

TABLE OF INTEGRALS:

$$1. \int f(x) + g(x) dx = \int f(x) dx + \int g(x) dx$$

$$2. \int af(x) dx = a \int f(x) dx \quad \text{"a" = a constant}$$

$$3. \int u^n du = \frac{u^{n+1}}{n+1} + C$$

$$4. \int u dv = uv - \int v du \quad \text{(Integration by Parts)}$$

$$5. \int \sin u du = -\cos u + C$$

$$6. \int \cos u du = \sin u + C$$

$$7. \int \tan u du = -\ln|\cos u| + C$$

$$8. \int \cot u du = \ln|\sin u| + C$$

$$9. \int \sec u du = \ln|\sec u + \tan u| + C$$

$$10. \int \csc u du = -\ln|\csc u + \cot u| + C$$

$$11. \int (\sec u)(\tan u) du = \sec u + C$$

$$12. \int (\cot u)(\csc u) du = -\csc u + C$$

$$13. \int \sec^2 u du = \tan u + C$$

$$14. \int \csc^2 u du = -\cot u + C$$

$$15. \int \frac{du}{u} = \ln|u| + C$$

$$16. \int e^u du = e^u + C$$

If you are having difficulty understanding these rules or any other rules in mathematics, call Michael Ragusa at **703-691-2730**, E-mail him at **mathdepot@peoplepc.com**, or visit his website: **www.mathdepot.com**. You'll be glad you did!