



Tema: Integrales Indefinidas

$$1. \int \frac{e^{\arctan x} + x \ln(1 + x^2) + 1}{1 + x^2} dx$$

$$2. \int \frac{\arcsin x + x}{\sqrt{1 - x^2}} dx$$

$$3. \int \sqrt{\frac{\ln(x + \sqrt{x^2 + 1})}{1 + x^2}} dx$$

$$4. \int \frac{(x^2 + 1)dx}{\sqrt{x^3 + 3x}}$$

$$5. \int \frac{x^2 dx}{(a + bx^3)^2}$$

$$6. \int e^x \sqrt{a - be^x} dx$$

$$7. \int \frac{dx}{3^x + 5}$$

$$8. \int \frac{2x - 5}{3x^2 - 2} dx$$

$$9. \int \frac{(8x - 3)dx}{\sqrt{12x - 4x^2 - 5}}$$

$$10. \int \frac{(6 - x)dx}{\sqrt{4x^2 - 12x + 7}}$$

$$11. \int \frac{dx}{e^{2x} + 3}$$

$$12. \int \frac{\arctan(\sqrt{x})}{(1 + x)\sqrt{x}} dx$$

$$13. \int \frac{1 + \cos(2x)}{\sin^2(2x)} dx$$

$$14. \int \frac{(2a^2 - x^2)x^3}{(a^2 - x^2)^{3/2}} dx \quad \text{Sugerencia: } x = a \cos(t)$$

$$15. \int \frac{dx}{x^2 \sqrt{1 - x^2}} \quad \text{Sugerencia: } x = \frac{1}{t}$$



16. $\int \frac{dx}{(1+x^2)^{3/2}}$ Sugerencia: $x = \tan(t)$

17. $\int \frac{\cos(\sqrt{x})}{\sqrt{x}} dx$ Sugerencia: $t = \sqrt{x}$

18. $\int \frac{x(x^2+1)}{\sqrt{5+x^2}} dx$ Sugerencia: $5+x^2 = t^2$

19. $\int \frac{x - \sqrt{x}}{x - \sqrt[3]{x^2}} dx$ Sugerencia: $x = t^6$

20. $\int \frac{e^{2x}}{\sqrt[4]{e^x+1}} dx$ Sugerencia: $e^x + 1 = t^4$