

EXPANDING BRACKETS (DOUBLE)

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Worked example

Expand:

$$(2x + 3)(4x + 5)$$

$$(5x + 3)(4x + 1)$$

Your turn

Expand:

$$(3a + 5)(2a + 4)$$

$$6a^2 + 22a + 20$$

Worked example

Expand:

$$(x + 3)(x + 4)$$

$$(x + 5)(x + 6)$$

Your turn

Expand:

$$(x + 2)(x + 8)$$

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

Worked example

Expand:

$$(2x + 3)(x + 4)$$

$$(x + 6)(3x + 5)$$

Your turn

Expand:

$$(5x + 2)(x + 8)$$

$$5x^2 + 42x + 16$$

Worked example

Expand:

$$(x + 2)(x + 3)$$

$$(x + 5)(x + 4)$$

Your turn

Expand:

$$(x + 7)(x + 8)$$

$$x^2 + 15x + 56$$

Worked example

Expand:

$$(x + 3)^2$$

$$(x + 4)^2$$

Your turn

Expand:

$$(x + 5)^2$$

$$x^2 + 10x + 25$$

Worked example

Expand:

$$(x - 3)^2$$

$$(x - 4)^2$$

Your turn

Expand:

$$(x - 5)^2$$

$$x^2 - 10x + 25$$

Worked example

Expand:

$$(x + 2)(x + 3)$$

$$(x + 2)(x - 3)$$

$$(x - 2)(x - 3)$$

$$(x - 2)(3 - x)$$

$$(2 - x)(3 - x)$$

Your turn

Expand:

$$(x + 3)(x + 4)$$

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

$$(x + 3)(x - 4)$$

$$x^2 - x - 12$$

$$(x - 3)(x - 4)$$

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

$$(x - 3)(4 - x)$$

$$7x - 12 - x^2$$

$$(3 - x)(4 - x)$$

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

Worked example

Expand:

$$(x - 2)(3 - x)$$

$$(2 - x)(3 - x)$$

Your turn

Expand:

$$(x - 3)(4 - x)$$

$$7x - 12 - x^2$$

$$(3 - x)(4 - x)$$

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

Worked example

Expand:

$$(x + 3)(x - 3)$$

$$(x + 4)(x - 4)$$

Your turn

Expand:

$$(x + 5)(x - 5)$$

$$x^2 - 25$$

Worked example

Expand:

$$(4x + 3)(4x - 3)$$

$$(5x + 4)(5x - 4)$$

Your turn

Expand:

$$(3x + 5)(3x - 5)$$

$$9x^2 - 25$$

Worked example

Expand:

$$(3x + 4)^2$$

$$(5x + 6)^2$$

Your turn

Expand:

$$(4x + 5)^2$$

$$16x^2 + 40x + 25$$

Worked example

Expand:

$$(3x - 4)^2$$

$$(5x - 6)^2$$

Your turn

Expand:

$$(4x - 5)^2$$

$$16x^2 - 40x + 25$$

Worked example

Expand:

$$(4 - 3x)^2$$

$$(6 - 5x)^2$$

Your turn

Expand:

$$(5 - 4x)^2$$

$$16x^2 - 40x + 25$$

Worked example

Expand:

$$(3x + 2y)^2$$

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

Your turn

Expand:

$$(5x + 4y)^2$$

$$25x^2 + 40xy + 16y^2$$

Worked example

Expand:

$$2(4x + 3)(5x - 6)$$

$$3(7x + 2)(8x - 5)$$

Your turn

Expand:

$$4(5x + 6)(3x - 2)$$

$$60x^2 + 32x - 48$$

Worked example

Expand:

$$2x(4x + 3)(5x - 6)$$

$$3x^2(7x + 2)(8x - 5)$$

Your turn

Expand:

$$4x^2(5x + 6)(3x - 2)$$

$$60x^4 + 32x^3 - 48x^2$$