

### Practice Examples

$$1. \int x^3 dx$$

$$2. \int(x^5 + 3x^2) dx$$

$$3. \int 6\sqrt{x} dx$$

$$4. \int \frac{1}{3x^2} dx$$

$$5. \int \frac{x^4 + 3x^2 + 1}{x} dx$$

$$6. \int(\sin x - \csc x \cot x + x^2) dx$$

$$7. \int \left(4\sqrt[3]{x} - 5\sqrt{x^3} - \frac{1}{\sqrt{x}}\right) dx$$

$$8. \int 8e^x + 2x^3 dx$$

$$\mathbf{9.} \int \left( \frac{4}{x} + \frac{3}{x^2} - \frac{1}{x^3} \right) dx$$

$$\mathbf{10.} \int (x^2 + 3)(x + 2) dx$$