

Indefinite Integral

$$\int f(x)dx = g(x) + C \text{ if and only if } g'(x) = f(x)$$

Rules of Integration

$$* \int kdx = kx + C$$

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

$$* \int [f(x) \pm g(x)]dx = \int f(x)dx \pm \int g(x)dx$$

$$* \int kf(x)dx = k \int f(x)dx$$

Examples:

#4

#8

#14

#22

#32

#40