Study guide Quiz 6.4-6.6 Geometry 1A

Terms:

Rhombus

Rectangle

Square

Trapezoid

Isosceles trapezoid

Bases of a trapezoid

Legs of a trapezoid

Base angles of a trapezoid

Midsegment of a trapezoid

--when looking at a figure determine if it is or is not a polygon
--find missing measures of sides or angles in a rhombus, trapezoid, rectangle, parallelogram
--determine if a figure is a rhombus, trapezoid, isosceles trapezoid, rectangle, square, parallelogram

LESSON 6.4

NAME _____ DATE _____

Practice B

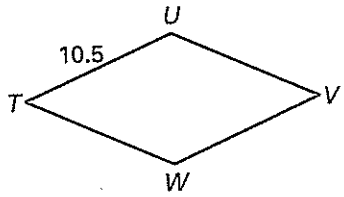
For use with pages 325–330

Write each theorem/corollary statement using symbols for quadrilateral *ABCD*.

1. If a quadrilateral has four congruent sides, then it is a rhombus.
2. If a quadrilateral has four right angles, then it is a rectangle.
3. If a quadrilateral has four congruent sides and four right angles, then it is a square.
4. The diagonals of a rhombus are perpendicular.
5. The diagonals of a rectangle are congruent.

Find the measures.

6. rhombus *TUVW*

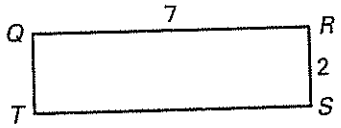


a. $UV =$?

b. $VW =$?

c. $WT =$?

7. rectangle *QRST*

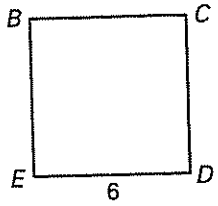


a. $m\angle Q =$?

b. $TS =$?

c. $QT =$?

8. square *BCDE*



a. $m\angle C =$?

b. $BC =$?

c. $CD =$?

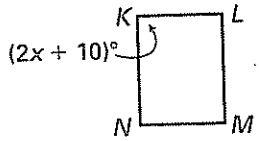
List each quadrilateral for which the statement is true.

Rectangle | Parallelogram | Square | Rhombus

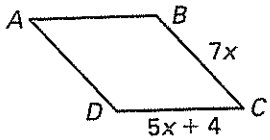
9. Opposite angles are congruent.
10. Diagonals bisect each other.
11. It has four congruent sides and four right angles.
12. It has four right angles.

Find the value of the variable.

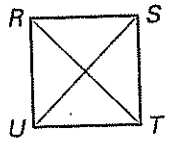
13. rectangle *KLMN*



14. rhombus *ABCD*



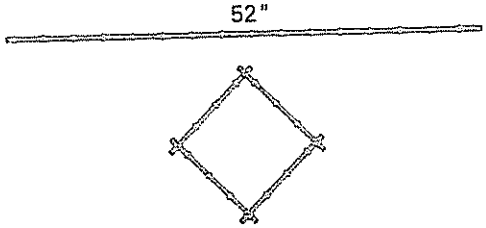
15. square *RSTU*



$SU = 6y$

$RT = y + 5$

16. You want to make a diamond-shaped frame for a wall hanging out of a 52-inch bamboo stick. If the diamond is to be a square, how long can the sides be? What should be true about the distances between the opposite corners?



NAME _____ DATE _____

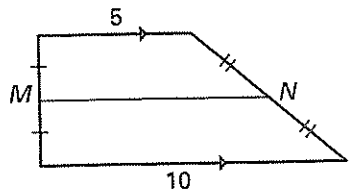
Practice B

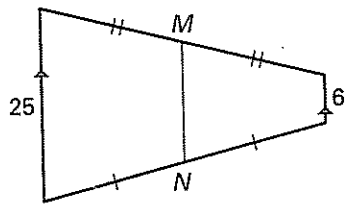
For use with pages 331–336

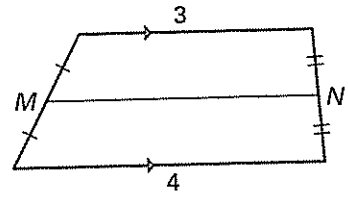
Supply the missing word to complete the statement.

1. If a trapezoid is isosceles, then each pair of base angles is ___?___.
2. If a trapezoid has a pair of congruent ___?___ angles, then it is isosceles.
3. The length of the ___?___ of a trapezoid is half the sum of the lengths of the bases.
4. A trapezoid is a quadrilateral with exactly one pair of ___?___ sides.
5. If the legs of a trapezoid are ___?___, then the trapezoid is an isosceles trapezoid.
6. The parallel sides of a trapezoid are the ___?___.
7. The nonparallel sides of a trapezoid are the ___?___.

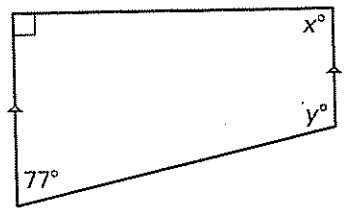
Find the length of the midsegment $\overline{MN}$ of the trapezoid.

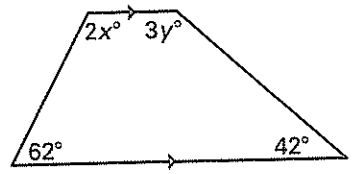
8. 

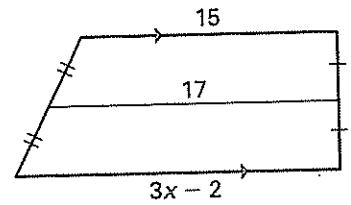
9. 

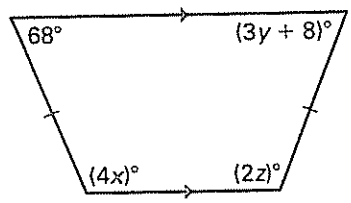
10. 

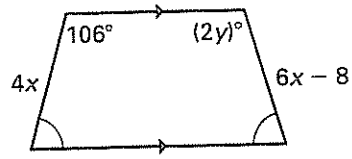
Find the value of the variable(s).

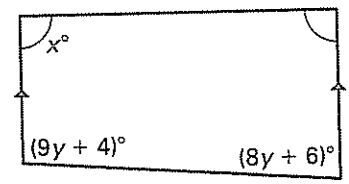
11. 

12. 

13. 

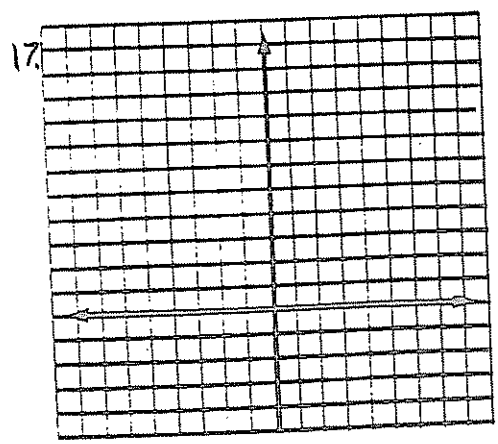
14. 

15. 

16. 

The vertices of a trapezoid are $A(2, 2)$, $B(5, 2)$, $C(2, 4)$ and $D(5, 6)$.

17. Plot the vertices in a coordinate plane. Connect them to form trapezoid *CDBA*.
18. Name the bases of trapezoid *CDBA*.
19. State the length of each base.
20. State the length of the midsegment of trapezoid *CDBA*.

17. 

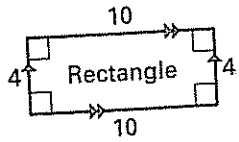
LESSON 6.6

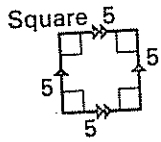
NAME _____ DATE _____

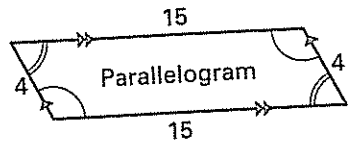
Practice A

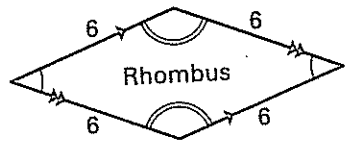
For use with pages 337–341

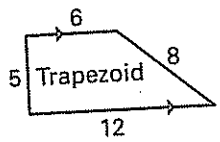
Use the information given in the figures at the right to determine if the following statements are *always* true. Explain your reasoning.





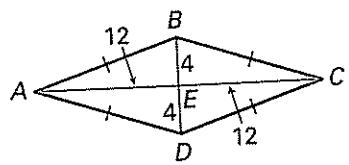


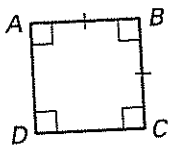


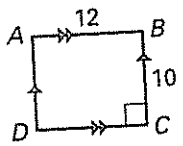


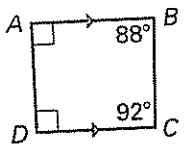
1. In a rectangle, all sides are congruent.
2. In a rhombus, all sides are congruent.
3. In a trapezoid, the legs are congruent.
4. In a parallelogram, opposite sides are congruent.
5. In a parallelogram, all angles are congruent.
6. In a rhombus, all angles are congruent.
7. In a trapezoid, each pair of base angles is congruent.
8. In a square, all angles are congruent.

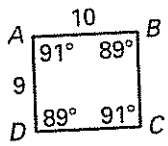
Determine whether the quadrilateral *ABCD* is a *trapezoid, parallelogram, rectangle, rhombus,* or *square.*

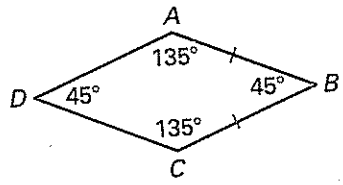
9. 

10. 

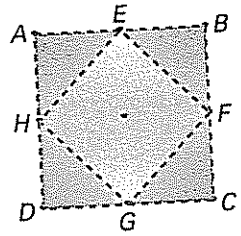
11. 

12. 

13. 

14. 

The figure at the right shows a quilt design.



15. If $ABCD$ is a parallelogram with $AB = BC = CD = DA$, can you conclude that $ABCD$ is a square? Explain your reasoning.
16. If $EFGH$ is a rectangle with $EF = FG = GH = HE$, can you conclude that $EFGH$ is a square? Explain your reasoning.