

## Solutions – Factorising Quadratics (A)

Fully factorise  $5x^2 + 20x + 15$

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

Fully factorise  $2x^2 - 8$

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

Fully factorise  $x^2 + 6x + 8$

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

Fully factorise  $5x^2 + 40x + 80$

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

Fully factorise  $x^2 - 25$

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

Fully factorise  $6x^2 - 40x + 24$

$$2(3x - 2)(x - 6)$$

## Solutions – Factorising Quadratics (B)

Fully factorise  $2x^2 + 3x - 5$

$$(2x + 5)(x - 1)$$

Fully factorise  $2x^2 - 72$

$$2(x + 6)(x - 6)$$

Fully factorise  $x^2 + 15x + 56$

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

Fully factorise  $6x^2 - 49x + 8$

$$(6x - 1)(x - 8)$$

Fully factorise  $x^2 - 16$

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

Fully factorise  $2x^2 - 10x + 12$

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

## Solutions – Factorising Quadratics (C)

Fully factorise  $x^2 + 11x + 28$

$$(x + 7)(x + 4)$$

Fully factorise  $2x^2 - 12x + 18$

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

Fully factorise  $2x^2 + 7x - 15$

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

Fully factorise  $3x^2 - 300$

$$3(x + 10)(x - 10)$$

Fully factorise  $x^2 - 4$

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

Fully factorise  $2x^2 - 11x - 40$

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

## Solutions – Factorising Quadratics (D)

Fully factorise  $x^2 + 10x + 9$

$$(x + 1)(x + 9)$$

Fully factorise  $x^2 - 4$

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

Fully factorise  $4x^2 + 18x - 10$

$$2(2x - 1)(x + 5)$$

Fully factorise  $4x^2 + 12x - 40$

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

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

$$6(x - 1)(x - 3)$$

Fully factorise  $6x^2 - 600$

$$6(x + 10)(x - 10)$$

## Solutions – Factorising Quadratics (E)

Fully factorise  $2x^2 - 200$

$$2(x + 10)(x - 10)$$

Fully factorise  $2x^2 - 20x + 48$

$$2(x - 4)(x - 6)$$

Fully factorise  $x^2 + 13x + 42$

$$(x + 6)(x + 7)$$

Fully factorise  $x^2 - 144$

$$(x + 12)(x - 12)$$

Fully factorise  $6x^2 - 12x + 6$

$$6(x - 1)^2$$

Fully factorise  $2x^2 - 4x - 16$

$$2(x + 2)(x - 4)$$

## Solutions – Factorising Quadratics (F)

Fully factorise  $x^2 + 11x + 10$

$$(x + 10)(x + 1)$$

Fully factorise  $6x^2 + 6x - 36$

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

Fully factorise  $5x^2 - 46x + 48$

$$(5x - 6)(x - 8)$$

Fully factorise  $x^2 - 25$

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

Fully factorise  $2x^2 + 10x - 12$

$$2(x - 1)(x + 6)$$

Fully factorise  $2x^2 - 32$

$$2(x + 4)(x - 4)$$

## Solutions – Factorising Quadratics (G)

Fully factorise  $x^2 - 9$

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

Fully factorise  $5x^2 - 245$

$$5(x + 7)(x - 7)$$

Fully factorise  $5x^2 + 11x + 2$

$$(5x + 1)(x + 2)$$

Fully factorise  $2x^2 - 3x - 2$

$$(2x + 1)(x - 2)$$

Fully factorise  $x^2 + 18x + 80$

$$(x + 10)(x + 8)$$

Fully factorise  $2x^2 - 12x + 18$

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

## Solutions – Factorising Quadratics (H)

Fully factorise  $3x^2 + 22x + 35$

$$(3x + 7)(x + 5)$$

Fully factorise  $5x^2 - 40x + 35$

$$5(x - 1)(x - 7)$$

Fully factorise  $x^2 - 81$

$$(x + 9)(x - 9)$$

Fully factorise  $x^2 + 13x + 40$

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

Fully factorise  $5x^2 - 125$

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

Fully factorise  $5x^2 + 45x + 90$

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

## Solutions – Factorising Quadratics (I)

Fully factorise  $x^2 + 10x + 9$

$$(x + 1)(x + 9)$$

Fully factorise  $6x^2 - 42x + 60$

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

Fully factorise  $3x^2 - 300$

$$3(x + 10)(x - 10)$$

Fully factorise  $2x^2 - 9x + 7$

$$(2x - 7)(x - 1)$$

Fully factorise  $3x^2 - 12x + 12$

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

Fully factorise  $x^2 - 4$

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

## Solutions – Factorising Quadratics (J)

Fully factorise  $x^2 - 100$

$$(x + 10)(x - 10)$$

Fully factorise  $x^2 + 16x + 63$

$$(x + 9)(x + 7)$$

Fully factorise  $3x^2 - 7x - 6$

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

Fully factorise  $4x^2 + 31x + 42$

$$(4x + 7)(x + 6)$$

Fully factorise  $3x^2 - 18x + 15$

$$3(x - 5)(x - 1)$$

Fully factorise  $3x^2 - 300$

$$3(x + 10)(x - 10)$$