In[11]:= **gauss[x_] = Exp[- (x - μ) ^2 / (2 * σ * σ)]**
Integrate[gauss[x], x]

Out[11]= $e^{-\frac{(x-\mu)^2}{2\sigma^2}}$

Out[12]= $\sqrt{\frac{\pi}{2}}\ \sigma\ \text{Erf}\left[\frac{x-\mu}{\sqrt{2}\ \sigma}\right]$