

Created by T. Madas

INTEGRATION MIX

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

2. $\int \frac{12}{\sqrt{3x+1}} dx$

3. $\int \frac{12x}{\sqrt{4x-1}} dx$

4. $\int \frac{12}{4x+1} dx$

5. $\int \frac{12x}{4x+1} dx$

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

7. $\int (2 \sin x + \operatorname{cosec} x)^2 dx$

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

9. $\int 4x \sin 2x dx$

10. $\int \frac{7}{4x} dx$

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

12. $\int \frac{10}{(1-4x)^{\frac{7}{2}}} dx$

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

$$14. \int 2\cos^2 x - \cos\left(\frac{1}{2}x\right) dx$$

$$15. \int \frac{14x}{x^2 - 4} dx$$

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

$$17. \int (8x + 1)e^{-2x} dx$$

$$18. \int (e^{2x} + e^{-x})^2 dx$$

$$19. \int \frac{6}{(3x + 2)^3} dx$$

$$20. \int \frac{6x}{(3x + 2)^3} dx$$

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

$$22. \int \frac{(2 + \cos x)\sin 2x}{2\cos x} dx =$$

$$23. \int \frac{8x - 3}{4x} dx$$

$$24. \int \frac{6x^2}{x^3 + 8} dx$$

$$25. \int (1 + 2\cos x)^3 \sin x dx$$

$$26. \int \cos \sqrt{x} dx$$

$$27. \int \frac{3}{2x-1} dx$$

$$28. \int \frac{10}{(2x+1)^6} dx$$

$$29. \int \frac{3x-1}{(2x+1)(x-2)} dx$$

$$30. \int (2 + \sin x)^2 dx$$

$$31. \int 5(2x-3)^{\frac{1}{4}} dx$$

$$32. \int \frac{e^{4x}+3}{e^{3x}} dx$$

$$33. \int x e^{5x} dx$$

$$34. \int \frac{x^3}{x^4+2} dx$$

$$35. \int \frac{2}{(x-2)(x-4)} dx$$

$$36. \int \frac{3}{4x+1} dx$$

$$37. \int \left(1 + \frac{1}{x}\right)^2 dx$$

$$38. \int \frac{x}{(x^2-1)^3} dx$$

39. $\int \cos x - \sin x \, dx$

40. $\int \sin x - \cos x \, dx$

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

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

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

44. $\int 3\sin 2x \, dx$

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

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

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

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

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

50. $\int 10(3x+1)^4 \, dx$

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

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

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

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

55. $\int 2 + 2 \tan^2 x dx$

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

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

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

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

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

61. $\int \frac{1}{4x} dx$

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

63. $\int \frac{x+1}{x} dx$

64. $\int \frac{x}{x+1} dx$

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

$$66. \int \frac{x+1}{9x^2-1} dx$$

$$67. \int x \sin 4x dx$$

$$68. \int \ln x dx$$

$$69. \int \frac{4}{(2x-7)^2} dx$$

$$70. \int 4 \cos^2 x dx$$

$$71. \int (1 + \tan^2 x) \sec^2 x dx$$

$$72. \int (1 + \tan x) \sec^2 x dx$$

$$73. \int \operatorname{cosec}^2(3x+1) dx$$

$$74. \int 12 \sec^2(2x+3) dx$$

$$75. \int \frac{\sin \sqrt{x}}{\sqrt{x}} dx$$

$$76. \int 6e^{2x+2} dx$$

$$77. \int (1 - \cot^2 x) \sec^2 x dx$$

78.
$$\int \frac{\sin x - \cos x}{\sin x + \cos x} dx$$

79.
$$\int \sec x \tan x \sqrt{1 + \sec x} dx$$

80.
$$\int \tan 2x \sec 2x dx$$

81.
$$\int x^2 \ln x dx$$

82.
$$\int \frac{6}{x^2 - 2x - 8} dx$$

83.
$$\int 3 \cot^2 x dx$$

84.
$$\int \cos 2x \sin x dx$$

85.
$$\int \frac{\sqrt{x^2 + 4}}{x} dx$$

86.
$$\int 7(2x - 3)^{\frac{5}{2}} dx$$

87.
$$\int \frac{x^2}{4 - x^3} dx$$

88.
$$\int x \sin\left(\frac{1}{2}x\right) dx$$

89.
$$\int \frac{4}{4x^2 + 4x + 1} dx$$

90.
$$\int \frac{3}{\sqrt{4x + 1}} dx$$

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

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

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

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

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

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

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

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

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

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

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

102. $\int \frac{1}{x^2 \sqrt[3]{x^2}} dx = -\frac{3}{5} x^{-\frac{5}{3}} + C$

103.
$$\int \frac{3}{\sqrt{2-4x}} dx$$

104.
$$\int \frac{1}{1+\cos 2x} dx$$

105.
$$\int \frac{2}{2x-x^2} dx$$

106.
$$\int \frac{\ln x}{x^2} dx$$

107.
$$\int \frac{3x^2}{x^3+1} dx$$

108.
$$\int \frac{2x+1}{2x-1} dx$$

109.
$$\int \frac{14x+1}{(1-x)(2x+1)} dx$$

110.
$$\int \frac{6x}{\sqrt{2x+3}} dx$$

111.
$$\int \frac{\sin^4 x + \cos^2 x}{\sin^2 x} dx$$

112.
$$\int \frac{2}{(x-4)\sqrt{x}} dx$$

113.
$$\int \frac{1}{2+\sqrt{x-1}} dx$$

114.
$$\int \frac{4}{\sqrt{6x-1}} dx$$

115.
$$\int \frac{3e^{2x}}{e^{2x}-1} dx$$

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

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

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

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

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

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

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

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

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

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

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

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

128.
$$\int \frac{3x-1}{2x+3} dx$$

129.
$$\int \frac{8x^2}{1-2x} dx$$

130.
$$\int \frac{10}{(3x+1)^{\frac{3}{2}}} dx$$

131.
$$\int 5^x dx$$

132.
$$\int \sqrt{\sin x \cos^2 x} dx$$

133.
$$\int (2x+1) \sin(x^2+x+1) dx$$

134.
$$\int (2x+1)(x^2+x+1) dx$$

135.
$$\int (x+1) \cos(x^2+2x+1) dx$$

136.
$$\int \frac{1}{2+\sqrt{x}} dx$$

137.
$$\int \frac{1}{e^x + e^{-x} + 2} dx$$

138.
$$\int x^2 \tan(x^3+1) dx$$

139.
$$\int x^3 \ln(x^2+1) dx$$

140.
$$\int \sin^2 x \sec^2 x dx$$

141. $\int 3\sec^2 x \sin x \, dx$

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

143. $\int x^3 \ln x \, dx$

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

145. $\int 4 - \cos^4 x \sin x \, dx$

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

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

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

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

150. $\int \tan^2 x \, dx$

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

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

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

154.
$$\int \frac{\cos x}{\sqrt{\sin x}} dx$$

155.
$$\int \frac{10x^4}{2x^{\frac{5}{2}} + 1} dx$$

156.
$$\int \sin \sqrt{x} dx$$

157.
$$\int \frac{x^2}{1-2x} dx$$

158.
$$\int \frac{12}{(1-2x)^5} dx$$

159.
$$\int \frac{x^4 + 2x}{x^5 + 5x^2 + 8} dx$$

160.
$$\int \frac{x}{x-1} dx$$

161.
$$\int \frac{1}{(1+\sqrt{x})\sqrt{x}} dx$$

162.
$$\int \frac{2x^3 + 1}{x^4 + 2x} dx$$

163.
$$\int \frac{x+2}{x(x+1)} dx$$

164.
$$\int \sin x \ln(\sec x) dx$$

165.
$$\int \frac{(1+2\cos x)^2}{3\sin^2 x} dx$$

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

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

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

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

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

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

172. $\int 6 \cos^4 x - 2 \sin^2 x dx$

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

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

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

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

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

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

179.
$$\int \frac{x}{9x^2+1} dx$$

180.
$$\int \frac{2}{x+\sqrt[3]{x}} dx$$

181.
$$\int \frac{3x}{1+\sqrt{x}} dx$$

182.
$$\int \frac{3x^2+2}{4x+1} dx$$

183.
$$\int \frac{3}{x} + \frac{4}{x^2} - \frac{2}{x^3} dx$$

184.
$$\int 2\sin 2x \cos^2 x dx$$

185.
$$\int \frac{10x^2-23x+11}{(2-3x)(2x-1)^2} dx$$

186.
$$\int \frac{\sec x}{\sec x - \tan x} dx$$

187.
$$\int x \cos 6x dx$$

188.
$$\int \sin x \sin 3x dx$$

189.
$$\int 4\cos 3x + \frac{1}{2}\sin 3x dx$$

190.
$$\int \sin^2 6x dx$$

191.
$$\int \frac{\cos 2x}{1-\cos^2 2x} dx$$

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

193.
$$\int 3 \cos^3 3x \, dx$$

194.
$$\int 3 \sec^4 x \, dx$$

195.
$$\int 2 \sin x \cos 3x \, dx$$

196.
$$\int \frac{2 \sin x}{\cos x + \sin x} dx$$

197.
$$\int \frac{4}{2x-1} + \frac{1}{3-4x} dx$$

198.
$$\int x^2 \sin 3x \, dx$$

199.
$$\int \operatorname{cosec}^2 2x \, dx$$

200.
$$\int \sin^3 2x \cos 2x \, dx$$

201.
$$\int \cot^2 3x \, dx$$

202.
$$\int \frac{7}{3x} dx$$

203.
$$\int \frac{\sin x \cos x}{\sqrt{1 - \cos 2x}} dx$$

204.
$$\int \frac{\sin x \cos x}{1 + \cos 2x} dx$$

$$205. \int 4(3-2x)^5 dx$$

$$206. \int \frac{1+\sin x}{\cos x} dx$$

$$207. \int \sin 2x \sec x dx$$

$$208. \int \sin 2x \sin x dx$$

$$209. \int x \cos^2 x dx$$

$$210. \int \sin(x+1)^{\frac{1}{3}} dx$$

$$211. \int \frac{1-\ln x}{x^2} dx$$

$$212. \int 4x e^{-\frac{2}{3}x} dx$$

$$213. \int (e^x + x)^2 dx$$

$$214. \int \frac{e^{4x} - e^{-x}}{e^{2x}} dx$$

$$215. \int \frac{e^{\ln x}}{x} dx$$

$$216. \int \frac{1}{2(3x+1)^4} dx$$

$$217. \int \frac{\cos(\ln x)}{x} dx$$

$$218. \int \frac{4xe^{2x^2}}{\sqrt{1+2e^{2x^2}}} dx$$

$$219. \int \frac{4}{3(2x+1)} dx$$

$$220. \int \frac{1}{\cos^2 x \tan x} dx$$

$$221. \int \frac{\sin 2x}{1+\cos x} dx$$

$$222. \int \sin^3 x dx$$

$$223. \int \frac{1}{3}\sin 2x - \frac{1}{2}\cos 3x dx$$

$$224. \int \frac{3x}{\sqrt{4-2x^2}} dx$$

$$225. \int \frac{1}{\sin x \cos^2 x} dx$$

$$226. \int \frac{3x}{4-2x^2} dx$$

$$227. \int \frac{1-4x}{x(4x-\ln x)^{\frac{3}{2}}} dx$$

$$228. \int \frac{\sin x}{\cos^4 x} dx$$

$$229. \int \frac{\operatorname{cosec}^2 x}{1+\cot x} dx$$

$$230. \int x^2 \cos\left(\frac{1}{4}x\right) dx$$

$$231. \int \frac{3}{(\sqrt{x}-2)(\sqrt{x}+1)} dx$$

$$232. \int \frac{1}{(\sqrt{x}-2)(\sqrt{x}+2)} dx$$

$$233. \int \frac{4-3x}{2x+1} dx$$

$$234. \int \left(1 + \frac{1}{x}\right) \sqrt{x} dx$$

$$235. \int \frac{\sec x}{\cos x - \sin x} dx$$

$$236. \int \frac{x^2-2}{x^2-1} dx$$

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

$$238. \int \frac{6x^2}{2x^{\frac{3}{2}}-1} dx$$

$$239. \int \frac{1}{1+\sqrt{x-1}} dx$$

$$240. \int \frac{x+1}{x-5} dx$$

$$241. \int \frac{(x+2)^2}{3x} dx$$

$$242. \int 4e^{-2x} - \frac{1}{3} \sin 3x dx$$

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

244. $\int \cos x \sin^8 x \, dx$

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

246. $\int \tan 3x \, dx$

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

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

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

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

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

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

253. $\int 1 - \cot^2 x \, dx$

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

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

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

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

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

259. $\int x e^2 dx$

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

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

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

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

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

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

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

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

$$268. \int (3\sin x - \cos x)^2 dx$$

$$269. \int \frac{4x}{x^2 - 10} dx$$

$$270. \int \frac{4e^{3x}}{1 - e^{3x}} dx$$

$$271. \int (1 - \cos x) \sin x \cos x dx$$

$$272. \int (\tan x - 1)^2 dx$$

$$273. \int \frac{1 + e^x}{1 - e^x} dx$$

$$274. \int \sin 2x \cos^4 2x dx$$

$$275. \int \frac{1}{\sin x \cos x} dx$$

$$276. \int \frac{1}{\sin^2 x \cos x} dx$$

$$277. \int \frac{1}{1 - \sin x} dx$$

$$278. \int \frac{1}{e^x + 1} dx$$

$$279. \int (1 + \sin x) \sin 2x dx$$

$$280. \int x \sec x \tan x dx$$

$$281. \int \sin 3x \cos 2x \, dx$$

$$282. \int \frac{1-2x}{x(2x-\ln x)^2} \, dx$$

$$283. \int x^2 e^{-\frac{1}{4}x} \, dx$$

$$284. \int \frac{x+4}{x-4} \, dx$$

$$285. \int 3x^2 (4-2x^3)^{\frac{3}{2}} \, dx$$

$$286. \int x\sqrt{x+1} \, dx$$

$$287. \int \frac{x+1}{\sqrt[3]{x^2+2x+3}} \, dx$$

$$288. \int \sin 2x \cos x \, dx$$

$$289. \int \sin 2x \cos 2x \, dx$$

$$290. \int \frac{3^x}{3^x+1} \, dx$$

$$291. \int \frac{\tan x}{\tan x - \sec x} \, dx$$

$$292. \int \frac{(\ln x)^2}{x} \, dx$$

$$293. \int \frac{8(x^2+1)}{(x-3)(x+1)^2} dx$$

$$294. \int \sqrt[3]{x} \sqrt{\frac{1}{x}} dx$$

$$295. \int (x+1)(x^2+2x-1)^4 dx$$

$$296. \int \sin x \cos^4 x dx$$

$$297. \int \frac{2x+6}{x^2+6x+1} dx$$

$$298. \int \frac{1}{x(x-4)} dx$$

$$299. \int \frac{\tan x}{\sqrt{1+\cos 2x}} dx$$

$$300. \int \cos^2 x \sin^2 x dx$$

$$301. \int \frac{3x^3+5x}{x^2+1} dx$$

$$302. \int \sin^2 2x dx$$

$$303. \int \frac{\cos 2x}{\cos^2 x} dx$$

$$304. \int \sec^3 x \tan x dx$$

$$305. \int x[(\ln x)^2-1] dx$$

$$306. \int \frac{x^2}{x^3 + 5} dx$$

$$307. \int \frac{2x+1}{3x-1} dx$$

$$308. \int x(3+x^2)^4 dx$$

$$309. \int \frac{9}{x^2 \sqrt{9-x^2}} dx$$

$$310. \int \frac{\cos x}{\sqrt{\sin^3 x}} dx$$

$$311. \int \frac{x-3}{\sqrt{x+1}-2} dx$$

$$312. \int \frac{x-4}{x^2-4} dx$$

$$313. \int \frac{2 \sin x}{\cos x + \sin x} dx$$

$$314. \int (1-x^{-2})^2 dx$$

$$315. \int \frac{\sqrt{\tan x}}{\cos^2 x} dx$$

$$316. \int (3 \sin x + \cos x)^2 dx$$

$$317. \int \frac{\sec^2 x}{(1 + \tan x)^3} dx$$

$$318. \int \frac{1}{\cos^2 x \sin^2 x} dx$$

$$319. \int \cot 2x \, dx$$

$$320. \int 2^x \, dx$$

$$321. \int \frac{\sin x + \sin x \cos x}{1 - \cos x} \, dx$$

$$322. \int \frac{1}{\cos^4 x} \, dx$$

$$323. \int \frac{\sin x \cos x}{\sqrt{1 + \cos 2x}} \, dx$$

$$324. \int \frac{\ln x^2}{x} \, dx$$

$$325. \int \sin x \cos^2\left(\frac{1}{2}x\right) \, dx$$

$$326. \int \frac{e^{3x} + 1}{e^x + 1} \, dx$$

$$327. \int \frac{\sqrt{x}}{x-1} \, dx$$

$$328. \int 2^x 3^x \, dx$$

$$329. \int 3^{2x+1} \, dx$$

$$330. \int \frac{2x^{\frac{3}{2}} + 1}{x^{\frac{5}{2}} + 2x} \, dx$$

$$331. \int \frac{1}{x(1+\sqrt{x})} \, dx$$

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

333.
$$\int \frac{1}{x(1+x^2)} dx$$

334.
$$\int \sin^4 x \sin 2x dx$$

335.
$$\int (\tan x + \cot x)^2 dx$$

336.
$$\int \frac{x^2 + 2x - 2}{x^2 - 2x + 2} dx$$

337.
$$\int x \sin x \cos x dx$$

338.
$$\int \sec x \tan^3 x dx$$

339.
$$\int \frac{1}{\operatorname{cosec} x - \cot x} dx$$

340.
$$\int \frac{2x^{\frac{1}{4}} + 1}{4x^{\frac{5}{4}} + 4x} dx$$

341.
$$\int \frac{\ln(x-1)}{\sqrt{x}} dx$$

342.
$$\int e^{x+e^x} dx$$

343.
$$\int \frac{1}{x(1+\sqrt{x})^2} dx$$

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

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

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

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

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

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

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

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

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

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

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

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

$$356. \int \frac{\cos x + \tan x}{1 + \tan^2 x} dx$$

$$357. \int \frac{\sqrt{1+\sqrt{x}}}{\sqrt{x}} dx$$

$$358. \int \frac{4x^3 \sqrt{x^4+1}}{1+\sqrt{x^4+1}} dx$$

$$359. \int (\ln x)^2 dx$$

$$360. \int \sqrt{18 \cos x \sin 2x} dx$$

$$361. \int \frac{1}{\sqrt{x^5+x^2}} dx$$

$$362. \int \sqrt{\sin^2 x + (\cos x - 1)^2} dx$$

$$363. \int x(\sin x + \cos x) dx$$

$$364. \int \left(\frac{1}{x^2} + \frac{1}{x^3} \right) e^{\frac{1}{x}} dx$$

$$365. \int \frac{\sec^4 x}{\sqrt{\tan x}} dx$$

$$366. \int \frac{\cos x}{(\cos x + \sin x)^3} dx$$

$$367. \int \frac{20x}{4-x^2} dx$$

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

$$369. \int x(\sec^2 x - \operatorname{cosec}^2 x) dx$$

$$370. \int \frac{4x^2 + 4x}{\sqrt{2x+1}} dx$$

$$371. \int x \tan^2 x dx$$

$$372. \int x \cos^2 3x dx$$

$$373. \int \cos x (6 \sin x - 2 \sin 3x)^{\frac{2}{3}} dx$$

$$374. \int \sqrt{x^2 - x^4} dx$$

$$375. \int \frac{x+3}{\sqrt[3]{x^2+6x}} dx$$

$$376. \int \frac{1-x}{1-\sqrt{x}} dx$$

$$377. \int \frac{1}{\operatorname{cosec} 2x - \cot 2x} dx$$

$$378. \int \sec^3 x \tan^5 x dx$$

$$379. \int \frac{\cosh x}{(\cosh x + \sinh x)^3} dx$$

$$380. \int \cos x \cos^2 3x dx$$

$$381. \int \frac{1}{\sqrt{x^{\frac{3}{2}} + 4x}} dx$$

$$382. \int \frac{2}{(\cos x + 2 \sin x)^2} dx$$

$$383. \int \ln\left(\frac{1}{6}x + 2\right) dx$$

$$384. \int \frac{3x}{1 + \sqrt{x-1}} dx$$

$$385. \int \frac{1}{x(x^3 - 1)} dx$$

$$386. \int x^5 (1 - x^3)^{\frac{1}{2}} dx$$

$$387. \int \frac{1}{x^{\frac{1}{2}} - x^{\frac{1}{4}}} dx$$

$$388. \int \frac{1}{2x^2 - 2x + 1} dx$$

$$389. \int \frac{1}{\sqrt{-x^2 - 2x}} dx$$

$$390. \int \frac{1}{\sqrt{9x^2 + 12x + 5}} dx$$

$$391. \int \frac{1}{\sqrt{16x^2 - 8x}} dx$$

$$392. \int \sqrt{\frac{x}{1-x}} dx$$

$$393. \int \frac{4x^2}{4x^2+1} dx$$

$$394. \int e^{\cos x} \sin x \cos x dx$$

$$395. \int (9-4\sin^2 x)^{\frac{1}{2}} \sin x dx$$

$$396. \int \frac{2}{x+\sqrt{1-x^2}} dx$$

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

$$398. \int \cosh 2x dx$$

$$399. \int e^x (\tan x + \sec^2 x) dx$$

$$400. \int \frac{\sqrt{x+1}}{x+5} dx$$

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

$$402. \int (1-\cos x) \sqrt{(1+\cos x)^2 + \sin^2 x} dx$$

$$403. \int \frac{x+3}{x^2+1} dx$$

$$404. \int \frac{4x^3-3x^2+2x-1}{x+1} dx$$

405.
$$\int \frac{1}{x^2 + x + 1} dx$$

406.
$$\int \frac{9}{(9 - x^2)^{\frac{3}{2}}} dx$$

407.
$$\int \frac{2}{x^3 - x} dx$$

408.
$$\int \frac{1}{\sqrt{x^2 + 36}} dx$$

409.
$$\int \frac{x^2}{\sqrt{1 - x^2}} dx$$

410.
$$\int \frac{\sqrt{x}}{x + 1} dx$$

411.
$$\int \frac{1}{9x^2 + 64} dx$$

412.
$$\int \frac{x}{\sqrt{x^2 + 1}} dx$$

413.
$$\int \frac{x^2}{\sqrt{x^2 + 1}} dx$$

414.
$$\int x^3 (1 - x^2)^{\frac{1}{2}} dx$$

415.
$$\int \sinh x \cosh x dx$$

416.
$$\int \frac{4^x + 2 \times 16^x}{1 + 16^x} dx + C$$

$$417. \int \frac{\sin x}{\cos x + \cos^3 x} dx$$

$$418. \int \sinh \sqrt{x} dx$$

$$419. \int \frac{\operatorname{sech} x}{\cosh x - \sinh x} dx$$

$$420. \int \frac{1 + \sin x}{1 - \sin x} dx$$

$$421. \int \frac{4}{(x^2 - 4)^{\frac{3}{2}}} dx$$

$$422. \int 4 \sinh\left(\frac{1}{4}x\right) dx$$

$$423. \int \frac{1 - \cos x}{1 + \cos x} dx$$

$$424. \int \frac{1}{5 + 4 \cos x} dx$$

$$425. \int \cosh^2 2x dx$$

$$426. \int \frac{1}{\sqrt{3 + 2x - x^2}} dx$$

$$427. \int \frac{1}{1 + \sin 2x} dx$$

$$428. \int \frac{588}{4x^2 + 49} dx$$

$$429. \int \frac{x+1}{x^2+9} dx$$

$$430. \int \sqrt{e^x-1} dx$$

$$431. \int \frac{\sqrt{e^x}}{\sqrt{e^x+e^{-x}}} dx$$

$$432. \int \sqrt{1-e^{2x}} dx$$

$$433. \int \frac{16}{(x^2+4)^{\frac{5}{2}}} dx$$

$$434. \int \sqrt{(1-x^2)^3} dx$$

$$435. \int \cosh x \arctan(\sinh x) dx$$

$$436. \int \sec x dx$$

$$437. \int \frac{1}{\sec x - 1} dx$$

$$438. \int \frac{\sin x}{1 - \tan x} dx$$

$$439. \int \frac{\cos x}{\cos^2 x + 4 \sin x - 5} dx$$

$$440. \int \frac{2 \cos x}{\cos x + \sin x} dx$$

$$441. \int \frac{18}{(\cos^2 x + 4 \sin x - 5) \cos x} dx$$

$$442. \int \frac{\tan x}{1 + \sin^2 x} dx$$

$$443. \int (x+1)e^{x+1} dx$$

$$444. \int \tan x \sec^4 x dx$$

$$445. \int \frac{4}{(1 - \sin x) \cos x} dx$$

$$446. \int \frac{x+2}{\sqrt{1-4x^2}} dx$$

$$447. \int \frac{4x+1}{\sqrt{4x^2-9}} dx$$

$$448. \int 8x \ln(2x+1) dx$$

$$449. \int \cos 3x \sin 6x dx$$

$$450. \int \frac{4}{3+5 \cos x} dx$$

$$451. \int \arctan x dx$$

$$452. \int \frac{4 \cot x}{1 + \cos^2 x} dx$$

$$453. \int \frac{18}{(x^2+9)^2} dx$$

$$454. \int e^x \cosh x dx$$

$$455. \int \frac{(x+1)^{\frac{3}{2}}}{x^2-x} dx$$

$$456. \int \frac{x^4}{(x^5-1)^{\frac{3}{2}}} dx$$

$$457. \int \frac{9}{e^x \sqrt{e^{2x}-9}} dx$$

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

$$459. \int \frac{1-3x^3}{\sqrt{1-x^2}} dx$$

$$460. \int \frac{8}{(1+x^2)^3} dx$$

$$461. \int \frac{x^4}{\sqrt{x^{10}-1}} dx$$

$$462. \int \frac{4}{e^x \sqrt{e^{2x}+4}} dx$$

$$463. \int \frac{2}{1+\sqrt[3]{x}} dx$$

464. $\int x \operatorname{arcosh} x \, dx$

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

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

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

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

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

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

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

472. $\int 4\coth^2 2x \, dx$

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

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

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

476.
$$\int \frac{\sqrt{x+2}}{\sqrt{x-1}} dx$$

477.
$$\int \frac{e^x}{\sqrt{e^{2x}-9}} dx$$

478.
$$\int x\sqrt{1-x^2} dx$$

479.
$$\int \frac{2^x}{\sqrt{1-4^x}} dx$$

480.
$$\int \frac{2}{\cos x \sin^3 x} dx$$

481.
$$\int \frac{1}{1+\sin x+\cos x} dx$$

482.
$$\int \frac{4e^{3x}}{1+e^{2x}} dx$$

483.
$$\int \frac{e^x}{\sqrt{9-e^{2x}}} dx$$

484.
$$\int \frac{\cos x}{\sqrt{1+\sin^2 x}} dx$$

485.
$$\int \frac{1}{(e^x+1)(e^x-1)} dx$$

486.
$$\int \frac{x^2}{(1-x^2)^{\frac{3}{2}}} dx$$

487.
$$\int \frac{1}{5 \cosh x + 4 \sinh x} dx$$

$$488. \int \frac{x+3}{\sqrt{4-x^2}} dx$$

$$489. \int \sqrt{\frac{1-\cos x}{1-\sin x}} dx$$

$$490. \int \frac{3\sin x - \cos x + 3}{\cos x + \sin x} dx$$

$$491. \int \frac{4x-1}{\sqrt{x^2+16}} dx$$

$$492. \int \frac{1}{4x^2+4x+2} dx$$

$$493. \int \frac{1}{1+8\sin^2 x} dx$$

$$494. \int \frac{1}{\sqrt{\sin x \cos^3 x}} dx$$

$$495. \int \frac{\sin x}{16+9\cos^2 x} dx$$

$$496. \int \sinh^4 x \coth x dx$$

$$497. \int \frac{5\cos x - \sin x}{3\cos x + 2\sin x} dx$$

$$498. \int \frac{3x-4}{x^2+2x+17} dx$$

$$499. \int \frac{x+4}{\sqrt{x^2+8x+3}} dx$$

$$500. \int \operatorname{arsinh}(\sqrt{x}) dx$$

$$501. \int \frac{1}{2x^2 + 7x + 3} dx$$

$$502. \int \frac{10 \sinh 2x}{\cosh^2 2x} dx$$

$$503. \int x \arctan x dx$$

$$504. \int \frac{\sin(\ln x)}{x^2} dx$$

$$505. \int \frac{x}{(x+1)(x^2+x+1)} dx$$

$$506. \int x(2^x) dx$$

$$507. \int e^{2x} \sinh x dx = \frac{1}{6}e^{3x} - \frac{1}{2}e^x + C$$

$$508. \int \frac{x^2}{(x^2+8)^{\frac{3}{2}}} dx$$

$$509. \int \ln(1+x^2) dx$$

$$510. \int \frac{\cosh 3x}{\sinh^2 3x} dx$$

$$511. \int \frac{4}{5-3\cos x} dx$$

$$512. \int \sinh^2 x dx$$

513.
$$\int \operatorname{sech}^2 4x \, dx$$

514.
$$\int \frac{1}{\sqrt{64+9x^2}} \, dx$$

515.
$$\int \frac{8}{\sqrt{16x^2-1}} \, dx$$

516.
$$\int \frac{1}{\sqrt{x} \cos^2 \sqrt{x}} \, dx$$

517.
$$\int \frac{6}{(1+\cos x)^2} \, dx$$

518.
$$\int \sin^3 x \sqrt{(\cos^2 x \sin x)^2 + (\sin^2 x \cos x)^2} \, dx$$

519.
$$\int \frac{3x^2-2x+5}{(x+3)^2} \, dx$$

520.
$$\int \frac{1}{\sqrt{x^2+x+1}} \, dx$$

521.
$$\int \frac{\sqrt{25-x^2}}{x} \, dx$$

522.
$$\int \frac{1}{\sqrt{5-4x-x^2}} \, dx$$

523.
$$\int e^x \sin x \, dx$$

$$524. \int \frac{2x^2 + 5x - 1}{x^3 + x^2 - 2x} dx$$

$$525. \int x^3 e^{x^2} \sin x \, dx$$

$$526. \int \frac{\tan \sqrt{x}}{\sqrt{x}} dx$$

$$527. \int \frac{x+2}{(x-2)^2 \sqrt{x}} dx$$

$$528. \int \frac{1}{\sqrt{1+e^x}} dx$$

$$529. \int \operatorname{cosec}^3 x \, dx$$

$$530. \int \frac{1}{e^{2x} - 3e^x} dx$$

$$531. \int \frac{\cosh x}{1 + \sinh x} dx$$

$$532. \int \frac{1}{6 \sinh 2x + 9 \cosh 2x} dx$$

$$533. \int \sqrt{1 + 4 \sinh^2 x \cosh^2 x} \, dx$$

$$534. \int \frac{\operatorname{arsinh} x}{\sqrt{x^2 + 1}} dx$$

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

$$536. \int \sqrt{x^2 + 4} \, dx$$

$$537. \int \frac{1}{4x^{\frac{1}{2}}(1+x^{\frac{1}{4}})} \, dx$$

$$538. \int \frac{6x^2}{\sqrt{1-4x^6}} \, dx$$

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

$$540. \int \frac{1}{\sqrt{4-x^2}} \, dx$$

$$541. \int \left(1 - \frac{1}{x}\right)^2 + \left(\frac{2}{\sqrt{x}}\right)^2 \, dx$$

$$542. \int \sqrt{x^2 - 4} \, dx$$

$$543. \int \frac{1}{x + \sqrt{x^2 + 1}} \, dx$$

$$544. \int \frac{1}{\sqrt{x^2 + 9}} \, dx$$

$$545. \int \frac{1}{\sqrt{x}\sqrt{1+\sqrt{x}}} \, dx$$

$$546. \int \frac{1}{x(1+x^2)^3} \, dx$$

$$547. \int \frac{\sin x \cos x}{\cos^2 x + 3 \cos x + 2} dx$$

$$548. \int \sin(\ln x) dx$$

$$549. \int -\sinh\left(\frac{1}{2}x\right) dx$$

$$550. \int (\cos x) [\ln(\sin x)] dx$$

$$551. \int \sqrt{1-x^2} dx$$

$$552. \int \frac{3}{x^2 - 4x + 13} dx$$

$$553. \int \frac{\sin x}{\cos^5 x} dx$$

$$554. \int 3 \tanh^2 x dx$$

$$555. \int \frac{1}{\sqrt{x^2 - 4x + 13}} dx$$

$$556. \int \frac{3}{\sqrt{4-x^4}} dx$$

$$557. \int \frac{1}{\sqrt{16x^2 - 9}} dx$$

$$558. \int \frac{4}{(4x - x^2)^{\frac{3}{2}}} dx$$

559. $\int \cosh \sqrt{x} \, dx$

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

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

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

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

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

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

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

567. $\int \frac{15}{4\cos x + 3\sin x} \, dx$

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

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

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

$$571. \int \frac{x^3}{1+x^8} dx$$

$$572. \int \ln(x + \sqrt{x}) dx$$

$$573. \int x \sin x \sin 2x dx$$

$$574. \int \frac{\cos x}{\sin x + 2 \cos x} dx$$

$$575. \int \sqrt{\frac{x-2}{4-x}} dx$$

$$576. \int \frac{\sinh^3 x}{\cosh^2 x} dx$$

$$577. \int \frac{\sec^2 x}{4 + \tan^2 x} dx$$

$$578. \int \frac{4x+5}{x^2+2x+2} dx$$

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

$$580. \int \frac{x^3}{x-2} dx$$

$$581. \int x^5 e^{x^3} dx$$

$$582. \int \frac{x^2-12x-6}{(x-3)(x^2+2)} dx$$

$$583. \int \sin x \sin^3\left(\frac{1}{2}x\right) dx$$

$$584. \int \frac{\cot x}{\sqrt{1-\cos 2x}} dx$$

$$585. \int \tan^5 x \sec x dx$$

$$586. \int \frac{2 \cosh x \sinh x}{1 + \cosh^4 x} dx$$

$$587. \int \frac{\cos^3 x}{\sin^2 x} dx$$

$$588. \int 5 \sin\left(\frac{1}{3}x\right) \sqrt{\cos\left(\frac{1}{6}x\right)} dx$$

$$589. \int \arcsin \sqrt{x} dx$$

$$590. \int \sqrt{x^2 + 2x + 2} dx$$

$$591. \int \frac{\cos x}{1 + \sin^2 x} dx$$

$$592. \int \frac{x^2 - 2x - 2}{1 - x^3} dx$$

$$593. \int \frac{3x^3 - 4x^2 + 5x - 2}{(x-1)(x^2+1)} dx$$

$$594. \int \frac{8x^2 - 29x - 10}{(x^2 - x - 2)^2} dx$$

$$595. \int \sqrt{\frac{1-x}{1+x}} dx$$

$$596. \int \frac{4 \tan x}{1 + \cos^2 x} dx$$

$$597. \int \frac{1}{x^2 \sqrt{x^2 - 1}} dx$$

$$598. \int \frac{1}{(x+1)\sqrt{x+2}} dx$$

$$599. \int \frac{1}{(x+6)(x-2)\sqrt{x+2}} dx$$

$$600. \int \frac{1}{(x^2 - 1)\sqrt{x}} dx$$

$$601. \int \frac{1}{(x^2 + 1)\sqrt{x^2 - 1}} dx$$

$$602. \int \frac{1}{(x+1)\sqrt{x^2 + 4x + 2}} dx$$

$$603. \int \sqrt{36 - x^2} dx$$

$$604. \int \frac{x+2}{(x^2 + 4x + 1)^{\frac{3}{2}}} dx$$

$$605. \int \sqrt{\frac{x}{1-4x}} dx$$

$$606. \int \frac{2}{1 + \sin x + 2 \cos x} dx$$

$$607. \int \frac{1}{2(x+1)\sqrt{x^2+x}} dx$$

$$608. \int \frac{\ln(2x-1)}{2x-1} dx$$

$$609. \int \cos(\ln x) dx$$

$$610. \int \arcsin x dx$$

$$611. \int \frac{1}{\sqrt{x^2-16}} dx$$

$$612. \int \frac{3x^4 + x^3 + 2x^2 + x - 2}{(x+1)x^5} dx$$

$$613. \int \frac{e^{\arcsin x}}{\sqrt{1-x^2}} dx$$

$$614. \int \sqrt{\frac{3+2\sqrt{x}}{4x}} dx$$

$$615. \int \frac{2x+1}{\sqrt{9-x^2}} dx$$

$$616. \int \frac{\sinh x}{\cosh x - 1} dx$$

$$617. \int \frac{1}{x\sqrt{1-x^2}} dx$$

$$618. \int \frac{1}{\sqrt{x^2 - 2x}} dx$$

$$619. \int \frac{3}{(4x+5)\sqrt{1-x^2-3(1-x^2)}} dx$$

$$620. \int \frac{1}{x^2\sqrt{4-x^2}} dx$$

$$621. \int \frac{\arcsin x}{\sqrt{1-x^2}} dx$$

$$622. \int \frac{3}{x\sqrt{3x^2+2x-1}} dx$$

$$623. \int \frac{3}{x\sqrt{x^2+2}} dx$$

$$624. \int \frac{1}{1+\sin^2 x} dx$$

$$625. \int \frac{\sin^2 x}{1+\cos^2 x} dx$$

$$626. \int \frac{2x}{\sqrt{x^4+1}} dx$$

$$627. \int \frac{1-x^2}{(1+x^2)^2} dx$$

$$628. \int \frac{x e^{2x^2}}{\sqrt{1+2e^{2x^2}}} dx$$

$$629. \int \frac{x^5 + x - 1}{x^3 + 1} dx$$

$$630. \int \sin^4 x \cos^4 x \, dx$$

$$631. \int \frac{2}{x\sqrt{x^4 - 1}} dx$$

$$632. \int \frac{2x}{\sqrt{x^4 - 1}} dx$$

$$633. \int \frac{\sin^6 x}{\cos^8 x} dx$$

$$634. \int \cot^2 3x \operatorname{cosec} 3x \, dx$$

$$635. \int \frac{6 \sinh x}{\sinh x + \cosh x} dx$$

$$636. \int (x^2 + x^{-4})^{-2} dx$$

$$637. \int \frac{12x - 1}{(6x^2 - x - 1)(6x^2 - x + 5) + 10} dx$$

$$638. \int \sqrt{\frac{x}{x-1}} dx$$

$$639. \int \frac{4x^3 - 12x^2 - 22x - 3}{(4-x)(x+1)} dx$$

$$640. \int x \ln(x^2 + 1) \, dx$$

$$641. \int \frac{x^4 + x^3 + 3x - 1}{x(x^2 + 1)^2} dx$$

$$642. \int \frac{6}{1+x^3} dx$$

$$643. \int \frac{2 \cos x}{\cos x - \sin x} dx$$

$$644. \int \sec^3 x dx$$

$$645. \int \frac{1}{x+x^4} dx$$

$$646. \int \frac{1}{x^2 + 8x + 17} dx$$

$$647. \int x^2 \cos^3 x dx$$

$$648. \int \frac{1}{\sqrt{16x^2 + 1}} dx$$

$$649. \int \frac{1}{2 + \cos x} dx$$

$$650. \int \frac{\sin x}{\sin\left(x + \frac{1}{4}\pi\right)} dx$$

$$651. \int \frac{1}{\tanh x + \tan x} dx$$

$$652. \int \frac{(2x+1)^2}{x(x+1)^4} dx$$

$$653. \int \frac{1}{x^2(1+x^4)^{\frac{3}{4}}} dx$$

$$654. \int \frac{1}{x(x-\sqrt{x^2-1})} dx$$

$$655. \int \frac{\sqrt{x^2-1}}{x} dx$$

$$656. \int \frac{(2+\tan^2 x)\sec^2 x}{1+\tan^3 x} dx$$

$$657. \int \frac{1+\sqrt{x+1}}{\sqrt[3]{x+1}+\sqrt{x+1}} dx$$

$$658. \int \operatorname{sech} x \, dx$$

$$659. \int \frac{2x-3}{\sqrt{x^2-9}} dx$$

$$660. \int \frac{1}{1+\tan x} dx$$

$$661. \int \frac{\sqrt{x}}{1-x^3} dx$$

$$662. \int \sqrt{2^x-1} \, dx$$

$$663. \int \frac{4\sin 3x}{(\cos 7x+\cos x)^2+(\sin 7x+\sin x)^2} dx$$

$$664. \int \frac{4x}{4+x^4} dx$$

$$665. \int \frac{12x^2}{(x^2-1)^2} dx$$

$$666. \int \frac{2x+x^2 \cot x}{x^2 + \operatorname{cosec} x} dx$$

$$667. \int \frac{1-\tan x}{1+\tan x} dx$$

$$668. \int \frac{\sqrt{\tan x}}{\sin 2x} dx$$

$$669. \int \frac{16}{(x^2+4)^2} dx$$

$$670. \int \operatorname{arcsec} x dx$$

$$671. \int \frac{x^2}{1-2\sqrt{x}} dx$$

$$672. \int \frac{1-x}{(1+x)^2 \sqrt{x}} dx$$

$$673. \int 2e^x \sqrt{e^{2x}-1} dx$$

$$674. \int \frac{1}{\sqrt{x} + \sqrt[3]{x}} dx$$

$$675. \int \frac{1}{\sqrt{1-\sin 2x}} dx$$

$$676. \int e^x (3 \sec^2 x + 2 \sec^2 x \tan x + 2 \tan x) dx$$

$$677. \int \sqrt[3]{\tan x} dx$$

$$678. \int \frac{x(2-3x)}{x^2 + e^{3x}} dx$$

$$679. \int \frac{(x+6)}{(x+2)^2} dx$$

$$680. \int \frac{9}{(4x^2 - 24x + 27)^{\frac{3}{2}}} dx$$

$$681. \int \frac{\sqrt{x-x^2}}{x^4} dx$$

$$682. \int \frac{16}{(x^2 - 2x + 5)^2} dx$$

$$683. \int \frac{\tanh x}{\operatorname{sech}^2 x - \tanh^2 x} dx$$

$$684. \int \frac{1}{x\sqrt{x^2 + x + 4}} dx$$

$$685. \int \frac{x}{(5-4x-x^2)^{\frac{3}{2}}} dx$$

$$686. \int (1-x^2)^{\frac{5}{2}} dx$$

$$687. \int \frac{x}{x^4 + x^2 + 1} dx$$

$$688. \int \frac{8}{(x^2 + 1)^3} dx$$

$$689. \int \frac{1 + \cos x}{\sin^2 x} dx$$

$$690. \int \frac{x^4 - 1}{x^2 \sqrt{x^4 + 1}} dx$$

$$691. \int \frac{x + 9}{(x^2 + 2x + 2)^3} dx$$

$$692. \int \frac{\sec^2 x - 1}{\sec^3 x + \tan^3 x} dx$$

$$693. \int \tan x \sec 2x dx$$

$$694. \int \frac{5 \cos x}{(2 + \sin x)(3 + 4 \sin x)} dx$$

$$695. \int \frac{x^2 + 3x + 3}{(x + 1)^3} (e^{-x} \sin x) dx$$

$$696. \int \frac{\sin^6 x + \cos^6 x}{\sin^2 x \cos^2 x} dx$$

$$697. \int \frac{3 \sin^2 x \cos^2 x}{(\cos^3 x - \sin^3 x)^2} dx$$

$$698. \int \frac{\sin^8 x - \cos^8 x}{1 - \frac{1}{2} \sin^2 2x} dx$$

$$699. \int 12x^2 \arctan x dx$$

$$700. \int \sqrt{\tan x} dx$$

$$701. \int \frac{\cot^3 x}{1 + 2 \cot^2 x + 2 \cot^4 x} dx$$

$$702. \int (2x^2 + 1)e^{x^2} dx$$

$$703. \int \left(1 + x - \frac{1}{x}\right) e^{x + \frac{1}{x}} dx$$

$$704. \int \frac{1}{\cos^6 x + \sin^6 x} dx$$

$$705. \int \sqrt{e^x - 1} dx$$

$$706. \int \frac{1}{\sqrt{e^x - 1}} dx$$

$$707. \int \frac{1}{x^4 + 3x^2 + 2} dx$$

$$708. \int x \arccos \left[\frac{1 - x^2}{1 + x^2} \right] dx$$

$$709. \int 2x^2 \sec^2 x \tan x dx$$

$$710. \int \ln(\sqrt{x} + \sqrt{x+1}) dx$$

$$711. \int \frac{3\sin x + 4\cos x}{2\sin x - \cos x} dx$$

$$712. \int \frac{4}{x\sqrt{x^4+1}} dx$$

$$713. \int \frac{(3x^2+5x)\sqrt{x}}{(x+1)^2} dx$$

$$714. \int \frac{4}{(x^2-4)^{\frac{3}{2}}} dx$$

$$715. \int \frac{1}{(1-x)\sqrt{1-2x}} dx$$

$$716. \int \sqrt{\tan x} - \sqrt{\cot x} dx$$

$$717. \int \sqrt{(1+x)(5-x)} dx$$

$$718. \int \sqrt[3]{\frac{8}{x} + \frac{8}{x^3}} dx$$

$$719. \int \frac{1-x}{\sqrt{x}(x+1)^2} dx$$

$$720. \int 24 \sin x \sin 2x \sin 3x dx$$

$$721. \int \frac{\sec^2 x}{\sqrt{\sec x + \tan x}} dx$$

$$722. \int \ln(\ln x) + \frac{1}{(\ln x)^2} dx$$

$$723. \int \sqrt{(2x+5)(2x-3)} dx$$

$$724. \int \frac{3x}{x - \sqrt{x^2 - 1}} dx$$

$$725. \int \frac{(x^2 + 1)e^x}{(x + 1)^2} dx$$

$$726. \int \frac{(x + 3)\sqrt{x}}{(x + 1)^2} dx$$

$$727. \int \frac{x^2 + 2}{(2\cos x + x\sin x)^2} dx$$

$$728. \int \frac{[\ln(x^2 + 1) - 2\ln x]\sqrt{x^2 + 1}}{x^4} dx$$

$$729. \int \frac{\arcsin \sqrt{x} - \arccos \sqrt{x}}{\arcsin \sqrt{x} + \arccos \sqrt{x}} dx$$

$$730. \int \frac{e^{3x}(6x - 5)}{(2x - 1)^2} dx$$

$$731. \int \frac{1 - 2x}{x^{\frac{2}{3}}(x + 1)^4} dx$$

$$732. \int \frac{1}{x^4 + 1} dx$$

$$733. \int \frac{x^2}{(x \cos x - \sin x)^2} dx$$

$$734. \int \frac{1}{x^6 + 1} dx$$

$$735. \int \frac{x^2 + 1}{x^4 - x^2 + 1} dx$$

$$736. \int \frac{x^2 \arctan x}{1 + x^2} dx$$

$$737. \int \frac{x}{1 + x^4} dx$$

$$738. \int \frac{1}{1 - \cot x} dx$$

$$739. \int \frac{\sin(x^{-2})}{x^5} dx$$

$$740. \int 3^{\ln x} dx$$

$$741. \int \tan^5 x dx$$

$$742. \int \tan^3 x \sec^3 x dx$$

$$743. \int \sec x \operatorname{cosec}^3 x dx$$

$$744. \int \frac{\cos x}{\cos 2x} dx$$

$$745. \int \sec^6 x dx$$

746.
$$\int \frac{\ln x}{\sqrt[3]{x}} dx$$

747.
$$\int 4x\sqrt{x^4+1} dx$$

748.
$$\int \frac{1}{x[1+3\sin^2(\ln x)]} dx$$

749.
$$\int \ln[2x+\sqrt{4x^2-1}] dx$$

750.
$$\int \ln(x^2-1) dx$$

751.
$$\int \frac{e^x \sqrt{e^x-1}}{e^x-2} dx$$

752.
$$\int \frac{1}{x^2\sqrt{x^2+1}} dx$$

753.
$$\int \frac{\sqrt{x^2+4}}{x^2} dx$$

754.
$$\int \frac{1+\cos x}{1-\cos x} dx$$

755.
$$\int \tan x \ln(\sec x) dx$$

756.
$$\int \frac{\arctan x}{x^2} dx$$

757.
$$\int \frac{\sin x \cos x + x \ln x}{x \cos^2 x} dx$$

$$758. \int \frac{x^2(x^4+1)}{\sqrt[4]{x^4+2}} dx$$

$$759. \int \sqrt{1+\tan x} dx$$

$$760. \int \sqrt{x+\sqrt{x^2+1}} dx$$

$$761. \int \cos(4\arcsin x) dx$$

$$762. \int \cos x \operatorname{artanh}(\cos x) dx$$

$$763. \int \frac{\cos x \sin x}{\cos^2 x + \sin^2 x} dx$$

$$764. \int \frac{1}{x^7 - x} dx$$

$$765. \int \frac{1}{\sqrt{x^8 - x^3}} dx$$

$$766. \int \frac{\sqrt{1-x}}{1-\sqrt{x}} dx$$

$$767. \int \frac{\operatorname{sech}^4 x \tanh x}{1 - \operatorname{sech}^4 x} dx$$

$$768. \int \frac{1 - \sqrt{\arcsin x}}{\sqrt{1-x^2} \arcsin x} dx$$

$$769. \int \frac{2e^{2x} + e^x}{e^{4x} + 2e^{3x} + e^{2x} + 1} dx$$

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

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

772. $\int \sin 2x \sin(\sin x) dx$

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

