



## Examples 8.6 – Integration by Substitution

1. Evaluate  $\int 3x^2 \cos(x^3) dx$ .

**Solution:**

2. Evaluate  $\int 9x^4 \sqrt{1+4x^5} dx$ .

**Solution:**

3. Evaluate the definite integral  $\int_0^3 \frac{x+1}{x^2+2x+2} dx$ .

**Solution:** Method 1:

Method 2: