

Name _____ Per _____

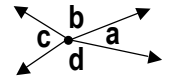
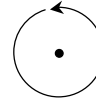
LO: I can identify **angle relationships** involving adjacent and vertical angles and use the relationships to solve for unknown values .

DO NOW On the back of this packet

(1) **Need to Know: Angles at a point or on a line**

What do we know about angles already?

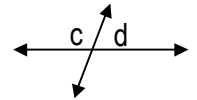
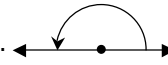
(a) The number of degrees around a point is _____.



(b) The sum of the **adjacent angles** around a point is _____

$a + b + c + d =$ _____

(c) The number of degrees in a **straight angle** is _____.



(d) Two **adjacent angles** that form a line are called a **linear pair**

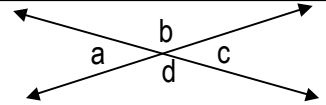
The sum of two angles on a straight line is _____.

The angles are also called _____.

$c + d =$ _____

(d) **Vertical angles** are across from each other when 2 lines intersect.

Vertical angles are always _____.



$a =$ _____

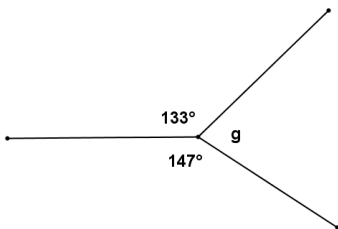
$b =$ _____

(2) **Angles: Using relationships**

transparencies, dry erase markers, erasers

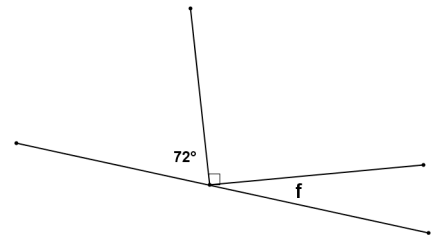
Use what you have stated in problem number 1 to find the measure of each unknown angle. Write an equation and solve it.

(a) Determine the measure of angle g .



$m\angle g =$ _____ because _____

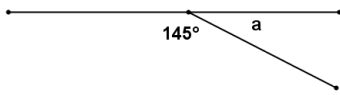
(b) Determine the measure of angle f .



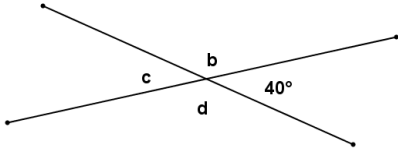
$m\angle f =$ _____ because _____

(3) **Angles: Using Relationships**

Use what you have stated in problem number 2 to find the measure of each unknown angle. Write an equation and solve it.



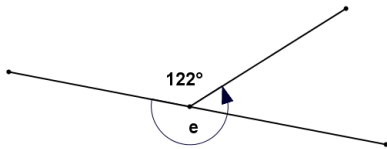
$m\angle a = \underline{\hspace{2cm}}$ because $\underline{\hspace{2cm}}$



$m\angle b = \underline{\hspace{2cm}}$ because $\underline{\hspace{2cm}}$

$m\angle c = \underline{\hspace{2cm}}$ because $\underline{\hspace{2cm}}$

$m\angle d = \underline{\hspace{2cm}}$ because $\underline{\hspace{2cm}}$



$m\angle e = \underline{\hspace{2cm}}$ because $\underline{\hspace{2cm}}$

Focus on the diagram with angles b , c , and d in problem number 3.

(a) Complete the equations: $b + 40 = \underline{\hspace{2cm}}$ because $\underline{\hspace{2cm}}$

$d + 40 = \underline{\hspace{2cm}}$ because $\underline{\hspace{2cm}}$

$b = d$ because $\underline{\hspace{2cm}}$

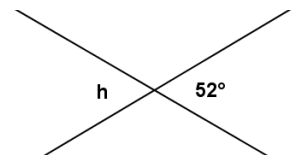
(b) Angles b and d are called **vertical angles**. **Vertical angles** always have $\underline{\hspace{2cm}}$ angle measures.

(c) Describe how you can recognize **vertical angles** in a diagram $\underline{\hspace{2cm}}$

Use what you have learned above to find the measure of h .

$m\angle h = \underline{\hspace{2cm}}$ because $\underline{\hspace{2cm}}$

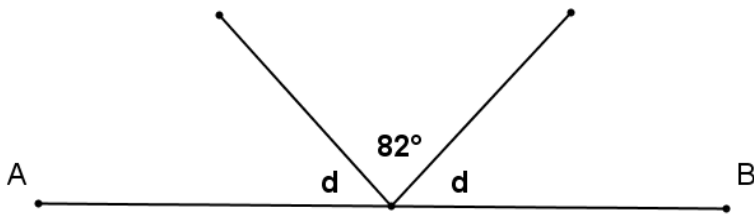
$\underline{\hspace{2cm}}$



(3) **Angles: Use relationships to solve problems**

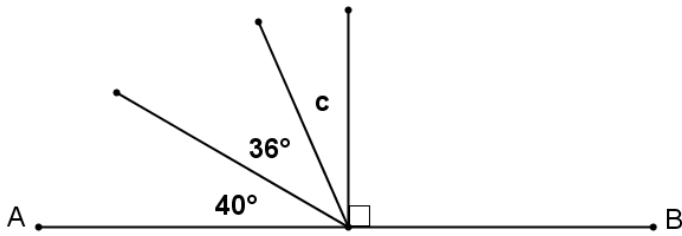
Identify a relationship, write an equation or equations, solve for each variable.

(a)



$d = \underline{\hspace{2cm}}$ because $\underline{\hspace{4cm}}$

(b)

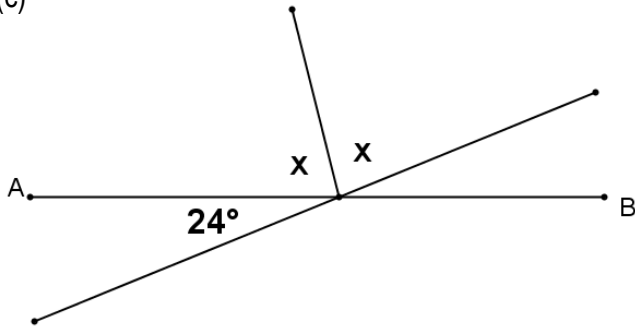
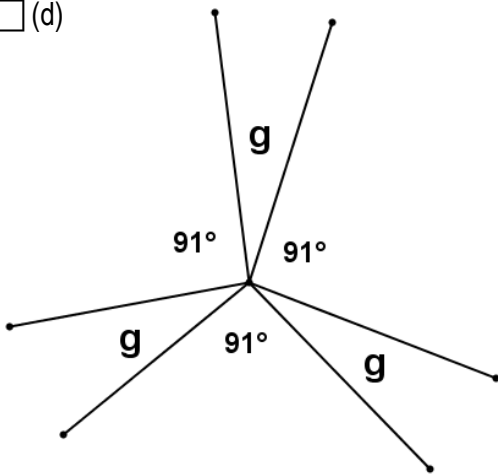
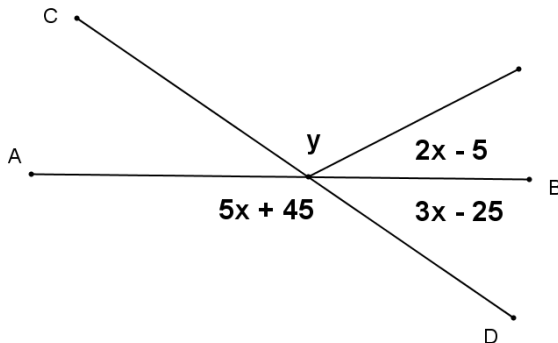


$c = \underline{\hspace{2cm}}$ because $\underline{\hspace{4cm}}$

(4) **Angles: Use relationships to solve problems**

cont.

Identify a relationship, write an equation or equations, solve for each variable.

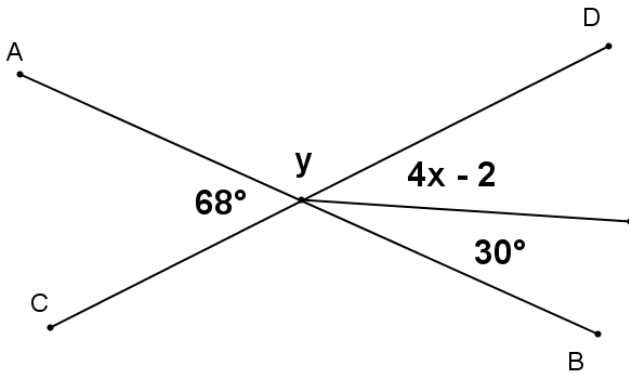
 (c)

 (d)

 (e)


(4) **Angles: Use relationships to solve problems**

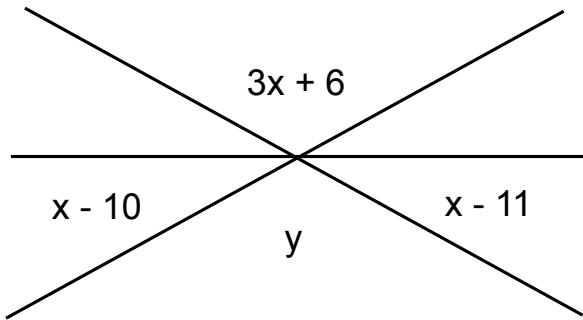
cont.

Identify a relationship, write an equation or equations, solve for each variable.

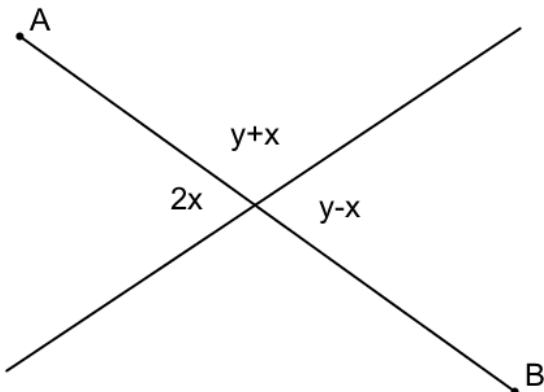
(f)



(g)



(h)



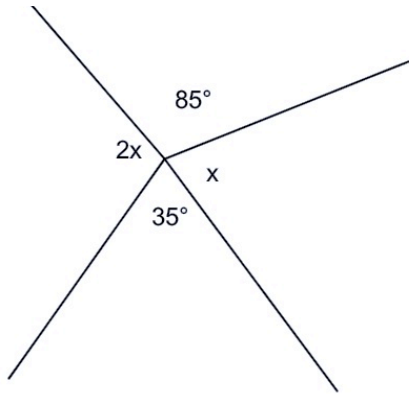
(5) **Exit Ticket**

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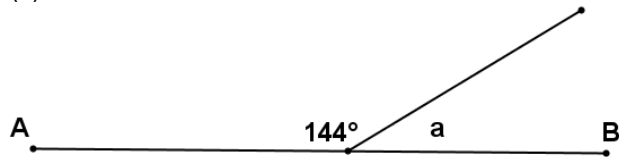
 (6) **Homework**pen or
pencil

Identify a relationship, write an equation or equations, solve for each variable.

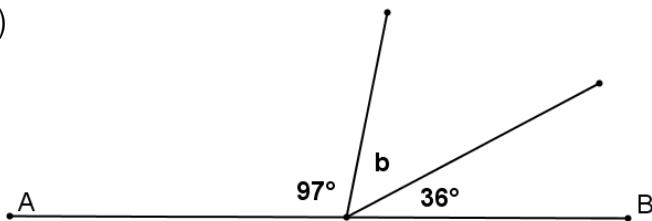
(1)



(2)



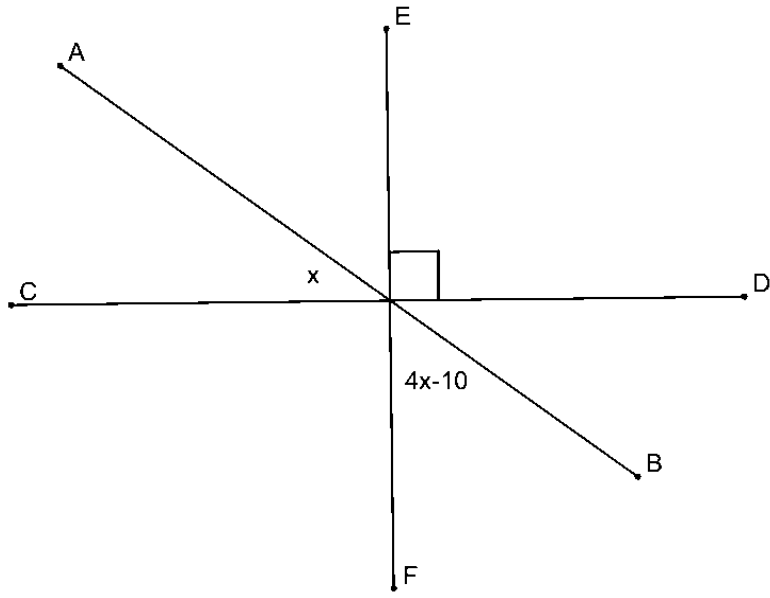
(3)



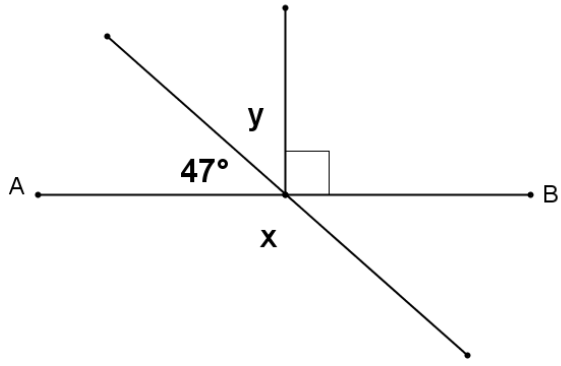
(6) Homework
pen or pencil

Identify a relationship, write an equation or equations, solve for each variable.

(4)



(5)

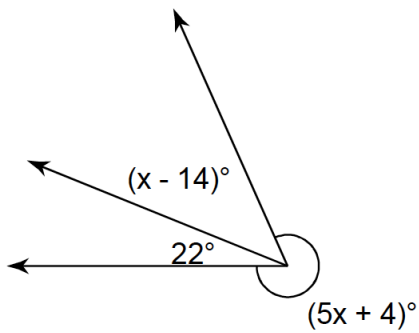
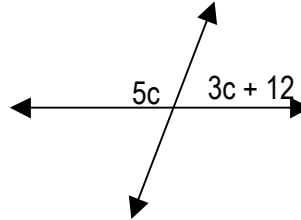
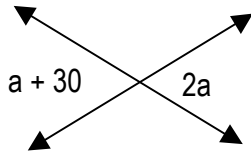


Exit Ticket Name _____ Date _____ Per _____

3.1R

(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 a , c and x . Identify a relationship, write an equation, and solve for the variable.



DO NOW Name _____ Date _____ Per _____

3.1R

(1) We have discussed 5 types of angles. List the 5 types of angles and make a sketch for each. (these are in your notes)

(2) What is meant to be interesting about the diagram below?

