Integrate each of the following. Some can be integrated as a power function ( $\int u^n du$ ). You will need to use algebraic substitution on the others.

1. 
$$\int x(x-5)^4 dx =$$
\_\_\_\_\_ 2.  $\int x(2x+1)^3 dx =$ \_\_\_\_\_

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

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

Integrate each of the following. Some can be integrated as a power function ( $\int u^n du$ ). You will need to use algebraic substitution on the others.

5. 
$$\int \sqrt{3x-2} \, dx =$$
 \_\_\_\_\_ 6.  $\int x \sqrt{5x^2+1} \, dx =$  \_\_\_\_\_

$$7. \qquad \int_X \sqrt{2x+3} \, \mathrm{d}x = \_$$

$$8. \quad \int \frac{x \, dx}{\sqrt{4x-5}} = \underline{\qquad}$$