

Created by T. Madas

INTEGRATION

MIX

(WITHOUT ANSWERS)

Created by T. Madas

1. $\int 6(4x+3)^{\frac{1}{2}} dx$

2. $\int \frac{3}{2x-1} dx$

3. $\int \frac{10}{(2x+1)^6} dx$

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

5. $\int (2+\sin x)^2 dx$

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

7. $\int \frac{e^{4x}+3}{e^{3x}} dx$

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

9. $\int \frac{x^3}{x^4+2} dx$

10. $\int \frac{2}{(x-2)(x-4)} dx$

11. $\int \frac{3}{4x+1} dx$

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

13. $\int \frac{x}{(x^2-1)^3} dx$

14. $\int \frac{x}{\sqrt{x+1}} dx$

15. $\int \cos x - \sin x dx$

16. $\int \sin x - \cos x dx$

17. $\int \sin(4x+3) dx$

18. $\int \cos(5-2x) dx$

19. $\int 3 \sin 2x dx$

20. $\int \sin x (1+\sec^2 x) dx$

21. $\int (1-2\cos x)^2 dx$

22. $\int \sec^2 x (1+\cot^2 x) dx$

23. $\int 2x \cos 3x \, dx$

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

25. $\int (3x+1)^4 \, dx$

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

27. $\int \frac{1}{\cos^2 x \tan^2 x} \, dx$

28. $\int \cos x \sin x \, dx$

29. $\int \frac{2}{\cos^2 x} \, dx$

30. $\int 2 + 2 \tan^2 x \, dx$

31. $\int \frac{1 + \cos x}{\sin^2 x} \, dx$

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

33. $\int x \sin 3x \, dx$

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

35. $\int \frac{1}{(x+1)(x+2)} \, dx$

36. $\int (4-5x)^{-1} \, dx$

37. $\int \frac{1}{4x} \, dx$

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

39. $\int \frac{x}{x+1} \, dx$

40. $\int \frac{4x}{\sqrt{1-2x^2}} \, dx$

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

42. $\int x \sin 4x \, dx$

43. $\int \ln x \, dx$

44. $\int \frac{4}{(2x-7)^2} \, dx$

45. $\int 4 \cos^2 x \, dx$

46. $\int \sec^2 x (1 + \tan^2 x) dx$

47. $\int \sec^2 x (1 + \tan x) dx$

48. $\int \operatorname{cosec}^2 (3x+1) dx$

49. $\int 12 \sec^2 (2x+3) dx$

50. $\int \frac{\sin \sqrt{x}}{\sqrt{x}} dx$

51. $\int 6e^{2x+2} dx$

52. $\int \sec^2 x (1 - \cot^2 x) dx$

53. $\int \frac{\sin x - \cos x}{\sin x + \cos x} dx$

54. $\int \sec x \tan x \sqrt{\sec x + 1} dx$

55. $\int \tan 2x \sec 2x dx$

56. $\int x^2 \ln x dx$

57. $\int \frac{6}{x^2 - 2x - 8} dx$

58. $\int 3 \cot^2 x dx$

59. $\int \cos 2x \sin x dx$

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

61. $\int \frac{x^2}{4 - x^3} dx$

62. $\int 7(2x-3)^{\frac{5}{2}} dx$

63. $\int x \sin\left(\frac{1}{2}x\right) dx$

64. $\int \frac{x}{\sqrt{x-1}} dx$

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

66. $\int \frac{3}{\sqrt{4x+1}} dx$

67. $\int \frac{4x+1}{2x-5} dx$

$$68. \int \frac{1}{3(x-2)^{\frac{1}{2}}} dx$$

$$69. \int \frac{6x+3}{2x} dx$$

$$70. \int \frac{4x}{x^2-1} dx$$

$$71. \int \frac{x^2}{2x-1} dx$$

$$72. \int \frac{17-5x}{(2x+3)(2-x)^2} dx$$

$$73. \int \frac{1+\cos^4 x}{\cos^2 x} dx$$

$$74. \int x \sin(2x-1) dx$$

$$75. \int 4(3x-2)^3 dx$$

$$76. \int \sqrt{x}\sqrt{x} dx$$

$$77. \int \frac{1}{x^2\sqrt[3]{x^2}} dx$$

$$78. \int \frac{3}{\sqrt{2-4x}} dx$$

$$79. \int \frac{1}{1+\cos 2x} dx$$

$$80. \int \frac{2}{2x-x^2} dx$$

$$81. \int \frac{\ln x}{x^2} dx$$

$$82. \int \frac{3x^2}{1+x^3} dx$$

$$83. \int \frac{2x+1}{2x-1} dx$$

$$84. \int \frac{6x}{\sqrt{2x+3}} dx$$

$$85. \int \frac{14x+1}{(1-x)(2x+1)} dx$$

$$86. \int \frac{\sin^4 x + \cos^2 x}{\sin^2 x} dx$$

$$87. \int \frac{2}{(x-4)\sqrt{x}} dx$$

$$88. \int \frac{1}{2+\sqrt{x-1}} dx$$

$$89. \int \frac{4}{\sqrt{6x-1}} dx$$

90. $\int x \sec^2 x \, dx$

91. $\int \frac{3e^{2x}}{e^{2x}-1} \, dx$

92. $\int \operatorname{cosec} 2x \cot 2x \, dx$

93. $\int \tan^2 x \sec^2 x \, dx$

94. $\int (2 \cos x - 3 \sin x)^2 \, dx$

95. $\int \sin 2x \operatorname{cosec} x \, dx$

96. $\int \frac{\sin x + \tan x}{\cos x} \, dx$

97. $\int \frac{1 + \sin x}{\cos^2 x} \, dx$

98. $\int e^{\sin x} \cos x \, dx$

99. $\int x^2 \sin x \, dx$

100. $\int (2x+1)^3 \, dx$

101. $\int \frac{\tan^4 x}{\cos^2 x} \, dx$

102. $\int \frac{4x^2 - 6x + 5}{(2-x)(2x-1)^2} \, dx$

103. $\int \frac{3x-1}{2x+3} \, dx$

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

105. $\int \frac{10}{(3x+1)^{\frac{3}{2}}} \, dx$

106. $\int 5^x \, dx$

107. $\int \sqrt{\sin x \cos^2 x} \, dx$

108. $\int (2x+1) \sin(x^2 + x + 1) \, dx$

109. $\int (x+1) \cos(x^2 + 2x + 1) \, dx$

110. $\int (2x+1)(x^2 + x + 1) \, dx$

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

112. $\int \frac{1}{e^x + e^{-x} + 2} \, dx$

113. $\int x^2 \tan(x^3 + 1) dx$

114. $\int x^3 \ln(x^2 + 1) dx$

115. $\int \sin^2 x \sec^2 x dx$

116. $\int 3 \sec^2 x \sin x dx$

117. $\int \frac{1}{x(1 + \ln x)^3} dx$

118. $\int x^3 \ln x dx$

119. $\int x \ln(2x^3) dx$

120. $\int 4 - \cos^4 x \sin x dx$

121. $\int \frac{\cos x}{\sin^3 x} dx$

122. $\int \frac{4 \sec^2 x}{\tan x} dx$

123. $\int \frac{\sqrt{1 + 2 \tan x}}{\cos^2 x} dx$

124. $\int \sec^2 x \tan x \sqrt{1 + \tan x} dx$

125. $\int \tan^2 x dx$

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

127. $\int \frac{\cos^2 x}{1 + \sin x} dx$

128. $\int \frac{1}{1 + \cos x} dx$

129. $\int \frac{\cos x}{\sqrt{\sin x}} dx$

130. $\int \frac{10x^4}{2x^{\frac{5}{2}} + 1} dx$

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

132. $\int \frac{12}{(1 - 2x)^5} dx$

133. $\int \frac{x^4 + 2x}{x^5 + 5x^2 + 8} dx$

134. $\int \frac{x}{x - 1} dx$

$$135. \int \frac{1}{(1+\sqrt{x})\sqrt{x}} dx$$

$$136. \int \frac{2x^3+1}{x^4+2x} dx$$

$$137. \int \frac{x+2}{x(x+1)} dx$$

$$138. \int \sin x \ln(\sec x) dx$$

$$139. \int \frac{(1+2\cos x)^2}{3\sin^2 x} dx$$

$$140. \int \frac{1}{x \ln x} dx$$

$$141. \int (2-3x)^{-2} dx$$

$$142. \int 2\sec^2 x + \frac{1}{2}\sin 2x dx$$

$$143. \int \frac{\cos^4 x}{\sin x} dx$$

$$144. \int \frac{\ln x}{\sqrt{x}} dx$$

$$145. \int 6\tan^2 x - \sec^2 x dx$$

$$146. \int 4\cos^4 x - 2\sin^2 x dx$$

$$147. \int \sin 4x \cos 4x dx$$

$$148. \int \frac{1}{\operatorname{cosec} x - \cot x} dx$$

$$149. \int \frac{x^2}{\sqrt{x+1}} dx$$

$$150. \int \frac{3e^{2x}}{\sqrt{e^x-1}} dx$$

$$151. \int \frac{1}{\sqrt{x}(2+\sqrt{x})} dx$$

$$152. \int \frac{4x^7}{x^4+1} dx$$

$$153. \int \frac{3x}{1+\sqrt{x}} dx$$

$$154. \int \frac{x}{9x^2+1} dx$$

$$155. \int \frac{2}{x+\sqrt[3]{x}} dx$$

$$156. \int \frac{3x^2+2}{4x+1} dx$$

$$157. \int \frac{3}{x} + \frac{4}{x^2} - \frac{2}{x^3} dx$$

$$158. \int \frac{10x^2 - 23x + 11}{(2-3x)(2x-1)^2} dx$$

$$159. \int 2 \sin 2x \cos^2 x dx$$

$$160. \int \sin x \sin 3x dx$$

$$161. \int \frac{\sec x}{\sec x - \tan x} dx$$

$$162. \int x \cos 5x dx$$

$$163. \int 4 \cos 3x + \frac{1}{2} \sin 3x dx$$

$$164. \int \sin^2 2x dx = \frac{1}{2}x - \frac{1}{8}\sin 4x + C$$

$$165. \int 2 \cos 3x \sin x dx$$

$$166. \int \frac{\cos 2x}{1 - \cos^2 2x} dx$$

$$167. \int 3 \cos^3 3x dx$$

$$168. \int 3 \sec^4 x dx$$

$$169. \int \frac{2 \sin x}{\cos x + \sin x} dx$$

$$170. \int \frac{1}{\cos^2 x \tan^4 x} dx$$

$$171. \int \frac{4}{2x-1} + \frac{1}{3-4x} dx$$

$$172. \int x^2 \sin 3x dx$$

$$173. \int \operatorname{cosec}^2 2x dx$$

$$174. \int \sin^3 2x \cos 2x dx$$

$$175. \int \cot^2 3x dx$$

$$176. \int \frac{7}{3x} dx$$

$$177. \int \frac{\sin x \cos x}{\sqrt{1 - \cos 2x}} dx$$

$$178. \int \frac{\sin x \cos x}{\cos 2x + 1} dx$$

$$179. \int 4(3-2x)^5 dx$$

$$180. \int \frac{1 + \sin x}{\cos x} dx$$

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

182. $\int x \cos^2 x \, dx$

183. $\int \sin 2x \sec x \, dx$

184. $\int \frac{1 - \ln x}{x^2} \, dx$

185. $\int 4x e^{-\frac{2}{3}x} \, dx$

186. $\int (e^x + x)^2 \, dx$

187. $\int \frac{e^{4x} + e^{-x}}{e^{2x}} \, dx$

188. $\int \frac{e^{\ln x}}{x} \, dx$

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

190. $\int \frac{\cos(\ln x)}{x} \, dx$

191. $\int \frac{4x e^{2x^2}}{\sqrt{1+2e^{2x^2}}} \, dx$

192. $\int \frac{1}{\cos^2 x \tan x} \, dx$

193. $\int \frac{\sin 2x}{1 + \cos x} \, dx$

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

195. $\int \sin^3 x \, dx$

196. $\int \frac{1}{\sin x \cos^2 x} \, dx$

197. $\int \frac{1}{3} \sin 2x - \frac{1}{2} \cos 3x \, dx$

198. $\int \frac{3x}{\sqrt{4-2x^2}} \, dx$

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

200. $\int \frac{1-4x}{x(4x - \ln x)^{\frac{3}{2}}} \, dx$

201. $\int \frac{\sin x}{\cos^4 x} \, dx$

202. $\int \frac{\operatorname{cosec}^2 x}{1 + \cot x} \, dx$

$$203. \int x^2 \cos\left(\frac{1}{3}x\right) dx$$

$$204. \int \frac{3}{(\sqrt{x}-2)(\sqrt{x}+1)} dx$$

$$205. \int \frac{1}{(\sqrt{x}-2)(\sqrt{x}+2)} dx$$

$$206. \int \frac{4-3x}{2x+1} dx$$

$$207. \int \sqrt{x} \left(1 + \frac{1}{x}\right) dx$$

$$208. \int \frac{x^2-2}{x^2-1} dx$$

$$209. \int \frac{1}{x^2(x-1)} dx$$

$$210. \int \frac{\sec x}{\cos x - \sin x} dx$$

$$211. \int \frac{1}{1+\sqrt{x-1}} dx$$

$$212. \int \frac{6x^2}{2x^{\frac{3}{2}}-1} dx$$

$$213. \int \frac{x+1}{x-5} dx$$

$$214. \int \frac{(x+2)^2}{3x} dx$$

$$215. \int 4e^{-2x} - \frac{1}{3} \sin 3x dx$$

$$216. \int 2x \sec^2 2x dx$$

$$217. \int \cos x \sin^3 x dx$$

$$218. \int \frac{\sin^5 x}{\cos^7 x} dx$$

$$219. \int \tan 3x dx$$

$$220. \int \frac{1}{\sec x - 1} dx$$

$$221. \int \frac{\sin^2 x}{\cos^4 x} dx$$

$$222. \int \frac{\sin x \cos x}{1 - \cos x} dx$$

$$223. \int \frac{e^{2x} - 2e^x}{e^x + 1} dx$$

$$224. \int \frac{(4x-1)^{-1}}{4} dx$$

$$225. \int \frac{2x^2 - 3x + 2}{x-1} dx$$

$$226. \int \frac{x^2 + 1}{x^4 - x^2} dx$$

$$227. \int \operatorname{cosec}^4 x dx$$

$$228. \int 1 - \cot^2 x dx$$

$$229. \int x^2 e^{\frac{1}{2}x} dx$$

$$230. \int (e^x + 2e^{-x})^2 dx$$

$$231. \int e^x \sin(e^x) dx$$

$$232. \int x e^2 dx$$

$$233. \int (2 \cos x - 3)^2 dx$$

$$234. \int \frac{x^2}{x-2} dx$$

$$235. \int \frac{\sqrt{4x+1}}{x} dx$$

$$236. \int \frac{(x+1)e^{\frac{1}{x}}}{x^3} dx$$

$$237. \int \frac{1}{(1-x^2)^{\frac{3}{2}}} dx$$

$$238. \int \frac{2^x}{2^x + 1} dx$$

$$239. \int (2x-1)\sqrt{2x-3} dx$$

$$240. \int \frac{9x^5}{\sqrt{x^3+1}} dx$$

$$241. \int (3 \sin x - \cos x)^2 dx$$

$$242. \int \frac{4x}{x^2 - 10} dx$$

$$243. \int \frac{4e^{3x}}{1 - e^{3x}} dx$$

$$244. \int \sin x \cos x (1 - \cos x) dx$$

$$245. \int (\tan x - 1)^2 dx$$

$$246. \int \frac{1+e^x}{1-e^x} dx$$

$$247. \int \frac{1}{e^x+1} dx$$

$$248. \int \frac{1}{\sin x \cos x} dx$$

$$249. \int \frac{1}{\cos x \sin^2 x} dx$$

$$250. \int \sin 3x \cos 2x dx$$

$$251. \int \sin 2x \cos^4 2x dx$$

$$252. \int \frac{1}{1-\sin x} dx$$

$$253. \int \sin 2x(1+\sin x) dx$$

$$254. \int x \sec x \tan x dx$$

$$255. \int \frac{1-2x}{x(4x-\ln x)^2} dx$$

$$256. \int x^2 e^{-\frac{1}{4}x} dx$$

$$257. \int \frac{x+4}{x-4} dx$$

$$258. \int 3x^2(4-2x^3)^{\frac{3}{2}} dx$$

$$259. \int x\sqrt{x+1} dx$$

$$260. \int \frac{x+1}{\sqrt[3]{x^2+2x+3}} dx$$

$$261. \int \sin 2x \cos x dx$$

$$262. \int \sin 2x \cos 2x dx$$

$$263. \int \frac{3^x}{3^x+1} dx$$

$$264. \int \frac{(\ln x)^2}{x} dx$$

$$265. \int \sqrt[3]{x} \sqrt{\frac{1}{x}} dx$$

$$266. \int \frac{\tan x}{\sec x - \tan x} dx$$

$$267. \int \frac{8(x^2+1)}{(x-3)(x+1)^2} dx$$

$$268. \int (x+1)(x^2+2x+1)^4 dx$$

$$269. \int \sin x \cos^4 x dx$$

$$270. \int \frac{3x^3+5x}{x^2+1} dx$$

$$271. \int \frac{2x+6}{x^2+6x+1} dx$$

$$272. \int \frac{1}{x(x-2)} dx$$

$$273. \int \sin^2 2x dx$$

$$274. \int \frac{\cos 2x}{\cos^2 x} dx$$

$$275. \int \frac{\tan x}{\sqrt{1+\cos 2x}} dx$$

$$276. \int \sec^3 x \tan x dx$$

$$277. \int \cos^2 x \sin^2 x dx$$

$$278. \int x[(\ln x)^2 - 1] dx$$

$$279. \int \frac{x^2}{x^3+1} dx$$

$$280. \int \frac{2x+1}{3x-1} dx$$

$$281. \int x(3+x^2)^4 dx$$

$$282. \int \frac{9}{x^2\sqrt{9-x^2}} dx$$

$$283. \int \frac{x-3}{\sqrt{x+1}-2} dx$$

$$284. \int \frac{1}{x^2-4} dx$$

$$285. \int \frac{\cos x}{\sqrt{\sin^3 x}} dx$$

$$286. \int \frac{2\sin x}{\cos x + \sin x} dx$$

$$287. \int (1-x^{-2})^2 dx$$

$$288. \int \cos x \sqrt{\sin x} dx$$

$$289. \int (\sin x + 2\cos x)^2 dx$$

$$290. \int \frac{1}{\sin^2 x \cos^2 x} dx$$

$$291. \int \frac{\sin x + \sin x \cos x}{1 - \cos x} dx$$

$$292. \int \frac{1}{\cos^4 x} dx$$

$$293. \int \frac{\sec^2 x}{(1 + \tan x)^3} dx$$

$$294. \int \frac{\sin x \cos x}{\sqrt{\cos 2x + 1}} dx$$

$$295. \int \cot 2x dx$$

$$296. \int \frac{\ln x^2}{x} dx$$

$$297. \int \sin x \cos^2\left(\frac{1}{2}x\right) dx$$

$$298. \int \frac{e^{3x} + 1}{e^x + 1} dx$$

$$299. \int 2^x dx$$

$$300. \int 2^x 3^x dx$$

$$301. \int 3^{2x+1} dx$$

$$302. \int \frac{\sqrt{x}}{x-1} dx$$

$$303. \int \frac{2x^{\frac{3}{2}} + 1}{x^{\frac{5}{2}} + 2x} dx$$

$$304. \int \frac{1}{x(1 + \sqrt{x})} dx$$

$$305. \int \frac{1}{x(1 + x^2)} dx$$

$$306. \int \frac{\sqrt{x}}{\sqrt{x} - 1} dx$$

$$307. \int \frac{x^2 + 2x - 2}{x^2 - 2x + 2} dx$$

$$308. \int (\tan x + \cot x)^2 dx$$

$$309. \int \sin^3 x \sin 2x dx$$

$$310. \int x \sin x \cos x dx$$

$$311. \int \frac{2x^{\frac{1}{4}} + 1}{4x^{\frac{5}{4}} + 4x} dx$$

$$312. \int \frac{1}{\operatorname{cosec} x - \cot x} dx$$

$$313. \int \sec x \tan^3 x dx$$

$$314. \int e^{e^x + x} dx$$

$$315. \int \frac{\ln(x-1)}{\sqrt{x}} dx$$

$$316. \int \frac{1}{x(1+\sqrt{x})^2} dx$$

$$317. \int \frac{e^{\sqrt{x}}}{\sqrt{x}} dx$$

$$318. \int \sqrt{x} e^{\sqrt{x}} dx$$

$$319. \int x^2 e^{-x} dx$$

$$320. \int e^x \cos x dx$$

$$321. \int \frac{5^{2x}}{5^{2x}+3} dx$$

$$322. \int \frac{4x^2-x+1}{(x-1)(2x-1)} dx$$

$$323. \int \frac{3x^5}{x^3-1} dx$$

$$324. \int \frac{1}{(x-1)\sqrt{x^2-1}} dx$$

$$325. \int \frac{x-2}{x^2-4x-2} dx$$

$$326. \int \frac{3x^3-x^2+10x-3}{x^2+3} dx$$

$$327. \int \frac{\cos x + \tan x}{1 + \tan^2 x} dx$$

$$328. \int \frac{4}{(4+x^2)^{\frac{3}{2}}} dx$$

$$329. \int \frac{(x+1)^2}{x^2+1} dx$$

$$330. \int \frac{4x^3\sqrt{x^4+1}}{1+\sqrt{x^4+1}} dx$$

$$331. \int (\ln x)^2 dx$$

$$332. \int \frac{\sqrt{\sqrt{x}+1}}{\sqrt{x}} dx$$

$$333. \int \frac{1}{\sqrt{x^2+x^5}} dx$$

$$334. \int \sqrt{\sin^2 x + (\cos x - 1)^2} dx$$

$$335. \int x(\sin x + \cos x) dx$$

$$336. \int \left(\frac{1}{x^2} + \frac{1}{x^3} \right) e^{\frac{1}{x}} dx$$

$$337. \int \frac{\cos x}{(\cos x + \sin x)^3} dx$$

$$338. \int \frac{\sec^4 x}{\sqrt{\tan x}} dx$$

$$339. \int \frac{\sqrt{x}}{1 - \sqrt{x}} dx$$

$$340. \int x(\sec^2 x - \operatorname{cosec}^2 x) dx$$

$$341. \int \frac{4x^2 + 4x}{\sqrt{2x+1}} dx$$

$$342. \int -2x \tan^2 x dx$$

$$343. \int 4x \cos^2 2x dx$$

$$344. \int \cos x (6 \sin x - 2 \sin 3x)^{\frac{2}{3}} dx$$

$$345. \int \frac{20x}{4 - x^2} dx$$

$$346. \int \frac{1-x}{1-\sqrt{x}} dx$$

$$347. \int \frac{x+3}{\sqrt[3]{x^2+6x}} dx$$

$$348. \int \sqrt{x^2 - x^4} dx$$

$$349. \int \frac{1}{\operatorname{cosec} 2x - \cot 2x} dx$$

$$350. \int \sec^3 x \tan^5 x dx$$

$$351. \int \frac{\cosh x}{(\cosh x + \sinh x)^3} dx$$

$$352. \int \cos x \cos^2 3x dx$$

$$353. \int \ln\left(\frac{1}{6}x + 2\right) dx$$

$$354. \int \frac{3x}{1 + \sqrt{x-1}} dx$$

$$355. \int \frac{1}{x(x^3 - 1)} dx$$

$$356. \int x^5 \sqrt{1 - x^3} dx$$

$$357. \int \frac{1}{x^{\frac{1}{2}} - x^{\frac{1}{4}}} dx$$

$$358. \int \frac{1}{2x^2 - 2x + 1} dx$$

$$359. \int \frac{1}{\sqrt{-x^2 - 2x}} dx$$

$$360. \int \frac{1}{\sqrt{9x^2 + 12x + 5}} dx$$

$$361. \int \frac{1}{\sqrt{16x^2 - 8x}} dx$$

$$362. \int \sqrt{\frac{x}{1-x}} dx$$

$$363. \int \frac{4x^2}{4x^2 + 1} dx$$

$$364. \int e^{\cos x} \sin x \cos x dx$$

$$365. \int \sin x (9 - 4 \cos^2 x)^{\frac{1}{2}} dx$$

$$366. \int \frac{4}{(\cos x + 2 \sin x)^2} dx$$

$$367. \int (1 - \cos x) \sqrt{\sin^2 x + (\cos x + 1)^2} dx$$

$$368. \int \frac{2}{x + \sqrt{1-x^2}} dx$$

$$369. \int \frac{1}{\sqrt{x+1} + \sqrt{x-1}} dx$$

$$370. \int \cosh 2x dx$$

$$371. \int e^x (\tan x + \sec^2 x) dx$$

$$372. \int \frac{1}{x\sqrt{x^2-1}} dx$$

$$373. \int \frac{\sqrt{x+1}}{x+5} dx$$

$$374. \int \frac{x+3}{x^2+1} dx$$

$$375. \int \frac{4x^3 - 3x^2 + 2x - 1}{x+1} dx$$

$$376. \int \frac{1}{x^2 + x + 1} dx$$

$$377. \int \frac{9}{(9-x^2)^{\frac{3}{2}}} dx$$

$$378. \int \frac{x^2}{\sqrt{1-x^2}} dx$$

$$379. \int \frac{2}{x(x^2-1)} dx$$

$$380. \int \frac{1}{\sqrt{x^2+1}} dx$$

$$381. \int \frac{1}{9x^2+64} dx$$

$$382. \int \frac{x}{\sqrt{x^2+1}} dx$$

$$383. \int \frac{x^2}{\sqrt{x^2+1}} dx$$

$$384. \int \frac{\sqrt{x}}{x+1} dx$$

$$385. \int x^3 \sqrt{1-x^2} dx$$

$$386. \int \frac{4^x + 2 \times 16^x}{1+16^x} dx$$

$$387. \int \frac{\sin x}{\cos x + \cos^3 x} dx$$

$$388. \int \frac{\operatorname{sech} x}{\cosh x - \sinh x} dx$$

$$389. \int \frac{1 - \cos x}{1 + \cos x} dx$$

$$390. \int \frac{1 + \sin x}{1 - \sin x} dx$$

$$391. \int \cosh^2 2x dx$$

$$392. \int 4 \sinh 3x dx$$

$$393. \int \sinh x \cosh x dx$$

$$394. \int \frac{1}{5+4 \cos x} dx$$

$$395. \int \frac{4}{(x^2-4)^{\frac{3}{2}}} dx$$

$$396. \int \frac{1}{1+\sin 2x} dx$$

$$397. \int \frac{1}{\sqrt{3+2x-x^2}} dx$$

$$398. \int \frac{588}{4x^2+49} dx$$

$$399. \int \frac{x+1}{x^2+9} dx$$

$$400. \int \sqrt{e^x-1} dx$$

$$401. \int \sqrt{1-e^{2x}} \, dx$$

$$402. \int \frac{\sqrt{e^x}}{\sqrt{e^x+e^{-x}}} \, dx$$

$$403. \int \frac{16}{(x^2+4)^{\frac{5}{2}}} \, dx$$

$$404. \int \sqrt{(1-x^2)^3} \, dx$$

$$405. \int \cosh x \arctan(\sinh x) \, dx$$

$$406. \int \frac{2 \cos x}{\cos x + \sin x} \, dx$$

$$407. \int \frac{\tan x}{1+\sin^2 x} \, dx$$

$$408. \int (x+1)e^{x+1} \, dx$$

$$409. \int \tan x \sec^4 x \, dx$$

$$410. \int \frac{4}{\cos x(1-\sin x)} \, dx$$

$$411. \int \frac{x+2}{\sqrt{1-4x^2}} \, dx$$

$$412. \int \frac{4x+1}{\sqrt{4x^2-9}} \, dx$$

$$413. \int 8x \ln(2x+1) \, dx$$

$$414. \int \cos 3x \sin 6x \, dx$$

$$415. \int \frac{4}{3+5 \cos x} \, dx$$

$$416. \int \frac{4}{5-3 \cos x} \, dx$$

$$417. \int \sinh^2 x \, dx$$

$$418. \int \operatorname{sech}^2 4x \, dx$$

$$419. \int \frac{1}{\sqrt{64+9x^2}} \, dx$$

$$420. \int \frac{8}{\sqrt{16x^2-1}} \, dx$$

$$421. \int \frac{1}{\sqrt{x} \cos^2 \sqrt{x}} \, dx$$

$$422. \int \frac{6}{(1+\cos x)^2} dx$$

$$423. \int \sin^3 x \sqrt{(\cos^2 x \sin x)^2 + (\sin^2 x \cos x)^2} dx$$

$$424. \int \frac{3x^2 - 2x + 5}{(x+3)^3} dx$$

$$425. \int \frac{\sqrt{25-x^2}}{x} dx$$

$$426. \int \frac{1}{\sqrt{x^2+x+1}} dx$$

$$427. \int e^x \sin x dx$$

$$428. \int \frac{2x^2+5x-1}{x^3+x^2-2x} dx$$

$$429. \int \frac{1}{\sqrt{5-4x-x^2}} dx$$

$$430. \int \frac{x+2}{\sqrt{x}(x-2)^2} dx$$

$$431. \int x^3 e^{x^2} dx$$

$$432. \int \frac{1}{\sqrt{1+e^x}} dx$$

$$433. \int \frac{1}{e^{2x}-3e^x} dx$$

$$434. \int \operatorname{cosec}^3 x dx$$

$$435. \int \frac{\tan \sqrt{x}}{\sqrt{x}} dx$$

$$436. \int \frac{\cosh x}{1+\sinh x} dx$$

$$437. \int \frac{1}{6 \sinh 2x + 9 \cosh 2x} dx$$

$$438. \int \sqrt{1+4 \sinh^2 x \cosh^2 x} dx$$

$$439. \int \frac{\operatorname{arsinh} x}{\sqrt{x^2+1}} dx$$

$$440. \int \frac{x}{\sqrt{x^2+1}} dx$$

$$441. \int \sqrt{x^2+4} dx$$

$$442. \int \frac{1}{4x^{\frac{1}{2}} \left(1+x^{\frac{1}{4}}\right)} dx$$

$$443. \int \frac{6x^2}{\sqrt{1-4x^6}} dx$$

$$444. \int \frac{x^2}{\sqrt{1-x^2}} dx$$

$$445. \int \frac{1}{\sqrt{4-x^2}} dx$$

$$446. \int \sqrt{\left(1-\frac{1}{x}\right)^2 + \left(\frac{2}{\sqrt{x}}\right)^2} dx$$

$$447. \int \frac{1}{\sqrt{x^2+9}} dx$$

$$448. \int \sqrt{x^2-4} dx$$

$$449. \int \frac{1}{x+\sqrt{x^2+1}} dx$$

$$450. \int \frac{1}{x(x^2+1)^3} dx$$

$$451. \int \frac{\sin x \cos x}{\cos^2 x + 3 \cos x + 2} dx$$

$$452. \int \sin(\ln x) dx$$

$$453. \int \cos x \ln(\sin x) dx$$

$$454. \int \frac{1}{\sqrt{x}\sqrt{\sqrt{x}+1}} dx$$

$$455. \int -\sinh\left(\frac{1}{2}x\right) dx$$

$$456. \int 3 \tanh^2 x dx$$

$$457. \int \frac{\sin x}{\cos^5 x} dx$$

$$458. \int \sqrt{1-x^2} dx$$

$$459. \int \frac{3}{x^2-4x+13} dx$$

$$460. \int \frac{1}{\sqrt{x^2-4x+13}} dx$$

$$461. \int \frac{x}{\sqrt{4-x^4}} dx$$

$$462. \int \frac{1}{\sqrt{16x^2-9}} dx$$

$$463. \int \frac{1}{\sqrt{2x-x^2}} dx$$

$$464. \int \sinh x \operatorname{sech}^2 x \, dx$$

$$465. \int \frac{4}{(4x - x^2)^{\frac{3}{2}}} \, dx$$

$$466. \int \frac{8}{x^4 - 1} \, dx$$

$$467. \int \frac{1}{x(x^2 + 1)} \, dx$$

$$468. \int \frac{1}{x\sqrt{1 - (\ln x)^2}} \, dx$$

$$469. \int \frac{6}{(1 + \cos x)^2} \, dx$$

$$470. \int \frac{5}{4 \cos x + 3 \sin x} \, dx$$

$$471. \int \frac{x}{1 + \sqrt{x}} \, dx$$

$$472. \int \log_2 x \, dx$$

$$473. \int e^x (2 \cos x - 3 \sin x) \, dx$$

$$474. \int \sqrt{1 + \cos 3x} \, dx$$

$$475. \int \sqrt{\frac{x-2}{4-x}} \, dx$$

$$476. \int \ln(x + \sqrt{x}) \, dx$$

$$477. \int x \sin x \sin 2x \, dx$$

$$478. \int \frac{\cos x}{\sin x + 2 \cos x} \, dx$$

$$479. \int \frac{\sinh^3 x}{\cosh^2 x} \, dx$$

$$480. \int \frac{\sec^2 x}{4 + \tan^2 x} \, dx$$

$$481. \int \frac{1}{(x-2)^{\frac{1}{2}}(4-x)^{\frac{1}{2}}} \, dx$$

$$482. \int \frac{4x+5}{x^2 + 2x + 2} \, dx$$

$$483. \int \frac{x^3}{x-2} \, dx$$

$$484. \int \frac{x^2 - 12x - 6}{(x-3)(x^2 + 2)} \, dx$$

$$485. \int x^5 e^{x^3} \, dx$$

$$\begin{aligned}
486. \quad & \int \frac{x^3}{1+x^8} dx \\
487. \quad & \int \sin x \sin^3\left(\frac{x}{2}\right) dx \\
488. \quad & \int \frac{\cot x}{\sqrt{1-\cos 2x}} dx \\
489. \quad & \int \tan^5 x \sec x dx \\
490. \quad & \int \frac{2 \cosh x \sinh x}{1+\cosh^4 x} dx \\
491. \quad & \int \frac{\cos^3 x}{\sin^2 x} dx \\
492. \quad & \int \frac{3x^3-4x^2+5x-2}{(x-1)(x^2+1)} dx
\end{aligned}$$

$$\begin{aligned}
493. \quad & \int \frac{\cos x}{1+\sin^2 x} dx \\
494. \quad & \int \sqrt{\frac{1-x}{1+x}} dx \\
495. \quad & \int 5 \sin\left(\frac{x}{3}\right) \sqrt{\cos\left(\frac{x}{6}\right)} dx \\
496. \quad & \int \frac{4 \cot x}{1+\cos^2 x} dx \\
497. \quad & \int \frac{1}{(x+1)\sqrt{x+2}} dx \\
498. \quad & \int \frac{1}{x^2\sqrt{x^2-1}} dx \\
499. \quad & \int \frac{1}{(x^2-1)\sqrt{x}} dx
\end{aligned}$$

$$\begin{aligned}
500. \quad & \int \frac{16}{(x+6)(x-2)\sqrt{x+2}} dx \\
501. \quad & \int \frac{16}{(x^2+1)\sqrt{x^2-1}} dx \\
502. \quad & \int \frac{1}{(x+1)\sqrt{x^2+4x+2}} dx \\
503. \quad & \int \frac{x+2}{(x^2+4x+1)^{\frac{3}{2}}} dx \\
504. \quad & \int \sqrt{36-x^2} dx \\
505. \quad & \int \sqrt{\frac{x}{1-4x}} dx
\end{aligned}$$

$$506. \int \frac{1}{2(x+1)\sqrt{x^2+x}} dx$$

$$507. \int \cos(\ln x) dx$$

$$508. \int \frac{\ln(2x-1)}{2x-1} dx$$

$$509. \int \frac{(x+1)^{\frac{3}{2}}}{x^2-x} dx$$

$$510. \int \frac{9}{e^x \sqrt{e^{2x}-9}} dx$$

$$511. \int \frac{8}{(1+x^2)^3} dx$$

$$512. \int \frac{1-3x^3}{\sqrt{1-x^2}} dx$$

$$513. \int \frac{4}{e^x \sqrt{e^{2x}+4}} dx$$

$$514. \int \arcsin x dx$$

$$515. \int \arctan x dx$$

$$516. \int x \operatorname{arcosh} x dx$$

$$517. \int e^x \cosh x dx$$

$$518. \int \frac{1}{\sqrt{x^2-16}} dx$$

$$519. \int \frac{1}{\sqrt{1-x-x^2}} dx$$

$$520. \int \frac{18}{(x^2+9)^2} dx$$

$$521. \int \frac{2}{1+\sqrt[3]{x}} dx$$

$$522. \int \frac{x^4}{(x^5-1)^{\frac{3}{2}}} dx$$

$$523. \int \frac{x^4}{\sqrt{x^{10}-1}} dx$$

$$524. \int \frac{1}{x^2-4} dx$$

$$525. \int 4 \coth^2 2x dx$$

$$526. \int \sqrt[3]{3 \sin 2x - 2 \sin 3x \cos x} dx$$

$$527. \int \frac{\arctan x}{1+x^2} dx$$

$$528. \int \frac{e^{\arcsin x}}{\sqrt{1-x^2}} dx$$

$$529. \int \sqrt{\frac{1+x}{1-x}} dx$$

$$530. \int (x^3 + 5x^2 - 2)e^{2x} dx$$

$$531. \int \frac{4}{x^3 + 2x} dx$$

$$532. \int \frac{3x^4 + x^3 + 2x^2 + x - 2}{(x+1)x^5} dx$$

$$533. \int \frac{25}{25+x^2} dx$$

$$534. \int \frac{1}{\sqrt{25-9x^2}} dx$$

$$535. \int \frac{1}{x\sqrt{x^2-2}} dx$$

$$536. \int \frac{x^2}{\sqrt{x^2-16}} dx$$

$$537. \int \frac{2x+1}{\sqrt{9-x^2}} dx$$

$$538. \int \frac{1}{x\sqrt{1-x^2}} dx$$

$$539. \int \frac{1}{x^2\sqrt{4-x^2}} dx$$

$$540. \int \frac{1}{x\sqrt{3x^2+2x-1}} dx$$

$$541. \int \frac{3}{(4x+5)\sqrt{1-x^2}-3(1-x^2)} dx$$

$$542. \int \frac{1}{\sqrt{x^2-2x}} dx$$

$$543. \int x\sqrt{1-x^2} dx$$

$$544. \int \sqrt{\frac{2\sqrt{x}+3}{4x}} dx$$

$$545. \int \frac{\sinh x}{\cosh x - 1} dx$$

$$546. \int \frac{\arcsin x}{\sqrt{1-x^2}} dx$$

$$547. \int \frac{2^x}{\sqrt{1-4^x}} dx$$

$$548. \int \frac{1}{x\sqrt{x^2+2}} dx$$

$$549. \int \frac{4e^{3x}}{1+e^{2x}} dx$$

$$550. \int \frac{e^x}{\sqrt{9-e^{2x}}} dx$$

$$551. \int \frac{e^x}{\sqrt{e^{2x}-9}} dx$$

$$552. \int \sqrt{\frac{x+2}{x-1}} dx$$

$$553. \int \frac{x+3}{\sqrt{4-x^2}} dx$$

$$554. \int \frac{x^2}{(1-x^2)^{\frac{3}{2}}} dx$$

$$555. \int \frac{1}{1+\sin x+\cos x} dx$$

$$556. \int \frac{2}{\sin^3 x \cos x} dx$$

$$557. \int \frac{1}{5\cosh x+4\sinh x} dx$$

$$558. \int \frac{\cos x}{\sqrt{1+\sin^2 x}} dx$$

$$559. \int \sqrt{\frac{1-\cos x}{1+\sin x}} dx$$

$$560. \int \frac{4x-1}{\sqrt{x^2+16}} dx$$

$$561. \int \frac{1}{4x^2+4x+2} dx$$

$$562. \int \frac{4x+7}{\sqrt{2x^2+7x+3}} dx$$

$$563. \int \frac{1}{2x^2+7x+3} dx$$

$$564. \int 10 \tanh 2x \operatorname{sech} 2x dx$$

$$565. \int \sinh^3 x \cosh x dx$$

$$566. \int \frac{1}{\sqrt{\sin x \cos^3 x}} dx$$

$$567. \int \frac{\sin x}{16+9\cos^2 x} dx$$

$$568. \int \frac{1}{1+8\sin^2 x} dx$$

$$569. \int \frac{5 \cos x - \sin x}{3 \cos x + 2 \sin x} dx$$

$$570. \int \frac{3 + 3 \sin x - \cos x}{\sin x + \cos x} dx$$

$$571. \int x \arctan x dx$$

$$572. \int \operatorname{arsinh}(\sqrt{x}) dx$$

$$573. \int \frac{x}{(x+1)(x^2+x+1)} dx$$

$$574. \int \frac{3x-4}{x^2+2x+4} dx$$

$$575. \int \frac{x^2}{(x^2+8)^{\frac{3}{2}}} dx$$

$$576. \int \sqrt{\frac{x}{x-1}} dx.$$

$$577. \int \frac{4x^3 - 12x^2 - 22x - 3}{(4-x)(2x+1)} dx$$

$$578. \int \ln(1+x^2) dx$$

$$579. \int \frac{x^4 + x^3 + 3x - 1}{x(x^2+1)^2} dx$$

$$580. \int \frac{\sin(\ln x)}{x^2} dx$$

$$581. \int x(2^x) dx$$

$$582. \int x \ln(x^2+1) dx$$

$$583. \int e^{2x} \sinh x dx$$

$$584. \int \frac{6}{1+x^3} dx$$

$$585. \int \sec^3 x dx$$

$$586. \int 6 \operatorname{cosech} 3x \coth 3x dx$$

$$587. \int \frac{2 \cos x}{\cos x - \sin x} dx$$

$$588. \int \frac{1}{2 + \cos x} dx$$

$$589. \int x^2 \cos^3 x dx$$

$$590. \int \frac{(2x+1)^2}{x(x+1)^4} dx$$

$$591. \int \frac{1}{\tanh x + \tan x} dx$$

$$592. \int \frac{\sin x}{\sin\left(x + \frac{\pi}{4}\right)} dx$$

$$593. \int \frac{1}{x\left(x - \sqrt{x^2 - 1}\right)} dx$$

$$594. \int \frac{(2 + \tan^2 x) \sec^2 x}{1 + \tan^3 x} dx$$

$$595. \int \frac{2x - 3}{\sqrt{x^2 - 9}} dx$$

$$596. \int \frac{\sqrt{x^2 - 1}}{x} dx$$

$$597. \int \frac{1}{x^2 + 8x + 17} dx$$

$$598. \int \frac{\sqrt{x+1} + 1}{\sqrt[3]{x+1} + \sqrt{x+1}} dx$$

$$599. \int \sqrt{2^x - 1} dx$$

$$600. \int \frac{4 \sin 3x}{(\cos 7x + \cos x)^2 + (\sin 7x + \sin x)^2} dx$$

$$601. \int \operatorname{sech} x dx$$

$$602. \int \operatorname{arcsec} x dx$$

$$603. \int \frac{4x}{4 + x^4} dx$$

$$604. \int \frac{12x^2}{(x^2 - 1)^2} dx$$

$$605. \int \frac{1}{\sqrt{16x^2 + 1}} dx$$

$$606. \int \frac{1 - x}{\sqrt{x}(x + 1)^2} dx$$

$$607. \int \frac{x^2}{1 - 2\sqrt{x}} dx$$

$$608. \int \frac{16}{(x^2 + 4)^2} dx$$

$$609. \int \frac{(x + 6)\sqrt{x}}{(x + 2)^2} dx$$

$$610. \int \frac{9}{(4x^2 - 24x + 27)^{\frac{3}{2}}} dx$$

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

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

613. $\int \frac{1}{\sqrt{1-\sin 2x}} \, dx$

614. $\int \frac{1}{\sqrt{x} + \sqrt[3]{x}} \, dx$

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

616. $\int \frac{2x+x^2 \cot x}{x^2 + \operatorname{cosec} x} \, dx$

617. $\int \frac{x}{(5-4x-x^2)^{\frac{3}{2}}} \, dx$

618. $\int e^x (3 \sec^2 x + 2 \sec^2 x \tan x + 2 \tan x) \, dx$

619. $\int (1-x^2)^{\frac{5}{2}} \, dx$

620. $\int \frac{x(2-3x)}{e^{3x}+x^2} \, dx$

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

622. $\int \sqrt{\tan x} \, dx$