

Answer on Question # 46056 – Math – Integral Calculus

Task:

Integrate completely with respect to x :

$$\int_{0}^{1} 10(7-4x)^2 dx$$

$$79/3$$

$$14/15$$

$$81/70$$

$$16/3$$

Solution:

$$\int_{0}^{1} (7-4x)^2 dx = \int_{0}^{1} (49 - 56x + 16x^2) dx = \left(49x - 28x^2 + \frac{16x^3}{3} \right) \Big|_0^1 = \frac{79}{3}$$

Answer: 79/3.