# Answer on Question #46054 – Math - Integral Calculus

**Task:**

Integrate completely with respect to x : $\int_1^2 (4x + 6)dx$

**Solution:**

By Newton-Leibnitz formula,

$$\int_1^2 (4x + 6)dx = \left(\frac{4x^2}{2} + 6x\right)\bigg|_1^2 = (2 \cdot 2^2 + 6 \cdot 2) - (2 + 6) = 8 + 12 - 8 = 12$$

Answer:  12