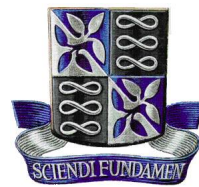




Universidade Federal da Bahia
Instituto de Matemática
Departamento de Matemática-UFBA



Lista 7- Cálculo A

Professora Vanessa Barros

Integrais de funções trigonométricas, integrais de
funções racionais por frações parciais

Exercício 1

Resolver as integrais indefinidas:

(a) $\int (x+1)\text{sen}((x+1)^2)dx$

(b) $\int e^{(2x)} \cos(e^{(2x)})dx$

(c) $\int \tan(x)dx$

(d) $\int \frac{\tan(\sqrt{x})}{\sqrt{x}}dx$

(e) $\int \cos^3(x)dx$

(f) $\int \text{sen}^2(x)dx$

(g) $\int \text{sen}(4x) \cos(2x)dx$

(h) $\int \text{sen}(5x)\text{sen}(2x)dx$

Exercício 2

Resolver as integrais definidas:

(a) $\int_0^1 e^{(2x)} \cos(e^{(2x)})dx$

(b) $\int_0^\pi \cos^3(x)dx$

(c) $\int_0^{\pi/2} \text{sen}^2(x)dx$

(d) $\int_0^{\pi/6} \text{sen}(4x) \cos(2x)dx$

Exercício 3

Resolver as integrais indefinidas:

(a) $\int \frac{x-2}{x^3-3x^2-x+3}dx$

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

(c) $\int \frac{2x^2+5x+4}{x^3+x^2+x-3}dx$