Graphing Absolute Value Functions · 1

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

Graphing Absolute Value Functions · 2

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

Graphing Absolute Value Functions · 3

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

Graphing Absolute Value Functions · 4

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

Graphing Absolute Value Functions · 5

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

Graphing Absolute Value Functions · 6

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

Graphing Absolute Value Functions · 7

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

Graphing Absolute Value Functions · 8

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

Graphing Absolute Value Functions · 2

ANSWER

-2

Graphing Absolute Value Functions · 1

ANSWER

(-3, 9)

Graphing Absolute Value Functions · 4

ANSWER

-2

Graphing Absolute Value Functions · 3

ANSWER

-7

Graphing Absolute Value Functions · 6

ANSWER

y = |x - 4| + 4

Graphing Absolute Value Functions · 5

ANSWER

x = 7

Graphing Absolute Value Functions · 8

ANSWER

-2

Graphing Absolute Value Functions · 7

ANSWER

(4, 6)

Graphing Absolute Value Functions · 9

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

Graphing Absolute Value Functions · 10

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

Graphing Absolute Value Functions · 11

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

Graphing Absolute Value Functions · 12

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

Graphing Absolute Value Functions · 13

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

Graphing Absolute Value Functions · 14

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

Graphing Absolute Value Functions · 15

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

Graphing Absolute Value Functions · 16

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

Graphing Absolute Value Functions · 10

ANSWER

-6

Graphing Absolute Value Functions · 9

ANSWER

-5

Graphing Absolute Value Functions · 12

ANSWER

$y = |x - 5| + 4$

Graphing Absolute Value Functions · 11

ANSWER

$x = 8$

Graphing Absolute Value Functions · 14

ANSWER

$y \geq 5$

Graphing Absolute Value Functions · 13

ANSWER

$x = -2$ or $x = 6$

Graphing Absolute Value Functions · 16

ANSWER

-27

Graphing Absolute Value Functions · 15

ANSWER

4

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

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

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

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

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

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

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

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 · 18

ANSWER

(-5, -9)

Graphing Absolute Value Functions · 17

ANSWER

y = |x + 2| + 6

Graphing Absolute Value Functions · 20

ANSWER

-1

Graphing Absolute Value Functions · 19

ANSWER

(-5, -2)

Graphing Absolute Value Functions · 22

ANSWER

5

Graphing Absolute Value Functions · 21

ANSWER

13

Graphing Absolute Value Functions · 24

ANSWER

y = -|x - 6| + 5

Graphing Absolute Value Functions · 23

ANSWER

x = -1