

Expansion of Single Brackets

Starter

1. (Review of Y7 material)

Simplify: (a) $9 \times 6x$ (b) $-8 \times 7y$
(c) $4a \times a$ (d) $3c \times 5c$

Working: (a) $54x$ (b) $-56y$ (c) $4a^2$ (d) $15c^2$

2. (Review of Y7 material)

Simplify: (a) $6x + 8x$ (b) $5y - 9y$ (c) $4p^2 + 6p$

Working: (a) $14x$ (b) $-4y$ (c) $4p^2 + 6p$ (no change)

E.g. 1 Expand the brackets: (a) $3(5x + 1)$ (b) $-4(6y - 1)$
(c) $8(4 - 3x)$ (d) $5a(6a + 7)$ (e) $-6y(8y - 5)$

Working: (a) $3(5x + 1) = 3 \times 5x + 3 \times 1 = 15x + 3$

(b) $-4(6y - 1) = -4 \times 6y - 4 \times (-1) = -24y + 4$

(c) $32 - 24x$

(d) $30a^2 + 35a$

(e) $-48y^2 + 30y$

E.g. 2 Expand and simplify: (a) $4(x + 5) + 3(x + 2)$ (b) $3(x + 4) - 2(3x + 1)$
(c) $6(3a - 7) + 5(9a - 4)$ (d) $12(6x - 5) - 7(4x - 8)$

Working: (a) $4(x + 5) + 3(x + 2) = 4x + 20 + 3x + 6 = 7x + 26$

(b) $3(x + 4) - 2(3x + 1) = 3x + 12 - 6x - 2 = -3x + 10$

(c) $6(3a - 7) + 5(9a - 4) = 18a - 42 + 45a - 20 = 63a - 62$

(d) $12(6x - 5) - 7(4x - 8) = 72x - 60 - 28x + 56 = 44x - 4$

Video: [Expanding single brackets](#)

[Solutions to Starter and E.g.s](#)

Exercise

p129 Ex 8.1 Qu 3, 4, 6, 7, 8, 9, 10 (expand single brackets)

[Textbook answers \(only available during a lockdown\)](#)