

**Unit 5 Intro to Polynomials****5.3A Distribution**

We can multiply a monomial with a polynomial by distribution.

Ex. Simplify (get rid of brackets/multiply)

**Distribute** – multiply each term of the polynomial in the brackets by the monomial outside the brackets

$$(3x + 5y) + (3x + 5y)$$

a)  $2(3x + 5y)$

$$= \boxed{6x + 10y}$$

b)  $-3(4x - 2y)$

$$= \boxed{-12x + 6y}$$

c)  $(m - 6n)3 = 3(m - 6n)$

$$= \boxed{3m - 18n}$$

d)  $5(3x + 2) + 4x$

$$= 15x + 10 + 4x$$

$$= \boxed{19x + 10}$$

e)  $5 + 6(2q - 1)$

$$= 5 + 12q - 6$$

$$= \boxed{12q - 1}$$

f)  $7a - 2(3a + 2b)$

$$= 7a - 6a - 4b$$

$$= \boxed{a - 4b}$$

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

$$= 3p + 10p - 15q + q$$

$$= \boxed{13p - 14q}$$

h)  $3(5x - y) + 4(2x + 3y)$

$$= \underline{15x} \boxed{-3y} + \underline{8x} \boxed{+12y}$$

$$= \boxed{23x + 9y}$$