

$$\int x \cdot e^{x^2} dx$$

INT-S1-048

TIPO $\int f'(x) e^{g(x)} dx = e^{g(x)} + k$

SOSTITUZIONE : $x^2 = z$

NON ESPlicito x

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

$$= \int \cancel{x} \cdot e^z \frac{1}{\cancel{2x}} dz = \int \frac{1}{2} e^z dz =$$

$$= \frac{1}{2} e^z + k = \boxed{\frac{1}{2} e^{x^2} + k}$$