Hoja 21: Integrales indefinidas

Integrales inmediatas funciones elementales

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Calcula las integrales:

1. $\int \left(5x^4 + 3x^2\right) dx$

2. $\int \left(\sin x + 4\right) dx$

3. $\int \left(2\cos x + 3x\right) dx$

4. $\int \dfrac{1}{x^4} dx$

5. $\int 3\sqrt[3]{x^2} dx$

6. $\int \left(\dfrac{1}{x} - 2x^3\right) dx$

7. $\int \dfrac{1}{\left(3x^2 + 5\right)^4} \cdot 6x\, dx$

8. $\int 2x\sqrt{x^2 - 1}\, dx$

9. $\int x\left(1 + 2x^2\right) dx$

10. $\int x^2 \left(2 - 2x^3\right) dx$

11. $\int \sqrt{3 + 2x}\, dx$

12. $\int \left(x^3 + 1\right)^2 dx$

13. $\int \dfrac{2x}{x^2 + 5} dx$

14. $\int \dfrac{x}{\left(3x^2 - 2\right)^3} dx$

15. $\int \dfrac{x}{\sqrt[3]{2 - x^2}} dx$

16. $\int 2^x dx$

17. $\int 2^{3x^2 - 1} \cdot 6x\, dx$

18. $\int e^{5x} dx$

19. $\int 5x^2 e^{x^3} dx$

20. $\int 5^{-\frac{x}{2}} dx$

21. $\int e^{x+2} dx$

22. $\int \left(\dfrac{1}{3}\right)^{6x} dx$

23. $\int \left(e^{-2x} + e^{x-5}\right) dx$

24. $\int 3^{x^2 - 3} \cdot 2x\, dx$

25. $\int \dfrac{7^{2x-2}}{3} dx$

26. $\int \sin 2x\, dx$

27. $\int \cos\left(x + 3\right) dx$

28. $\int \dfrac{\sin \frac{x}{2}}{2} dx$

29. $\int \dfrac{1}{\cos^2\left(x + 3\right)} dx$

30. $\int -2\sin\left(2x + 1\right) dx$

31. $\int \left(x + 1\right)\cos\left(x^2 + 2x\right) dx$

32. $\int \dfrac{dx}{\sqrt{1 - 25x^2}}$

33. $\int \dfrac{1}{1 + \left(x - 2\right)^2}$

34. $\int \left(5x^3 + 2x^2 - 3\right) dx$

35. $\int \left(x - 3\right)^2 dx$

36. $\int \left(x - 1\right)^3 dx$

37. $\int \left(-\dfrac{1}{4}x^6 - \dfrac{1}{4}x^3 + 6x^2 + 1\right) dx$

38. $\int \left(2\sqrt{x} - 3\sqrt[3]{x}\right) dx$

39. $\int \left(\dfrac{4}{\sqrt{x}} + \sqrt{x} - 9\sqrt[5]{x}\right) dx$

40. $\int \left(\dfrac{1}{x} + \dfrac{2}{x^2} + \dfrac{3}{x^3}\right) dx$

41. $\int \left(\dfrac{2}{x + 3} + \dfrac{7}{x - 4}\right) dx$

42. $\int \left(e^{x-3} + 3^x\right) dx$

43. $\int 4\sin\left(2x - \pi\right) dx$

44. $\int 3\sec^2 \dfrac{x}{5} dx$