$$\int f^n(x) \cdot f'(x)\,dx = \frac{[f(x)]^{n+1}}{n+1} + C \quad n \neq -1$$

- $\int \frac{5}{(x-3)^3}\,dx$

$$\int \frac{5}{(x-3)^3}\,dx = 5\int 1\cdot(x-3)^{-3}\,dx = 5\cdot\frac{(x-3)^{-2}}{-2} + C =$$

$$= -\frac{5}{2}\cdot\frac{1}{(x-3)^2} + C$$