$$\int (2x+5)(x^2+5x+7)^8 \, dx =$$

INT-S1-054

TIPO: $\int f'(x) \cdot f(x)^n \, dx = \frac{1}{n+1} f(x)^{n+1} + k$

$$x^2+5x+7 = z$$

$$z' = \frac{dz}{dx} = 2x+5$$

$$dz = (2x+5)\,dz$$

$$= \int z^8 \, dz = \frac{1}{9} z^9 + k =$$

$$= \boxed{\frac{1}{9}(x^2+5x+7)^9 + k}$$