



Quadratic Equation Complete Square - To Partially Complete (Coefficient -N)

1 Complete the square to be ready to factor this polynomial

$$y = -4x^2 + 32x - 63$$

$$y^A = -4(x^2 - 8x + 13) + 64 - 63 \quad y^B = -4(x^2 - 8x + 16) + 67 - 63$$

$$y^C = -4(x^2 - 8x + 18) + 64 - 63 \quad y^D = -4(x^2 - 8x + 16) - 64 - 63$$

$$y^E = -4(x^2 - 8x + 16) + 64 - 63$$

2 Complete the square to be ready to factor this polynomial

$$y = -5x^2 - 40x - 79$$

$$y^A = -5(x^2 + 8x + 16) + 80 - 79 \quad y^B = -5(x^2 + 8x + 16) - 80 - 79$$

$$y^C = -5(x^2 + 8x + 17) + 80 - 79 \quad y^D = -5(x^2 + 8x + 15) + 80 - 79$$

$$y^E = -5(x^2 + 12x + 16) + 80 - 79$$

3 Complete the square to be ready to factor this polynomial

$$y = -2x^2 + 16x - 30$$

$$y^A = -2(x^2 - 8x + 16) - 32 - 30 \quad y^B = -2(x^2 - 8x + 16) + 32 - 30$$

$$y^C = -2(x^2 - 8x + 16) - 33 - 30 \quad y^D = -2(x^2 - 8x + 16) - 31 - 30$$

$$y^E = -2(x^2 - 8x + 15) + 32 - 30$$

4 Complete the square to be ready to factor this polynomial

$$y = -3x^2 + 12x - 11$$

$$y^A = -3(x^2 - 4x + 1) + 12 - 11 \quad y^B = -3(x^2 - 4x + 4) + 12 - 11$$

$$y^C = -3(x^2 - 4x - 1) + 12 - 11 \quad y^D = -3(x^2 - 4x + 4) - 14 - 11$$

$$y^E = -3(x^2 - 4x + 4) - 12 - 11$$

5 Complete the square to be ready to factor this polynomial

$$y = -5x^2 - 30x - 47$$

$$y^A = -5(x^2 + 3x + 9) + 45 - 47 \quad y^B = -5(x^2 + 6x + 9) - 49 - 47$$

$$y^C = -5(x^2 + 6x + 11) + 45 - 47 \quad y^D = -5(x^2 + 6x + 9) - 40 - 47$$

$$y^E = -5(x^2 + 6x + 9) + 45 - 47$$

6 Complete the square to be ready to factor this polynomial

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

$$y^A = -2(x^2 - 9x + 4) + 8 - 4 \quad y^B = -2(x^2 - 4x + 4) - 8 - 4$$

$$y^C = -2(x^2 - 4x + 6) + 8 - 4 \quad y^D = -2(x^2 - 4x + 4) + 12 - 4$$

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

7 Complete the square to be ready to factor this polynomial

$$y = -5x^2 - 40x - 77$$

$$y^A = -5(x^2 + 8x + 16) + 85 - 77 \quad y^B = -5(x^2 + 8x + 17) + 80 - 77$$

$$y^C = -5(x^2 + 8x + 16) + 80 - 77 \quad y^D = -5(x^2 + 8x + 16) - 78 - 77$$

$$y^E = -5(x^2 + 8x + 15) + 80 - 77$$

8 Complete the square to be ready to factor this polynomial

$$y = -3x^2 - 18x - 29$$

$$y^A = -3(x^2 + 6x + 7) + 27 - 29 \quad y^B = -3(x^2 + 6x + 9) + 27 - 29$$

$$y^C = -3(x^2 + 6x + 9) - 27 - 29 \quad y^D = -3(x^2 + 7x + 9) + 27 - 29$$

$$y^E = -3(x^2 + 6x + 5) + 27 - 29$$