

Integrate each of the following.

1.  $\int x(4x + 3)^5 dx =$  \_\_\_\_\_

2.  $\int x(x^2 - 5)^6 dx =$  \_\_\_\_\_

3.  $\int \frac{x dx}{\sqrt{5x - 1}} =$  \_\_\_\_\_

4.  $\int x \sqrt{2x + 7} dx =$  \_\_\_\_\_

5.  $\int \cos^2(3x) dx =$  \_\_\_\_\_

6.  $\int \sin^5(3x) dx =$  \_\_\_\_\_

## Calculus Worksheet #7 Unit 9 page 2

Integrate each of the following.

7.  $\int \csc^4(5x - 3) dx =$  \_\_\_\_\_

8.  $\int \tan^2(4x) dx =$  \_\_\_\_\_

9.  $\int \frac{xdx}{\sqrt{4-x^2}} =$  \_\_\_\_\_

10.  $\int \frac{dx}{\sqrt{1-4x^2}} =$  \_\_\_\_\_

11.  $\int \frac{x^2 dx}{\sqrt{1-x^2}} =$  \_\_\_\_\_

12.  $\int \frac{dx}{4x^2+1} =$  \_\_\_\_\_