1 Expand and simplify (4x + 1)(x - 3)(5x + 6)

Expanding first 2 brackets:

$$(4x+1)(x-3) = 4x^2-12x+x-3$$

= $4x^2-11x-3$ (1)

Multiplying first expansion with another bracket:

$$(4x^{2}-11x-3)(5x+6)$$

$$= 20x^{3}+24x^{2}-55x^{3}-66x-15x-18$$

$$= 20x^{3}-31x^{2}-81x-18$$

202-312-81×-18

(Total for Question 1 is 3 marks)

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

$$(x+2)(x-5)$$
= $x^2 - 5x + 2x - 10$ (1)
= $x^2 - 3x - 10$

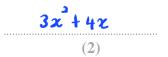
$$\frac{\chi^2 - 3\chi - l_0}{(2)}$$

(a) Expand and simplify (m-8)(m+5)m²+5m-8m-40 (1)

(Total for Question 3 is 2 marks)

4 (a) Expand and simplify 3x(2x+3) - x(3x+5)

$$6x^{2} + 9x - 3x^{2} - 5x$$
 (1)
 $6x^{2} - 3x^{2} + 9x - 5x$
 $3x^{2} + 4x$ (1)



5 Expand and simplify 4x(3x + 1)(2x - 3)Show your working clearly.



(Total for Question 5 is 3 marks)

6 (c) Expand 4t(3t-2)

(d) Expand and simplify

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

$$= 5x^{2} + 20x - 2x - 8$$

$$5x^{2} + 20x - 2x - 8$$

$$5x^{2} + 18x - 8$$

(Total for Question 6 is 4 marks)

7 (b) Expand and simplify 2x(x-5)(x-3)

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

$$= 2 x^3 - 16 x^2 + 30 x$$

$$\frac{2 x^3 - 16 x^2 + 30 x}{(3)}$$

(Total for Question 7 is 3 marks)

8 (a) Expand and simplify 4x(2x+5) - 3x(2x-3)

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

=
$$8x^2 + 20x - 6x^2 + 9x$$
 (1)

9 (a) Expand $3c^{3}(c+4)$ $3c^{4} + 12c^{3}$

$$3c^{4} + 12c^{3}$$
 (2)

(Total for Question 9 is 2 marks)

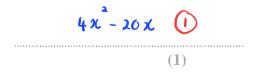
10 (a) Expand and simplify (n-6)(n+4)

11 (a) Expand and simplify (y+4)(2-y)

$$2y - y^{2} + 8 - 4y$$
 (1)
 $3y - y^{2} + 8y + 2y + 8$
 $3y - y^{2} + 8y + 2y + 8$

(Total for Question 11 is 2 marks)

12 (a) Expand 4x(x-5)



(Total for Question 12 is 1 marks)

13 (b) Expand and simplify (x + 5)(x - 7)

$$\chi^{2} - 7x + 5x - 35$$
 (1)
= $\chi^{2} - 2x - 35$ (1)

(Total for Question 13 is 2 marks)