Name:_____ Period:_____
Date:_____

Quadrilaterals Review Worksheet

Part 1: Quad Properties: Put an X in the box if the shape always has the property.

Property	Parallelogram	Rectangle	Rhombus	Square	Trapezoid	Isosceles Trapezoid	Kite
1. Both pairs of opp. sides are ≅							
2. Diagonals are ≅							
3. Diagonals are perpendicular							
4. Diagonals bisect each other							
5. Consecutive angles are supplementary							
6. Both pairs of opposite ∠'s are ≅							

Part 2: Name that Quad: List all the quadrilaterals that have the given property.

7. Both pairs of opposite sides are parallel.

a. _____ c. _____

b. _____ d. _____

8. Both pairs of opposite sides are congruent.

a. _____ c. _____

b. _____ d. _____

9. Both pairs of opposite angles are congruent.

a. _____ c. _____

b. _____ d. _____

10. Exactly one pair of opposite sides is parallel.

a. _____ b. _____

11. Exactly one pair of opposite angles is congruent.

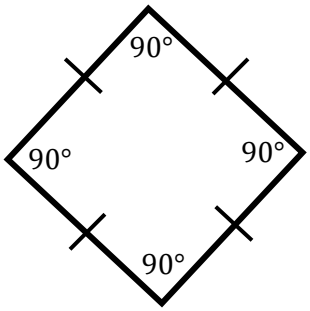
a. _____

Part 3: Identify Quad

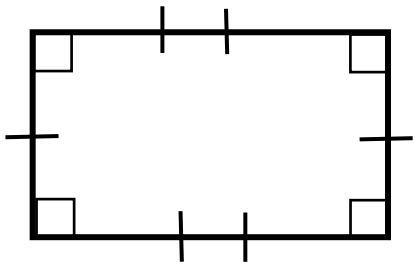
13. List all the quadrilaterals that have the given property.

a.

b.



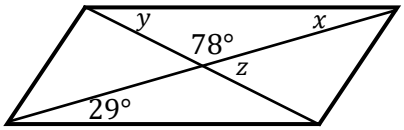
c.



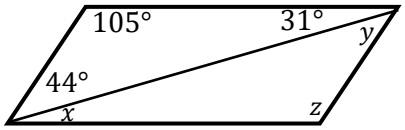
Part 4: Parallelograms

14. If the following quadrilaterals are parallelograms, find the values of x, y, and z.

a.

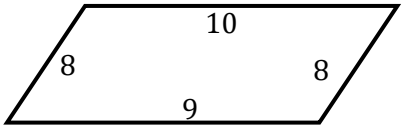


b.

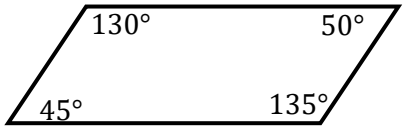


15. Explain why it is impossible for each figure to be a parallelogram.

a.



b.

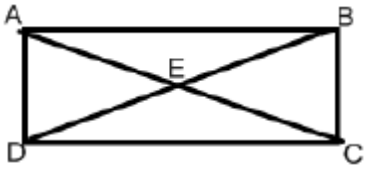


16. Hi!👋☺

Part 5: Rectangles

Use rectangle ABCD and the given information to complete the following.

17. If $AC = 4x - 60$ and $BD = 30 - x$, find BD.



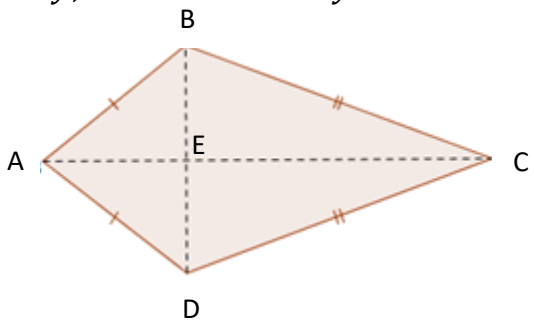
18. If $\angle BAC = 4x + 5$ and $\angle CAD = 5x - 14$, find $\angle CAD$.

19. If $DE = 13$, find CE.

Part 6: Kite

Use kite ABCD and the given information to complete the following.

20. If $AB = x + 3, BC = x + 4, CD = 2x - 1$, and $AD = 3x - y$, solve for x and y.

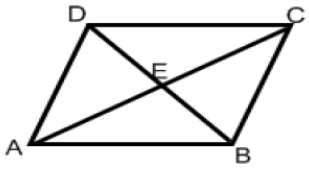


21. If $\angle AEB = 5x - 10$ and $DE = 6x$, find DB.

Part 7: Rhombus

Use rhombus ABCD and the given information to complete the following.

22. If $\angle ADB = 27$, find $\angle ADC$.



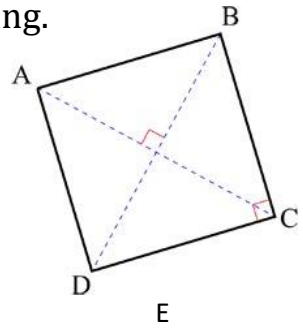
23. If $\angle DEC = 5x$, find the value of x.

24. If $DE = 13$, find DB.

Part 8: Squares

Use square ABCD and the given information to complete the following.

25. If $BC = 3x + 14$ and $DC = 5x - 8$, find the value of x.



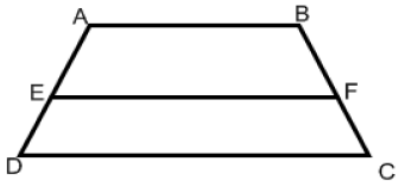
26. If $\angle AEB = 3x$, find the value of x.

27. If $\angle BAC = 5x$, find the value of x.

Part 9: Trapezoid

ABCD is an isosceles trapezoid with bases AB and CD, and median EF. Use the given information to solve each problem.

28. If $DC = 30$ and $AB = 42$, find EF.



29. If $\angle A = 5x$ and $\angle D = 4x$, find the value of x.

30. If $EF = x + 5$ and $AB + CD = 4x + 6$, find EF.

Part 10: Coordinate Geometry

31. Determine what kind of quadrilateral PQRS is based on the following vertices. Justify your answer. $P(2,3)$, $Q(5,9)$, $R(11,6)$, $S(8,0)$