Geometry: Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Chapter 8 Test Review Date:\_\_\_\_\_\_\_\_\_ Hour:\_\_\_\_\_\_\_\_\_\_\_

**Find the sum of the measures of the interior angles of each convex polygon.**

1. 36-gon 2. 11-gon

**The measure of the interior angle of a regular polygon is given. Find the number of sides in each polygon.**

3. 171 4. 108

**For 5-6, find the measures of an interior angle and an exterior angle given the number of sides of a regular polygon. Round to the nearest tenth.**

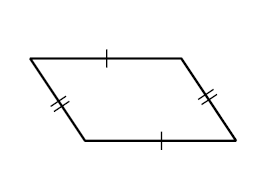
5. 16 6. 38

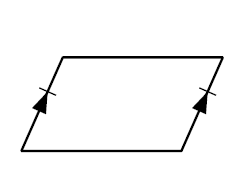
7. Find the sum of the measures of the 8) A convex octagon has interior angles with

…..exterior angles of a 109-gon. … measures (x + 55)°, (3x + 20)°, (4x)°,

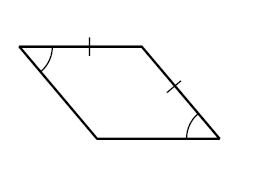
….(4x – 10)°, (6x – 55)°, (3x + 52)°, (3x)°, and ….(2x + 30)°. Find x.

**Determine whether each quadrilateral is a parallelogram. Justify your answer.**





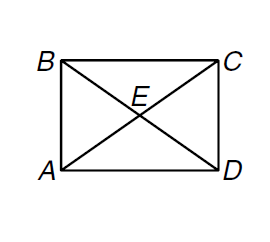
9. 10. 11.



**Determine whether a figure with the given vertices is parallelogram. Use the method indicated.**

12. X(3, 0), Y(3, 8), Z(-2, 6), and W(-2, -2); Slope Formula

13. A(-3, 2), B(-1, 4), C(2, 1), D(0, -1); Distance and Slope Formulas



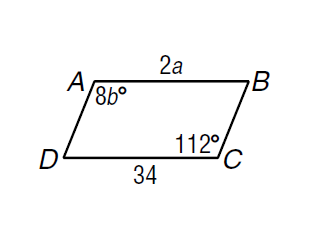
**ABCD is a rectangle.**

14. If AE = 36 and CE = 2x – 4, find x.

15. If

**Determine whether ABCD is a rectangle given each set of vertices. Justify your answer.**

16. A(6, 2), B(2, 10), C(-6, 6), D(-2, -2) 17. A(-3, 1), B(-3, 3), C(3, 3), D(3, 1)

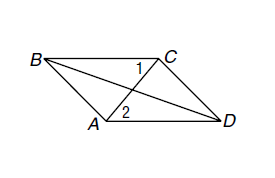


18. Find *a* and *b* in parallelogram *ABCD.*

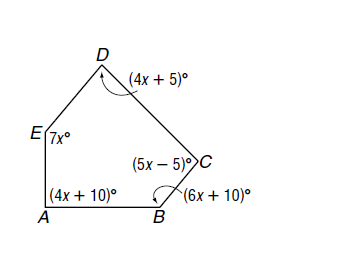
19. ABCD is a parallelogram with diagonals that intersect at E. If BE = 2x + 6 and ED = 5x – 12,

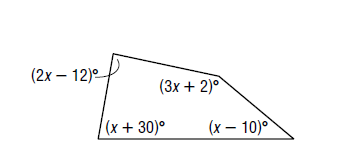
find BD.

20. In parallelogram ABCD,



**Find the measure of each interior angle.**



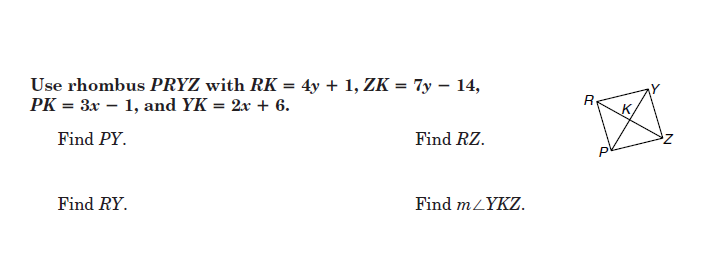


21. 22.

**Answer the following questions by determining if each statement is *always, sometimes,* or *never* true.**

23. A square is a parallelogram 24. A rhombus is a square

25. A quadrilateral is a parallelogram 26. A rectangle is a rhombus



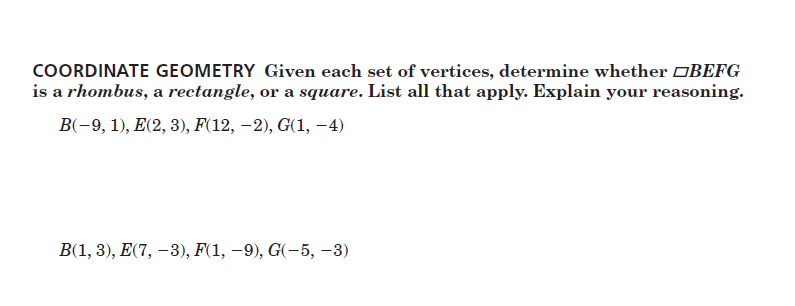
27. A quadrilateral that is a rectangle and a rhombus is a square.

29.

28.

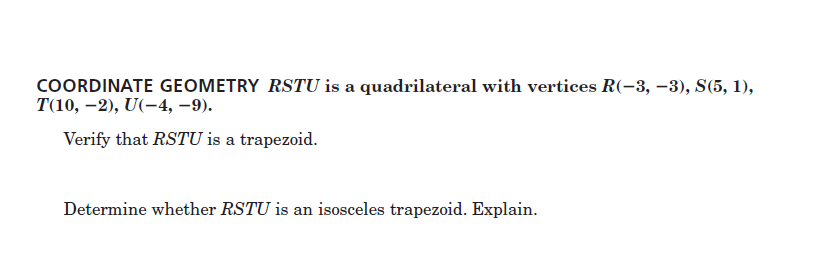
30.

31.



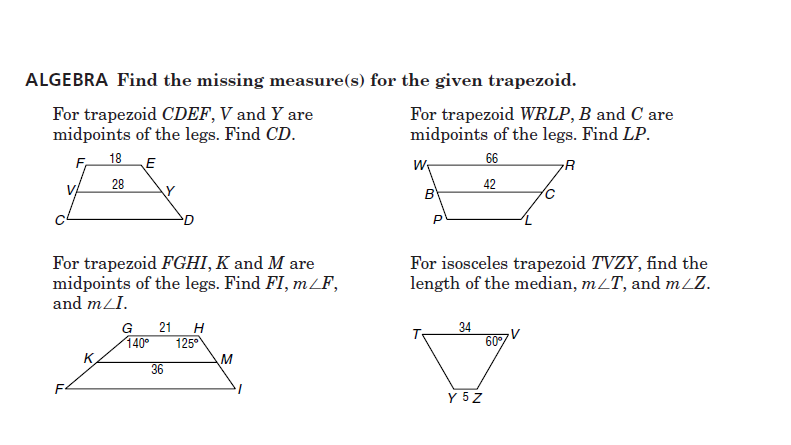
32.

33.



34.

35.



37.

36.

39.

38.

40. Find x if the bases of a trapezoid have lengths 2x + 4 and 8x – 10 and the length of the ….. median is 3x + 21.