Date: August 6th 2003

Consider the following distribution function F. Let

$$
F(x) = \begin{cases} \int_{-\infty}^{x} \frac{e^{\frac{-y^2}{2}}}{\sqrt{2\pi}} dy & x < 0 \\[2ex] \frac{1}{2} & 0 \le x < 1 \\[2ex] 1 & x \ge 1 \end{cases}
$$

Then consider the random variable X whose distribution is given by F. This random variable is neither discrete nor continuous.