

## Solutions – Factorising (A)

Factorise  $3y + 15$ .

$$3(y + 5)$$

Factorise  $4x + 16y + 8$ .

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

Factorise  $3y - 3$ .

$$3(y - 1)$$

Factorise  $-10x + 2y - 4$ .

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

Factorise  $-16x^2 + 12x + 20$ .

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

Factorise  $-9x^2 + 6x - 3$ .

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

## Solutions – Factorising (B)

Factorise  $-12b^2 - 12b + 20$ .

$$-4(3b^2 + 3b - 5)$$

Factorise  $12a + 12b + 3$ .

$$3(4a + 4b + 1)$$

Factorise  $2c + 2$ .

$$2(c + 1)$$

Factorise  $-2x + 8y - 8$ .

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

Factorise  $4b + 4$ .

$$4(b + 1)$$

Factorise  $-2c^2 + 4c - 8$ .

$$-2(c^2 - 2c + 4)$$

## Solutions – Factorising (C)

Factorise  $9x + 15y - 12$ .

$$3(3x + 5y - 4)$$

Factorise  $-12a - 20b + 8$ .

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

Factorise  $2y + 2$ .

$$2(y + 1)$$

Factorise  $-9y^2 - 3y - 15$ .

$$-3(3y^2 + y + 5)$$

Factorise  $3x - 12$ .

$$3(x - 4)$$

Factorise  $-8b^2 - 8b + 2$ .

$$-2(4b^2 + 4b - 1)$$

## Solutions – Factorising (D)

Factorise  $-12y^2 - 8y + 16$ .

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

Factorise  $-20a + 16b - 8$ .

$$-4(5a - 4b + 2)$$

Factorise  $2a + 6$ .

$$2(a + 3)$$

Factorise  $4a + 16$ .

$$4(a + 4)$$

Factorise  $3a - 15b - 9$ .

$$3(a - 5b - 3)$$

Factorise  $-4b^2 + 2b + 10$ .

$$-2(2b^2 - b - 5)$$

## Solutions – Factorising (E)

Factorise  $4a + 20$ .

$$4(a + 5)$$

Factorise  $20x - 20y + 16$ .

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

Factorise  $-6b^2 + 2b - 4$ .

$$-2(3b^2 - b + 2)$$

Factorise  $-12b^2 - 20b + 4$ .

$$-4(3b^2 + 5b - 1)$$

Factorise  $-16b + 12c - 20$ .

$$-4(4b - 3c + 5)$$

Factorise  $3y + 3$ .

$$3(y + 1)$$

## Solutions – Factorising (F)

Factorise  $-4a^2 - 12a - 4$ .

$$-4(a^2 + 3a + 1)$$

Factorise  $-4a^2 + 8a - 6$ .

$$-2(2a^2 - 4a + 3)$$

Factorise  $4a - 20$ .

$$4(a - 5)$$

Factorise  $-8b - 20c - 4$ .

$$-4(2b + 5c + 1)$$

Factorise  $4b - 4$ .

$$4(b - 1)$$

Factorise  $6x + 8y + 4$ .

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

## Solutions – Factorising (G)

Factorise  $-4a - 16b - 20$ .

$$-4(a + 4b + 5)$$

Factorise  $-12y^2 - 8y + 4$ .

$$-4(3y^2 + 2y - 1)$$

Factorise  $-12x^2 + 4x + 12$ .

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

Factorise  $2c - 8$ .

$$2(c - 4)$$

Factorise  $3a + 6$ .

$$3(a + 2)$$

Factorise  $8a + 12b + 16$ .

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

## Solutions – Factorising (H)

Factorise  $4x + 8$ .

$$4(x + 2)$$

Factorise  $-3x - 3y + 3$ .

$$-3(x + y - 1)$$

Factorise  $-16y^2 + 8y - 20$ .

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

Factorise  $-15y^2 - 12y + 9$ .

$$-3(5y^2 + 4y - 3)$$

Factorise  $4y + 12$ .

$$4(y + 3)$$

Factorise  $12b + 15c - 12$ .

$$3(4b + 5c - 4)$$

## Solutions – Factorising (I)

Factorise  $-4c^2 + 16c - 12$ .

$$-4(c^2 - 4c + 3)$$

Factorise  $-20y^2 - 12y + 12$ .

$$-4(5y^2 + 3y - 3)$$

Factorise  $6b + 8c + 10$ .

$$2(3b + 4c + 5)$$

Factorise  $4b - 12$ .

$$4(b - 3)$$

Factorise  $4x - 8$ .

$$4(x - 2)$$

Factorise  $-6b - 6c + 3$ .

$$-3(2b + 2c - 1)$$

## Solutions – Factorising (J)

Factorise  $2c + 2$ .

$$2(c + 1)$$

Factorise  $-8b^2 - 8b - 2$ .

$$-2(4b^2 + 4b + 1)$$

Factorise  $2y + 10$ .

$$2(y + 5)$$

Factorise  $-10a - 2b + 4$ .

$$-2(5a + b - 2)$$

Factorise  $-16c^2 - 12c + 8$ .

$$-4(4c^2 + 3c - 2)$$

Factorise  $3a + 3b - 9$ .

$$3(a + b - 3)$$