

$$\int_1^2 x^2 - 3 \, dx = \int_1^2 x^2 \, dx - \int_1^2 3 \, dx$$

$$\frac{x^{2+1}}{2+1} - 3x \Big|_1^2$$

$$\int x^n \, dx = \frac{x^{n+1}}{n+1}$$

$$\int c \, dx = cx$$

$$\frac{x^3}{3} - 3x \Big|_{1=9}^{2=6} = \frac{1}{3} (2^3 - 1^3) - 3(2 - 1)$$

$$\frac{1}{3} (8 - 1) - 3(1) = \frac{1}{3} (7) - 3$$

$$\frac{7}{3} - 3 = \frac{7}{3} - \frac{9}{3} = -\frac{2}{3}$$