Answer on Question # 47077 – Math – Differential Calculus | Equations

Task:

Differentiate with respect to x: $f(x) = ax^3 + bx$

    A. $3ax^2 + b$

    B. $ax^2 + b$

    C. $3x^2 + 1$

    D. $3ax^2 + x$

Solution:

$$\frac{d}{dx}(f(x)) = \frac{d}{dx}(ax^3 + bx) = 3ax^2 + b$$

We apply differentiation rules to the sum of functions and to the powers.

    Correct answer is A. $3ax^2 + b$.