

Unit 5 Intro To Polynomials**5.3B Adding & Subtracting Polynomials**

Ex. Simplify the polynomials:

a) $1(2x + 2) + 1(5x - 3)$

$$\begin{array}{l} \textcircled{1} \quad 2x+2 \quad \textcircled{2} \quad \text{Distribute} \\ \textcircled{2} \quad 5x-3 \\ \hline \boxed{7x-1} \end{array} = \boxed{7x-1}$$

+1 in front, just
drop brackets

c) $(5x + 3y + 4) - (3x - 2y + 1)$

$$\begin{aligned} &= \underline{5x} + \underline{3y} + \underline{4} - \underline{3x} + \underline{2y} - \underline{1} \\ &= 2x + 5y + 3 \end{aligned}$$

b) $1(3p - 1) - 1(4p + 2)$

$$\begin{array}{r} 3p-1 \\ -4p+2 \\ \hline -p-3 \end{array} \quad \begin{array}{l} = 3p-1-4p-2 \\ = -p-3 \end{array}$$

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

$$\begin{aligned} &= \underline{-x} + \underline{3} + \underline{2x} + \underline{5} \\ &= x + 8 \end{aligned}$$

e) $-(3a - b + 4) + (a + 5b - 2) - (2a - 3b - 6)$

$$\begin{aligned} &= \underline{-3a} + \underline{b} - \underline{4} + \underline{a} + \underline{5b} - \underline{2} - \underline{2a} + \underline{3b} + \underline{6} \\ &= -4a + 9b \end{aligned}$$

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

$$\begin{aligned} &= 2x - 5 - 4x - 2 \\ &= \boxed{-2x - 7} \end{aligned}$$