\_\_\_\_

3. \_\_\_\_\_

4. \_\_\_\_\_

5. \_\_\_\_\_

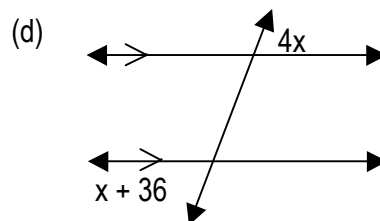
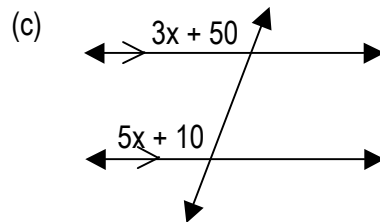
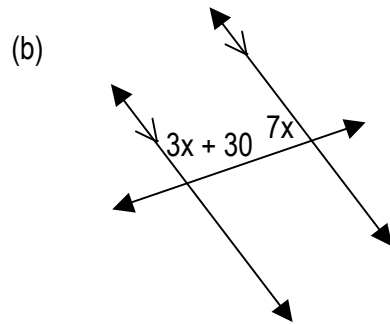
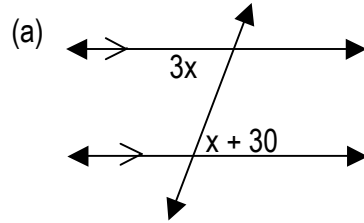
6. \_\_\_\_\_

7. \_\_\_\_\_

8. \_\_\_\_\_

(3) **Angles: Using Relationships**

Use problem number 1 name an angle relationship, write an equation, and solve it.

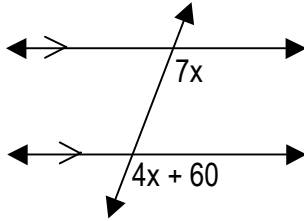


(4) **Exit Ticket**

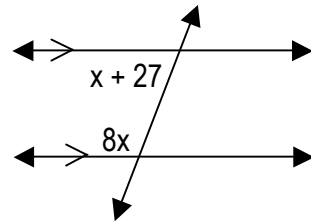
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 (3) **Homework**cont.  
pen or  
pencilIdentify a relationship, write an equation or equations, solve for  $x$ .

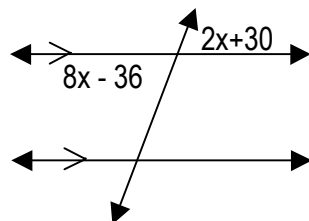
(e)



(f)



(g)

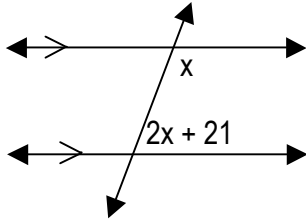


(5)  
pen or  
pencil

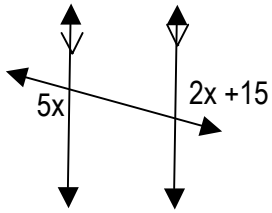
### Homework

Identify a relationship, write an equation or equations, solve for  $x$ .

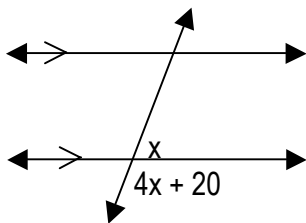
(1)



(2)



(3)

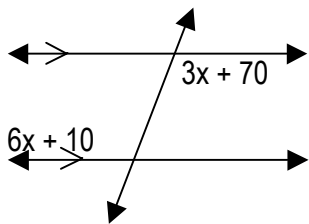
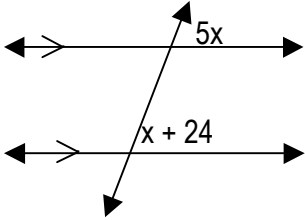


Exit Ticket Name \_\_\_\_\_ Date \_\_\_\_\_ Per \_\_\_\_\_

2.2L

(1) The LO (Learning Outcomes) are written below your name on the front of this packet. Demonstrate your achievement of these outcomes by doing the following:

Find the measures of  $x$  in each diagram. Identify a relationship, write an equation, and solve for the variable.



**DO NOW** Name \_\_\_\_\_ Date \_\_\_\_\_ Per \_\_\_\_\_

(1) Solving progress: Solve one of the two problems below.

(a)  $-3(1 + 6r) = 14 - 4$

(b)  $6(6v + 6) - 5 = 1 + 6v$

(2) Translation to algebra progress. Krystal won 63 pieces of gum playing hoops at the county fair. At school she gave four to every student in her math class. She only has 3 remaining. How many students are in her math class?. Write an algebraic statement to represent this situation. Be sure to write a "Let" statement to define any variables.



1. a & b are corresponding and equal  
c & d are vertical and equal
2. a & b are corresponding and **maybe** equal  
c & d are supplementary
3. a & b are corresponding and equal  
c & d are same side interior but not supplementary
4. a & b are corresponding and equal  
c & d are corresponding equal
5. a & b same side interior but not supplementary  
c & d are alternate interior and not equal

6. a & b are complementary  
c & d same side interior, supplementary & equal
7. a & b are corresponding and equal  
c & d are alternate interior and equal
8. a & b are supplementary  
c & d are vertical
9. a & b are same side interior and equal  
c & d are alternate interior and equal
10. a & b are alternate interior and not equal  
c & d are alternate interior and equal

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c & d are vertical and equal
2. a & b are corresponding and **maybe** equal  
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c & d are corresponding equal
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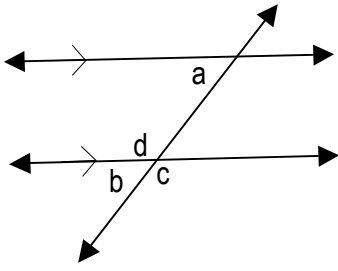
6. a & b are complementary  
c & d same side interior, supplementary & equal
7. a & b are corresponding and equal  
c & d are alternate interior and equal
8. a & b are supplementary  
c & d are vertical
9. a & b are same side interior and equal  
c & d are alternate interior and equal
10. a & b are alternate interior and not equal  
c & d are alternate interior and equal

1. a & b are corresponding and equal  
c & d are vertical and equal
2. a & b are corresponding and **maybe** equal  
c & d are supplementary
3. a & b are corresponding and equal  
c & d are same side interior but not supplementary
4. a & b are corresponding and equal  
c & d are corresponding equal
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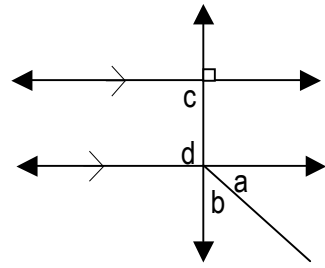
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c & d are vertical
9. a & b are same side interior and equal  
c & d are alternate interior and equal
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c & d are alternate interior and equal



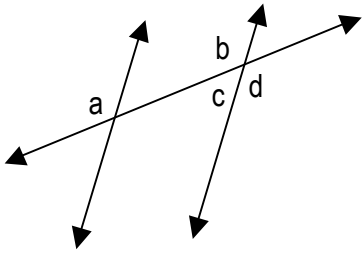
**A**



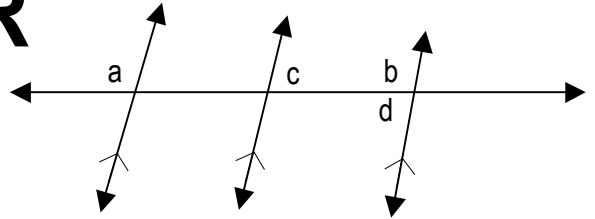
**S**



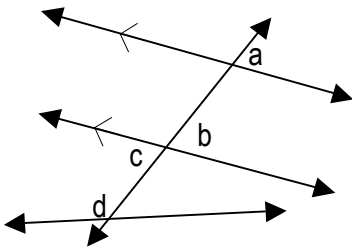
**N**



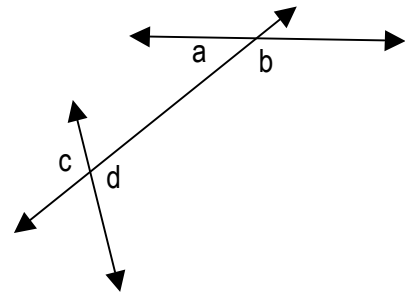
**R**



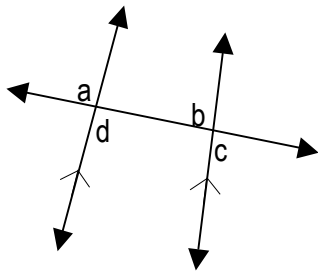
**G**



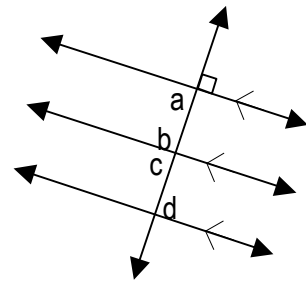
**O**



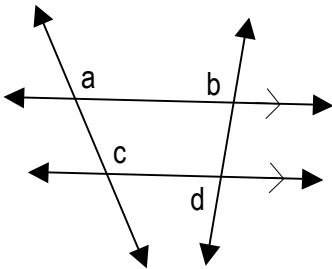
**L**



**C**



**E**



**K**

