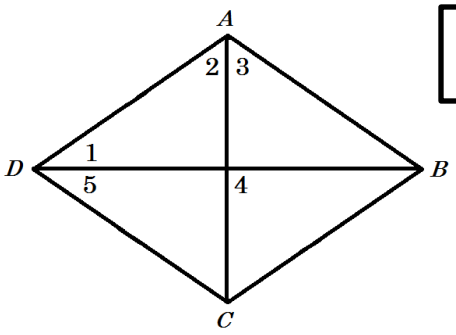
ANSWERS

DIRECTIONS: For # 1-6, find the measure of each angle or the length of each segment in the following rhombus.



GIVEN: $m\measuredangle 1 = 33°$; $AB = 8$

1. $m\measuredangle 2 =$ **57°**

2. $m\measuredangle 3 =$ **57°**

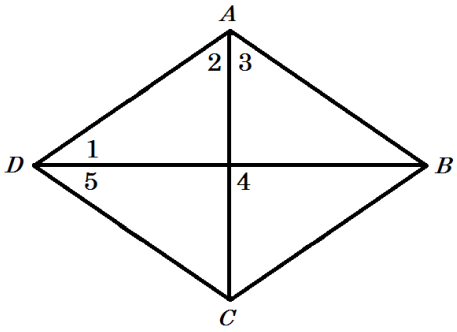
3. $m\measuredangle 4 =$ **90°**

4. $m\measuredangle 5 =$ **33°**

5. $BC =$ **8**

6. $DC =$ **8**

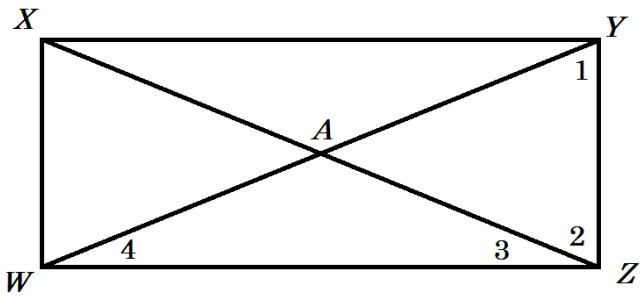
DIRECTIONS: For #7-8, use the following diagram of a rhombus. Show work.



7. If $m\measuredangle 2 = 4x + 2$ and $m\measuredangle 3 = 6x - 22$, what is the value of x? $x =$ **12**

8. If $m\measuredangle 1 = 3x + 5$ and $m\measuredangle 2 = 6x + 4$, what is the value of x? $x =$ **9**

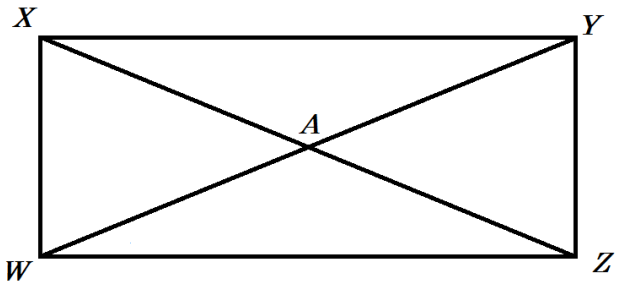
DIRECTIONS: For # 9-11, find the measure of each angle or the length of each segment in the following rectangle.



GIVEN: $m\measuredangle 1 = 64°$;

9. $m\measuredangle 2 =$ **64°** **10.** $m\measuredangle 3 =$ **26°** **11.** $m\measuredangle 4 =$ **26°**

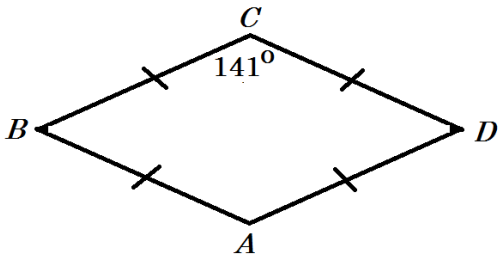
DIRECTIONS: For #12-13, use the following diagram of a rectangle. Show work for #13.



12. If $WY = 18$, what is XA? $XA =$ **9**

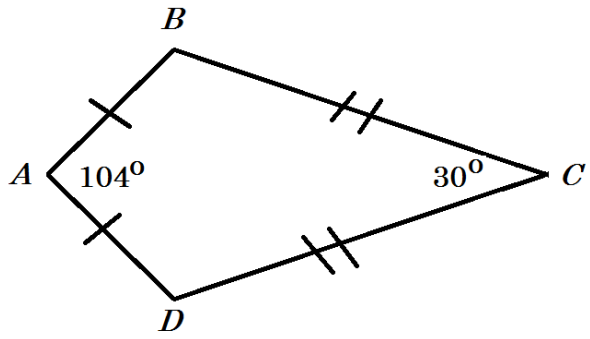
13. If $YA = 5n + 11$ and $XZ = 82$, what is n? $n =$ **6**

DIRECTIONS: For # 14-16, use the diagram of the rhombus to find the angle measures.



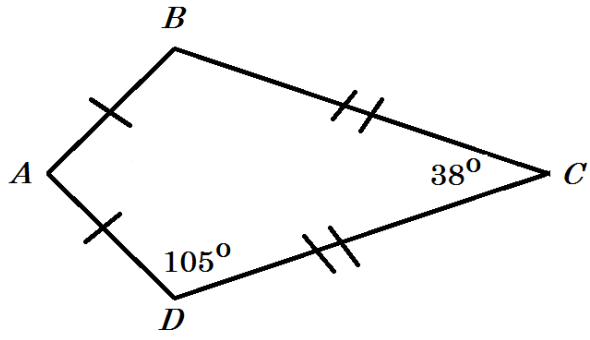
14. $m\measuredangle B = \mathbf{39°}$ **15.** $m\measuredangle A = \mathbf{141°}$ **16.** $m\measuredangle D = \mathbf{39°}$

DIRECTIONS: For # 17-18, use the diagram of the kite to find the angle measures.



17. $m\measuredangle B = \mathbf{113°}$ **18.** $m\measuredangle D = \mathbf{113°}$

DIRECTIONS: For # 19-20, use the diagram of the kite to find the angle measures.



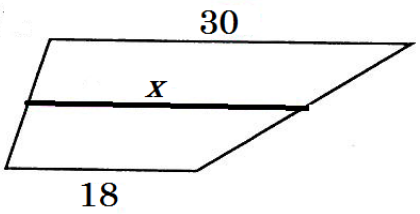
19. $m\measuredangle A = \mathbf{112°}$ **20.** $m\measuredangle B = \mathbf{105°}$

DIRECTIONS: For #21, find the measures of the angles.

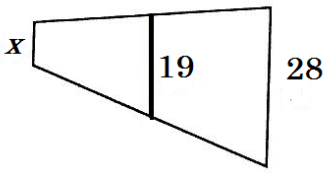
21. One angle of an isosceles trapezoid has a measure of 64°. What are the measures of the other three angles?

64° **116°** **116°**

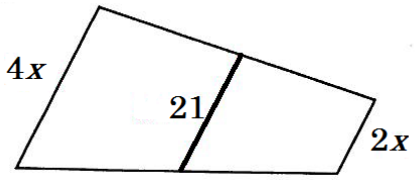
DIRECTIONS: For #22-25, each diagram shows a trapezoid and its midsegment. Solve for x.



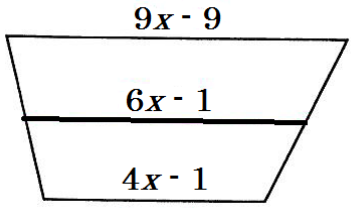
22. $x =$ **24**



23. $x =$ **10**



24. $x =$ **7**



25. $x =$ **8**

DIRECTIONS: For #26-32, fill in the blanks with the most accurate response – ALWAYS, SOMETIMES, or NEVER (write out the entire word).

26. The midsegment of a trapezoid is **ALWAYS** parallel to both bases.

27. The diagonals of a trapezoid **NEVER** bisect each other.

28. The diagonals of a rectangle are **ALWAYS** congruent.

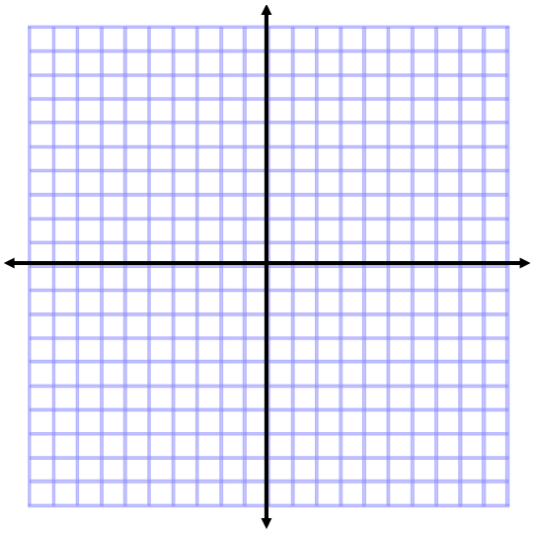
29. The diagonals of a trapezoid are **SOMETIMES** congruent.

30. A rectangle is **SOMETIMES** a square.

31. A square is **ALWAYS** a rectangle.

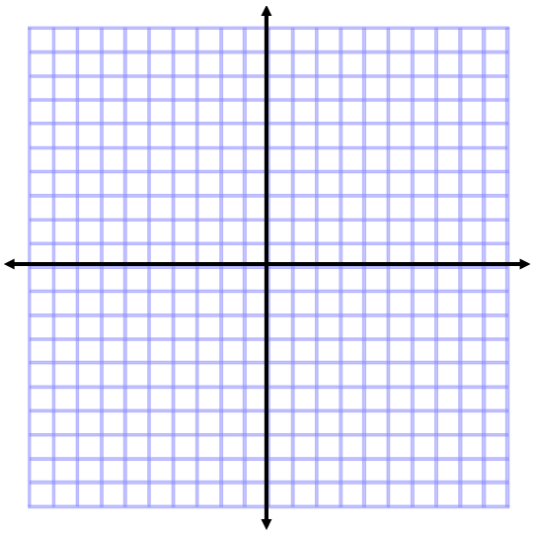
32. A square is **ALWAYS** a rhombus.

DIRECTIONS: For #33-38, find the fourth point to create the desired shapes. Use the graphs to help you find the answers. List the coordinates as an ordered pair.



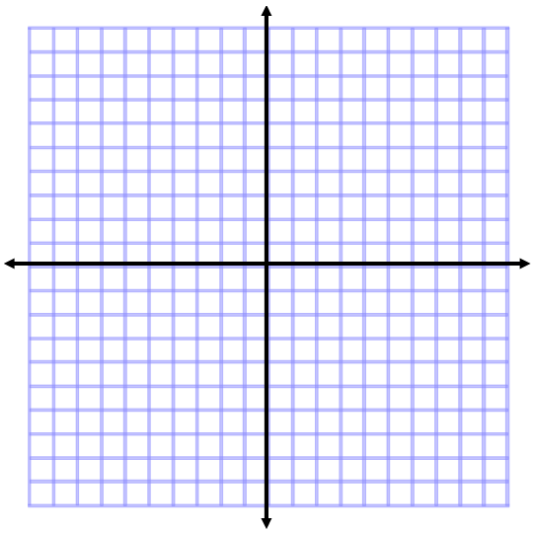
33. Three points of a **parallelogram** are $(4, 5)$, $(-1, 5)$, and $(1,1)$. What is a possible fourth point?

$(-4, 1)$ OR $(6, 1)$ OR $(2, 9)$



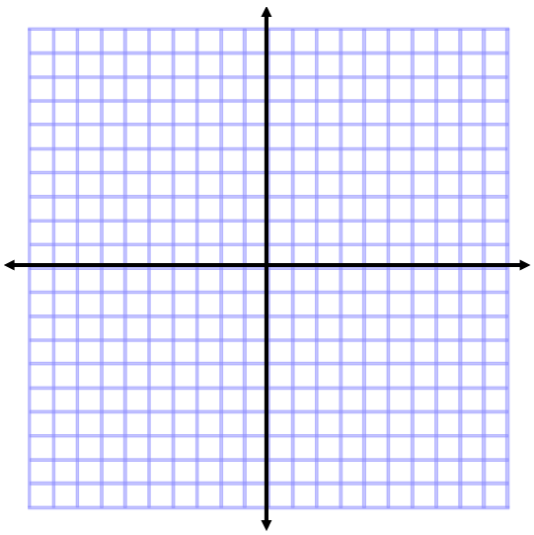
34. Three points of a **rectangle** are $(-5, 4)$, $(-5, -2)$, and $(3, 4)$. What is a possible fourth point?

$(3, -2)$



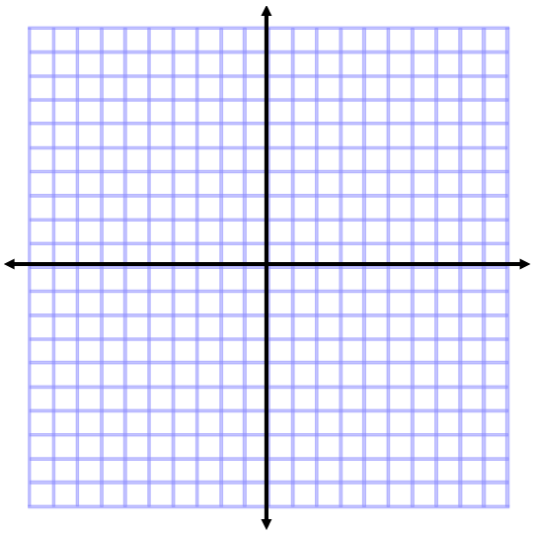
35. Three points of a **square** are $(-2, 3)$, $(-2, 6)$, and $(-5, 3)$. What is a possible fourth point?

$(-5, 6)$



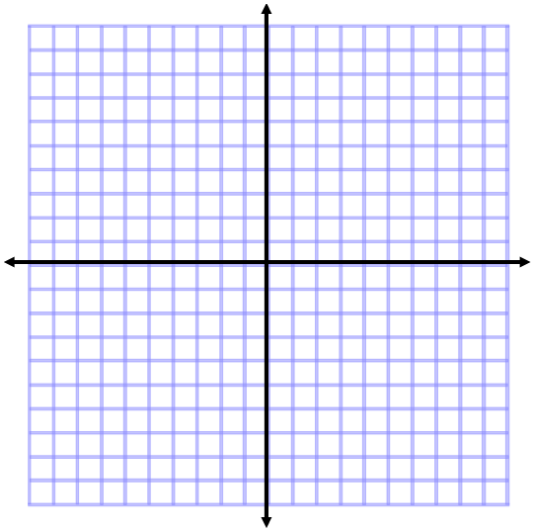
36. Three points of a **rhombus** are $(-1, 0)$, $(4, 3)$, and $(9, 0)$. What is a possible fourth point?

$(4, -3)$



37. Three points of an **isosceles trapezoid** are $(1, 8)$, $(5, 3)$, and $(5, 6)$. What is a possible fourth point?

$(1, 1)$



38. Three points of a **kite** are $(4, 3)$, $(6, 1)$, and $(8, 3)$. What is a possible fourth point?

$(6,$ any number $> 5)$