

Brainmass.com: Normal Distribution

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1 Solution

The density for x to follow a $N(\mu, \sigma^2)$ distribution is as follows:

$$f(x) = \frac{1}{\sqrt{2\pi}\sigma} e^{-\frac{(x-\mu)^2}{2\sigma^2}}$$

To get the density for a standard normal $N(0, 1)$ distribution, we simply plug in $\mu = 0$ and $\sigma = 1$ to get:

$$f(x) = \frac{1}{\sqrt{2\pi}} e^{-\frac{x^2}{2}}$$