

Integrate each of the following.

1.  $\int (x^2 + 6x - 1) dx =$  \_\_\_\_\_

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

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

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

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

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

7.  $\int x^2(1 - x^3)^4 dx =$  \_\_\_\_\_

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

9.  $\int x(x^2 + 1)^3 dx =$  \_\_\_\_\_

10.  $\int (2x - 7)^4 dx =$  \_\_\_\_\_

11.  $\int (2x + 3)(x^2 + 3x - 5)^5 dx =$  \_\_\_\_\_

12.  $\int (x - 2)(x^2 - 4x + 1)^3 dx =$  \_\_\_\_\_

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Integrate each of the following.

13.  $\int \frac{dx}{(x+5)^4} =$  \_\_\_\_\_

14.  $\int \frac{dx}{(3x-2)^2} =$  \_\_\_\_\_

15.  $\int \sqrt{x+3} \, dx =$  \_\_\_\_\_

16.  $\int \sqrt{3x-5} \, dx =$  \_\_\_\_\_

17.  $\int \frac{x dx}{(x^2-3)^3} =$  \_\_\_\_\_

18.  $\int \frac{x^2 dx}{(1-2x^3)^4} =$  \_\_\_\_\_

19.  $\int \frac{dx}{\sqrt{2x-3}} =$  \_\_\_\_\_

20.  $\int \frac{x dx}{\sqrt{x^2+9}} =$  \_\_\_\_\_