

13. $\int e^{ax} \operatorname{sen} bx \, dx$
14. $\int \frac{\ln(ax+b)}{\sqrt{ax+b}} \, dx$
15. $\int x^3 \sqrt{1-x^2} \, dx$
16. $\int \ln^3 2x \, dx$
17. $\int \operatorname{arc} \operatorname{tg} ax \, dx$
18. $\int x^3 \operatorname{sen} 4x \, dx$
19. $\int (x-1)e^{-x} \, dx$
20. $\int x^2 \ln x \, dx$
21. $\int x^2 e^x \, dx$
22. $\int \operatorname{arc} \operatorname{sen} \frac{x}{2} \, dx$
23. $\int (x-1) \sec^2 x \, dx$
24. $\int e^{3x} \cos 4x \, dx$
25. $\int x^n \ln x \, dx, \quad n \in \mathbb{N}$
26. $\int \ln(x^2+1) \, dx$
27. $\int \ln(x + \sqrt{1+x^2}) \, dx$
28. $\int x \operatorname{arc} \operatorname{tg} x \, dx$
29. $\int x^5 e^{x^2} \, dx$
30. $\int x \cos^2 x \, dx$
31. $\int (x+3)^2 e^x \, dx$
32. $\int x \sqrt{x+1} \, dx$
33. $\int \cos(\ln x) \, dx$
34. $\int \operatorname{arc} \cos x \, dx$
35. $\int \sec^3 x \, dx$
36. $\int \frac{1}{x^2} e^{1/x} \, dx.$

6.6 EXERCÍCIOS

Resolver as seguintes integrais usando a técnica de integração por partes.

1. $\int x \operatorname{sen} 5x \, dx$
2. $\int \ln(1-x) \, dx$
3. $\int t e^{4t} \, dt$
4. $\int (x+1) \cos 2x \, dx$
5. $\int x \ln 3x \, dx$
6. $\int \cos^3 x \, dx$
7. $\int e^x \cos \frac{x}{2} \, dx$
8. $\int \sqrt{x} \ln x \, dx$
9. $\int \operatorname{cosec}^3 x \, dx$
10. $\int x^2 \cos ax \, dx$
11. $\int x \operatorname{cosec}^2 x \, dx$
12. $\int \operatorname{arc} \operatorname{cotg} 2x \, dx$