Answer on Question #52863 – Math – Calculus

Question

Intergrate the following expressions

a) (integral) (2x^3-3x^2+5x-2)dx

b) (integral) (5sin2x+2cos4x)dx

Solution

a) $\int (2x^3 - 3x^2 + 5x - 2)dx = \dfrac{2x^4}{4} - \dfrac{3x^3}{3} + 5\dfrac{x^2}{2} - 2x + const = \dfrac{x^4}{2} - x^3 + \dfrac{5x^2}{2} - 2x + const$

b) $\int (5\sin 2x + 2\cos 4x)dx = -\dfrac{5\cos 2x}{2} + 2\dfrac{\sin 4x}{4} + const = \dfrac{\sin 4x}{2} - \dfrac{5\cos 2x}{2} + const$