Calculus Sections 4.1 Particular Solutions for Integrals
-Use basic integration rules to find antiderivatives.
-Find a particular solution of an integral.

Homework: Page 251 #’s 35-42, 51, 52

The constant of integration, C, must be included any time we integrate. This is because the antiderivative is a family of solutions varying by the constant of integration. In order to find an actual value for C, you must know an **initial condition** so that your antiderivative isn’t a general solution (with +C) but a **particular solution** where the constant of integration is known.

**Example)**Find the particular solution that satisfies the initial condition f(1) = 0 for $f '(x)=\frac{1}{x^{2}}, x>0.$

Find the particular solution given the following conditions: .