Universidade Federal da Paraíba
Departamento de Matemática
Cálculo II
Lista de Exercícios 1
Período 2012 - I

abril 2012

Calcular as integrais a seguir:

1. $\int 5a^2x^4dx$
2. $\int (nx)^{\frac{1-n}{n}}dx$
3. $\int (a^2 - x^{2/3})^3dx$
4. $\int \frac{dx}{x^2+7}dx$
5. $\int \frac{x}{x-1}dx$
6. $\int (e^{x/a} - e^{-x/a})dx$
7. $\int \frac{e^{1/x}}{x^2}dx$
8. $\int 5^{\sqrt{x}}\frac{dx}{\sqrt{x}}dx$
9. $\int e^x\sqrt{a-be^x}dx$
10. $\int \frac{a^x}{1+a^{2x}}dx$
11. $\int \cos^2(3x)sen^4(3x)dx$
12. $\int sen(3x)\cos(5x)dx$
13. $\int \cos(\frac{x}{2})sen(\frac{x}{3})dx$
14. $\int \frac{3x}{4-3x^2}dx$
15. $\int \frac{x^2}{(4x^3+1)^7}dx$
16. $\int \frac{\sqrt{1+\sqrt{x}}}{\sqrt{x}}dx$
17. $\int (x+\frac{5}{x})(\frac{x^2-5}{x^2}dx$
18. $\int \frac{t^2}{\sqrt{t+4}}dt$
19. $\int \cos(\sqrt{7}x)dx$
20. $\int (\frac{1}{3}sen(2x) + \frac{1}{2}\cos(3x))dx$
21. $\int (senx + \cos x)^2dx$
22. $\int x\sqrt{x}dx$
23. $\int \frac{x^3+1}{x}dx$
24. $\int \sec^2 xdx$
25. $\int \tan^2 xdx$
26. $\int e^{\alpha x}dx$

27. $\int e^{-x}dx$

28. $\int x^5\sqrt{1-x^2}dx$

29. $\int \frac{\ln x}{x}dx$

30. $\int \frac{senx}{1+\cos^2 x}dx$

31. $\int \frac{e^x}{e^x+1}dx$

32. $\int xsenxdx$

33. $\int e^x senxdx$

34. $\int \sqrt{9-x^2}dx$

35. $\int \frac{1}{\sqrt{a^2-b^2x^2}}dx$

36. $\int e^x senxdx$

37. $\int \frac{dx}{4+x^2}dx$

38. $\int \frac{x^2}{\sqrt{9-x^2}}dx$

39. $\int \frac{dx}{\sqrt{25x^2-4}}dx$

40. $\int \ln xdx$

41. $\int \cos^3 xdx$

42. $\int e^{-x}\cos xdx$

43. $\int sen(\ln x)dx$

44. $\int s^2e^{4s}ds$

45. Veja mais exercícios em Thomas, Munem-Foulis, Lang, Hovard, Guidorizzi, etc.