

MAS Ü8

1.) $(\mathbb{R}, \mathcal{B}, P)$ P... Standardnormalverteilung

ges: $P(]-\infty, 1,6])$, $P(]-1,1; 1,8[)$, $P([1,4; \infty[)$

$$P(]-\infty, 1,6]) = \Phi_{0,1}(1,6) = 0,94520$$

$$\begin{aligned} P(]-1,1; 1,8[) &= \Phi_{0,1}(1,8) - \Phi_{0,1}(-1,1) = \Phi_{0,1}(1,8) - (1 - \Phi_{0,1}(1,1)) = 0,96407 - (1 - 0,86433) \\ &= 0,8284 \end{aligned}$$

$$P([1,4; \infty[) = 1 - P(]-\infty, 1,4[) = 1 - \Phi_{0,1}(1,4) = 1 - 0,91924 = 0,08076$$