

$$\int (2x-3)^5 dx =$$

INT-S1-036

SOSTITUZIONE: $2x-3=z$

$$x = \frac{1}{2}z + \frac{3}{2}$$

$$x' = \frac{dx}{dz} = \frac{1}{2}$$

$$dx = \frac{1}{2} dz$$

$$= \int z^5 \frac{1}{2} dz =$$

$$= \frac{1}{2} \int z^5 dz =$$

$$= \frac{1}{2} \frac{1}{6} z^6 + k =$$

$$= \boxed{\frac{1}{12} (2x-3)^6 + k}$$