

## mobius

## **Quadratic Equation Standard Form to Vertex (Coefficient -N)**



1	Complete the square and convert this	
•	to vertex form to find the vertex	

Complete the square and convert this to vertex form to find the vertex

$$y = -4x^2 - 16x - 14$$

y	=	$-5x^{2}$	-20x	-24
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Α	(2, 2)	В	(-4, -2)	Α	(-5, -4)	В	(-2, -4)
С	(-2, 2)	D	(2, -2)	С	(-5, -2)	D	(-4, -2)
Е	(-2, -2)	F	(-4, 2)	E	(-2, 4)	F	(2, -4)

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3 Complete the square and convert this to vertex form to find the vertex

Complete the square and convert this to vertex form to find the vertex

$$y = -5x^2 + 30x - 41$$

$$-5x^2 + 30x - 41$$
 $y = -2x^2 + 4x + 2$ 

Α	(-5, 3)	В	(4, 3)	Α	(1, 4)	В	(-2, 4)
С	(3, -4)	D	(3, 4)	С	(-2, 1)	D	(-1, 4)
E	(-5, 4)	F	(-3, 4)	Е	(1, -4)	F	(4, 1)

Complete the square and convert this 5 to vertex form to find the vertex

Complete the square and convert this to vertex form to find the vertex

$$y = -2x^2 + 16x - 35$$

5 <i>į</i>	y =	$-2x^{2}$	-12x	<b>- 16</b>	
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A	A	(-2, -3)	В	(-4, -3)	A	(-2, 2)	В	(2, -3)
C	С	(4, -3)	D	(-3, 4)	С	(-3, 2)	D	(-2, -3)
E	≣	(4, 3)	F	(-2, 4)	E	(3, 2)	F	(-3, -2)

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Complete the square and convert this 7 to vertex form to find the vertex

Complete the square and convert this to vertex form to find the vertex

## $-5x^2 + 10x - 9$

$y=-2x^2-4x-1$
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Α	(-1, -4)	В	(-4, 1)	Α	(-1, -1)	В	(1, -1)
С	(-5, -4)	D	(1, 4)	С	(1, 1)	D	(-2, 1)
E	(1, -4)	F	(-5, 1)	E	(-2, -1)	F	(-1, 1)