

Show all work; be sure to pay attention to detail...these problems are more rigorous! ☺

- 1) Write the expression $7x + 3x^2(4x + 5) - 6x^2 - 10x$ as a polynomial in standard form.

$$\begin{aligned} & \textcircled{7x} + 12x^3 + 15x^2 - 6x^2 - \textcircled{10x} \\ & \boxed{12x^3 + 9x^2 - 3x} \end{aligned}$$

Job ① ✓

- 2) If the difference $(2x^2 + 5x) - (x^2 + 8x)$ is multiplied by $3x^2$, what is the result, written in standard form?

$$\begin{aligned} & \textcircled{2x^2 + 5x} - \textcircled{x^2 + 8x} \\ & 3x^2(x^2 - 3x) \\ & \boxed{3x^4 - 9x^3} \end{aligned}$$

Job ②

- 3) If the sum $(4x^2 - 2x + 6) + (-2x^2 + 5x - 12)$ is multiplied by $\frac{1}{2}x^2$, what is the result written in standard form?

$$\frac{1}{2}x^2(2x^2 + 3x - 6)$$

$$\boxed{\frac{1}{2}x^4 + \frac{3}{2}x^3 - 3x^2}$$

ALPHA
Y =

