

1.  $\int (2 - 3\sqrt{3}x)^2 dx;$
2.  $\int \frac{\sqrt{x} + \sqrt[3]{x}}{\sqrt[4]{x}} dx;$
3.  $\int \left(\frac{1+x}{x}\right)^2 dx;$
4.  $\int \left(\frac{1}{x} + \frac{2}{x^2} + \frac{3}{x^3}\right) dx;$
5.  $\int \frac{(1+x)^3}{x^2} dx;$
6.  $\int \frac{x^2}{1-x^2} dx;$
7.  $\int \frac{4-x^2}{3+x^2} dx;$
8.  $\int \frac{1}{(x^2+1)(x^2-3)} dx;$
9.  $\int \frac{1}{x^4-1} dx;$
10.  $\int \frac{1+2x^2}{x^2(1+x^2)} dx;$
11.  $\int \frac{(1+x)^2}{x(1+x^2)} dx;$
12.  $\int \frac{\sqrt{1+x^2} + \sqrt{1-x^2}}{\sqrt{1-x^4}} dx;$
13.  $\int \frac{\sqrt{x^2+1} - \sqrt{x^2-1}}{\sqrt{x^4-1}} dx;$
14.  $\int \frac{1}{2x^2+3} dx;$
15.  $\int \frac{1}{3x^2-7} dx;$
16.  $\int \frac{1}{\sqrt{2-x^2}} dx;$
17.  $\int \frac{1}{\sqrt{2x^2+5}} dx;$
18.  $\int \frac{1}{\sqrt{3x^2-7}} dx;$
19.  $\int (5^x - 2^x)^2 dx;$
20.  $\int \frac{2^{2x-1} - 3^{2x+3}}{6^{2x}} dx;$
21.  $\int 2^x 3^x 5^x dx;$
22.  $\int \frac{2^x 3^{2x} 4^{3x}}{5^x 6^{2x}} dx;$
23.  $\int \frac{e^{3x}-1}{e^x-1} dx;$
24.  $\int \frac{2^{2x}-1}{\sqrt{2^x}} dx;$
25.  $\int \sin^2 \frac{x}{2} dx;$
26.  $\int \cos^2 \frac{x}{2} dx;$
27.  $\int \frac{1}{\sin^2 x \cos^2 x} dx;$
28.  $\int \frac{\cos(2x)}{\sin^2(2x)} dx;$
29.  $\int \operatorname{ctg}^2 x dx;$
30.  $\int \operatorname{tg}^2 x dx;$
31.  $\int \sqrt{1+\sin(2x)} dx; , \quad x \in (0, \frac{\pi}{2})$
32.  $\int (2\operatorname{ch}x - 3\operatorname{sh}x) dx;$
33.  $\int \operatorname{th}^2 x dx;$
34.  $\int \frac{1}{x-1} dx;$
35.  $\int \frac{1}{2x+3} dx;$
36.  $\int \frac{1}{(x+2)(x+3)} dx;$
37.  $\int \frac{x+3}{(x+2)(x-1)} dx;$
38.  $\int \frac{2+x}{1+x} dx;$
39.  $\int \frac{x}{1+2x} dx;$
40.  $\int (x-1)^{10} dx;$
41.  $\int (2x+5)^{17} dx;$
42.  $\int \frac{1}{(1-3x)^{30}} dx;$
43.  $\int \frac{1}{\sqrt{1-2x}} dx;$
44.  $\int \frac{1}{\sqrt[5]{(1+3x)^4}} dx;$
45.  $\int \sqrt[15]{1+4x} dx;$

46.  $\int x(x-2)^5 dx;$
47.  $\int x\sqrt{1-2x}dx;$
48.  $\int (x+2)\sqrt{x-2}dx;$
49.  $\int \frac{2x-7}{\sqrt{1+3x}}dx;$
50.  $\int \frac{x^2+1}{x+1}dx;$
66.  $\int \frac{1}{x(\ln x + 3)}dx;$
67.  $\int \frac{1}{x(2 + \ln^2 x)}dx;$
68.  $\int \frac{\sqrt[3]{\ln^2 x}}{x}dx;$
69.  $\int \frac{e^x + e^{2x}}{1 - e^x}dx;$
70.  $\int \frac{e^x}{1 + e^x}dx;$
51.  $\int \frac{x^2+1}{2x-1}dx;$
52.  $\int (2x+3)^2(1-x)^8dx;$
53.  $\int \frac{x-4}{\sqrt{x^2-2}}dx;$
54.  $\int \frac{x^3}{x^2-4}dx;$
55.  $\int \frac{x}{\sqrt{1-x^4}}dx;$
71.  $\int \sin(5x)dx;$
72.  $\int \cos \frac{x}{7}dx;$
73.  $\int \cos(ax)\sin(bx)dx; , \quad a \neq \pm b$
74.  $\int \cos(ax)\cos(bx)dx; , \quad a \neq \pm b$
75.  $\int \sin(ax)\sin(bx)dx; , \quad a \neq \pm b$
56.  $\int \frac{3x-1}{\sqrt{x^2+4}}dx;$
57.  $\int \frac{x+2}{\sqrt{x^2-10}}dx;$
58.  $\int \frac{1-4x}{\sqrt{1-2x^2}}dx;$
59.  $\int x\sqrt{1-x^2}dx;$
60.  $\int x(1-x^2)^5dx;$
76.  $\int \sin^2 x \cos(ax)dx; , \quad a \neq \pm 2, \quad a \neq 0$
77.  $\int \cos^3 x \sin(bx)dx; , \quad b \neq \pm 1, \quad b \neq \pm 3$
78.  $\int x \sin x^2 dx;$
79.  $\int \frac{\cos \sqrt{x}}{\sqrt{x}}dx;$
80.  $\int \frac{\cos x}{1+\sin x}dx;$
81.  $\int \sin^2 x dx;$
82.  $\int \cos^2 x dx;$
83.  $\int (\sin x + 2 \cos x)^2 dx;$
84.  $\int e^x \cos e^x dx;$
85.  $\int \frac{\cos x}{1+\cos^2 x}dx;$
86.  $\int \frac{1}{\sin^2(7x)}dx;$
87.  $\int \frac{1}{\cos^2(8x)}dx;$
88.  $\int \frac{1}{\sin(3x)}dx;$
89.  $\int \frac{1}{\cos x}dx;$
90.  $\int \operatorname{tg} x dx;$

91.  $\int \operatorname{ctg} x dx;$   
 92.  $\int \frac{1}{1 + \cos x} dx;$   
 93.  $\int \frac{1}{\sin x + \cos x} dx;$   
 94.  $\int \frac{1 + \cos x}{(x + \sin x)^3} dx;$   
 95.  $\int \frac{\sin(2x)}{\sqrt{1 - 4 \sin^2 x}} dx;$   
 96.  $\int \frac{\sin x}{\sqrt{2 - \sin^2 x}} dx;$   
 97.  $\int \frac{1}{\cos^2 x (1 + \operatorname{tg} x)} dx;$   
 98.  $\int \frac{1}{\sin^2 x (1 + \operatorname{tg} x)} dx;$   
 99.  $\int \frac{\sin x \cos x}{\sqrt{3 - \sin^4 x}} dx;$   
 100.  $\int \frac{\operatorname{arcctg}(3x)}{1 + 9x^2} dx;$   
 101.  $\int \frac{x + \sqrt{\operatorname{arctg}(2x)}}{1 + 4x^2} dx;$   
 102.  $\int \frac{\arcsin x - \arccos x}{\sqrt{1 - x^2}} dx;$   
 103.  $\int \frac{x + \arcsin^3(2x)}{\sqrt{1 - 4x^2}} dx;$   
 104.  $\int \frac{x + \arccos^{3/2} x}{\sqrt{1 - x^2}} dx;$   
 105.  $\int (\operatorname{sh} x - \operatorname{ch} x)^2 dx;$   
 106.  $\int \frac{1}{\operatorname{sh}^2 x \operatorname{ch}^2 x} dx;$   
 107.  $\int x \sin x dx;$   
 108.  $\int x \cos^2 x dx;$   
 109.  $\int x \sin^3 x dx;$   
 110.  $\int \frac{x}{\cos^2 x} dx;$   
 111.  $\int x \operatorname{ctg}^2 x dx;$   
 112.  $\int \frac{x \sin x}{\cos^2 x} dx;$   
 113.  $\int \ln^2 x dx;$   
 114.  $\int \frac{\ln x}{x^2} dx;$   
 115.  $\int x^2 \ln(1 + x) dx;$   
 116.  $\int x \ln \left(1 + \frac{1}{x}\right) dx;$   
 117.  $\int \frac{x^2}{(1 + x^2)^2} dx;$   
 118.  $\int \sqrt{2 - x^2} dx;$   
 119.  $\int \sqrt{x^2 + 3} dx;$   
 120.  $\int \operatorname{arctg} x dx;$   
 121.  $\int \arccos x dx;$   
 122.  $\int x^2 \operatorname{arctg} x dx;$   
 123.  $\int x \arcsin x dx;$   
 124.  $\int \frac{3 + 2x^2}{1 + x^2} \operatorname{arctg} x dx;$   
 125.  $\int e^{ax} \sin(bx) dx;$   
 126.  $\int \cos^2(\ln x) dx;$   
 127.  $\int \frac{\ln(\cos x)}{\cos^2 x} dx;$   
 128.  $\int x \arccos \frac{1}{x} dx;$   
 129.  $\int \sin^4 x dx;$   
 130.  $\int \sin^4 x \cos^2 x dx;$   
 131.  $\int \cos^6 x dx;$   
 132.  $\int \sin^2 x \cos^3 x dx;$   
 133.  $\int \sin^7 x dx;$   
 134.  $\int \frac{1}{\cos^3 x} dx;$   
 135.  $\int \frac{\sin^3 x}{\cos^5 x} dx;$

136.  $\int \frac{\cos^2 x}{\sin^4 x} dx;$   
 137.  $\int \frac{\sin^4 x}{\cos x} dx;$   
 138.  $\int \frac{\cos^7 x}{\sin^3 x} dx;$   
 139.  $\int \frac{1}{\cos^5 x} dx;$   
 140.  $\int \frac{1}{\sin^6 x} dx;$   
  
 141.  $\int \operatorname{ctg}^4 x dx;$   
 142.  $\int \frac{\sin^2 x}{\cos^3 x} dx;$   
 143.  $\int \frac{1}{\sin^3 x \cos^4 x} dx;$   
 144.  $\int \operatorname{ctg}^5 x dx;$   
 145.  $\int \frac{1}{\sin^2 x \cos^4 x} dx;$   
  
 146.  $\int x^2 \sqrt{a^2 + x^2} dx;$   
 147.  $\int x^2 \sqrt{a^2 - x^2} dx;$   
 148.  $\int x^2 \sqrt{x^2 - a^2} dx;$   
 149.  $\int \frac{x^2}{(a^2 - x^2)^{3/2}} dx;$   
 150.  $\int \frac{x^4}{(x^2 + a^2)^2} dx;$   
  
 151.  $\int dx (3 - x^2)^3;$   
 152.  $\int dx (1 - x)(1 - 2x)(1 - 3x);$   
 153.  $\int dx \left(\frac{1-x}{x}\right)^2;$   
 154.  $\int dx \frac{x+1}{\sqrt{x}};$   
 155.  $\int dx (1 - \frac{1}{x^2}) \sqrt{x \sqrt{x}};$   
  
 156.  $\int dx \frac{\sqrt{x^4 + x^{-4} + 2}}{x^3};$   
 157.  $\int dx \frac{x^2}{1+x^2};$   
 158.  $\int dx \frac{x^2}{1-x^2};$   
 159.  $\int dx \frac{\sqrt{1+x^2} + \sqrt{1-x^2}}{\sqrt{1-x^4}};$   
 160.  $\int dx \frac{\sqrt{x^2+1} - \sqrt{x^2-1}}{\sqrt{x^4-1}};$   
  
 161.  $\int dx (2^x + 3^x)^2;$   
 162.  $\int dx a^x e^x;$   
 163.  $\int dx \frac{3 \cdot 2^x - 2 \cdot 3^x}{2^x};$   
 164.  $\int dx \frac{e^{3x} + 1}{e^x + 1};$   
 165.  $\int dx (1 + \sin x + \cos x);$   
  
 166.  $\int dx (a \sinh x + b \cosh x);$   
 167.  $\int dx (a \arcsin x + b \arccos x);$   
 168.  $\int dx \tan^2 x;$   
 169.  $\int dx \cot^2 x;$   
 170.  $\int dx \frac{1 + \cos^2 x}{1 + \cos 2x};$   
  
 171.  $\int dx \frac{(1+x)^2}{x(1+x^2)};$   
 172.  $\int dx \frac{1}{(a+bx)^c};$   
 173.  $\int dx \frac{\sqrt[5]{1-2x+x^2}}{1-x};$   
 174.  $\int dx (\cos \alpha - \cos 2x);$   
 175.  $\int dx (e^{-x} + e^{-2x});$   
  
 176.  $\int dx (\tan x + \cot x);$   
 177.  $\int \frac{dx}{1+\cos x};$   
 178.  $\int \frac{dx}{1-\cos x};$   
 179.  $\int \frac{dx}{1+\sin x};$   
 180.  $\int \frac{dx}{\cosh^2(x/2)};$

181.  $\int \frac{dx}{\sinh^2(x/2)};$   
 182.  $\int \frac{xdx}{\sqrt{a^2 - x^4}};$   
 183.  $\int dx \frac{1}{x^2} \sin \frac{1}{x};$   
 184.  $\int dx xe^{-x^2};$   
 185.  $\int \frac{dx}{e^x + e^{-x}};$   
  
 186.  $\int dx \frac{\ln^2 x}{x};$   
 187.  $\int \frac{dx}{x \ln x \ln(\ln x)};$   
 188.  $\int dx \frac{\sin x}{\sqrt{\cos 2x}};$   
 189.  $\int dx \frac{\cos x}{\sqrt{\cos 2x}};$   
 190.  $\int dx \sqrt{\frac{\ln(x + \sqrt{1 + x^2})}{1 + x^2}};$   
  
 191.  $\int dx \frac{x^2 + 1}{x^2 - 1};$   
 192.  $\int dx \sqrt{\frac{1 - x}{1 + x}};$   
 193.  $\int dx \frac{x^2 - 1}{x^4 + 1};$   
 194.  $\int dx \frac{x^{n/2}}{\sqrt{1 + x^{n+2}}};$   
 195.  $\int dx \frac{1}{1 - x^2} \ln \frac{1 + x}{1 - x};$   
  
 196.  $\int dx \frac{\sin x \cos x}{\sin^4 + \cos^4};$   
 197.  $\int dx \frac{1 + x}{1 - x};$   
 198.  $\int dx \frac{x^2}{1 + x};$   
 199.  $\int dx \frac{x^2}{(1 - x)^{100}};$   
 200.  $\int \frac{dx}{\sqrt{x + 1} + \sqrt{x - 1}};$   
  
 201.  $\int \frac{dx}{x^2 + x - 2};$   
 202.  $\int \frac{dx}{(x^2 + 1)(x^2 + 2)};$   
 203.  $\int dx \frac{x}{x^4 + 3x^2 + 2};$   
 204.  $\int \frac{dx}{(x + a)^2(x + b)^2}, \quad a \neq b;$   
 205.  $\int \frac{dx}{(x^2 + a^2)(x^2 + b^2)}, \quad a^2 \neq b^2;$   
  
 206.  $\int dx \sin(2x - \frac{\pi}{6}) \cos(3x + \frac{\pi}{6});$   
 207.  $\int dx x^2 \sqrt[3]{1 - x};$   
 208.  $\int \frac{dx}{e^{x/2} + e^x};$   
 209.  $\int dx \frac{\arctan \sqrt{x}}{\sqrt{x}} \frac{1}{1 + x};$   
 210.  $\int dx \frac{x^5}{\sqrt{1 - x^2}};$   
  
 211.  $\int \frac{dx}{(x^2 + a^2)^{3/2}};$   
 212.  $\int \frac{dx}{\sqrt{(x - a)(b - x)}};$   
 213.  $\int dx \sqrt{(x - a)(b - x)};$   
 214.  $\int \frac{dx}{\sqrt{(x + a)(b + x)}};$   
 215.  $\int dx \sqrt{(x + a)(b + x)};$   
  
 216.  $\int dx \sqrt{\frac{a + x}{a - x}};$   
 217.  $\int dx e^{\sqrt{x}};$   
 218.  $\int dx \sin \sqrt[3]{x};$   
 219.  $\int dx \frac{e^{\sqrt{x}}}{\sqrt{x}};$   
 220.  $\int dx \frac{\sin x}{e^{\cos x}};$   
  
 221.  $\int dx \ln x;$   
 222.  $\int dx x^n \ln x, \quad n \neq -1;$   
 223.  $\int dx \left(\frac{\ln x}{x}\right)^2;$   
 224.  $\int dx \sqrt{x} \ln^2 x;$   
 225.  $\int dx x e^{-x};$   
  
 226.  $\int dx x \sinh x;$   
 227.  $\int dx x^2 \sin 2x;$   
 228.  $\int dx x \cos x;$   
 229.  $\int dx x^3 e^{-x^2};$   
 230.  $\int dx x^2 e^{-2x};$

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|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>231. <math>\int dx x^3 \cosh 3x;</math></p> <p>232. <math>\int dx \arctan x;</math></p> <p>233. <math>\int dx \arcsin x;</math></p> <p>234. <math>\int dx x \arctan x;</math></p> <p>235. <math>\int dx x^2 \arccos x;</math></p>                                                    | <p>256. <math>\int dx \frac{\ln(\sin x)}{\sin^2 x};</math></p> <p>257. <math>\int dx \frac{\arctan e^x}{e^x};</math></p> <p>258. <math>\int dx \frac{x}{\cos^2 x};</math></p> <p>259. <math>\int dx xe^x(x+1)^2;</math></p> <p>260. <math>\int dx x \sin^2 x;</math></p>                                                                              |
| <p>236. <math>\int dx \frac{\arcsin x}{x^2};</math></p> <p>237. <math>\int dx \ln(x + \sqrt{1+x^2});</math></p> <p>238. <math>\int dx x \ln \frac{1+x}{1-x};</math></p> <p>239. <math>\int dx \arctan \sqrt{x};</math></p> <p>240. <math>\int dx \sin x \ln(\tan x);</math></p>         | <p>261. <math>\int \frac{dx}{a^2+x^2}, \quad a \neq 0;</math></p> <p>262. <math>\int \frac{dx}{a^2-x^2}, \quad a \neq 0;</math></p> <p>263. <math>\int \frac{xdx}{a^2 \pm x^2};</math></p> <p>264. <math>\int \frac{dx}{\sqrt{a^2-x^2}}, \quad a &gt; 0;</math></p> <p>265. <math>\int \frac{dx}{\sqrt{x^2 \pm a^2}}, \quad a &gt; 0;</math></p>      |
| <p>241. <math>\int dx x^5 e^{x^2};</math></p> <p>242. <math>\int dx (\arcsin x)^2;</math></p> <p>243. <math>\int dx x^2 \ln \frac{1-x}{1+x};</math></p> <p>244. <math>\int dx x(\arctan x)^2;</math></p> <p>245. <math>\int dx \frac{x \ln(x + \sqrt{1+x^2})}{\sqrt{1+x^2}};</math></p> | <p>266. <math>\int dx \sqrt{a^2-x^2}, \quad a &gt; 0;</math></p> <p>267. <math>\int dx \sqrt{x^2 \pm a^2}, \quad a &gt; 0;</math></p> <p>268. <math>\int \frac{dx}{a+bx^2}, \quad ab \neq 0;</math></p> <p>269. <math>\int \frac{dx}{x^2-x+2};</math></p> <p>270. <math>\int dx \frac{x+1}{x^2+x+1};</math></p>                                       |
| <p>246. <math>\int dx \frac{x^2}{(1+x^2)^2};</math></p> <p>247. <math>\int dx x^2 \sqrt{a^2+x^2};</math></p> <p>248. <math>\int dx \frac{e^{\arctan x}}{(1+x^2)^{3/2}};</math></p> <p>249. <math>\int dx \sin(\ln x);</math></p> <p>250. <math>\int dx \cos(\ln x);</math></p>          | <p>271. <math>\int \frac{xdx}{x^2-2x \cos \alpha + 1};</math></p> <p>272. <math>\int \frac{x^3 dx}{x^4-x^2+2};</math></p> <p>273. <math>\int \frac{dx}{3 \sin^2 x - 8 \sin x \cos x + 5 \cos^2 x};</math></p> <p>274. <math>\int \frac{dx}{\sin x + 2 \cos x + 3};</math></p> <p>275. <math>\int \frac{dx}{\sqrt{a+bx^2}}, \quad b \neq 0;</math></p> |
| <p>251. <math>\int dx e^{ax} \cos(bx);</math></p> <p>252. <math>\int dx e^{ax} \sin(bx);</math></p> <p>253. <math>\int dx e^{2x} \sin^2(bx);</math></p> <p>254. <math>\int dx (e^x - \cos x)^2;</math></p> <p>255. <math>\int dx \frac{\arctan e^x}{e^x};</math></p>                    | <p>276. <math>\int \frac{x}{\sqrt{5+x-x^2}} dx;</math></p> <p>277. <math>\int \frac{x+1}{\sqrt{s^2+x+1}} dx;</math></p> <p>278. <math>\int \frac{1}{x\sqrt{x^2+x+1}} dx;</math></p> <p>279. <math>\int \frac{1}{x^2\sqrt{x^2+x+1}} dx;</math></p> <p>280. <math>\int \frac{1}{(x+2)^2\sqrt{x^2+2x-5}} dx;</math></p>                                  |

$$281. \int \sqrt{2+x-x^2} dx;$$

$$282. \int \sqrt{2+x+x^2} dx;$$

$$283. \int \frac{x+2}{x^2+2x+2} dx;$$

$$284. \int \frac{x-3}{\sqrt{x^2+2x+2}} dx;$$

$$285. \int \frac{3x-1}{4x^2-4x+17} dx;$$

$$286. \int \frac{\sqrt{x}}{\sqrt{2x+3}} dx;$$

$$287. \int \sqrt{\frac{a-x}{x-b}} dx;$$

$$288. \int \frac{1}{1-\sin(3x)} dx;$$

$$289. \int \frac{\sin(2x)}{4-\cos^2(2x)} dx;$$

$$290. \int \frac{1}{e^x+1} dx;$$

$$291. \int \frac{1+\operatorname{tg}x}{1-\operatorname{tg}x} dx;$$

$$292. \int \frac{1}{\sqrt{3}\cos x + \sin x} dx;$$

$$293. \int \frac{\sin x}{1+\sin x} dx;$$

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

$$295. \int \frac{\ln(\ln x)}{x} dx;$$

$$296. \int \frac{\sqrt{(x^2-a^2)^5}}{x} dx;$$

$$297. \int \frac{1}{x^4\sqrt{x^2+4}} dx;$$

$$298. \int \frac{\sqrt[3]{x}}{x(\sqrt{x}+\sqrt[3]{x})} dx;$$

$$299. \int \frac{x^7}{(1-x^2)^5} dx;$$

$$300. \int \frac{\ln(x+1)-\ln x}{x(x+1)} dx;$$