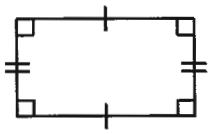
Name Answers Date

6.4 – Rectangles, Rhombuses and Squares

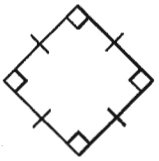
Decide whether the parallelogram is a *rhombus*, a *rectangle*, or a *square*. Explain.

1)



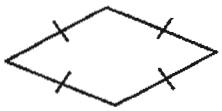
Rectangle
- 4 right angles
- Opp. sides congruent

2)



Square
- 4 right angles
- 4 congruent sides

3)

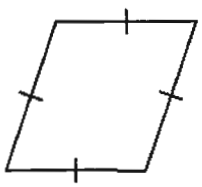


Rhombus
- 4 congruent sides

4)

Rectangles
- 4 right angles

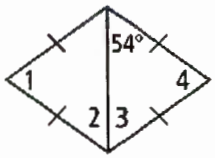
5)



Rhombus
- 4 congruent sides

Find the measures of the numbered angles in each rhombus.

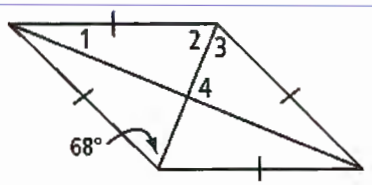
6)



$m\angle 1 =$ 72°, $m\angle 2 =$ 54°

$m\angle 3 =$ 54°, $m\angle 4 =$ 72°

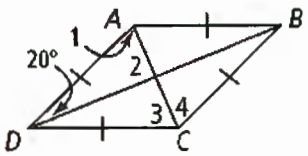
7)



$m\angle 1 =$ 22°, $m\angle 2 =$ 68°

$m\angle 3 =$ 68°, $m\angle 4 =$ 90°

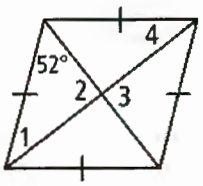
8)



$m\angle 1 =$ 70°, $m\angle 2 =$ 90°

$m\angle 3 =$ 70°, $m\angle 4 =$ 70°

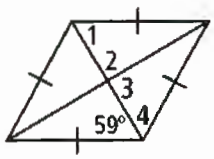
9)



$m\angle 1 =$ 38°, $m\angle 2 =$ 90°

$m\angle 3 =$ 90°, $m\angle 4 =$ 38°

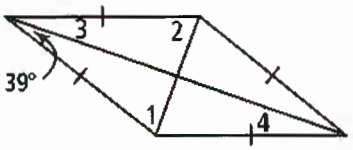
10)



$m\angle 1 =$ 59°, $m\angle 2 =$ 90°

$m\angle 3 =$ 90°, $m\angle 4 =$ 59°

11)



51°

$m\angle 1 =$ ~~41°~~, $m\angle 2 =$ 51°

$m\angle 3 =$ 39°, $m\angle 4 =$ 39°

HIJK is a rectangle. Find the value of x and the length of each diagonal.

13) $HJ = 3x + 7$ and $IK = 6x - 11$

$x = 6$

$HJ = IK = 25$

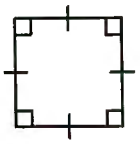
14) $HJ = 19 + 2x$ and $IK = 3x + 22$

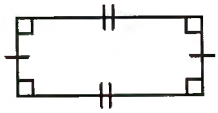
$x = -3$

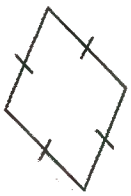
$HJ = IK = 13$

Determine the most precise name for each quadrilateral.

15)  Parallelogram

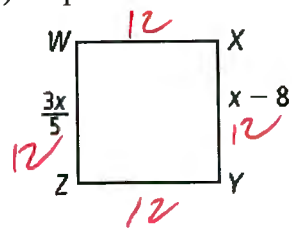
16)  Square

17)  Rectangle

18)  Rhombus

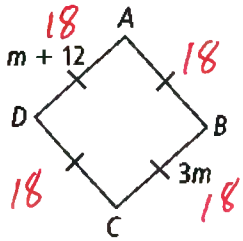
Find the values of the variables. Then find the side lengths.

19) square *WXYZ*



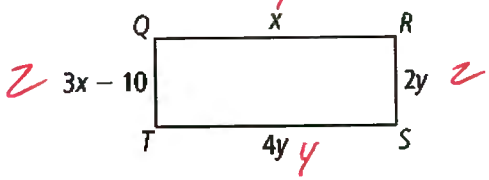
$x = 20$

20) rhombus *ABCD*



$m = 6$

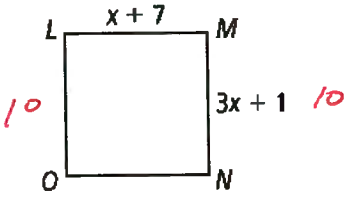
21) rectangle *QRST*



$x = 4$

$y = 1$

22) square *LMNO*



$x = 3$