

integrate $[x] + [x^2]$ from 0 to 1.5

Integral of variable equals: $\int x dx = \frac{x^2}{2}$

Integral of square equals: $\int x^2 dx = \frac{x^3}{3}$

Fundamental theorem of calculus:

$$\int_a^b f(x) dx = F(b) - F(a)$$

$F(x)$ – integral of $f(x)$.

Therefore:

$$\int_0^{1.5} (x + x^2) dx = \frac{x^2}{2} \Big|_0^{1.5} + \frac{x^3}{3} \Big|_0^{1.5} = \frac{1.5^2}{2} - 0 + \frac{1.5^3}{3} - 0 = 2.25$$

Answer: 2.25