

Section 5.5, pp. 402-403

Additional Problems Answers

1. $-\frac{1}{3} \cos 3x + C$ 3. $\frac{1}{2} \sec 2t + C$ 5. $-(7x - 2)^{-4} + C$
 7. $-6(1 - r^3)^{1/2} + C$
 9. $\frac{1}{3}(x^{3/2} - 1) - \frac{1}{6} \sin(2x^{3/2} - 2) + C$
 11. (a) $-\frac{1}{4}(\cot^2 2\theta) + C$ (b) $-\frac{1}{4}(\csc^2 2\theta) + C$
 13. $-\frac{1}{3}(3 - 2s)^{3/2} + C$ 15. $\frac{2}{5}(5s + 4)^{1/2} + C$
 17. $-\frac{2}{5}(1 - \theta^2)^{5/4} + C$ 19. $(-2/(1 + \sqrt{x})) + C$
 21. $\frac{1}{3} \sin(3z + 4) + C$ 23. $\ln|\sec x| + C$
 25. $\left(\frac{r^3}{18} - 1\right)^6 + C$ 27. $-\frac{2}{3} \cos(x^{3/2} + 1) + C$
 29. $\frac{1}{2 \cos(2t + 1)} + C$ 31. $-\frac{\sin^2(1/\theta)}{2} + C$
 33. $-\sin\left(\frac{1}{t} - 1\right) + C$ 35. $\frac{(s^3 + 2s^2 - 5s + 5)^2}{2} + C$
 37. $\frac{2}{3}\left(1 - \frac{1}{x}\right)^{3/2} + C$ 39. $e^{\sin x} + C$
 41. $2 \tan(e^{\sqrt{x}} + 1) + C$ 43. $\ln|\ln x| + C$
 45. $z - \ln(1 + e^z) + C$ 47. $\frac{5}{6} \tan^{-1}\left(\frac{2r}{3}\right) + C$
 49. $e^{\sin^{-1} x} + C$ 51. $\frac{1}{3}(\sin^{-1} x)^3 + C$ 53. $\ln|\tan^{-1} y| + C$
 55. (a) $-\frac{6}{2 + \tan^3 x} + C$ (b) $-\frac{6}{2 + \tan^3 x} + C$
 (c) $-\frac{6}{2 + \tan^3 x} + C$
 57. $\frac{1}{6} \sin \sqrt{3(2r - 1)^2 + 6} + C$ 59. $s = \frac{1}{2}(3t^2 - 1)^4 - 5$
 61. $s = 4t - 2 \sin\left(2t + \frac{\pi}{6}\right) + 9$
 63. $s = \sin\left(2t - \frac{\pi}{2}\right) + 100t + 1$ 65. 6 m 69. b) 399 Volts