

mobius

Quadratic Equation Complete Square - To **Fully Complete (Coefficient 1)**



Complete the square to factor $y=x^2-2x+5$

$$\hat{y} = -1(x-1)^2 + 4 \, | \, \hat{y} = -1(x+1)^2 +$$

$$y = x^2 - 6x + 13$$

$$egin{aligned} \ddot{y} &= -1(x-1)^2 + 4 \ \ddot{y} &= -1(x+1)^2 + 4 \ \ddot{y} &= (x-1)^2 - 4 \end{aligned} \ \ \ddot{y} = (x-1)^2 + 4 \ \ddot{$$

Complete the square to factor
$$y=x^2-6x+6$$

Complete the square to factor
$$y=x^2-6x+5$$

$$^{\mathsf{A}}\,y = (x+3)^2 - 3 \quad \Big|^{\mathsf{B}}\,y = (x-3)^2 - 3 \quad \Big|^{\mathsf{A}}\,y = (x-3)^2 + 4 \quad \Big|^{\mathsf{B}}\,y = (x-3)^2 - 4 \Big|^{\mathsf{B}}$$

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

$$\int_{0}^{c} y = (x-3)^{2} + 3$$
 $\left| \int_{0}^{D} y = -1(x-3)^{2} - 3 \right| \left| \int_{0}^{C} y = -1(x-3)^{2} - 4 \right| \left| \int_{0}^{D} y = (x+3)^{2} - 4 \right|$

$$\hat{y} = -1(x-3)^2 - 4$$
 $y = (x+3)^2 - 4$

Complete the square to factor
$$y=x^2+2x+4$$
 this polynomial

$$y = x^2 + 8x + 20$$

$$y^{A} = (x-1)^{2} + 3$$
 $y^{B} = -1(x+1)^{2} + 3$

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

7 Complete the square to factor $y=x^2-4x+7$

$$\hat{y} = -1(x+2)^2 - 3$$
 $\hat{y} = -1(x-2)^2 + 3$

$$y = x^2 + 8x + 18$$

$$^{\text{C}}y = (x+2)^2 + 3$$
 $^{\text{D}}y = (x-2)^2 + 3$