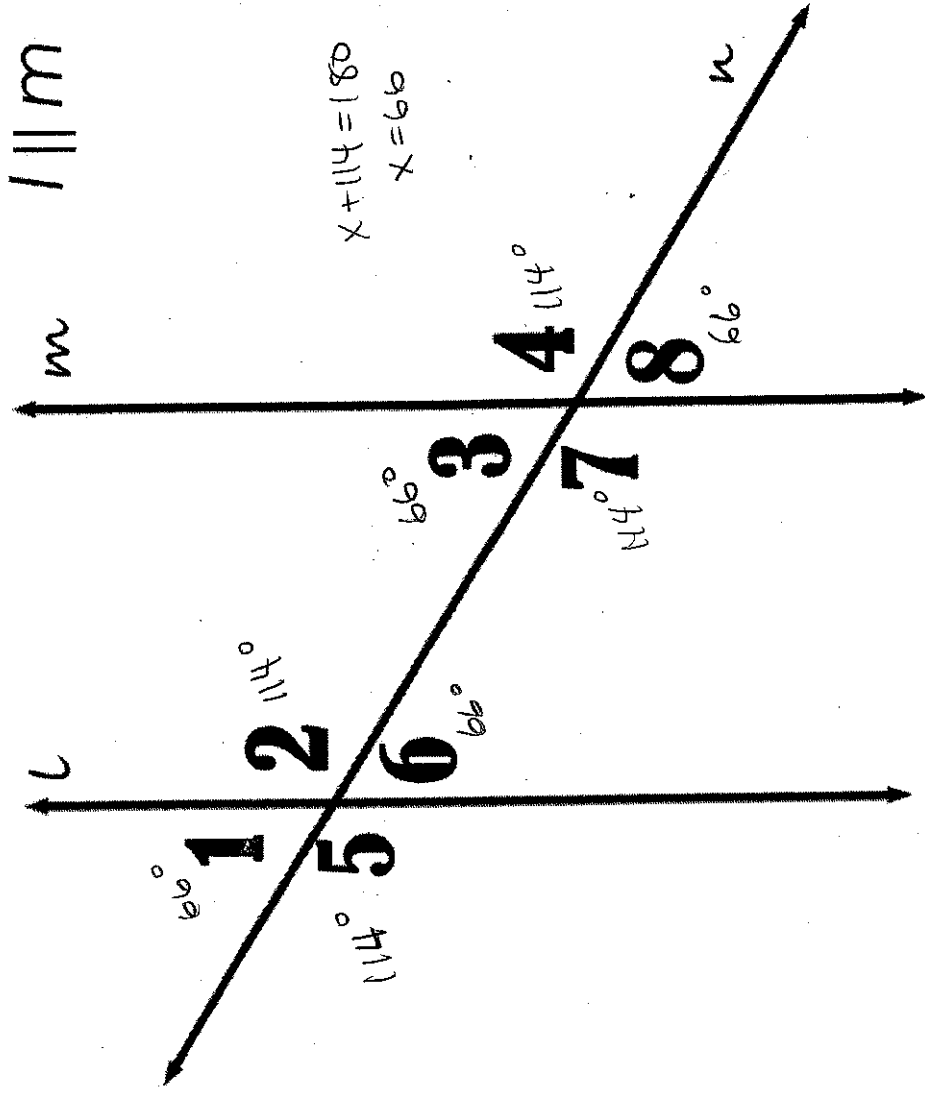


Name: _____

Find the measure of every angle on the right!

$m\angle 5 = 114$ degrees



Answer Key

D) $4x + 9 + 7x - 15 = 180$
 $11x + 4 = 180$
 $11x = 176$
 $x = 16$

G) $3y + 2 + 11y - 32 = 180$
 $14y - 30 = 180$
 $14y = 210$
 $y = 15$

$3(15) + 2 = 10x + 7$
 $47 = 10x + 7$
 $40 = 10x$
 $x = 4$

J) $5y - 9 + 90 = 8y + 42$
 $5y + 81 = 8y + 42$
 $39 = 3y$
 $y = 13$

$-8(13) + 42 + 14 - 4x = 180$
 $160 - 4x = 180$
 $-4x = 20$
 $x = -5$

H) $9y + 4 = 11y - 14$
 $18 = 2y$
 $y = 9$

$3x + 28 + 63 = 11(9) - 14$
 $3x + 91 = 85$
 $3x = -6$
 $x = -2$

B) $9x - 37 = 5x + 4$
 $4x = 41$
 $x = 12$

A) $129 = 16x + 17$
 $112 = 16x$
 $x = 7$

F) $6y + 14 = 11y - 26$
 $40 = 5y$
 $y = 8$

$6(8) + 14 + 13x - 25 = 180$
 $13x + 37 = 180$
 $13x = 143$
 $x = 11$

C) $27 - 2x + 139 = 180$
 $-2x + 166 = 180$
 $-2x = 14$
 $x = -7$

I) $14x - 23 = 8x + 21 + 16$
 $14x - 23 = 8x + 37$
 $6x = 60$
 $x = 10$

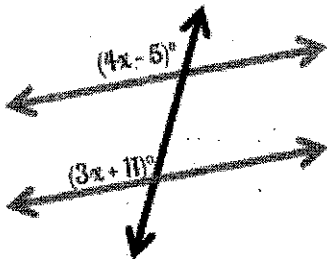
E) $12x + 22 = 19x + 1$
 $21 = 7x$
 $3 = x$

Homework – Angles formed by Parallel Lines & Transversals

Identify the angle relationship being used and find the value of x to prove the lines are parallel.

1. Type of Angles Corresponding

x = 16

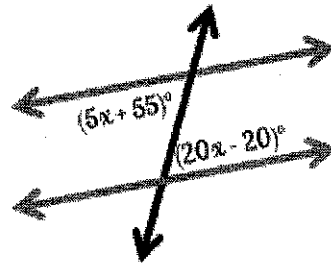


$$4x - 5 = 3x + 11$$

$$x = 16$$

2. Type of Angles Alternate Int.

x = 5



$$5x + 55 = 20x - 20$$

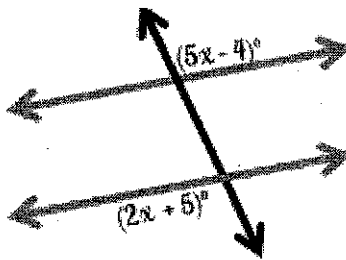
$$55 = 15x - 20$$

$$75 = 15x$$

$$x = 5$$

3. Type of Angles Alternate Exterior

x = 3



$$5x - 4 = 2x + 8$$

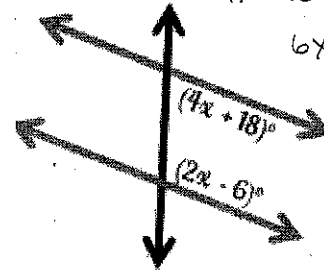
$$3x - 4 = 8$$

$$3x = 12$$

$$x = 4$$

4. Type of Angles Same Side Interior

x = 28



$$4x + 18 + 2x - 6 = 180$$

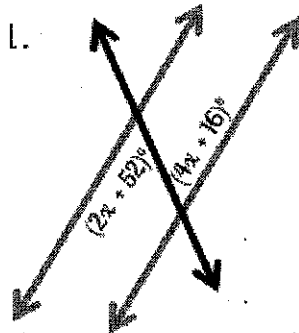
$$6x + 12 = 180$$

$$6x = 168$$

$$x = 28$$

5. Type of Angles Alternate Interior

x = 18



$$2x + 52 = 4x + 16$$

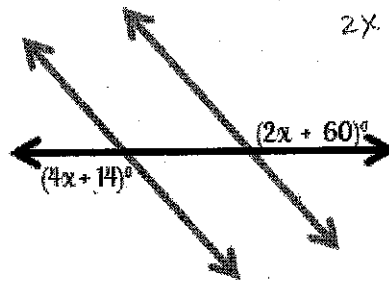
$$52 = 2x + 16$$

$$36 = 2x$$

$$x = 18$$

6. Type of Angles Alternate Exterior

x = 23



$$4x + 14 = 2x + 60$$

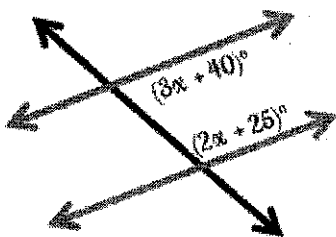
$$2x + 14 = 60$$

$$2x = 46$$

$$x = 23$$

7. Type of Angles Same Side Interior

x = 23



$$3x + 40 + 2x + 25 = 180$$

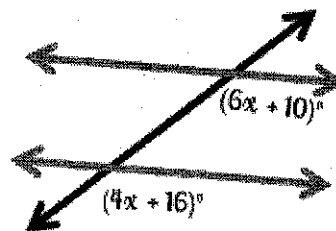
$$5x + 65 = 180$$

$$5x = 115$$

$$x = 23$$

8. Type of Angles Corresponding

x = 3



$$6x + 10 = 4x + 16$$

$$2x + 10 = 16$$

$$2x = 6$$

$$x = 3$$