AP CALCULUS FLASH CARDS

Basic Integrals

Prepared by G. Battaly for my Calc students

Instructions for Using the Flash Cards:

1. Cut along the horizontal lines only.

2. Fold along the vertical lines. This will result in a "flash card" with the term on one side and the definition or equivalent expression on the other. You may choose to tape or glue this paper card to a 3×5 card.

3. Use the flash cards at least 10 minutes a day. If you know the word or expression, put it away for this session. If you don't know it, put it at the back of the stack and do it again.

4. Work with another student or by yourself.

5. You may work at school, at home, on the bus or train, or any place where you can pull the cards out. Every time you use them you will be working towards a good grade on the Calc exam.

 $\int 0 dx$ C $\int \csc u \cot u du$ $-\csc u + C$ $\int kf(u)du$ $k \int f(u) du$ $\int f(u)du \pm \int g(u)du$ $\int [f(u) \pm g(u)] du$ $\frac{u^{n+1}}{n+1} + C, n \neq -1$ $\int u^n du$

∫cos <i>udu</i>	sin <i>u</i> + C
∫sin <i>udu</i>	$-\cos u + C$
$\int \sec^2 u du$	tan <i>u</i> + C
$\int \sec u \tan u du$	sec <i>u</i> + C
$\int \csc^2 u du$	-cot <i>u</i> + C

$$\int du \qquad u + C$$

$$\int \frac{du}{u} \qquad \ln |u| + C$$

$$\int e^{u} du \qquad e^{u} + C$$

$$\int \frac{du}{\sqrt{a^{2} - u^{2}}} \qquad \arcsin \frac{u}{a} + C$$

$$\int \frac{du}{a^{2} + u^{2}} \qquad \frac{1}{a} \arctan \frac{u}{a} + C$$