

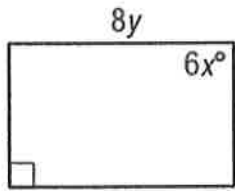
PROPERTIES OF PARALLELOGRAMS NOTES

Properties of Parallelogram

- Opposite sides in a parallelogram are parallel and congruent.
- Opposite angles in a parallelogram are congruent.
- Consecutive angles in a parallelogram are supplementary.
- The diagonals of a parallelogram bisect each other.
- Each diagonal separates a parallelogram into two sets of congruent triangles.

Use the properties of quadrilaterals to find the value of each variable.

1.



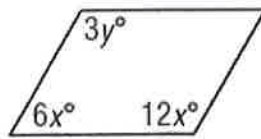
$$6x = 90$$

$$8y = 88$$

$$x = 15$$

$$y = 11$$

2.



$$6x + 12x = 180$$

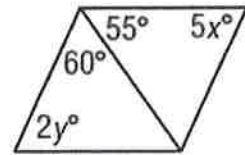
$$18x = 180$$

$$x = 10$$

$$3y = 120$$

$$y = 40$$

3.



$$60 + 55 + 2y = 180$$

$$115 + 2y = 180$$

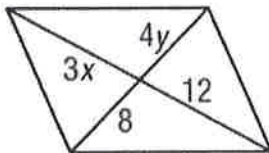
$$2y = 65$$

$$y = 32.5$$

$$5x = 65$$

$$x = 13$$

4.



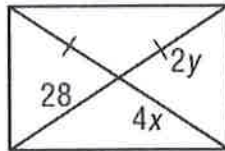
$$3x = 12$$

$$4y = 8$$

$$x = 4$$

$$y = 2$$

5.



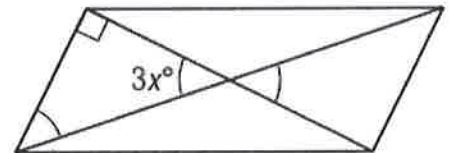
$$28 = 2y$$

$$4x = 28$$

$$y = 14$$

$$x = 7$$

6.



$$3x + 3x + 90 = 180$$

$$6x + 90 = 180$$

$$6x = 90$$

$$x = 15$$