

- 268**  $\int \frac{\ln^3 x}{x} dx$   $\left[ \frac{\ln^4 x}{4} + c \right]$
- 269**  $\int \frac{3 \sin x - 2 \cos x}{4} dx$   $\left[ -\frac{3}{4} \cos x - \frac{1}{2} \sin x + c \right]$
- 270**  $\int \left( \frac{2}{\cos^2 x} - \frac{1}{\sin^2 x} \right) dx$   $[2 \tan x + \cot x + c]$
- 271**  $\int \frac{2 \cos x + \sin 2x}{\cos x} dx$   $[2x - 2 \cos x + c]$
- 272**  $\int \left( \frac{1}{\sqrt{x}} - \frac{1}{\sqrt{1-x^2}} \right) dx$   $[2\sqrt{x} - \arcsin x + c]$
- 273**  $\int \frac{\cos x + \sin x}{\sin x - \cos x} dx$   $[\ln |\sin x - \cos x| + c]$
- 274**  $\int \frac{1}{x\sqrt{1-\ln^2 x}} dx$   $[\arcsin \ln x + c]$
- 275**  $\int \frac{\cos \sqrt{x}}{\sqrt{x}} dx$   $[2 \sin \sqrt{x} + c]$
- 276**  $\int \frac{e^{\sqrt{2x+1}}}{\sqrt{2x+1}} dx$   $[e^{\sqrt{2x+1}} + c]$
- 277**  $\int \frac{\cos x}{2 - \cos^2 x} dx$   $[\arctan \sin x + c]$
- 278**  $\int \frac{1}{(1+x^2) \arctan x} dx$   $[\ln |\arctan x| + c]$
- 279**  $\int (2 \tan^2 x - 1) dx$   $[2 \tan x - 3x + c]$
- 280**  $\int (x^2 + 1) \sin(x^3 + 3x) dx$   $\left[ -\frac{\cos(x^3 + 3x)}{3} + c \right]$
- 281**  $\int \frac{e^{x+1}}{3 + e^x} dx$   $[e \cdot \ln(3 + e^x) + c]$
- 282**  $\int \frac{1-x^2}{1+x^2} dx$   $[2 \arctan x - x + c]$
- 283**  $\int \frac{9x-3}{x^2+1} dx$   $\left[ \frac{9}{2} \ln(x^2+1) - 3 \arctan x + c \right]$
- 284**  $\int \frac{(\sin x - \cos x)^2}{\cos^2 x} dx$   $[\tan x + 2 \ln |\cos x| + c]$
- 285**  $\int x^2 \sin(x^3 - 1) dx$   $\left[ -\frac{1}{3} \cos(x^3 - 1) + c \right]$
- 286**  $\int \frac{4^{1+2x}}{8^x} dx$   $\left[ \frac{4}{\ln 2} 2^x + c \right]$
- 287**  $\int (2x-1)^8 dx$   $\left[ \frac{(2x-1)^9}{18} + c \right]$
- 288**  $\int \frac{x}{\sin^2 x^2} dx$   $\left[ -\frac{1}{2} \cot x^2 + c \right]$
- 289**  $\int \frac{x}{\sqrt{x^2-9}} dx$   $[\sqrt{x^2-9} + c]$
- 290**  $\int \frac{e^{\sqrt{x}-4}}{\sqrt{x}} dx$   $[2e^{\sqrt{x}-4} + c]$
- 291**  $\int \frac{x^3}{\sqrt{1-x^8}} dx$   $\left[ \frac{1}{4} \arcsin x^4 + c \right]$
- 292**  $\int (\cos x - \cos^3 x) dx$   $\left[ \frac{\sin^3 x}{3} + c \right]$
- 293**  $\int \frac{\arcsin x}{4\sqrt{1-x^2}} dx$   $\left[ \frac{1}{8} \arcsin^2 x + c \right]$
- 294**  $\int \frac{\cos x}{9 + \sin^2 x} dx$   $\left[ \frac{1}{3} \arctan \frac{\sin x}{3} x + c \right]$
- 295**  $\int \cos 2x \cos x dx$   $\left[ \sin x - \frac{2}{3} \sin^3 x + c \right]$
- 296**  $\int \frac{dx}{x(1+4\ln^2 x)}$   $\left[ \frac{\arctan(2 \ln x)}{2} + c \right]$
- 297**  $\int \frac{\ln x + 1}{x \ln^2 x} dx$   $\left[ \ln |\ln x| - \frac{1}{\ln x} + c \right]$
- 298**  $\int \frac{e^{1+\sqrt{6x}}}{\sqrt{x}} dx$   $\left[ \frac{\sqrt{6}}{3} \cdot e^{1+\sqrt{6x}} + c \right]$
- 299**  $\int \sin^5 x dx$   $\left[ -\cos x - \frac{\cos^5 x}{5} + \frac{2 \cos^3 x}{3} + c \right]$
- 300**  $\int \frac{4x+x^3}{\sqrt{1-x^4}} dx$   $\left[ 2 \arcsin x^2 - \frac{1}{2} \sqrt{1-x^4} + c \right]$
- 301**  $\int \frac{\sin 2x}{4+4 \sin^2 x} dx$   $\left[ \frac{\ln(\sin^2 x + 1)}{4} + c \right]$
- 302**  $\int (\cos^2 x + \cos 2x) dx$   $\left[ \frac{1}{2} x + \frac{3 \sin 2x}{4} + c \right]$
- 303**  $\int \frac{1}{5+e^x} dx$   $\left[ \frac{1}{5} x - \frac{1}{5} \ln(5+e^x) + c \right]$
- 304**  $\int \frac{x^4-16}{1+x^2} dx$   $\left[ \frac{x^3}{3} - x - 15 \arctan x + c \right]$
- 305**  $\int (\tan x + 1)^2 dx$   $[\tan x - 2 \cdot \ln |\cos x| + c]$
- 306**  $\int \frac{e^{\frac{1}{x^2}}}{x^3} dx$   $\left[ -\frac{e^{\frac{1}{x^2}}}{2} + c \right]$
- 307**  $\int \frac{1}{25+4x^2} dx$   $\left[ \frac{1}{10} \arctan \frac{2x}{5} + c \right]$
- 308**  $\int \sin x \sec x dx$   $[-\ln |\cos x| + c]$
- 309**  $\int \frac{1}{\sqrt{16-9x^2}} dx$   $\left[ \frac{1}{3} \arcsin \frac{3x}{4} + c \right]$
- 310**  $\int 6^{2 \sin x + 1} \cos x dx$   $\left[ \frac{3 \cdot 6^{2 \sin x}}{\ln 6} + c \right]$