Expanding Single Brackets
Exam Style Questions

1. Expand the following brackets.

(a) $2(x + 3)$

$2x + 6$ .... (1 mark)

(b) $9(2a + 3b)$

$18a + 27b$ .... (1 mark)

(c) $8(x + 11y)$

$8x + 88y$ .... (1 mark)

(d) $3(a + 3b + c)$

$3a + 9b + 3c$ .... (1 mark)

(e) $- 3(2a + 3c)$

$-6a - 9c$ .... (1 mark)

(f) $- 6(3a - 4c)$

$-18a + 24c$ .... (1 mark)

(g) $x(x + 8)$

$x^2 + 8x$ .... (1 mark)

(h) $2x(2x + 3)$

$4x^2 + 6x$ .... (1 mark)

(i) $a(2a - 3b)$

$2a^2 - 3ab$ .... (1 mark)

(i) $- 5xy(x + y)$

$- 5x^2y - 5xy^2$ .... (1 mark)

(j) $x^2(x + 3)$

$x^3 + 3x^2$ .... (1 mark)

(k) $xy(x + y + z)$

$x^2y + xy^2 + xyz$ .... (1 mark)

(l) $3a^3(a + b)$

$3a^4 + 3a^3b$ .... (1 mark)

(m) $- p(- q - 3)$

$pq + 3p$ .... (1 mark)

(n) $11x^2y(x - 3y)$

$11x^3y - 3x^2y^2$ ..... (1 mark)

_____

2. Expand and simplify the following expressions.

(a) $9(2a + 3b) + 4(3a + b)$

$= 18a + 27b + 12a + 4b$

$= 30a + 31b$

$30a + 31b$ .... (2 marks)

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

$= 12a + 12b - 5a + 5b$

$= 7a + 17b$

$7a + 17b$ .... (2 marks)

(c) $2(12a - b) - 3(2a + 11b)$

$= 24a - 2b - 6a - 33b$

$= 18a - 35b$

$18a - 35b$ ...... (2 marks)

(d) $a(a - 2b) - a(3a - 2b)$

$$= a^2 - 2ab - 3a^2 + 2ab$$
$$= -2a^2$$

.... $-2a^2$ .... (2 marks)

(e) $x(ax + by) + c(x + d)$

$$= ax^2 + bxy + cx + cd$$

.... $ax^2 + bxy + cx + cd$ ... (2 marks)

(f) $3x^2(x - 1) - 5x(3x - 1)$

$$= 3x^3 - 3x^2 - 15x^2 + 5x$$
$$= 3x^3 - 18x^2 + 5x$$

.... $3x^3 - 18x^2 + 5x$ .... (2 marks)

_____