Graphing Absolute Value Functions · 1

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

Graphing Absolute Value Functions · 2

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

Graphing Absolute Value Functions · 3

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

Graphing Absolute Value Functions · 4

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

Graphing Absolute Value Functions · 5

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.

Graphing Absolute Value Functions · 6

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

Graphing Absolute Value Functions · 7

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

Graphing Absolute Value Functions · 8

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

Graphing Absolute Value Functions · 2

ANSWER

$y \leq -9$

Graphing Absolute Value Functions · 1

ANSWER

$x = -9$ or $x = 21$

Graphing Absolute Value Functions · 4

ANSWER

-6

Graphing Absolute Value Functions · 3

ANSWER

$\frac{3}{2}$

Graphing Absolute Value Functions · 6

ANSWER

$(-7, 4)$

Graphing Absolute Value Functions · 5

ANSWER

$y = -|x - 8| - 1$

Graphing Absolute Value Functions · 8

ANSWER

$y \leq 5$

Graphing Absolute Value Functions · 7

ANSWER

$x = -15$ or $x = 15$

Graphing Absolute Value Functions · 9

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

Graphing Absolute Value Functions · 10

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

Graphing Absolute Value Functions · 11

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

Graphing Absolute Value Functions · 12

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

Graphing Absolute Value Functions · 13

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

Graphing Absolute Value Functions · 14

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

Graphing Absolute Value Functions · 15

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

Graphing Absolute Value Functions · 16

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

Graphing Absolute Value Functions · 10

ANSWER

-12

Graphing Absolute Value Functions · 9

ANSWER

$\frac{1}{2}$

Graphing Absolute Value Functions · 12

ANSWER

$(-7, 6)$

Graphing Absolute Value Functions · 11

ANSWER

$y = |x + 3| - 9$

Graphing Absolute Value Functions · 14

ANSWER

$y \leq -1$

Graphing Absolute Value Functions · 13

ANSWER

$x = -15$ or $x = 1$

Graphing Absolute Value Functions · 16

ANSWER

2

Graphing Absolute Value Functions · 15

ANSWER

$\frac{3}{2}$

Graphing Absolute Value Functions · 17

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.

Graphing Absolute Value Functions · 18

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

Graphing Absolute Value Functions · 19

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

Graphing Absolute Value Functions · 20

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

Graphing Absolute Value Functions · 21

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

Graphing Absolute Value Functions · 22

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

Graphing Absolute Value Functions · 23

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.

Graphing Absolute Value Functions · 24

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

Graphing Absolute Value Functions · 18

ANSWER

(-2, 4)

Graphing Absolute Value Functions · 17

ANSWER

y = -|x - 1| + 3

Graphing Absolute Value Functions · 20

ANSWER

y ≥ -1

Graphing Absolute Value Functions · 19

ANSWER

x = -2 or x = 14

Graphing Absolute Value Functions · 22

ANSWER

18

Graphing Absolute Value Functions · 21

ANSWER

-5

Graphing Absolute Value Functions · 24

ANSWER

(5, -4)

Graphing Absolute Value Functions · 23

ANSWER

y = -|x - 2| + 3