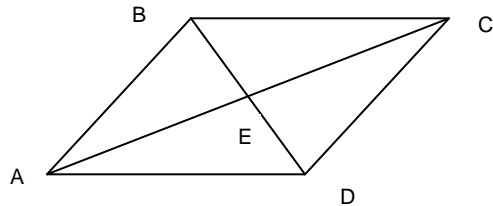


Algebra 2
Unit: Geometry
Section: Geometry of Quadrilaterals

Review Worksheet Key

1) ABCD is a parallelogram.



a. $AB = 17a - 4$ and $CD = 5a + 52$. Find the value of a .

$$17a - 4 = 5a + 52$$
$$a = 4.67$$

b. The measure of angle BAD equals $(4b + 50)^\circ$ and the measure of angle DCB equals $(11b + 36)^\circ$. Find the value of b .

$$4b + 50 = 11b + 36$$
$$b = 2$$

c. The measure of angle ABC equals $(2c - 17)^\circ$ and the measure of angle BCD equals $(c + 40)^\circ$. Find the value of c .

$$2c - 17 + c + 40 = 180$$
$$c = 52.33$$

d. $AE = 3d + 15$ and $EC = d + 9$. Find the value of d .

$$3d + 15 = d + 9$$
$$d = -3$$

2. Quadrilateral WXYZ is a rectangle. Angle X measures $(12x + 30)^\circ$. Find the value of x .

$$12x + 30 = 90$$
$$x = 5$$

3. What do you know about the sides, diagonals and angles of a rhombus?

Opposite sides are parallel. All sides are congruent. Diagonals are perpendicular. Diagonals bisect each other. Diagonals bisect the angles. Opposite angles are congruent. Consecutive angles are supplementary.

4. What do you know about the sides, diagonals and angles of an isosceles trapezoid?

Bases are parallel. Legs are congruent. Base angles (both pair) are congruent. Diagonals are congruent.

5. What do you know about the sides, diagonals and angles of a kite?

Two pairs of consecutive sides are congruent. Diagonals are perpendicular. One pair of angles are congruent.