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## SM2H 7.6 Quadrilaterals Day 1

State all possible names for each figure. List the most specific name first.
1.

2.

3.

4.

5.

6.


Given the type of quadrilateral, find $x$.
7. Rhombus

8. Parallelogram
$W Y=4 x+6, B Y=13$

Y
Z


Given the type of quadrilateral, find the angle(s).
11. Rectangle
12. Rhombus

13. Kite

14. Isosceles Trapezoid


The following sentences are the five properties of parallelograms. Fill in the blanks with the correct word. (congruent, congruent, supplementary, bisect, parallel)
15. Opposite sides are $\qquad$ .
16. Opposite sides are $\qquad$ .
17. Opposite angles are $\qquad$ .
18. Consecutive angles are $\qquad$ .
19. Diagonals $\qquad$ each other.

Find the measure indicated in each parallelogram.
20.

21.


Each figure is a parallelogram. Solve for the missing variables, angles, or segments.
22.

24.

23.

25.


Find the measurement indicated in each parallelogram.
26. $L H=7$

Find $H N$

28. $V T=26$

Find $R T$

27. Find $x$

29. Find $x$


Each figure is a parallelogram. Solve for $x$.
30. $C K=21$
$K E=3 x-9$

32. $A P=24$

$$
R P=13 x-4
$$


31. $C E=2 x+5$ $E A=13+x$

33. $F G=5 x-8$
$E H=2 x+7$


Find the values of the variables in each parallelogram.
34. $a=$ $\qquad$ $b=$ $\qquad$

35. $\mathrm{y}=$ $\qquad$ $z=$ $\qquad$


QRST is a rectangle. Find the value of $x$ and the length of each diagonal. (Hint: Draw a picture.)
36. $Q S=7 x-5$ and $R T=3 x+3$
$x=$ $\qquad$
$\mathrm{QS}=$ $\qquad$
RT = $\qquad$
37. $Q S=5 x-8$ and $R T=2 x+1$
$x=$ $\qquad$
$Q S=$ $\qquad$
$R T=$ $\qquad$

Can you prove that the quadrilateral is a parallelogram based on the given information? Justify your answer.
38. $\overline{F G}\|\overline{I H}, \overline{F I}\| \overline{G H}$

41.

39.

40.

43.


