Vertex Form & Graphs of Parabolas · 1

Write in vertex form by completing the square: $y = x^2 + 4x + 12$

Vertex Form & Graphs of Parabolas · 2

Write in vertex form by completing the square: $y = 3x^2 - 6x + 2$

Vertex Form & Graphs of Parabolas · 3

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

Vertex Form & Graphs of Parabolas · 4

Write in vertex form by completing the square: $y = 3x^2 - 6x - 3$

Vertex Form & Graphs of Parabolas · 5

Find the vertex of $y = -3(x + 8)^2 - 4$. Write it as (h, k).

Vertex Form & Graphs of Parabolas · 6

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

Vertex Form & Graphs of Parabolas · 7

Write in vertex form by completing the square: $y = -3x^2 + 30x - 81$

Vertex Form & Graphs of Parabolas · 8

What is the minimum value of $y = 4x^2 + 24x + 29$?

Vertex Form & Graphs of Parabolas · 2

ANSWER

$y = 3(x - 1)^2 - 1$

Vertex Form & Graphs of Parabolas · 1

ANSWER

$y = (x + 2)^2 + 8$

Vertex Form & Graphs of Parabolas · 4

ANSWER

$y = 3(x - 1)^2 - 6$

Vertex Form & Graphs of Parabolas · 3

ANSWER

4

Vertex Form & Graphs of Parabolas · 6

ANSWER

$y = (x + 1)^2 + 3$

Vertex Form & Graphs of Parabolas · 5

ANSWER

$(-8, -4)$

Vertex Form & Graphs of Parabolas · 8

ANSWER

-7

Vertex Form & Graphs of Parabolas · 7

ANSWER

$y = -3(x - 5)^2 - 6$

Vertex Form & Graphs of Parabolas · 9

Write in vertex form by completing the square: $y = 3x^2 + 48x + 189$

Vertex Form & Graphs of Parabolas · 10

Find the vertex of $y = 3(x + 3)^2 + 6$. Write it as (h, k).

Vertex Form & Graphs of Parabolas · 11

Write in vertex form by completing the square: $y = x^2 - 14x + 41$

Vertex Form & Graphs of Parabolas · 12

Write in vertex form by completing the square: $y = -3x^2 - 6x + 3$

Vertex Form & Graphs of Parabolas · 13

What is the maximum value of $y = -x^2 + 4x - 12$?

Vertex Form & Graphs of Parabolas · 14

Write in vertex form by completing the square: $y = 3x^2 + 48x + 195$

Vertex Form & Graphs of Parabolas · 15

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

Vertex Form & Graphs of Parabolas · 16

Write in vertex form by completing the square: $y = x^2 + 16x + 60$

Vertex Form & Graphs of Parabolas · 10

ANSWER

$(-3, 6)$

Vertex Form & Graphs of Parabolas · 9

ANSWER

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

Vertex Form & Graphs of Parabolas · 12

ANSWER

$y = -3(x + 1)^2 + 6$

Vertex Form & Graphs of Parabolas · 11

ANSWER

$y = (x - 7)^2 - 8$

Vertex Form & Graphs of Parabolas · 14

ANSWER

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

Vertex Form & Graphs of Parabolas · 13

ANSWER

-8

Vertex Form & Graphs of Parabolas · 16

ANSWER

$y = (x + 8)^2 - 4$

Vertex Form & Graphs of Parabolas · 15

ANSWER

$(-4, -3)$

Vertex Form & Graphs of Parabolas · 17

Write in vertex form by completing the square: $y = 2x^2 + 20x + 58$

Vertex Form & Graphs of Parabolas · 18

What is the minimum value of $y = 4x^2 + 7$?

Vertex Form & Graphs of Parabolas · 19

Write in vertex form by completing the square: $y = 3x^2 + 12x + 6$

Vertex Form & Graphs of Parabolas · 20

Find the vertex of $y = 2(x + 6)^2 + 8$. Write it as (h, k).

Vertex Form & Graphs of Parabolas · 21

Write in vertex form by completing the square: $y = x^2 + 4x + 7$

Vertex Form & Graphs of Parabolas · 22

Write in vertex form by completing the square: $y = -2x^2 + 16x - 30$

Vertex Form & Graphs of Parabolas · 23

What is the minimum value of $y = 4(x - 5)^2 - 3$?

Vertex Form & Graphs of Parabolas · 24

Write in vertex form by completing the square: $y = 2x^2 - 20x + 52$

Vertex Form & Graphs of Parabolas · 18

ANSWER

7

Vertex Form & Graphs of Parabolas · 17

ANSWER

$y = 2(x + 5)^2 + 8$

Vertex Form & Graphs of Parabolas · 20

ANSWER

(-6, 8)

Vertex Form & Graphs of Parabolas · 19

ANSWER

$y = 3(x + 2)^2 - 6$

Vertex Form & Graphs of Parabolas · 22

ANSWER

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

Vertex Form & Graphs of Parabolas · 21

ANSWER

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

Vertex Form & Graphs of Parabolas · 24

ANSWER

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

Vertex Form & Graphs of Parabolas · 23

ANSWER

-3