

## EXPANDING BRACKETS

To **expand** brackets, we use the **distributive** law:

$$\begin{aligned} a(b + c) &= a \times b + a \times c \\ &= ab + ac \end{aligned}$$

$$\begin{aligned} a(b - c) &= a \times b - a \times c \\ &= ab - ac \end{aligned}$$

examples:

$$4(2x + 5) = 8x + 20$$

$$3(5 - 2y) = 15 - 6y$$

$$\begin{aligned} 4x(2x - y) &= 4x(2x) - 4x(y) \\ &= 8x^2 - 4xy \end{aligned}$$

$$\begin{aligned} 3(2b + 5) + 3b &= 3(2b) + 3(5) + 3b \\ &= 6b + 15 + 3b \\ &= 9b + 15 \end{aligned}$$