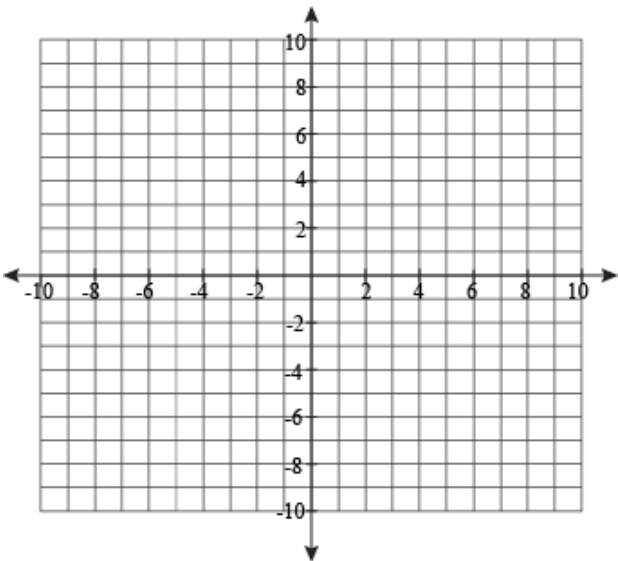
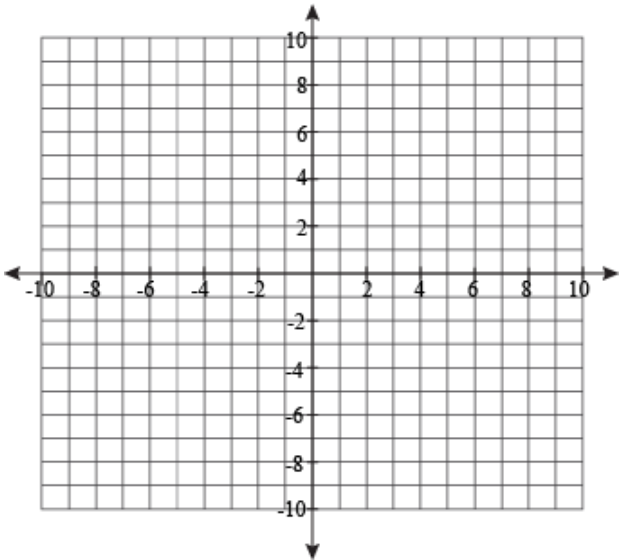


Algebra II Unit 1B Review

Name: _____

<p>1. Find the 12th term of the sequence: 3, 12, 48, 192...</p>	<p>2. Find the 10th term of the sequence: 96, 48, 24, 12...</p>
<p>3. Find the 1st 4 terms of the geometric sequence.</p> $a_n = 2(3)^{n-1}$	<p>4. Find the sum of the geometric sequence described.</p> $\sum_{k=1}^6 2(5)^{k-1}$
<p>5. Determine the number of terms in the geometric sequence.</p> $a_1 = 3, \quad r = 2, \quad S_n = 381$	<p>6. Given 2 terms in the geometric sequence, find the formula.</p> $a_{10} = -1024, \quad a_5 = 32$
<p>7. Graph the piecewise function</p> $f(x) = \begin{cases} x + 1, & x \leq -1 \\ -2x, & -1 < x \leq 3 \\ 3, & x > 3 \end{cases}$  <p>Domain:</p> <p>Range:</p> <p>Point of discontinuity:</p>	<p>8. Graph the piecewise function</p> $g(x) = \begin{cases} x^2, & x < -2 \\ x + 2, & x \geq -2 \end{cases}$  <p>Domain:</p> <p>Range:</p> <p>Point of discontinuity:</p>

Evaluate using the indicated function.

$$h(x) = \begin{cases} x^2, & x < -2 \\ x + 2, & x \geq -2 \end{cases}$$

9. $h(4) =$

10. $h(-2) =$

11. $h(0) =$

$$j(x) = \begin{cases} x + 1, & x \leq -1 \\ -2x, & -1 < x \leq 3 \\ 3, & x > 3 \end{cases}$$

12. $j(-1) =$

13. $j(3) =$

14. $j(-2) =$

15. Solve the absolute equation.

$$3|x - 2| = 12$$

16. Solve the absolute equation.

$$-2|x + 3| - 5 = 7$$

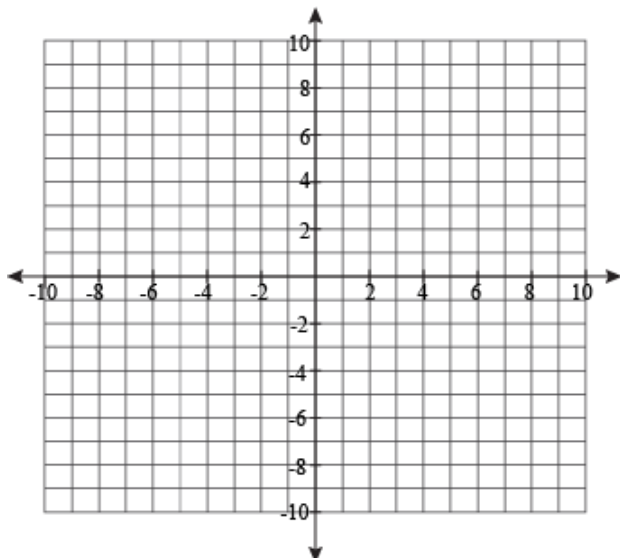
17. Solve the absolute equation.

$$3|x + 4| = 6x + 12$$

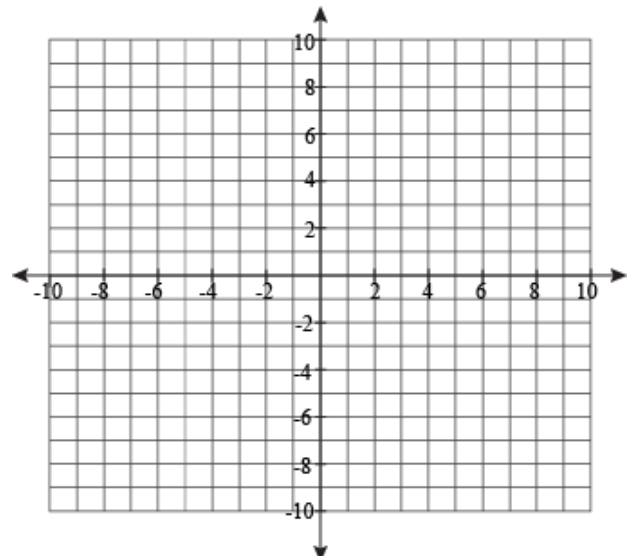
18. Solve the absolute equation.

$$-\frac{1}{2}|x| = 3$$

19. Graph $g(x) = 2|x - 3| + 1$

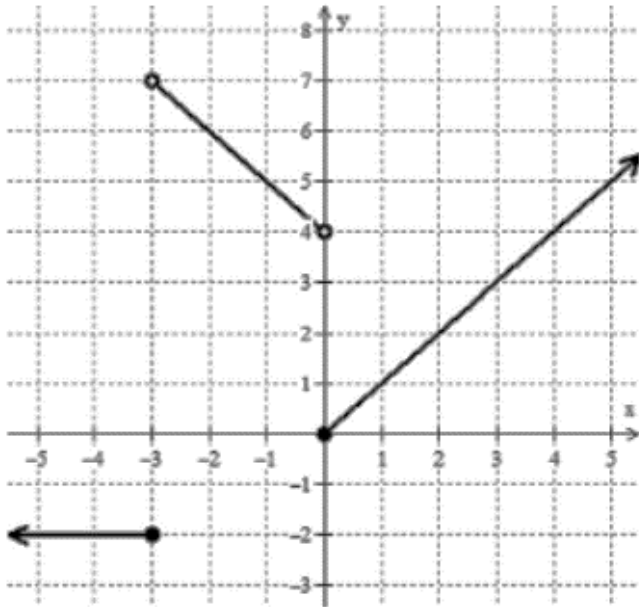


20. Graph $h(x) = -\frac{1}{3}|x + 3| - 2$



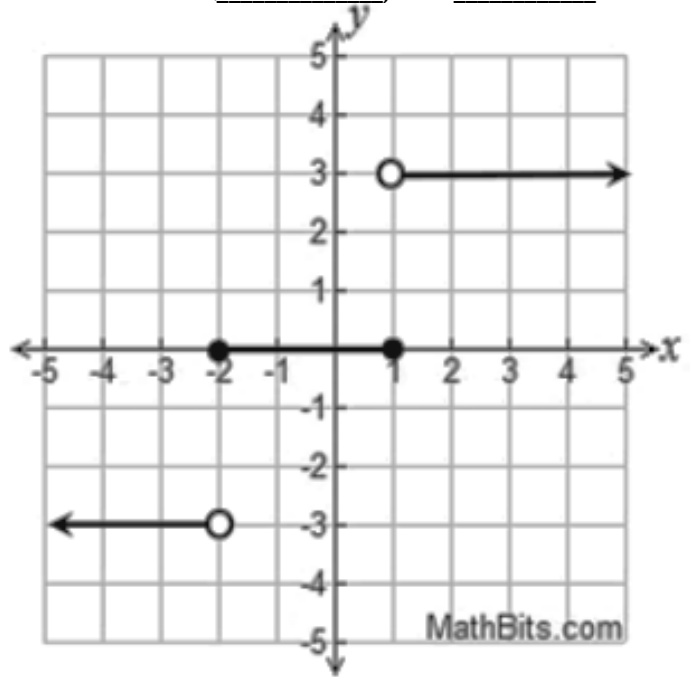
21. Write the equation of the piecewise function.

$$f(x) = \begin{cases} \underline{\hspace{2cm}} & \underline{\hspace{2cm}} \\ \underline{\hspace{2cm}} & \underline{\hspace{2cm}} \\ \underline{\hspace{2cm}} & \underline{\hspace{2cm}} \end{cases}$$



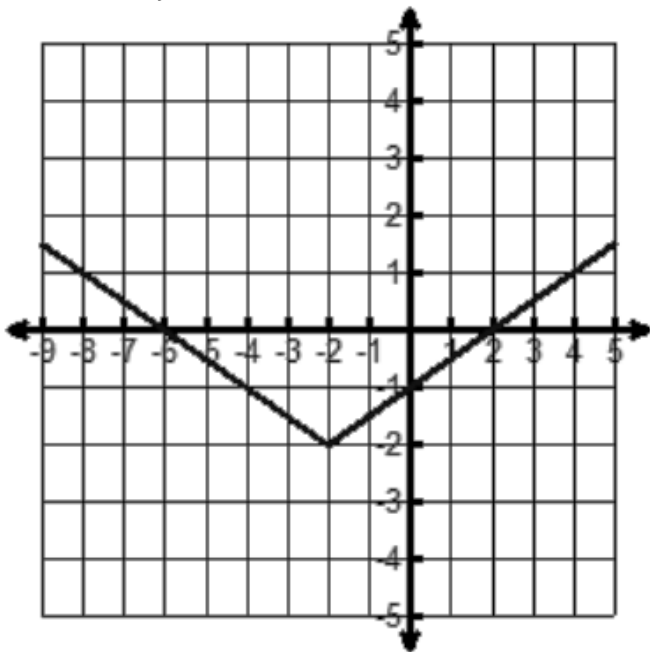
22. Write the equation of the piecewise function.

$$f(x) = \begin{cases} \underline{\hspace{2cm}} & \underline{\hspace{2cm}} \\ \underline{\hspace{2cm}} & \underline{\hspace{2cm}} \\ \underline{\hspace{2cm}} & \underline{\hspace{2cm}} \end{cases}$$



23. Write as an absolute value given the graph.

$$f(x) = \underline{\hspace{4cm}}$$



24. Write as an absolute value given the graph.

$$f(x) = \underline{\hspace{4cm}}$$

