

Review Worksheet for the Unit 6 Quiz

Name KEY Class Period _____

*Know the Pythagorean Theorem and how to apply it

$$a^2 + b^2 = c^2$$

*Know the Distance Formula and how to apply it

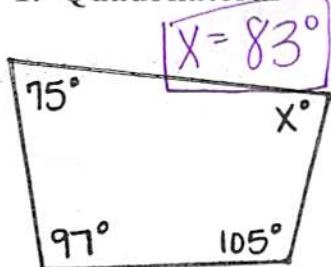
$$d = \sqrt{(x_2 - x_1)^2 + (y_2 - y_1)^2}$$

*Know the Quadrilaterals we have studied and all of their properties

- Parallelogram
- Rectangle
- Rhombus
- Square
- Trapezoid
- Isosceles Trapezoid
- Kite

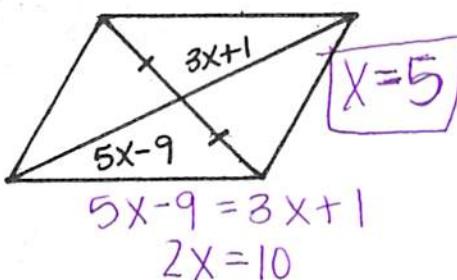
For the following problems, find the value of the variable(s).

1. Quadrilateral



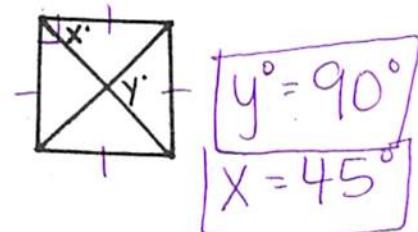
$$15^\circ + 97^\circ + 105^\circ + x^\circ = 360^\circ$$

2. Parallelogram



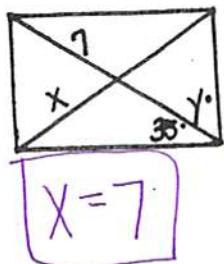
$$\begin{aligned} 5x - 9 &= 3x + 1 \\ 2x &= 10 \end{aligned}$$

3. Square



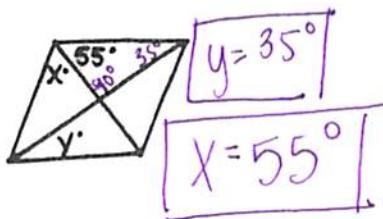
$$\begin{cases} y^\circ = 90^\circ \\ x^\circ = 45^\circ \end{cases}$$

4. Rectangle



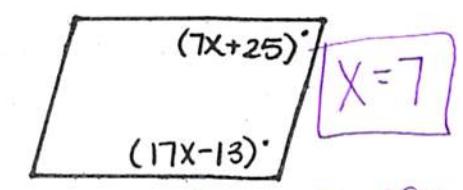
$$\begin{cases} 1 + x = 90 \\ x = 55^\circ \end{cases}$$

5. Rhombus



$$\begin{cases} x + 55^\circ = 90^\circ \\ y + 55^\circ = 90^\circ \end{cases}$$

6. Parallelogram



$$\begin{aligned} (7x + 25)^\circ + (17x - 13)^\circ &= 180^\circ \\ 24x + 12 &= 180 \end{aligned}$$

1. Name three types of parallelograms.

Rectangle, Rhombus, Square

Fill in the blank with *always*, *sometimes*, or *never*.

2. A kite is Always a quadrilateral.

3. A square is Never a trapezoid.

4. A parallelogram is Never a kite.

5. A rhombus is Sometimes a square.

6. A square is Always a rhombus.

7. A trapezoid is Never a parallelogram.

Complete the statement.

8. The diagonals of a rhombus are perpendicular.

9. The diagonals of a rectangle are congruent.

10. The diagonals of a square are perpendicular and
congruent.

11. In a parallelogram, opposite angles are congruent.

12. In a parallelogram, consecutive angles are supplementary.

13. A parallelogram with four congruent sides is a(n) Rhombus.

14. A quadrilateral with exactly one pair of parallel sides is a(n)

Trapezoid.

15. A trapezoid with two congruent legs is a(n) Isosceles Trapezoid

16. A quadrilateral with no parallel sides is a(n) Kite.