

Name: \_\_\_\_\_

Complete as many of the following problems as you can with your table in the allotted time.  
You do not have to go in order.

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

2. Evaluate  $\int 10e^{10x} dx$

3. Evaluate  $\int x^4(x^5 + 6)^9 dx$

4. Evaluate  $\int \cos^3 x \sin x dx$

5. Evaluate  $\int \frac{x}{\sqrt{x+1}} dx$

6. Evaluate  $\int_0^2 \frac{dx}{(x+3)^3}$

7. Evaluate  $\int_2^3 \frac{x^2}{x^3 - 7} dx$

8. Evaluate  $\int_0^{\pi/2} \sin^4 x \cos x dx$

Key:

1.  $\frac{(2x+1)^4}{4} + C$

3.  $\frac{1}{50}(x^5 + 6)^{10} + C$

5.  $\frac{2}{3}(x+1)^{1/2}(x-2) + C$

7.  $\frac{1}{3} \ln 20$

2.  $e^{10x} + C$

4.  $-\frac{\cos^4 x}{4} + C$

6.  $\frac{8}{225}$

8.  $\frac{1}{5}$