

$$X \sim N(12, 16)$$

$$\mu = 12, \quad \sigma = \sqrt{16} = 4$$

Then:

$$\mathbb{P}(X \leq 0) = \mathbb{P}(X^* \leq 0^*) = \phi\left(\frac{0-12}{4}\right) = \phi(-3) = 1 - \phi(3) = 1 - 0.99861 = 0.00139$$

$$\mathbb{P}(X \leq 16) = \phi\left(\frac{16-12}{4}\right) = \phi(1) = 0.84134$$

$$\mathbb{P}(0 \leq X \leq 16) = \mathbb{P}(X \leq 16) - \mathbb{P}(X \leq 0) = 0.84134 - 0.00139 = 0.83995$$