CORSO DI STUDI IN SMID
CORSO DI ANALISI MATEMATICA 1
FOGLIO DI ESERCIZI (08)
16 Dicembre 2008

Calcolare i seguenti integrali indefiniti:

1. $\int \frac{e^x+1}{e^x-1}\ dx$
2. $\int tanx\ ln(cosx)\ dx$
3. $\int sin^3x\ cos^5x\ dx$
4. $\int cos^4x\ dx$
5. $\int x^3\ (lnx)^2\ dx$
6. $\int \frac{arcsinx}{x^2}\ dx$
7. $\int x\ (arctanx)^2\ dx$
8. $\int \frac{x-2}{x^2+x}\ dx$
9. $\int \frac{x^3}{x^3-81}\ dx$
10. $\int \frac{1}{x^3+9x}\ dx$
11. $\int \frac{1}{(x^2-1)^2}\ dx$
12. $\int \frac{1}{x^4-3x^3}\ dx$
13. $\int \frac{x}{(x^2-x+1)^2}\ dx$
14. $\int \frac{1}{\sqrt{1-4x^2}}\ dx$
15. $\int \frac{x^2}{\sqrt{9-x^2}}\ dx$
16. $\int \frac{x^3+2}{\sqrt{x^2+1}}\ dx$
17. $\int \frac{x^3}{\sqrt{9+x^2}}\ dx$
18. $\int \frac{1}{cos\theta(1+sin\theta)}\ d\theta$
19. $\int sin^2x\ sin(2x)\ dx$
20. $\int \frac{x\sqrt{2-x^2}}{\sqrt{x^2+1}}\ dx$

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

22. $\int \frac{1}{1+cos\theta+sin\theta)}\ d\theta$

23. $\int \frac{1+\sqrt{x}}{1+\sqrt[3]{x}}\ dx$

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

25. $\int \frac{x^3}{\sqrt{2-x^2}}\ dx$

26. $\int \frac{\sqrt{3+x^2}}{x^2}\ dx$

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

28. $\int \frac{\sqrt{x}+\sqrt[3]{x}+1}{\sqrt[4]{x}}\ dx$

29. $\int \frac{\sqrt{x}-\sqrt[3]{x}}{x\ (1+\sqrt[4]{x})}\ dx$

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

31. $\int e^{-x}\ (x^2+x)\ dx$

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