

$$\int x^n dx = \frac{x^{n+1}}{n+1} + C \quad n \neq -1$$

$$\cdot \int 3x^2 dx$$

$$\int 3x^2 dx = 3 \int x^2 dx = \cancel{3} \cdot \frac{x^3}{\cancel{3}} + C = x^3 + C$$