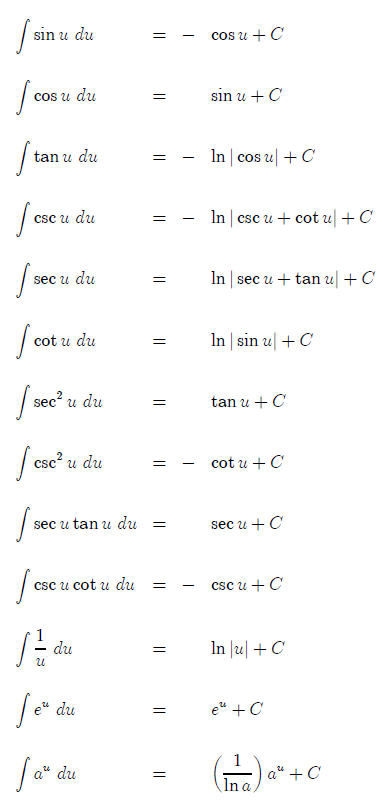
Integral operation

Some common Integrals



An Integral is the area under a curve and the Integrals is often referred to as the inverse of a derivative. The notation of the integral that is commonly use is written as

Where it is read as “ the integration of a function with respect to . The respect to comes from the of the integral notation. This means that only the integration ( more explanation below) of the function is done by using the values. In this case, if any part of the function does not have a variable x it is treated as constant (integration of a constant is the variable, more on this later).

One of the fundamental operations of an Integral is

The above only works if is not equal to one. The that was added on is called the constant of integration. The is an arbitrary constant value that only appears in an integration that is implicit ( implicit meaning that the integral does not have any bounds).

Example

Solve

If the above example is an explicit integral with the boundary conditions of 1 to 5, solve the integration.

Solve