Task card 1 Graphing Absolute Value Functions

Find the x-intercepts of the graph of $y = -\frac{1}{3}|x - 6| + 5$.

Task card 2 Graphing Absolute Value Functions

Write the range of $y = -\frac{1}{2}|x + 4| - 9$ as an inequality, like $y \geq 2$.

Task card 3 Graphing Absolute Value Functions

What is the slope of the right-hand branch (where $x > 8$) of the graph of $y = \frac{3}{2}|x - 8| - 5$?

Task card 4 Graphing Absolute Value Functions

Find the y-intercept of the graph of $y = -\frac{1}{2}|x + 8| - 2$. Write the y-value only.

Task card 5 Graphing Absolute Value Functions

The graph of $y = |x|$ is reflected across the x-axis and then shifted 8 units right and 1 unit down. Write the equation of the new graph.

Task card 6 Graphing Absolute Value Functions

Find the vertex of the graph of $y = -\frac{3}{2}|x + 7| + 4$.

Task card 7 Graphing Absolute Value Functions

Find the x-intercepts of the graph of $y = -\frac{2}{3}|x| + 10$.

Task card 8 Graphing Absolute Value Functions

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

Task card 9 Graphing Absolute Value Functions

What is the slope of the left-hand branch (where $x < -6$) of the graph of $y = -\frac{1}{2}|x + 6| + 4$?

Task card 10 Graphing Absolute Value Functions

Find the y-intercept of the graph of $y = -\frac{3}{2}|x - 8|$. Write the y-value only.

Task card 11 Graphing Absolute Value Functions

The graph of $y = |x|$ is shifted 3 units left and 9 units down. Write the equation of the new graph.

Task card 12 Graphing Absolute Value Functions

Find the vertex of the graph of $y = \frac{1}{2}|x + 7| + 6$.

Task card 13 Graphing Absolute Value Functions

Find the x-intercepts of the graph of $y = \frac{1}{2}|x + 7| - 4$.

Task card 14 Graphing Absolute Value Functions

Write the range of $y = -4|x - 5| - 1$ as an inequality, like $y \geq 2$.

Task card 15 Graphing Absolute Value Functions

What is the slope of the right-hand branch (where $x > 1$) of the graph of $y = \frac{3}{2}|x - 1| - 4$?

Task card 16 Graphing Absolute Value Functions

Find the y-intercept of the graph of $y = -\frac{2}{3}|x - 9| + 8$. Write the y-value only.

Task card 17 Graphing Absolute Value Functions

The graph of $y = |x|$ is reflected across the x-axis and then shifted 1 unit right and 3 units up. Write the equation of the new graph.

Task card 18 Graphing Absolute Value Functions

Find the vertex of the graph of $y = -\frac{1}{2}|x + 2| + 4$.

Task card 19 Graphing Absolute Value Functions

Find the x-intercepts of the graph of $y = \frac{1}{2}|x - 6| - 4$.

Task card 20 Graphing Absolute Value Functions

Write the range of $y = \frac{2}{3}|x - 8| - 1$ as an inequality, like $y \geq 2$.

Task card 21 Graphing Absolute Value Functions

What is the slope of the left-hand branch (where $x < -6$) of the graph of $y = 5|x + 6| + 8$?

Task card 22 Graphing Absolute Value Functions

Find the y-intercept of the graph of $y = 4|x + 4| + 2$. Write the y-value only.

Task card 23 Graphing Absolute Value Functions

The graph of $y = |x|$ is reflected across the x-axis and then shifted 2 units right and 3 units up. Write the equation of the new graph.

Task card 24 Graphing Absolute Value Functions

Find the vertex of the graph of $y = -\frac{2}{3}|x - 5| - 4$.

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

Grade 9 · Hard

The answers online

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