JP Maths Revision

Expanding Single Brackets

Exam Style Questions

1. Expand the following brackets.

(a) $2(x + 3)$

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

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

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

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

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

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

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

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

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

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

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

(g) $x(x + 8)$

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

$11x^3y-33x^2y^2$ ..... (1)

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2. Expand and simplify the following expressions.

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

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

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

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

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

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

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

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

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

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

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

$-2a^2$

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

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

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

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

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

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