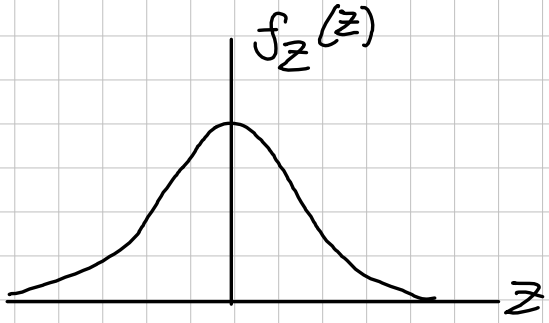
Standard normal

$Z \sim N(0, 1)$



$$pdf = f_Z(z) = \frac{1}{\sqrt{2\pi}} \cdot e^{-\frac{1}{2} z^2}$$

$$cdf = F_Z(z) = \int_{-\infty}^{z} f_Z(u)\,du = \frac{1}{\sqrt{2\pi}} \cdot \int_{-\infty}^{z} e^{-\frac{1}{2} \cdot u^2}\,du = \Phi(z)$$

Φ: norm cdf