1 (c) Factorise fully $15x^3 + 3x^2y$

find factors common to both terms: both terms have $3x^2$.

(1) $3x^2(5x + y)$

$\therefore$ take out factor of $3x^2$

$3x^2(5x+y)$ (1)

(2)

(Total for Question 1 is 2 marks)

2 (a) Factorise fully $4p^2 - 36$

both terms have a factor 4

$4[p^2 - 9]$ (1) ↓ difference of 2 squares

$4(p+3)(p-3)$ (1)

$a^2 - b^2 = (a+b)(a-b)$

$4(p+3)(p-3)$

(2)

(Total for Question 2 is 2 marks)

3 (a) Factorise $a^2 - b^2$

$(a-b)(a+b)$ (1)

(1)

(Total for Question 3 is 1 mark)

4 (b) Factorise $3k^2 + 11k - 4$

$= 3k^2 + 11k - 4$

$= 3k^2 - k + 12k - 4$

$= k(3k-1) + 4(3k-1)$ (1)

$= (3k-1)(k+4)$ (1)

$(3k-1)(k+4)$

(2)

(Total for Question 4 is 2 marks)