$$\cdot \int \frac{2}{x^3}\, dx$$

$$\int \frac{2}{x^3}\, dx \;=\; 2\int \frac{1}{x^3}\, dx \;=\; 2\cdot \int x^{-3}\, dx \;=\; \cancel{2}\cdot \frac{x^{-2}}{-\cancel{2}} \;=\; -\frac{1}{x^2} + C$$