

Es 1

Procedura

[2005]

$$\int_0^1 x \cdot f(2x^2+3) dx = \boxed{a} \frac{1}{4} \int_3^5 f(t) \sqrt{\frac{t-3}{2}} dt ; \boxed{b} 4 \int_3^5 f(x) \sqrt{\frac{t-3}{2}} dt \quad \times \quad \frac{1}{4} \int_3^5 f(x) dx$$

Sostituire:

$$t = 2x^2 + 3$$

→

$$dt = 4x dx$$



$$dx = \frac{1}{4x} dt$$

$$\frac{1}{4} \int_3^5 x \cdot f(t) \frac{dt}{4x} = \frac{1}{4} \int_3^5 f(t) dt$$