## Geometry (G.CO.11)

Unit One B: Review for Special Parallelogram Assessment (HW49)

1. Given: ACEF is a rhombus; $\overline{A C} \cong \overline{B C}$ Prove: $\angle 1 \cong \angle 2$
Statements
2. Given: Parallelogram $A B C D$;
$\overline{A E} \cong \overline{C F}, \overline{B F} \cong \overline{D E}$

Prove: EBFD is a parallelogram

| Statements | Reasons |
| :---: | :---: |
|  |  |
|  |  |

3. $A B C D$ is a parallelogram. $A C=8 ; D E=6$
a. $m \angle 1=$ $\qquad$ c. $m \angle A B C=$ $\qquad$
b. $A B=$ $\qquad$
d. $D B=$ $\qquad$

4. $A B C D$ is a parallelogram. $A E=4 x-3 y ; E C=13 ; D E=2 x+y ; B E=19$ Find $x$ and $y$.


## True or False?

5. Every rhombus is a parallelogram. $\qquad$
6. The diagonals of a rhombus bisect each other. $\qquad$
7. The diagonals of a rhombus are congruent. $\qquad$
8. A rectangle and its diagonals form four congruent triangles. $\qquad$
9. A rectangle and its diagonals form four isosceles triangles. $\qquad$
10. List all of the quadrilateral names that can correctly be used to describe these figures.
a.

b.

c.


Mark the shapes that have each property.

|  | Parallelogram | Rhombus | Rectangle | Square |
| :--- | :--- | :--- | :--- | :--- |
| 11. The diagonals are <br> perpendicular |  |  |  |  |
| 12. The figure has four <br> right angles. |  |  |  |  |
| 13. The opposite sides <br> are congruent. |  |  |  |  |
| 14. The diagonals are <br> congruent. |  |  |  |  |
| 15. The figure has four <br> congruent sides. |  |  |  |  |
| 16. The diagonals <br> bisect each other. |  |  |  |  |
| 17. The consecutive <br> angles are supp. |  |  |  |  |
| 18. Each diagonal <br> bisects opp angles. |  |  |  |  |

19. Write the equation of a line perpendicular to $2 x+6 y=12$ and goes through (-3, -2).
20. Find the distance between the points $A(3,6)$ and $B(4,-7)$. Also, find the midpoint of $\overline{A B}$.
21. Given: Rhombus ABCD.

If $m \angle A=110, m \angle B=6 x-2, x=$ ?


Given the shape is a rhombus. Find the value for $x$ and $y$.
23. Given the shape below is a rectangle, find the value for $x$.

24. The rectangle and square below have equal perimeters. Find the dimensions of each figure.


