

## Integrals - u Substitutions

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

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

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

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

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

6.  $\int \frac{\ln x}{x} dx$

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

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

9.  $\int (x + 3)^3 dx$

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

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

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

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

14.  $\int x \sqrt{x + 2} dx$

15.  $\int (3x + 2)^9 dx$

16.  $\int \frac{\cos \sqrt{x}}{\sqrt{x}} dx$

17.  $\int x(x - 1)^5 dx$

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

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

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