1 **(a)** Factorise.

$$x^2 - 25x$$

(a) .... **[1]**

(b) Factorise.

$$x^2 - 25$$

(b) .... **[1]**

(c) Multiply out and simplify.

$$(x - 25)(x + 10)$$

(c) .... **[2]**

2 **(a)** Multiply out and simplify fully.

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

(a) .... **[3]**

(b) Solve.

$(x - 1)(2x + 5) = 0$

(b) .... **[2]**

(c) Factorise.

$x^2 - 2x - 24$

(c) .... **[2]**

3 **(a** Factorise.

$5x + 10$

(a) _____ [1]

(b) Multiply out the brackets and simplify completely.

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

(b)(i) _____ [2]

(ii) $3(x + 2) + 4(2x - 1)$

(ii) _____ [3]

4 **(a)** Multiply out the brackets and simplify your answer.

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

(a) _____ **[3]**

(b) Factorise this expression completely.

$$5xy + 10x$$

(b) _____ **[2]**

5 **(a** Factorise.

$$6x + 8$$

(a) _____ **[1]**

(b) Work out the value of $x^2 - 9$ when

(i) $x = 5,$

(b)(i) _____ **[1]**

(ii) $x = {}^-4.$

(ii) _____ **[1]**

(c) Factorise.

$$x^2 - 9$$

(c) _____ **[1]**

6 **(a** Solve.

(i) $3x + 7 = 15 - 2x$

(a)(i) _____ **[3]**

(ii) $\dfrac{8}{x} = 2$

(ii) _____ **[1]**

(iii) $3x^2 = 75$

(iii) _____ **[3]**

(b) Expand.

$4x(2x - 7)$

(b) _____ **[2]**

(c) Factorise.

$6 + 8x$

(c) _____ **[1]**

(d) Make x the subject of the following.

$x + 3 = 2a + bx$

(d) _____ **[4]**

7 **(a** Simplify.

$3a^2 \times 4a$

(a) _____ **[2]**

(b) Work out the value of $4b^2$ when $b = {}^-2.5$.

(b) _____ **[2]**

(c) Solve.

$5(2x - 7) = 3$

(c)_____[3]

(d) Factorise.

$12x^2 + 8xy$

(d)_____[2]