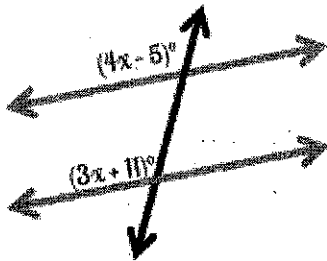


Homework – Angles formed by Parallel Lines & Transversals

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

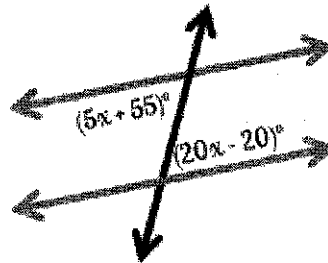


$$4x - 5 = 3x + 11$$

$$x = 16$$

2. Type of Angles Alternate Int.

x = 5



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

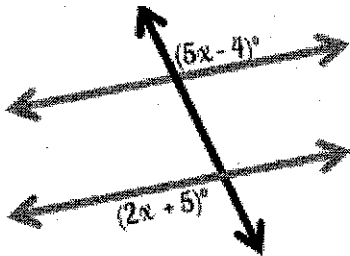
$$55 = 15x - 20$$

$$75 = 15x$$

$$x = 5$$

3. Type of Angles Alternate Exterior

x = 3



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

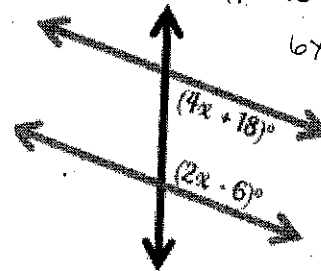
$$3x - 4 = 5$$

$$3x = 9$$

$$x = 3$$

4. Type of Angles Same Side Interior

x = 28



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

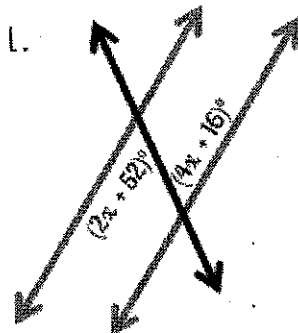
$$6x + 12 = 180$$

$$6x = 168$$

$$x = 28$$

5. Type of Angles Alternate Interior

x = 18



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

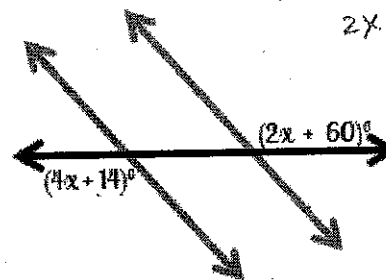
$$52 = 2x + 16$$

$$36 = 2x$$

$$x = 18$$

6. Type of Angles Alternate Exterior

x = 23



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

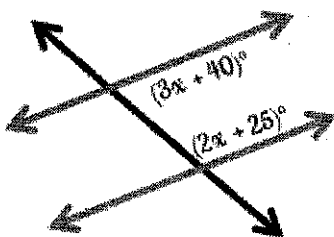
$$2x + 14 = 60$$

$$2x = 46$$

$$x = 23$$

7. Type of Angles Same Side Interior

x = 23



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

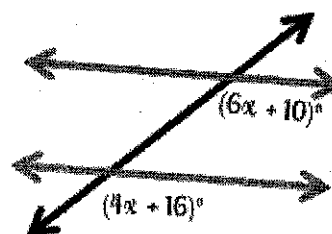
$$5x + 65 = 180$$

$$5x = 115$$

$$x = 23$$

8. Type of Angles Corresponding

x = 3



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

$$2x + 10 = 16$$

$$2x = 6$$

$$x = 3$$