FÓRMULAS DE INTEGRALES INMEDIATAS

1. $\int dx = x + C$

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

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

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

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

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

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

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

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

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

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

12. $\int sen(x)\,dx = -\cos(x) + C$

13. $\int \cos\,(x)\,dx = sen\,(x) + C$

14. $\int \tan(x)\,dx = -ln\left[\cos(x)\right] + C$

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