Expand each single bracket:

(1) $3(x + 8)$

(2) $5(x - 2)$

(3) $4(2x + 3)$

(4) $3(5x - 1)$

(5) $10(4 - x)$

(6) $7(3 - 2x)$

(7) $10(7x + 2)$

(8) $5(x - y)$

(9) $100(x + 1)$

Multiply out each bracket

(1) $x(x + 3)$

(2) $2x(x - 5)$

(3) $4x(2x + 1)$

(4) $x(4 + 3x)$

(5) $6x(4 - x)$

(6) $x(3 + 10x)$

(7) $10x(x + 1)$

(8) $3p(t - p + 1)$

Expand **AND SIMPLIFY** each:

(1) $3(x + 8) + 2(x + 1)$

(2) $10(x + 3) + 5(x - 2)$

(3) $5(x + 1) + 4(x + 3)$

(4) $4(x - 2) + 5(x + 6)$

(5) $7(8 + 3x) + 9(x + 1)$

(6) $5(3 - x) + 6(x + 2)$

(7) $6(2x + 1) + (4 + 3x)$

(8) $A(B + C) + B(C - A)$

Worded Questions

(1) A rectangle has side lengths of $2x$ and $(3x - 4)$

(a) Find an expression for the area of the rectangle.

(b) Find an expression for the perimeter of the rectangle

(2) A triangle has a base of $4x$ and a height of $6x - 4$. Find a simplified express for the area of the triangle.

More than one Pair of Brackets

Expand & simplify each!

(1) $3(4x + 8) - 4(x + 1)$

(2) $p(q + 3) + p(5 + q)$

(3) $t(r + 5) + r(t - 3)$

(4) $x(y + x) + y(x + y)$

(5) $10(q - 3) - q(5 + q)$

(6)   A rectangle has an area of $(4x - 2)$ and one side length of 2. Find an expression for the
        perimeter of the rectangle.

An Introduction to identities

In the question below an identity is shown. The $\equiv$ means the expression on the left-hand side is the same as the expression on the right-hand side.

(1) $Ax(3x + B) + 5(4x + C) \equiv 6x^2 + 40x - 15$.   Find the values of A, B and C.