

1. $f(x) = \sin^2 x + \cos^2 x$
2. $f(x) = \pi + \sqrt{3}$
3. $f(x) = x^b x^2$
4. $f(x) = \frac{x^2-1}{x+1}$
5. $f(x) = x^{-3} + 5x^{-2} + \frac{1}{2}x$
6. $f(x) = |x - 6|$
7. $f(t) = \cos(2t)$
8. $f(\theta) = \sin^3 \theta$
9. $f(x) = \frac{1}{\sqrt{x^2+1}}$
10. $f(y) = \frac{5}{y^5} - \frac{25}{y}$
11. $f(t) = \frac{3t^2+7}{t^2-1}$
12. $g(u) = (u^2 + \frac{1}{u})(u - \frac{1}{u^3})$
13. $f(x) = x^2(3x^3 - 1)$
14. $f(x) = \frac{3x^2}{x-2}$
15. $f(x) = \tan(\sqrt{x})$
16. $f(t) = (6t - 7)^3(8t^2 + 9)^2$
17. $f(x) = \frac{4}{3}x^{\frac{3}{4}}$
18. $f(x) = x\sqrt[3]{x}$
19. $f(x) = \frac{3x+1}{x+3}$
20. $f(x) = \sqrt{1 - 2x}$
21. $f(x) = \frac{x-1}{\sqrt[3]{x-1}}$
22. $f(x) = x\sqrt{5x+3}$
23. $f(x) = 3x^2 - x$
24. $g(x) = 67$
25. $h(x) = \sqrt{1 - x^2}$
26. $m(y) = y^2\sqrt{y}$
27. $l(t) = \frac{t^2+3}{t-1}$
28. $s(y) = 4x + 5$

29. $s(y) = y^{-\frac{2}{3}}$
30. $s(t) = (t - 3)(t^2 + 1)$
31. $f(x) = \frac{(x+1)\sqrt{x-1}}{x-2}$
32. $f(x) = (2x + 6)^7$
33. $f(x) = \frac{3}{x^2} + \frac{5}{x^4}$
34. $f(x) = (7 - 3a^3)^2$
35. $f(t) = 2t \cos t$
36. $f(x) = \frac{\sin x}{1 - \cos x}$
37. $f(z) = \frac{(z^2 - 5)^3}{(z^2 + 4)^2}$
38. $g(x) = \sqrt{\frac{2x-5}{3x+1}}$
39. $f(x) = x^2 \cos x$
40. $f(x) = \sqrt{x} + \frac{2}{\sqrt{x}}$
41. $f(x) = (x^2 - \sin(3x))^5$
42. $f(x) = \cos(\sin \sqrt{x})$
43. $f(x) = \frac{\tan(x)}{5x^2}$
44. $f(x) = \pi^3$
45. $f(x) = \cos^2(5x)$
46. $f(x) = x^4 - 2x^3 + 5x^2 - 3$
47. $f(x) = x^3 \sin x$
48. $f(x) = \frac{5x-3}{x^2+1}$
49. $f(x) = (x^2 + 3)^5$
50. $f(x) = \sqrt{x^3}$
51. $f(x) = \sqrt{\frac{x+2}{3x-1}}$
52. $f(x) = \cos(1 - 2x)$
53. $f(x) = \frac{x}{\sqrt{x^2-4}}$
54. $f(x) = \frac{x}{x+1}$
55. $f(x) = x^2(x^2 - 1)^2$
56. $f(x) = x^{-\frac{5}{6}}$
57. $f(x) = \sin(\sin(x))$

$$58. f(x) = (x^2 + x + 1)^{50}$$

$$59. f(x) = \frac{\sin x}{x}$$

$$60. f(x) = x^2 \sin x$$

$$61. f(x) = (x^2 + 1)^{-\frac{1}{3}}$$

$$62. f(x) = \sin^2(x) + \sin(x^2)$$

$$63. f(x) = x \sin x + \cos xs$$

$$64. f(x) = x \cot(2x)$$

$$65. f(x) = \sin(x^2 + 1)$$

$$66. f(x) = \frac{x+1}{x-1}$$

$$67. f(x) = \left(x^2 + \frac{1}{x}\right)^5$$

$$68. f(x) = \frac{1}{x} + \tan x$$

$$69. f(x) = -\frac{2}{x^{\frac{3}{5}}}$$

$$70. f(x) = x^2 + \cos(\sqrt{x})$$

$$71. f(x) = x \left(\frac{1}{x}\right)^{11}$$

$$72. f(x) = (x \cos x)^{\frac{1}{5}}$$

$$73. f(x) = (2x + 1)^7(x - 1)^8$$

$$74. f(x) = x^5 + \frac{1}{x^5} + 5$$

$$75. f(x) = \sqrt{x^2 + x}4x$$

$$76. f(x) = x \tan x$$

$$77. f(x) = \cos^2(x^3 + 1)$$

$$78. f(x) = \frac{x^2+5x}{x^2-2}$$

$$79. f(x) = x^2 + \frac{\sin x}{x}$$

$$80. f(x) = x(1 + x)^{\frac{1}{3}}$$

$$81. f(x) = 1 + x - 5x^{-2}$$

$$82. f(x) = \frac{x}{1+\frac{1}{x}}$$

$$83. f(x) = x^2 - \frac{1}{x^2}$$

$$84. f(x) = \frac{x^2-2x+1}{x^2+3}$$

$$85. f(x) = (x^2 + 4)(x^3 - 2x)$$

86. $f(x) = \sqrt[3]{x^3 - 4x + 1}$
87. $f(x) = -3x^4 + x^2 - 2x + 4$
88. $f(x) = \frac{x\sqrt[3]{x-2x^2}}{4\pi}$
89. $s(t) = 4\pi t^3 + \pi^2 t^2 x^3 - \frac{1}{\pi} t x^2$
90. $f(x) = (x^2 + 2)^8$
91. $s(t) = \cos(t^2 + t + \pi)$
92. $s(t) = \frac{\cos^2(t) - \sin^2(t)}{\cos(t)}$
93. $f(x) = \frac{x^6}{x-5}$
94. $f(x) = \frac{x+3}{x-2}$
95. $f(x) = (x+3)^5(x-2)^7$
96. $f(x) = \frac{1-x}{x+1}$
97. $f(x) = \frac{x^2}{x^2+1}$
98. $f(x) = (x^3 - 2x^2 + 1)^{11}$
99. $f(x) = (3x^2 + 7)(x^2 - 2x + 3)$
100. $f(x) = \frac{\sin(2x)}{x}$
101. $f(x) = \frac{\cos x}{x^2}$
102. $f(x) = x^2 \cos x$
103. $f(x) = \sin(2x - 1)$
104. $f(x) = \frac{x}{\sin x}$
105. $f(x) = x \sin x$
106. $f(x) = 5 \cos^2 x + 2 \sin^3 x$
107. $f(x) = x \sin(2x)$
108. $f(x) = \sqrt{x^2 + 1}$
109. $f(x) = \frac{1}{(x^2+1)^3}$
110. $f(x) = \sin(x) \tan(x)$
111. $f(x) = \tan(\sin x)$