

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

$$y = 2x^2 + 4x + 3$$

y	=	$4x^2$	-1	6 <i>x</i>	+	12
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Α	(1, -1)	В	(2, -1)	А	(2, -4)	В	(2, 4)
С	(1, 1)	D	(-1, 1)	С	(-2, -4)	D	(-4, 2)
E	(2, 1)	F	(-1, -1)	E	(4, -4)	F	(4, 2)

4

2

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

$$y = 4x^2 - 24x + 39$$

$$y = 4x^2 - 24x + 39$$
 $y = 5x^2 + 10x + 4$

А	(4, 3)	В	(-3, 3)	Α	(5, -1)	В	(-1, 1)
С	(3, 3)	D	(3, -3)	С	(1, -1)	D	(-1, -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

$$y = 5x^2 - 40x + 81$$

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

8

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

$$y = 5x^2 + 40x + 76$$
 $y = 3x^2 + 6x + 4$

$$y = 3x^2 + 6x + 4$$

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