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

3.
$$\int \sin(x) \sec(x) \, dx$$

$$5. \quad \int \frac{\tan(x)}{\cos^2(x)} \, dx$$

7.
$$\int x \tan^2(x) \, dx$$

$$9. \qquad \int x^5 \sqrt{2 - x^3} \, dx$$

11.
$$\int \frac{x^2}{\sqrt{25+x^2}} dx$$

$$13. \quad \int \frac{1}{x^2 - x + 1} \, dx$$

15.
$$\int \frac{5x+31}{3x^2-4x+11} \, dx$$

$$17. \quad \int \frac{1}{5 + 4\cos(x)} \, dx$$

$$19. \int \frac{\cos(x)}{\sqrt{4 - \sin^2(x)}} \, dx$$

$$21. \quad \int \frac{\tan(x)}{\ln(\cos(x))} \, dx$$

$$23. \quad \int \ln(1+x) \, dx$$

$$25. \quad \int \sqrt{x^2 + 9} \, dx$$

$$27. \quad \int \sqrt{2x - x^2} \, dx$$

29.
$$\int \frac{x^4}{x^2 - 2} dx$$

31.
$$\int \frac{x}{(x^2 + 2x + 2)^2} \, dx$$

$$33. \quad \int \frac{1}{1 + \cos(2x)} \, dx$$

35.
$$\int \sec^3(x) \tan^3(x) \, dx$$

$$37. \quad \int x \ln^3(x) \, dx$$

$$39. \quad \int e^x \sqrt{1 + e^{2x}} \, dx$$

$$41. \quad \int \frac{1}{x^3 \sqrt{x^2 - 9}} \, dx$$

43.
$$\int \frac{4x^2 + x + 1}{4x^3 + x} \, dx$$

45.
$$\int \tan^2(x) \sec(x) \, dx$$

47.
$$\int \frac{x^4 + 2x + 2}{x^5 + x^4} \, dx$$

49.
$$\int \frac{3x^5 - x^4 + 2x^3 - 12x - 2x + 1}{(x^3 - 1)^2} dx$$

51.
$$\int \frac{1}{4+5\cos(x)} dx$$

$$2. \int \frac{\sec^2(x)}{1 + \tan(x)} \, dx$$

4.
$$\int \frac{\csc(x)\cot(x)}{1+\csc^2(x)} dx$$

6.
$$\int \csc^4(x) \, dx$$

8.
$$\int x^2 \cos^2(x) \, dx$$

10.
$$\int \frac{1}{\sqrt{x^2+4}} dx$$

$$12. \quad \int \cos(x) \sqrt{4 - \sin^2(x)} \, dx$$

$$14. \quad \int \sqrt{x^2 + x + 1} \, dx$$

16.
$$\int \frac{x^4 + 1}{x^2 + 2} \, dx$$

$$18. \quad \int \frac{\sqrt{x}}{1+x} \, dx$$

$$20. \quad \int \frac{\cos(2x)}{\cos(x)} \, dx$$

$$22. \quad \int \frac{x^7}{\sqrt{1-x^4}} \, dx$$

24.
$$\int x \sec^{-1}(x) \, dx$$

$$26. \quad \int \frac{x^2}{\sqrt{4-x^2}} \, dx$$

$$28. \quad \int \frac{4x-2}{x^3-x} \, dx$$

30.
$$\int \frac{\sec(x)\tan(x)}{\sec(x) + \sec^2(x)} dx$$

$$32. \quad \int \frac{x^{1/3}}{x^{1/2} + x^{1/4}} \, dx$$

34.
$$\int \frac{\sec(x)}{\tan(x)} dx$$

36.
$$\int x^2 \tan^{-1}(x) dx$$

$$38. \int \frac{1}{x\sqrt{1+x^2}} \, dx$$

40.
$$\int \frac{x}{\sqrt{4x-x^2}} dx$$

42.
$$\int \frac{x}{(7x+1)^{17}} dx$$

44.
$$\int \frac{4x^3 - x + 1}{x^3 + 1} \, dx$$

46.
$$\int \frac{x^2 + 2x + 2}{(x+1)^3} \, dx$$

48.
$$\int \frac{8x^2 - 4x + 7}{(x^2 + 1)(4x + 1)} dx$$

50.
$$\int \frac{x}{x^4 + 4x^2 + 8} \, dx$$

52.
$$\int \frac{(1+x^{2/3})^{3/2}}{x^{1/3}} \, dx$$

53.
$$\int \frac{(\sin^{-1}(x))^2}{\sqrt{1-x^2}} \, dx$$

55.
$$\int \tan^3(x) \, dx$$

$$57. \quad \int \frac{xe^{x^2}}{1 + e^{2x^2}} \, dx$$

$$59. \quad \int x^3 e^{-x^2} \, dx$$

$$61. \quad \int \frac{\sin^{-1}(x)}{x^2} \, dx$$

$$63. \quad \int x^2 \sqrt{1-x^2} \, dx$$

65.
$$\int \frac{x-2}{4x^2+4x+1} \, dx$$

67.
$$\int \frac{e^{2x}}{e^{2x} - 1} dx$$

$$69. \quad \int \frac{2x^3 + 3x^2 + 4}{(x+1)^4} \, dx$$

71.
$$\int \frac{x^3 + x^2 + 2x + 1}{x^4 + 2x^2 + 1} \, dx$$

73.
$$\int x^5 \sqrt{x^3 - 1} \, dx$$

$$75. \int \frac{\sqrt{1+\sin(x)}}{\sec(x)} \, dx$$

$$77. \quad \int \frac{\sin(x)}{\sin(2x)} \, dx$$

79.
$$\int \sqrt{1 + \sin(x)} \, dx$$

81.
$$\int \ln(x^2 + x + 1) dx$$

83.
$$\int \frac{\tan^{-1}(x)}{x^2} dx$$

85.
$$\int \frac{x^3}{(x^2+1)^2} \, dx$$

$$87. \quad \int \frac{3x+2}{(x^2+4)^{3/2}} \, dx$$

89.
$$\int \frac{\sqrt{1+\sin^2(x)}}{\sec(x)\csc(x)} dx$$

91.
$$\int xe^x \sin(x) \, dx$$

93.
$$\int \frac{\tan^{-1}(x)}{(x-1)^3} \, dx$$

95.
$$\int \frac{2x+3}{\sqrt{3+6x-9x^2}} \, dx$$

$$97. \quad \int \frac{\sin^3(x)}{\cos(x) - 1} \, dx$$

99.
$$\int \sec^{-1} \sqrt{x} \, dx$$

$$54. \int \frac{1}{x^{3/2}(1+x^{1/3})} \, dx$$

$$56. \quad \int \sin^2(x) \cos^4(x) \, dx$$

$$58. \quad \int \frac{\cos^3(x)}{\sqrt{\sin(x)}} \, dx$$

60.
$$\int \sin(\sqrt{x}) \, dx$$

$$62. \quad \int \sqrt{x^2 - 9} \, dx$$

$$64. \quad \int x\sqrt{2x-x^2}\,dx$$

66.
$$\int \frac{2x^2 - 5x - 1}{x^3 - 2x^2 - x + 2} \, dx$$

68.
$$\int \frac{\cos(x)}{\sin^2(x) - 3\sin(x) + 2} \, dx$$

70.
$$\int \frac{\sec^2(x)}{\tan^2(x) + 2\tan(x) + 2} \, dx$$

$$72. \quad \int \frac{3 + \cos(x)}{2 - \cos(x)} \, dx$$

$$74. \quad \int \frac{1}{2 + 2\cos(x) + \sin(x)} \, dx$$

76.
$$\int \frac{1}{x^{2/3}(1+x^{2/3})} \, dx$$

$$78. \quad \int \sqrt{1 + \cos(x)} \, dx$$

80.
$$\int \frac{\sec^2(x)}{1 - \tan^2(x)} dx$$

82.
$$\int e^x \sin^{-1}(e^x) dx$$

84.
$$\int \frac{x^2}{\sqrt{x^2-25}} dx$$

86.
$$\int \frac{1}{r\sqrt{6r-r^2}} dx$$

88.
$$\int x^{3/2} \ln(x) \, dx$$

90.
$$\int \frac{e^{\sqrt{\sin(x)}}}{\sec(x)\sqrt{\sin(x)}} dx$$

92.
$$\int x^2 e^{x^{3/2}} dx$$

94.
$$\int \ln(1+\sqrt{x}) \, dx$$

96.
$$\int \frac{1}{2 + 2\sin(x) + \cos(x)} \, dx$$

98.
$$\int x^{2/3} \tan^{-1}(x^{1/2}) dx$$

100.
$$\int x \left(\frac{1-x^2}{1+x^2}\right)^{1/2} dx$$