Vertex Form & Graphs of Parabolas · 1

Find the vertex of $y = 3(x - 2)^2 + 1$. Write it as (h, k).

Vertex Form & Graphs of Parabolas · 2

What is the minimum value of $y = 3x^2 - 12x + 11$?

Vertex Form & Graphs of Parabolas · 3

Write in vertex form by completing the square: $y = x^2 - 12x + 36$

Vertex Form & Graphs of Parabolas · 4

Write in vertex form by completing the square: $y = x^2 + 14x + 53$

Vertex Form & Graphs of Parabolas · 5

Find the axis of symmetry of $y = -3(x + 3)^2 - 6$.

Vertex Form & Graphs of Parabolas · 6

Find the vertex of $y = (x + 7)^2 + 3$. Write it as (h, k).

Vertex Form & Graphs of Parabolas · 7

What is the maximum value of $y = -(x - 3)^2 + 4$?

Vertex Form & Graphs of Parabolas · 8

Write in vertex form by completing the square: $y = x^2 - 16x + 61$

Vertex Form & Graphs of Parabolas · 2

ANSWER

-1

Vertex Form & Graphs of Parabolas · 1

ANSWER

(2, 1)

Vertex Form & Graphs of Parabolas · 4

ANSWER

$$y = (x + 7)^2 + 4$$

Vertex Form & Graphs of Parabolas · 3

ANSWER

$$y = (x - 6)^2$$

Vertex Form & Graphs of Parabolas · 6

ANSWER

(-7, 3)

Vertex Form & Graphs of Parabolas · 5

ANSWER

x = -3

Vertex Form & Graphs of Parabolas · 8

ANSWER

$$y = (x - 8)^2 - 3$$

Vertex Form & Graphs of Parabolas · 7

ANSWER

4

Write in vertex form by completing the square: $y = x^2 - 12x + 41$

Find the axis of symmetry of $y = -4(x - 1)^2 + 4$.

Write in vertex form by completing the square: $y = x^2 + 14x + 42$

Write in vertex form by completing the square: $y = 3x^2 - 42x + 151$

What is the minimum value of $y = x^2 - 2x - 2$?

Write in vertex form by completing the square: $y = 3x^2 - 12x + 16$

Find the vertex of $y = 4(x - 2)^2 - 3$. Write it as (h, k).

Find the vertex of $y = -3x^2 + 3$. Write it as (h, k).

Vertex Form & Graphs of Parabolas · 10

ANSWER

$$x = 1$$

Vertex Form & Graphs of Parabolas · 9

ANSWER

$$y = (x - 6)^2 + 5$$

Vertex Form & Graphs of Parabolas · 12

ANSWER

$$y = 3(x - 7)^2 + 4$$

Vertex Form & Graphs of Parabolas · 11

ANSWER

$$y = (x + 7)^2 - 7$$

Vertex Form & Graphs of Parabolas · 14

ANSWER

$$y = 3(x - 2)^2 + 4$$

Vertex Form & Graphs of Parabolas · 13

ANSWER

$$-3$$

Vertex Form & Graphs of Parabolas · 16

ANSWER

$$(0, 3)$$

Vertex Form & Graphs of Parabolas · 15

ANSWER

$$(2, -3)$$

What is the minimum value of $y = 3(x - 4)^2 - 1$?

Write in vertex form by completing the square: $y = x^2 - 4x + 5$

Write in vertex form by completing the square: $y = x^2 + 6x + 5$

Find the axis of symmetry of $y = 4(x - 6)^2 - 3$.

Find the vertex of $y = -3(x + 5)^2 - 7$. Write it as (h, k).

What is the maximum value of $y = -4(x - 1)^2 + 1$?

Write in vertex form by completing the square: $y = x^2 + 12x + 38$

Write in vertex form by completing the square: $y = x^2 + 6x + 14$

Vertex Form & Graphs of Parabolas · 18

ANSWER

$y = (x - 2)^2 + 1$

Vertex Form & Graphs of Parabolas · 17

ANSWER

-1

Vertex Form & Graphs of Parabolas · 20

ANSWER

$x = 6$

Vertex Form & Graphs of Parabolas · 19

ANSWER

$y = (x + 3)^2 - 4$

Vertex Form & Graphs of Parabolas · 22

ANSWER

1

Vertex Form & Graphs of Parabolas · 21

ANSWER

$(-5, -7)$

Vertex Form & Graphs of Parabolas · 24

ANSWER

$y = (x + 3)^2 + 5$

Vertex Form & Graphs of Parabolas · 23

ANSWER

$y = (x + 6)^2 + 2$