

## Integration by Substitution

Evaluate each indefinite integral and check your result by differentiation.

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

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

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

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

5.  $\int x \sin(x^2) dx$

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

7.  $\int x\sqrt[3]{8-x^2} dx$

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

9.  $\int \frac{\sin x}{\cos x} dx$

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