

- Sec 12.2: The power Rule.

$$\boxed{8} \int (4x^2 - 3x)^4 (8x - 3) dx$$

$$4x^2 - 3x \xrightarrow{\text{توجد المشتقة}} 8x - 3$$

$$\therefore \int (4x^2 - 3x)^4 (8x - 3) dx$$

$$= \frac{(4x^2 - 3x)^5}{5} + C$$

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$$\boxed{16} \int (2x^3 - x)(x^4 - x^2)^6 dx$$

$$4x^3 - 2x$$

$$= \frac{1}{2} \int 2(2x^3 - x)(x^4 - x^2)^6 dx$$

$$= \frac{1}{2} \frac{(x^4 - x^2)^7}{7} + C$$

$$= \frac{1}{14} (x^4 - x^2)^7 + C$$