

## FÓRMULAS DE INTEGRALES INMEDIATAS

$$1. \int dx = x + C$$

$$2. \int a dx = a \int dx = ax + C$$

$$3. \int x^n dx = \frac{x^{n+1}}{n+1} + C; \quad n \neq -1$$

$$4. \int a^x dx = \frac{a^x}{\ln(a)} + C$$

$$5. \int a^{kx} dx = \frac{a^{kx}}{k \ln(a)} + C$$

$$6. \int e^x dx = e^x + C$$

$$7. \int e^{ax} dx = \frac{e^{ax}}{a} + C, \quad a \neq 0$$

$$8. \int \frac{dx}{x} = \ln|x| + C, \quad x \neq 0$$

$$9. \int \ln(x) dx = x \ln(x) - x + C; \quad x > 0$$

$$10. \int e^{f(x)} f'(x) dx = e^{f(x)} + C$$

$$11. \int \frac{f'(x)}{f(x)} dx = \ln|f(x)| + C$$

$$12. \int \text{sen}(x) dx = -\text{cos}(x) + C$$

$$13. \int \text{cos}(x) dx = \text{sen}(x) + C$$

$$14. \int \text{tan}(x) dx = -\ln|\text{cos}(x)| + C$$

## REGLAS DE INTEGRACIÓN

$$1. \int [f(x) \pm g(x) \pm h(x)] dx = \int f(x) dx \pm \int g(x) dx \pm \int h(x) dx$$

$$2. \int k f(x) dx = k \int f(x) dx, k \neq 0$$

$$3. \int (dx \pm dv \pm du) = \int dx \pm \int dv \pm \int du$$