

Created by T. Madas

# INTEGRATION

## MIX

(WITHOUT ANSWERS)

Created by T. Madas

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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



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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

179. 
$$\int \frac{3x}{1+\sqrt{x}} dx$$

180. 
$$\int \frac{x}{9x^2+1} dx$$

181. 
$$\int \frac{2}{x+\sqrt[3]{x}} dx$$

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

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

184. 
$$\int \frac{10x^2-23x+11}{(2-3x)(2x-1)^2} dx$$

185. 
$$\int 2\sin 2x \cos^2 x dx$$

186. 
$$\int \sin x \sin 3x dx$$

187. 
$$\int \frac{\sec x}{\sec x - \tan x} dx$$

188. 
$$\int x \cos 5x dx$$

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



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

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

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

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

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

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

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

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

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

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

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

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

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

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

220. 
$$\int \frac{\sin 2x}{1+\cos x} dx$$

221. 
$$\int \frac{4}{3(2x+1)} dx$$

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

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

224. 
$$\int \frac{1}{3} \sin 2x - \frac{1}{2} \cos 3x dx$$

225. 
$$\int \frac{3x}{\sqrt{4-2x^2}} dx$$

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

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

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

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

$$230. \int x^2 \cos\left(\frac{1}{3}x\right) dx$$

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

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

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

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

$$235. \int \frac{x^2-2}{x^2-1} dx$$

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

$$237. \int \frac{\sec x}{\cos x - \sin x} dx$$

$$238. \int \frac{1}{1+\sqrt{x-1}} dx$$

$$239. \int \frac{6x^2}{2x^{\frac{3}{2}}-1} dx$$

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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



292. 
$$\int \sqrt[3]{x\sqrt{\frac{1}{x}}} dx$$

293. 
$$\int \frac{\tan x}{\sec x - \tan x} dx$$

294. 
$$\int \frac{8(x^2+1)}{(x-3)(x+1)^2} dx$$

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

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

297. 
$$\int \frac{3x^3+5x}{x^2+1} dx$$

298. 
$$\int \frac{2x+6}{x^2+6x+1} dx$$

299. 
$$\int \frac{1}{x(x-2)} dx$$

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

301. 
$$\int \frac{\cos 2x}{\cos^2 x} dx$$

302. 
$$\int \frac{\tan x}{\sqrt{1+\cos 2x}} dx$$

303. 
$$\int \sec^3 x \tan x dx$$

304. 
$$\int \cos^2 x \sin^2 x dx$$

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

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

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

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

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

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

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

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

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

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

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

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

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

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

322.  $\int \cot 2x dx$

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

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

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

326.  $\int 2^x dx$

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

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

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

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

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

$$332. \int \frac{1}{x(1+x^2)} dx$$

$$333. \int \frac{\sqrt{x}}{\sqrt{x}-1} dx$$

$$334. \int \frac{x^2+2x-2}{x^2-2x+2} dx$$

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

$$336. \int \sin^3 x \sin 2x dx$$

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

$$338. \int \frac{2x^{\frac{1}{4}}+1}{4x^{\frac{5}{4}}+4x} dx$$

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

$$340. \int \sec x \tan^3 x dx$$

$$341. \int e^{e^x+x} dx$$

$$342. \int \frac{\ln(x-1)}{\sqrt{x}} dx$$

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

344. 
$$\int \frac{e^{\sqrt{x}}}{\sqrt{x}} dx$$

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

346. 
$$\int x^2 e^{-x} dx$$

347. 
$$\int e^x \cos x dx$$

348. 
$$\int \frac{5^{2x}}{5^{2x}+3} dx$$

349. 
$$\int \frac{4x^2 - x + 1}{(x-1)(2x-1)} dx$$

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

351. 
$$\int \frac{1}{(x-1)\sqrt{x^2-1}} dx$$

352. 
$$\int \frac{x-2}{x^2-4x-2} dx$$

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

354. 
$$\int \frac{\cos x + \tan x}{1 + \tan^2 x} dx$$

355. 
$$\int \frac{4}{(4+x^2)^{\frac{3}{2}}} dx$$

356. 
$$\int \frac{(x+1)^2}{x^2+1} dx$$

357. 
$$\int \frac{4x^3\sqrt{x^4+1}}{1+\sqrt{x^4+1}} dx$$

358. 
$$\int (\ln x)^2 dx$$

359. 
$$\int \frac{\sqrt{\sqrt{x}+1}}{\sqrt{x}} dx$$

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

361. 
$$\int \sqrt{\sin^2 x + (\cos x - 1)^2} dx$$

362. 
$$\int x(\sin x + \cos x) dx$$

363. 
$$\int \left(\frac{1}{x^2} + \frac{1}{x^3}\right) e^{\frac{1}{x}} dx$$

364. 
$$\int \sqrt{18\cos x \sin 2x} dx$$

365. 
$$\int \frac{\cos x}{(\cos x + \sin x)^3} dx$$

366. 
$$\int \frac{\sec^4 x}{\sqrt{\tan x}} dx$$

$$367. \int \frac{\sqrt{x}}{1-\sqrt{x}} dx$$

$$368. \int x(\sec^2 x - \operatorname{cosec}^2 x) dx$$

$$369. \int \frac{4x^2 + 4x}{\sqrt{2x+1}} dx$$

$$370. \int -2x \tan^2 x dx$$

$$371. \int 4x \cos^2 2x dx$$

$$372. \int \cos x (6 \sin x - 2 \sin 3x)^{\frac{2}{3}} dx$$

$$373. \int \frac{20x}{4-x^2} dx$$

$$374. \int \frac{1-x}{1-\sqrt{x}} dx$$

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

$$376. \int \sqrt{x^2 - x^4} dx$$

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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



392. 
$$\int \frac{4x^2}{4x^2+1} dx$$

393. 
$$\int e^{\cos x} \sin x \cos x dx$$

394. 
$$\int \sin x (9 - 4 \cos^2 x)^{\frac{1}{2}} dx$$

395. 
$$\int \frac{4}{(\cos x + 2 \sin x)^2} dx$$

396. 
$$\int (1 - \cos x) \sqrt{\sin^2 x + (\cos x + 1)^2} dx$$

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

398. 
$$\int \frac{1}{\sqrt{x+1} + \sqrt{x-1}} dx$$

399. 
$$\int \cosh 2x dx$$

400. 
$$\int e^x (\tan x + \sec^2 x) dx$$

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

402. 
$$\int \frac{\sqrt{x+1}}{x+5} dx$$

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

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

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

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

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

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

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

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

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

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

417.  $\int \sinh \sqrt{x} \, dx$

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

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

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

421.  $\int \cosh^2 2x \, dx$

422.  $\int 4 \sinh 3x \, dx$

423.  $\int \sinh x \cosh x \, dx$

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

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

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

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

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

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

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

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

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

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

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

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

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

455. 
$$\int \frac{8}{\sqrt{16x^2 - 1}} dx$$

456. 
$$\int \frac{1}{\sqrt{x} \cos^2 \sqrt{x}} dx$$

457. 
$$\int \frac{6}{(1 + \cos x)^2} dx$$

458. 
$$\int \sin^3 x \sqrt{(\cos^2 x \sin x)^2 + (\sin^2 x \cos x)^2} dx$$

459. 
$$\int \frac{3x^2 - 2x + 5}{(x+3)^3} dx$$

460. 
$$\int \frac{\sqrt{25 - x^2}}{x} dx$$

461. 
$$\int \frac{1}{\sqrt{x^2 + x + 1}} dx$$

462. 
$$\int e^x \sin x dx$$

463. 
$$\int \frac{2x^2 + 5x - 1}{x^3 + x^2 - 2x} dx$$

464. 
$$\int \frac{1}{\sqrt{5 - 4x - x^2}} dx$$

465. 
$$\int \frac{x+2}{\sqrt{x}(x-2)^2} dx$$

466. 
$$\int x^3 e^{x^2} dx$$

$$467. \int \frac{1}{\sqrt{1+e^x}} dx$$

$$468. \int \frac{1}{e^{2x}-3e^x} dx$$

$$469. \int \operatorname{cosec}^3 x dx$$

$$470. \int \frac{\tan \sqrt{x}}{\sqrt{x}} dx$$

$$471. \int \frac{\cosh x}{1+\sinh x} dx$$

$$472. \int \frac{1}{6\sinh 2x+9\cosh 2x} dx$$

$$473. \int \sqrt{1+4\sinh^2 x \cosh^2 x} dx$$

$$474. \int \frac{\operatorname{arsinh} x}{\sqrt{x^2+1}} dx$$

$$475. \int \frac{x}{\sqrt{x^2+1}} dx$$

$$476. \int \sqrt{x^2+4} dx$$

$$477. \int \frac{1}{4x^{\frac{1}{2}}(1+x^{\frac{1}{4}})} dx$$

$$478. \int \frac{6x^2}{\sqrt{1-4x^6}} dx$$

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

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

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

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

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

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

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

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

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

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

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

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



491.  $\int 3 \tanh^2 x \, dx$

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

508.  $\int \log_2 x dx$

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

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

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

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

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

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

515. 
$$\int \frac{\sinh^3 x}{\cosh^2 x} dx$$

516. 
$$\int \frac{\sec^2 x}{4 + \tan^2 x} dx$$

517. 
$$\int \frac{1}{(x-2)^{\frac{1}{2}}(4-x)^{\frac{1}{2}}} dx$$

518. 
$$\int \frac{4x+5}{x^2+2x+2} dx$$

519. 
$$\int \frac{x^3}{x-2} dx$$

520. 
$$\int \frac{x^2-12x-6}{(x-3)(x^2+2)} dx$$

521. 
$$\int x^5 e^{x^3} dx$$

522. 
$$\int \frac{x^3}{1+x^8} dx$$

523. 
$$\int \sin x \sin^3\left(\frac{x}{2}\right) dx$$

524. 
$$\int \frac{\cot x}{\sqrt{1-\cos 2x}} dx$$

525. 
$$\int \tan^5 x \sec x dx$$

526. 
$$\int \frac{2 \cosh x \sinh x}{1 + \cosh^4 x} dx$$

527. 
$$\int \frac{\cos^3 x}{\sin^2 x} dx$$

528. 
$$\int \arcsin \sqrt{x} dx$$

529. 
$$\int \frac{8x^2 - 29x - 10}{(x^2 - x - 2)^2} dx$$

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

531. 
$$\int \sqrt{x^2 + 2x + 2} dx$$

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

533. 
$$\int \frac{\cos x}{1 + \sin^2 x} dx$$

534. 
$$\int \sqrt{\frac{1-x}{1+x}} dx$$

535. 
$$\int 5 \sin\left(\frac{x}{3}\right) \sqrt{\cos\left(\frac{x}{6}\right)} dx$$

536. 
$$\int \frac{4 \cot x}{1 + \cos^2 x} dx$$

537. 
$$\int \frac{1}{(x+1)\sqrt{x+2}} dx$$

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

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

540. 
$$\int \frac{16}{(x+6)(x-2)\sqrt{x+2}} dx$$

541. 
$$\int \frac{16}{(x^2+1)\sqrt{x^2-1}} dx$$

542. 
$$\int \frac{1}{(x+1)\sqrt{x^2+4x+2}} dx$$

543. 
$$\int \frac{x+2}{(x^2+4x+1)^{\frac{3}{2}}} dx$$

544. 
$$\int \sqrt{36-x^2} dx$$

545. 
$$\int \sqrt{\frac{x}{1-4x}} dx$$

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

547. 
$$\int \cos(\ln x) dx$$

548. 
$$\int \frac{\ln(2x-1)}{2x-1} dx$$

549. 
$$\int \frac{(x+1)^{\frac{3}{2}}}{x^2-x} dx$$

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

$$551. \int \frac{8}{(1+x^2)^3} dx$$

$$552. \int \frac{1-3x^3}{\sqrt{1-x^2}} dx$$

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

$$554. \int \arcsin x dx$$

$$555. \int \arctan x dx$$

$$556. \int x \operatorname{arcosh} x dx$$

$$557. \int e^x \cosh x dx$$

$$558. \int \frac{1}{\sqrt{x^2 - 16}} dx$$

$$559. \int \frac{1}{\sqrt{1-x-x^2}} dx$$

$$560. \int \frac{18}{(x^2 + 9)^2} dx$$

$$561. \int \frac{2}{1 + \sqrt[3]{x}} dx$$

$$562. \int \frac{x^4}{(x^5 - 1)^{\frac{3}{2}}} dx$$

$$563. \int \frac{x^4}{\sqrt{x^{10} - 1}} dx$$

$$564. \int \frac{1}{x^2 - 4} dx$$

$$565. \int 4 \coth^2 2x dx$$

$$566. \int \sqrt[3]{3 \sin 2x - 2 \sin 3x \cos x} dx$$

$$567. \int \frac{\arctan x}{1 + x^2} dx$$

$$568. \int \frac{e^{\arcsin x}}{\sqrt{1 - x^2}} dx$$

$$569. \int \sqrt{\frac{1+x}{1-x}} dx$$

$$570. \int (x^3 + 5x^2 - 2)e^{2x} dx$$

$$571. \int \frac{4}{x^3 + 2x} dx$$

$$572. \int \frac{3x^4 + x^3 + 2x^2 + x - 2}{(x+1)x^5} dx$$

$$573. \int \frac{25}{25 + x^2} dx$$

$$574. \int \frac{1}{\sqrt{25-9x^2}} dx$$

$$575. \int \frac{1}{x\sqrt{x^2-2}} dx$$

$$576. \int \frac{x^2}{\sqrt{x^2-16}} dx$$

$$577. \int \frac{2x+1}{\sqrt{9-x^2}} dx$$

$$578. \int \frac{1}{x\sqrt{1-x^2}} dx$$

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

$$580. \int \frac{1}{x\sqrt{3x^2+2x-1}} dx$$

$$581. \int \frac{3}{(4x+5)\sqrt{1-x^2}-3(1-x^2)} dx$$

$$582. \int \frac{1}{\sqrt{x^2-2x}} dx$$

$$583. \int x\sqrt{1-x^2} dx$$

$$584. \int \sqrt{\frac{2\sqrt{x}+3}{4x}} dx$$



$$585. \int \frac{\sinh x}{\cosh x - 1} dx$$

$$586. \int \frac{\arcsin x}{\sqrt{1-x^2}} dx$$

$$587. \int \frac{2^x}{\sqrt{1-4^x}} dx$$

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

$$589. \int \frac{4e^{3x}}{1+e^{2x}} dx$$

$$590. \int \frac{e^x}{\sqrt{9-e^{2x}}} dx$$

$$591. \int \frac{e^x}{\sqrt{e^{2x}-9}} dx$$

$$592. \int \sqrt{\frac{x+2}{x-1}} dx$$

$$593. \int \frac{x+3}{\sqrt{4-x^2}} dx$$

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

$$595. \int \frac{1}{1+\sin x + \cos x} dx$$

$$596. \int \frac{2}{\sin^3 x \cos x} dx$$

$$597. \int \frac{1}{5 \cosh x + 4 \sinh x} dx$$

$$598. \int \frac{\cos x}{\sqrt{1 + \sin^2 x}} dx$$

$$599. \int \sqrt{\frac{1 - \cos x}{1 + \sin x}} dx$$

$$600. \int \frac{4x - 1}{\sqrt{x^2 + 16}} dx$$

$$601. \int \frac{1}{4x^2 + 4x + 2} dx$$

$$602. \int \frac{4x + 7}{\sqrt{2x^2 + 7x + 3}} dx$$

$$603. \int \frac{1}{2x^2 + 7x + 3} dx$$

$$604. \int 10 \tanh 2x \operatorname{sech} 2x dx$$

$$605. \int \sinh^3 x \cosh x dx$$

$$606. \int \frac{1}{\sqrt{\sin x \cos^3 x}} dx$$

$$607. \int \frac{\sin x}{16 + 9 \cos^2 x} dx$$

$$608. \int \frac{1}{1 + 8 \sin^2 x} dx$$

$$609. \int \frac{5 \cos x - \sin x}{3 \cos x + 2 \sin x} dx$$

$$610. \int \frac{3 + 3 \sin x - \cos x}{\sin x + \cos x} dx$$

$$611. \int x \arctan x dx$$

$$612. \int \operatorname{arsinh}(\sqrt{x}) dx$$

$$613. \int \frac{x}{(x+1)(x^2+x+1)} dx$$

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

$$615. \int \frac{x^2}{(x^2+8)^{\frac{3}{2}}} dx$$

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

$$617. \int \frac{4x^3 - 12x^2 - 22x - 3}{(4-x)(2x+1)} dx$$

$$618. \int \ln(1+x^2) dx$$

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

$$620. \int \frac{\sin(\ln x)}{x^2} dx$$

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

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

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

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

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

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

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

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

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

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

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

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

633. 
$$\int \frac{1}{x(x - \sqrt{x^2 - 1})} dx$$

634. 
$$\int \frac{(2 + \tan^2 x) \sec^2 x}{1 + \tan^3 x} dx$$

635. 
$$\int \frac{2x - 3}{\sqrt{x^2 - 9}} dx$$

636. 
$$\int \frac{\sqrt{x^2 - 1}}{x} dx$$

637. 
$$\int \frac{1}{x^2 + 8x + 17} dx$$

638. 
$$\int \frac{\sqrt{x+1} + 1}{\sqrt[3]{x+1} + \sqrt{x+1}} dx$$

639. 
$$\int \sqrt{2^x - 1} dx$$

640. 
$$\int \frac{4 \sin 3x}{(\cos 7x + \cos x)^2 + (\sin 7x + \sin x)^2} dx$$

641. 
$$\int \operatorname{sech} x dx$$

642. 
$$\int \operatorname{arcsec} x dx$$

643. 
$$\int \frac{4x}{4 + x^4} dx$$

644. 
$$\int \frac{12x^2}{(x^2-1)^2} dx$$

645. 
$$\int \frac{1}{\sqrt{16x^2+1}} dx$$

646. 
$$\int \frac{1-x}{\sqrt{x}(x+1)^2} dx$$

647. 
$$\int \frac{x^2}{1-2\sqrt{x}} dx$$

648. 
$$\int \frac{16}{(x^2+4)^2} dx$$

649. 
$$\int \frac{(x+6)\sqrt{x}}{(x+2)^2} dx$$

650. 
$$\int \frac{9}{(4x^2-24x+27)^{\frac{3}{2}}} dx$$

651. 
$$\int 2e^x \sqrt{e^{2x}-1} dx$$

652. 
$$\int \frac{\sqrt{x-x^2}}{x^4} dx$$

653. 
$$\int \frac{1}{\sqrt{1-\sin 2x}} dx$$

654. 
$$\int \frac{1}{\sqrt{x}+\sqrt[3]{x}} dx$$

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

656. 
$$\int \frac{2x+x^2 \cot x}{x^2+\operatorname{cosec} x} dx$$

657. 
$$\int \frac{x}{(5-4x-x^2)^{\frac{3}{2}}} dx$$

658. 
$$\int e^x (3\sec^2 x + 2\sec^2 x \tan x + 2 \tan x) dx$$

659. 
$$\int (1-x^2)^{\frac{5}{2}} dx$$

660. 
$$\int \frac{x(2-3x)}{e^{3x}+x^2} dx$$

661. 
$$\int \frac{x}{x^4+x^2+1} dx$$

662. 
$$\int \frac{1+\cos x}{\sin^3 x} dx$$

663. 
$$\int \frac{16}{(x^2-2x+5)^2} dx$$

664. 
$$\int \frac{8}{(x^2+1)^3} dx$$

665. 
$$\int \frac{8}{(x^2+x+2)^3} dx$$

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

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

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