

Solutions – Expanding Quadratics (A)

Expand and simplify $(x + 6)(x + 9)$

$$x^2 + 15x + 54$$

Expand and simplify $(x + 8)(x + 10)$

$$x^2 + 18x + 80$$

Expand and simplify $(x - 5)(x + 12)$

$$x^2 + 7x - 60$$

Expand and simplify $(x - 11)(x + 6)$

$$x^2 - 5x - 66$$

Expand and simplify $(2x + 2)(4x - 7)$

$$8x^2 - 6x - 14$$

Expand and simplify $(4x + 9)(4x - 4)$

$$16x^2 + 20x - 36$$

Solutions – Expanding Quadratics (B)

Expand and simplify $(x + 3)(x + 4)$

$$x^2 + 7x + 12$$

Expand and simplify $(x + 4)(x + 6)$

$$x^2 + 10x + 24$$

Expand and simplify $(x - 6)(x + 3)$

$$x^2 - 3x - 18$$

Expand and simplify $(x - 5)(x + 12)$

$$x^2 + 7x - 60$$

Expand and simplify $(2x + 9)(3x - 7)$

$$6x^2 + 13x - 63$$

Expand and simplify $(5x + 8)(2x - 1)$

$$10x^2 + 1x - 8$$

Solutions – Expanding Quadratics (C)

Expand and simplify $(x + 6)(x + 3)$

$$x^2 + 9x + 18$$

Expand and simplify $(x + 5)(x + 10)$

$$x^2 + 15x + 50$$

Expand and simplify $(x - 10)(x + 11)$

$$x^2 + x - 110$$

Expand and simplify $(x - 2)(x + 5)$

$$x^2 + 3x - 10$$

Expand and simplify $(5x + 5)(4x - 2)$

$$20x^2 + 10x - 10$$

Expand and simplify $(2x + 2)(4x - 8)$

$$8x^2 - 8x - 16$$

Solutions – Expanding Quadratics (D)

Expand and simplify $(x + 2)(x + 7)$

$$x^2 + 9x + 14$$

Expand and simplify $(x + 7)(x + 3)$

$$x^2 + 10x + 21$$

Expand and simplify $(x - 12)(x + 7)$

$$x^2 - 5x - 84$$

Expand and simplify $(x - 11)(x + 8)$

$$x^2 - 3x - 88$$

Expand and simplify $(4x + 9)(5x - 8)$

$$20x^2 + 13x - 72$$

Expand and simplify $(2x + 10)(4x - 6)$

$$8x^2 + 28x - 60$$

Solutions – Expanding Quadratics (E)

Expand and simplify $(x + 2)(x + 4)$

$$x^2 + 6x + 8$$

Expand and simplify $(x + 2)(x + 6)$

$$x^2 + 8x + 12$$

Expand and simplify $(x - 6)(x + 6)$

$$x^2 - 36$$

Expand and simplify $(x - 11)(x + 4)$

$$x^2 - 7x - 44$$

Expand and simplify $(5x + 10)(4x - 4)$

$$20x^2 + 20x - 40$$

Expand and simplify $(4x + 2)(4x - 8)$

$$16x^2 - 24x - 16$$

Solutions – Expanding Quadratics (F)

Expand and simplify $(x + 10)(x + 10)$

$$x^2 + 20x + 100$$

Expand and simplify $(x + 4)(x + 8)$

$$x^2 + 12x + 32$$

Expand and simplify $(x - 9)(x + 12)$

$$x^2 + 3x - 108$$

Expand and simplify $(x - 5)(x + 2)$

$$x^2 - 3x - 10$$

Expand and simplify $(2x + 5)(4x - 4)$

$$8x^2 + 12x - 20$$

Expand and simplify $(3x + 2)(3x - 2)$

$$9x^2 - 4$$

Solutions – Expanding Quadratics (G)

Expand and simplify $(x + 5)(x + 3)$

$$x^2 + 8x + 15$$

Expand and simplify $(x + 3)(x + 3)$

$$x^2 + 6x + 9$$

Expand and simplify $(x - 1)(x + 2)$

$$x^2 + x - 2$$

Expand and simplify $(x - 3)(x + 2)$

$$x^2 - x - 6$$

Expand and simplify $(2x + 8)(3x - 3)$

$$6x^2 + 18x - 24$$

Expand and simplify $(3x + 2)(2x - 4)$

$$6x^2 - 8x - 8$$

Solutions – Expanding Quadratics (H)

Expand and simplify $(x + 8)(x + 2)$

$$x^2 + 10x + 16$$

Expand and simplify $(x + 4)(x + 6)$

$$x^2 + 10x + 24$$

Expand and simplify $(x - 5)(x + 11)$

$$x^2 + 6x - 55$$

Expand and simplify $(x - 7)(x + 2)$

$$x^2 - 5x - 14$$

Expand and simplify $(5x + 3)(3x - 10)$

$$15x^2 - 4x - 30$$

Expand and simplify $(5x + 10)(5x - 3)$

$$25x^2 + 35x - 30$$

Solutions – Expanding Quadratics (I)

Expand and simplify $(x + 2)(x + 5)$

$$x^2 + 7x + 10$$

Expand and simplify $(x + 9)(x + 2)$

$$x^2 + 1x + 18$$

Expand and simplify $(x - 2)(x + 8)$

$$x^2 + 6x - 16$$

Expand and simplify $(x - 5)(x + 7)$

$$x^2 + 2x - 35$$

Expand and simplify $(5x + 3)(4x - 6)$

$$20x^2 - 18x - 18$$

Expand and simplify $(3x + 9)(5x - 2)$

$$15x^2 + 39x - 18$$

Solutions – Expanding Quadratics (J)

Expand and simplify $(x + 1)(x + 4)$

$$x^2 + 5x + 4$$

Expand and simplify $(x + 10)(x + 4)$

$$x^2 + 14x + 40$$

Expand and simplify $(x - 12)(x + 8)$

$$x^2 - 4x - 96$$

Expand and simplify $(x - 6)(x + 6)$

$$x^2 - 36$$

Expand and simplify $(3x + 10)(4x - 8)$

$$12x^2 + 16x - 80$$

Expand and simplify $(4x + 4)(4x - 9)$

$$16x^2 - 20x - 36$$