

## Integrate These

1 $\int \sec^2(2x) dx$	2 $\int \frac{1}{\sqrt{1+2x}} dx$	3 $\int e^{3x} dx$	4 $\int xe^x dx$
5 $\int \frac{1}{1+2x} dx$	6 $\int \frac{x+2}{x} dx$	7 $\int \frac{1}{1+\sqrt{x}} dx$	8 $\int a^x dx$
9 $\int \sin x \cos^2(x) dx$	10 $\int \cos^2 x dx$	11 $\int \frac{1}{x^2 - 4} dx$	12 $\int \cot x dx$
13 $\int_0^{\frac{3}{2}} \sqrt{9-x^2} dx$	14 $\int x^2 \ln x dx$	15 $\int \ln(3x) dx$	16 $\int \frac{4x-1}{(2x-1)^5} dx$

## Integrate These – Answers

1 $\frac{\tan(2x)}{2}$	2 $\sqrt{1 + 2x}$	3 $\frac{1}{3}e^{3x}$	4 $xe^x - e^x$
5 $\frac{1}{2}\ln 1 + 2x $	6 $x + 2\ln x $	7 $2(1 + \sqrt{x} - \ln 1 + \sqrt{x} )$	8 $\frac{a^x}{\ln a }$
9 $-\frac{\cos^3(x)}{3}$	10 $\frac{x}{2} + \frac{\sin(2x)}{4}$	11 $\frac{\ln x - 2  - \ln x + 2 }{4}$	12 $\ln \sin x $
13 $\frac{9\sqrt{3}}{8} + \frac{3\pi}{4}$	14 $\frac{x^3 \ln x}{3} - \frac{x^3}{9}$	15 $x \ln 3x  - x$	16 $\frac{-1}{3(2x - 1)^3} - \frac{1}{8(2x - 1)}$