

# Independent Practice: SPECIAL ANGLE PAIRS

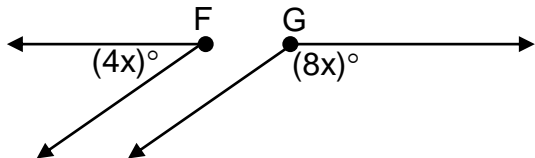
NAME: \_\_\_\_\_

DATE: \_\_\_\_\_

PERIOD: \_\_\_\_\_

Identify the type of angle pair and solve for  $x$  in each of the following problems.

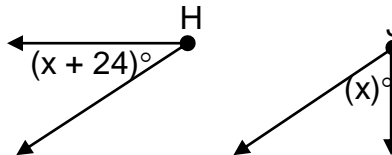
1.  $m\angle F + m\angle G = 180^\circ$ .



Type of pair: \_\_\_\_\_

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

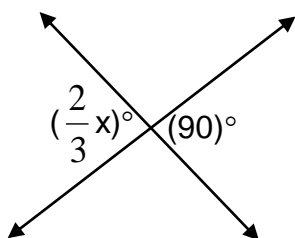
2.  $m\angle H + m\angle J = 90^\circ$ .



Type of pair: \_\_\_\_\_

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

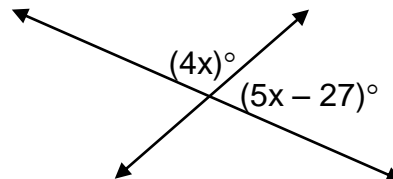
3.



Type of pair: \_\_\_\_\_

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

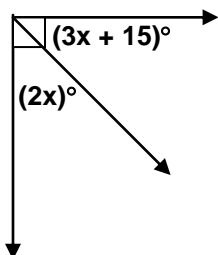
4.



Type of pair: \_\_\_\_\_

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

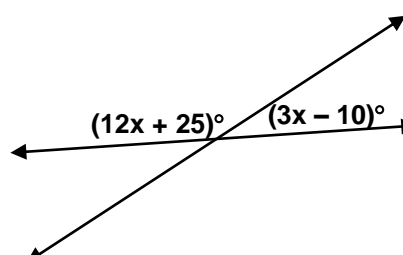
5.



Type of pair: \_\_\_\_\_

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

6.



Type of pair: \_\_\_\_\_

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

7. If  $\angle A$  and  $\angle B$  are complementary angles and  $m\angle A = (7x + 4)^\circ$  and  $m\angle B = (4x + 9)^\circ$ , find the value  $x$  by using an algebraic proof. Then find the measure of each angle.

|    |    |
|----|----|
| 1. | 1. |
| 2. | 2. |
| 3. | 3. |
| 4. | 4. |

$m\angle A =$  \_\_\_\_\_;  $m\angle B =$  \_\_\_\_\_

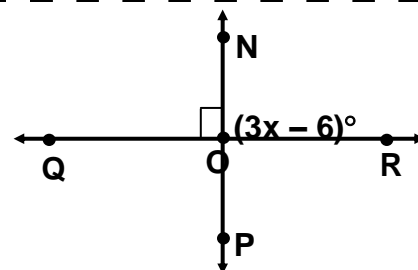
8. If  $\angle A$  and  $\angle B$  are supplementary angles and  $m\angle A = (3x - 7)^\circ$  and  $m\angle B = (2x + 2)^\circ$ , find the value  $x$  by using an algebraic proof. Then find the measure of each angle.

|    |    |
|----|----|
| 1. | 1. |
| 2. | 2. |
| 3. | 3. |
| 4. | 4. |

$m\angle A =$  \_\_\_\_\_;  $m\angle B =$  \_\_\_\_\_

9. Find the value of  $x$  by using an algebraic proof.

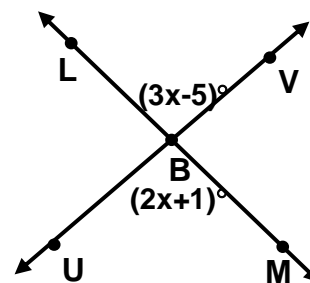
|    |    |
|----|----|
| 1. | 1. |
| 2. | 2. |
| 3. | 3. |



10.  $\overleftrightarrow{LM}$  and  $\overleftrightarrow{UV}$  intersect at  $B$ .

Find the value of  $x$  using an algebraic proof then find the measure of  $\angle LBV$ .

|    |    |
|----|----|
| 1. | 1. |
| 2. | 2. |
| 3. | 3. |
| 4. | 4. |



$x =$  \_\_\_\_\_;  $m\angle LBV =$  \_\_\_\_\_

11.  $\overleftrightarrow{CD} \perp \overleftrightarrow{AB}$ ,  $m\angle 1 = (3x - 2)^\circ$ ,  $m\angle 2 = (4x + 1)^\circ$ .

Find the  $m\angle 1$ ,  $m\angle 2$  and the value of  $x$ .

$x =$  \_\_\_\_\_  $m\angle 1 =$  \_\_\_\_\_;  $m\angle 2 =$  \_\_\_\_\_

