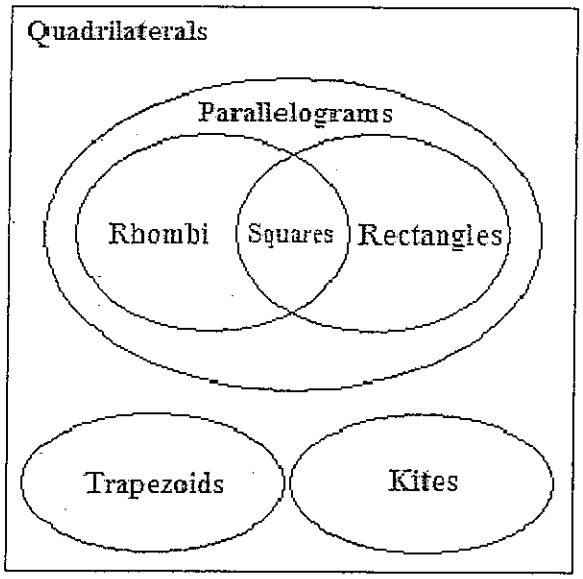
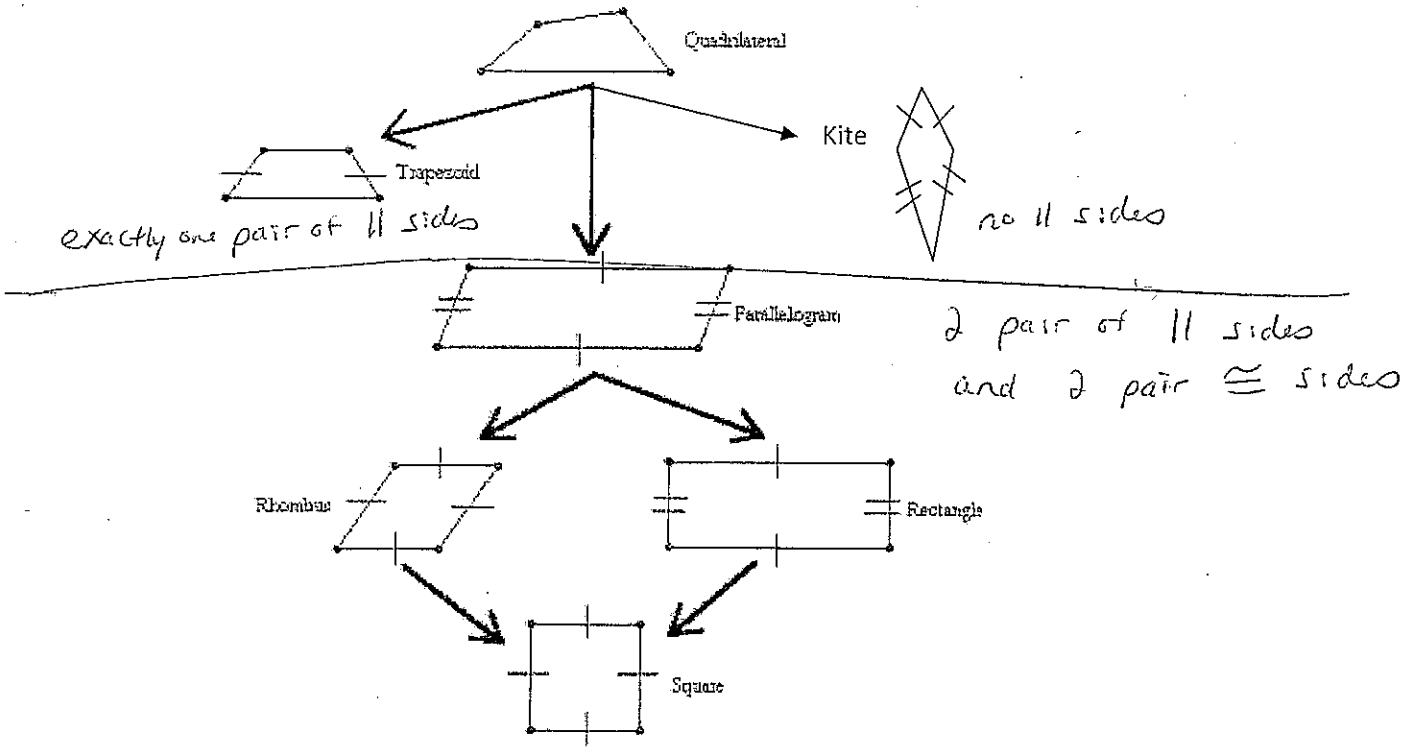

Quadrilaterals
Parallelograms
Rhombi
Squares
Rectangles
Trapezoids
Kites


Quadrilateral
Kite
Trapezoid
exactly one pair of ∥ sides
no ∥ sides
Parallelogram
2 pair of ∥ sides
and 2 pair ≅ sides
Rhombus
Rectangle
Square

Quadrilateral Notes

In the table below, place a check in each box that applies to all figures in the listed category.

Category	No Sides Parallel	Exactly 1 Pair of Parallel Sides	2 Pairs of Parallel Sides	Four Right Angles	Four Congruent Sides
Trapezoid					
Parallelogram					
Rectangle					
Rhombus					
Square					

Determine the most specific classification of each figure described.

1. A parallelogram with four right angles

2. A rectangle with four congruent sides

3. A quadrilateral with two pairs of parallel sides

4. A parallelogram with four congruent sides

5. A rhombus with four right angles

6. A parallelogram with four congruent sides and four congruent angles

Determine whether each statement is always true, sometimes true, or never true then fill in the blank with always, sometimes, or never.

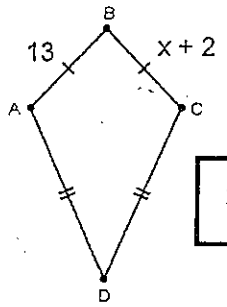
7. A parallelogram is _____ a rectangle.

8. A rectangle is _____ a parallelogram.

9. A square is _____ a rhombus.

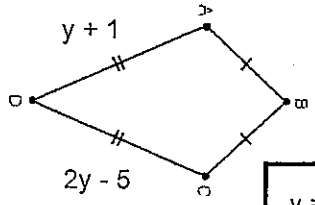
Find the values of the variables by writing and solving an equation.

1.



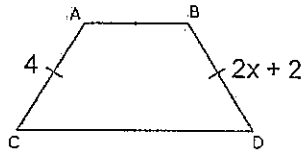
x =

2.



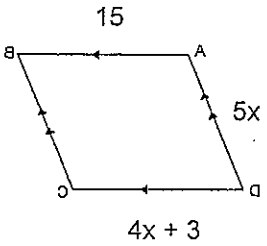
y =

3.



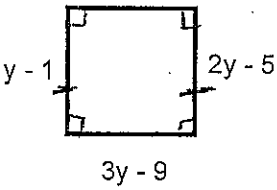
x =

4.



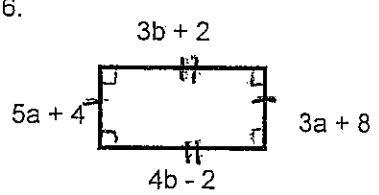
x =

5.



y =

6.



a =

b =

NOTES see www.mathwarehouse.com/geometry/quadrilaterals/parallelogram

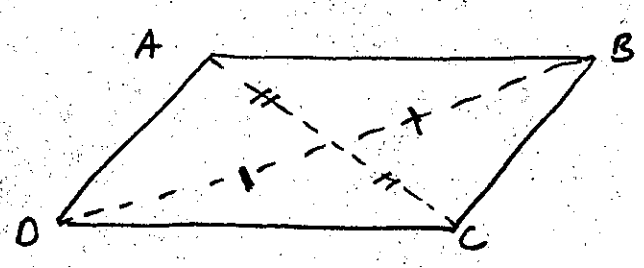
parallelogram properties

- opposite sides are congruent
- opposite angles are congruent
- consecutive angles are supplementary

Click on $\boxed{\text{full size}}$ to see diagonals

Move around and examine diagonals

- diagonals bisect each other



$\overline{AC}$ Bisects $\overline{BD}$

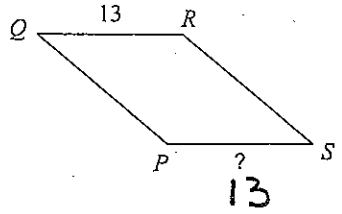
Geometry Name_____ ID: 1

Properties of Parallelograms Section 6.2 Notes

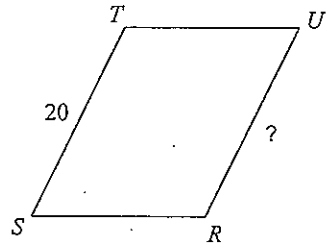
Date_____ Period____

Find the measurement indicated in each parallelogram.

1)

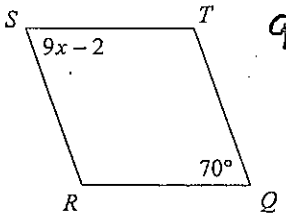


2)



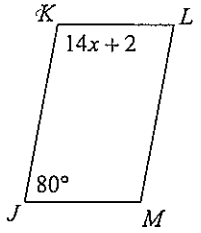
Solve for x. Each figure is a parallelogram.

3)



$9x - 2 = 70$
$+2 \quad +2$
$9x = 72$
$x = 8$

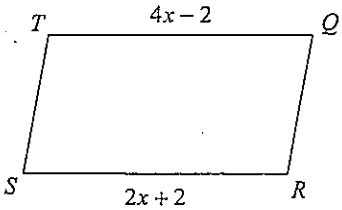
4)



$14x + 2 + 80 = 180$

Find the measurement indicated in each parallelogram.

5) Find RS

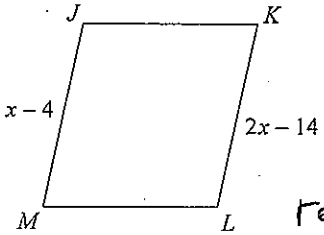


$4x - 2 = 2x + 2$
$+2 \quad +2$
$4x = 2x + 4$
$-2x \quad -2x$
$2x = 4$
$x = 2$

$2(2) + 2 = 6$

$\boxed{\overline{SR} = 6}$

6) Find KL

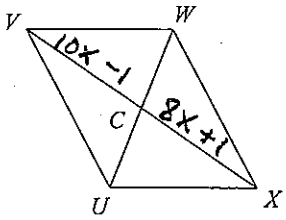


$x - 4 = 2x - 14$

remember to plug in the answer and find $\overline{KL}$

Solve for x. Each figure is a parallelogram.

7) $VC = 10x - 1$
$CX = 8x + 1$



8) $CE = 42$
$FE = 21x$