

# PARALLEL LINES AND ANGLE RELATIONSHIPS

Name \_\_\_\_\_ Date \_\_\_\_\_ Block \_\_\_\_\_

Find the angle pairs that best complete each statement.

1. What is the alternate exterior angle with:

- a)  $\angle 8$       b)  $\angle 1$       c)  $\angle 5$

2. What is the corresponding angle with:

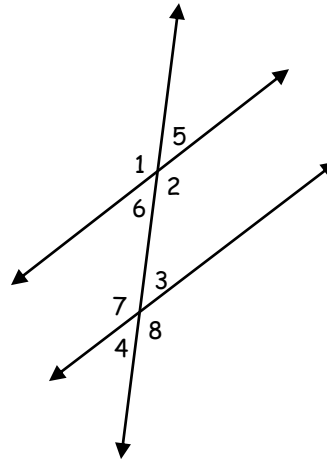
- a)  $\angle 5$       b)  $\angle 1$       c)  $\angle 6$

3. The vertical angle with:

- a)  $\angle 7$       b)  $\angle 2$       c)  $\angle 4$

4. The consecutive interior angle with:

- a)  $\angle 6$       b)  $\angle 3$       c)  $\angle 2$



State the postulate or theorem that justifies the statement.

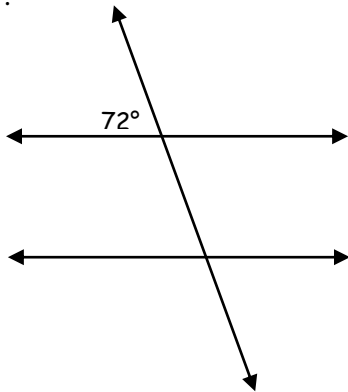
5.  $\angle 3 \cong \angle 5$

6.  $m\angle 7 + m\angle 6 = 180^\circ$

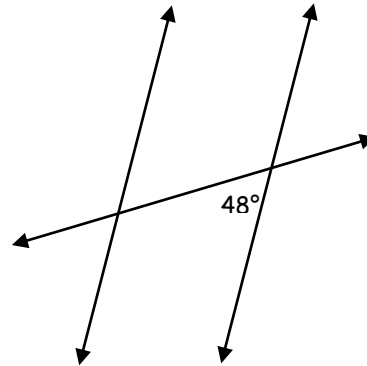
7.  $\angle 4 \cong \angle 3$

Fill in the measure of all missing angles.

7.

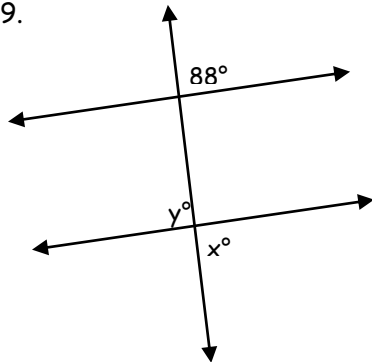


8.



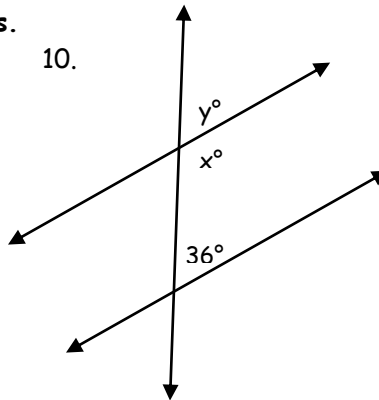
Find the measure of the numbered angles.

9.



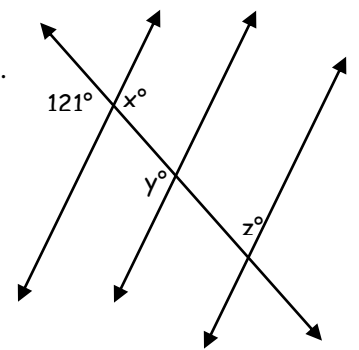
$x =$  \_\_\_\_\_  $y =$  \_\_\_\_\_

10.



$x =$  \_\_\_\_\_  $y =$  \_\_\_\_\_

11.

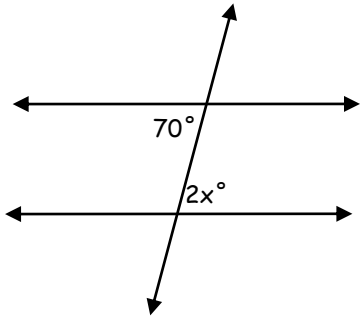


$x =$  \_\_\_\_\_  $y =$  \_\_\_\_\_

$z =$  \_\_\_\_\_

Solve for  $x$  and classify the pairs. If they are not a pair, write none. SHOW ALL WORK!!!!

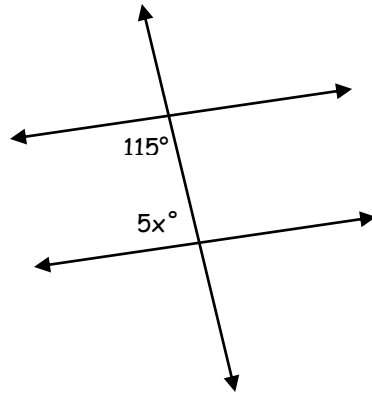
12.



$x =$  \_\_\_\_\_

Angle Pair: \_\_\_\_\_

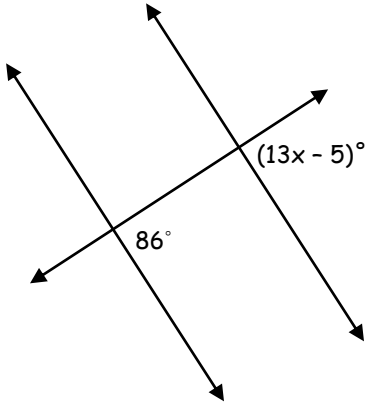
13.



$x =$  \_\_\_\_\_

Angle Pair: \_\_\_\_\_

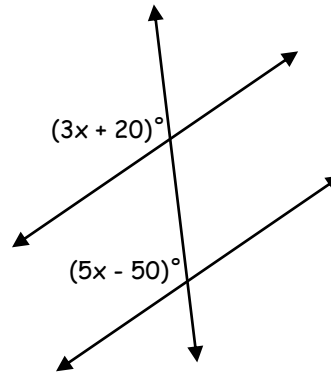
14.



$x =$  \_\_\_\_\_

Angle Pair: \_\_\_\_\_

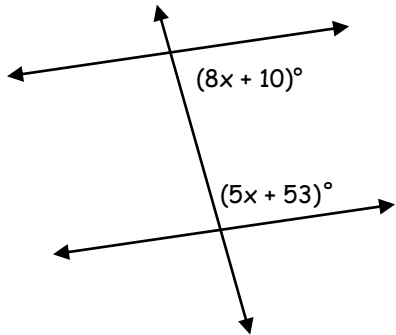
15.



$x =$  \_\_\_\_\_

Angle Pair: \_\_\_\_\_

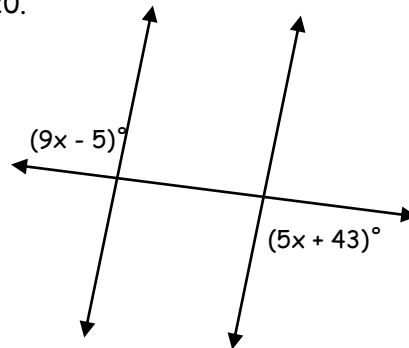
19.



$x =$  \_\_\_\_\_

Angle Pair: \_\_\_\_\_

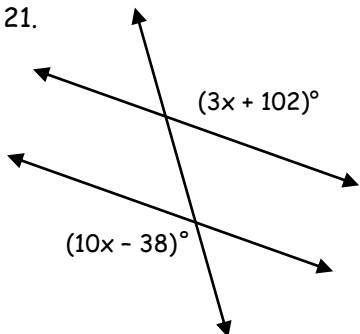
20.



$x =$  \_\_\_\_\_

Angle Pair: \_\_\_\_\_

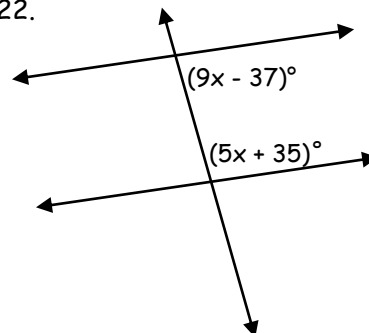
21.



$x =$  \_\_\_\_\_

Angle Pair: \_\_\_\_\_

22.



$x =$  \_\_\_\_\_

Angle Pair: \_\_\_\_\_