

CÁLCULO REPASO

Calcular las siguientes integrales indefinidas

- (1) $\int (2x^2 + 3x + 1)dx$ Sol: $I = \frac{2}{3}x^3 + \frac{3}{2}x^2 + x + C$
- (2) $\int (2x + 1)^3 dx$ Sol: $I = \frac{1}{8}(2x + 1)^4 + C$
- (3) $\int e^{3x} dx$ Sol: $I = \frac{1}{3}e^{3x} + C$
- (4) $\int (5x^7 - \sqrt{x} + x^{-3})dx$ Sol: $I = \frac{5}{8}x^8 - \frac{2}{3}x^{\frac{3}{2}} - \frac{1}{2}x^{-2} + C$
- (5) $\int x^2 \sin(x^3 + 1)dx$ Sol: $I = -\frac{1}{3}\cos(x^3 + 1) + C$
- (6) $\int \frac{\sin 2x}{1 + \sin^2 x} dx$ Sol: $I = \log|1 + \sin^2 x| + C$
- (7) $\int \frac{x^2}{1 + x^6} dx$ Sol: $I = \frac{1}{3}\arctan x^3 + C$
- (8) $\int x \sin x dx$ Sol: $I = -x \cos x + \sin x + C$
- (9) $\int \arctan x dx$ Sol: $I = x \arctan x - \frac{1}{2}\log|1 + x^2| + C$
- (10) $\int \log x dx$ Sol: $I = x \log|x| - x + C$
- (11) $\int (2x + 1)^2 e^{-2x} dx$ Sol: $I = -2x^2 e^{-2x} - 4x e^{-2x} - \frac{5}{2}e^{-2x} + C$
- (12) $\int x^2 \log x dx$ Sol: $I = \frac{1}{3}x^3 \log|x| - \frac{1}{9}x^3 + C$
- (13) $\int 3x \log 2x dx$ Sol: $I = \frac{3}{2}x^2 \log|2x| - \frac{3}{4}x^2 + C$
- (14) $\int e^x \sin x dx$ Sol: $I = \frac{1}{2}e^x \sin x - \frac{1}{2}e^x \cos x + C$
- (15) $\int \log^2 x dx$ Sol: $I = x(\log|x|)^2 - 2x \log|x| + 2x + C$
- (16) $\int \frac{1}{\sqrt{5x - 2}} dx$ Sol: $I = \frac{2}{5}\sqrt{5x - 2} + C$
- (17) $\int \sin^3 x \cos x dx$ Sol: $I = -\frac{1}{4}\sin^4 x + C$
- (18) $\int \frac{1 - x}{3x^2 + 21x + 30} dx$ Sol: $I = -\frac{2}{3}\log|x + 5| + \frac{1}{3}\log|x + 2| + C$
- (19) $\int \frac{3x + 5}{x^3 - x^2 - x + 1} dx$ Sol: $I = \frac{1}{2}\log|x + 1| - \frac{4}{x - 1} - \frac{1}{2}\log|x - 1| + C$