Task card 1 Graphing Absolute Value Functions

Find the vertex of the graph of $y = 2|x + 3| + 9$.

Task card 2 Graphing Absolute Value Functions

What is the slope of the left-hand branch (where $x < -6$) of the graph of $y = 2|x + 6| + 2$?

Task card 3 Graphing Absolute Value Functions

Find the y-intercept of the graph of $y = -4|x - 3| + 5$. Write the y-value only.

Task card 4 Graphing Absolute Value Functions

Find the maximum value of $y = -2|x - 4| - 2$.

Task card 5 Graphing Absolute Value Functions

Find the axis of symmetry of the graph of $y = -2|x - 7| + 5$.

Task card 6 Graphing Absolute Value Functions

The graph of $y = |x|$ is shifted 4 units right and 4 units up. Write the equation of the new graph.

Task card 7 Graphing Absolute Value Functions

Find the vertex of the graph of $y = -4|x - 4| + 6$.

Task card 8 Graphing Absolute Value Functions

What is the slope of the right-hand branch (where $x > -2$) of the graph of $y = -2|x + 2| - 2$?

Task card 9 Graphing Absolute Value Functions

Find the y-intercept of the graph of $y = -3|x - 3| + 4$. Write the y-value only.

Task card 10 Graphing Absolute Value Functions

Find the maximum value of $y = -|x - 2| - 6$.

Task card 11 Graphing Absolute Value Functions

Find the axis of symmetry of the graph of $y = -4|x - 8| + 8$.

Task card 12 Graphing Absolute Value Functions

The graph of $y = |x|$ is shifted 5 units right and 4 units up. Write the equation of the new graph.

Task card 13 Graphing Absolute Value Functions

Find the x-intercepts of the graph of $y = 5|x - 2| - 20$.

Task card 14 Graphing Absolute Value Functions

Write the range of $y = \frac{1}{3}|x + 2| + 5$ as an inequality, like $y \geq 2$.

Task card 15 Graphing Absolute Value Functions

What is the slope of the right-hand branch (where $x > 9$) of the graph of $y = 4|x - 9| + 8$?

Task card 16 Graphing Absolute Value Functions

Find the y-intercept of the graph of $y = -5|x + 6| + 3$. Write the y-value only.

Task card 17 Graphing Absolute Value Functions

The graph of $y = |x|$ is shifted 2 units left and 6 units up. Write the equation of the new graph.

Task card 18 Graphing Absolute Value Functions

Find the vertex of the graph of $y = \frac{3}{2}|x + 5| - 9$.

Task card 19 Graphing Absolute Value Functions

Find the vertex of the graph of $y = -2|x + 5| - 2$.

Task card 20 Graphing Absolute Value Functions

What is the slope of the right-hand branch (where $x > 4$) of the graph of $y = -|x - 4| - 2$?

Task card 21 Graphing Absolute Value Functions

Find the y-intercept of the graph of $y = 2|x - 6| + 1$. Write the y-value only.

Task card 22 Graphing Absolute Value Functions

Find the maximum value of $y = -2|x + 6| + 5$.

Task card 23 Graphing Absolute Value Functions

Find the axis of symmetry of the graph of $y = 4|x + 1| + 3$.

Task card 24 Graphing Absolute Value Functions

The graph of $y = |x|$ is reflected across the x-axis and then shifted 6 units right and 5 units up. Write the equation of the new graph.

Graphing Absolute Value Functions Task Cards

Recording sheet · Grade 9 · Write a vertex as an ordered pair like (2, -3), an axis of symmetry like x = 2, x-intercepts like x = -1 or x = 5, and an equation like y = 2|x - 1| + 3. To graph a V, click its vertex and two more points on the grid.

Scan to check your answers

Name: _____ Date: _____

1	2	3	4
5	6	7	8
9	10	11	12
13	14	15	16
17	18	19	20
21	22	23	24

Graphing Absolute Value Functions Task Cards: Answer Key

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The answers online

1. (-3, 9)	**2.** -2	**3.** -7
4. -2	**5.** x = 7	**6.** y = |x - 4| + 4
7. (4, 6)	**8.** -2	**9.** -5
10. -6	**11.** x = 8	**12.** y = |x - 5| + 4
13. x = -2 or x = 6	**14.** y ≥ 5	**15.** 4
16. -27	**17.** y = |x + 2| + 6	**18.** (-5, -9)
19. (-5, -2)	**20.** -1	**21.** 13
22. 5	**23.** x = -1	**24.** y = -|x - 6| + 5