

Converting Between All Three Forms of Quadratic Functions

Given one of the forms of a quadratic function, convert to the other two forms.

1. $y = x^2 - 6x - 7$	Vertex Form: _____ Factored Form: _____
2. $y = 3(x - 1)^2 - 3$	Standard Form: _____ Factored Form: _____
3. $y = 2(x - 3)(x + 5)$	Vertex Form: _____ Standard Form: _____

<p>4. $y = 2x^2 + 8x - 10$</p>	<p>Vertex Form: _____</p> <p>Factored Form: _____</p>
<p>5. $y = 2(x + 1)^2 - 8$</p>	<p>Standard Form: _____</p> <p>Factored Form: _____</p>
<p>6. $y = -4(x + 1)(2x - 5)$</p>	<p>Vertex Form: _____</p> <p>Standard Form: _____</p>

Answers:

- | | | | |
|--------------------------|----------------------|--|------------------------|
| 1. $y = (x - 3)^2 - 16$ | $y = (x - 7)(x + 1)$ | 4. $y = 2(x + 2)^2 - 18$ | $y = 2(x + 5)(x - 1)$ |
| 2. $y = 3x^2 - 6x$ | $y = 3x(x - 2)$ | 5. $y = 2x^2 + 4x - 6$ | $y = 2(x + 3)(x - 1)$ |
| 3. $y = 2(x + 1)^2 - 32$ | $y = 2x^2 + 4x - 30$ | 6. $y = -4(2x - 5)(x + 1)$ | $y = -8x^2 + 12x + 20$ |