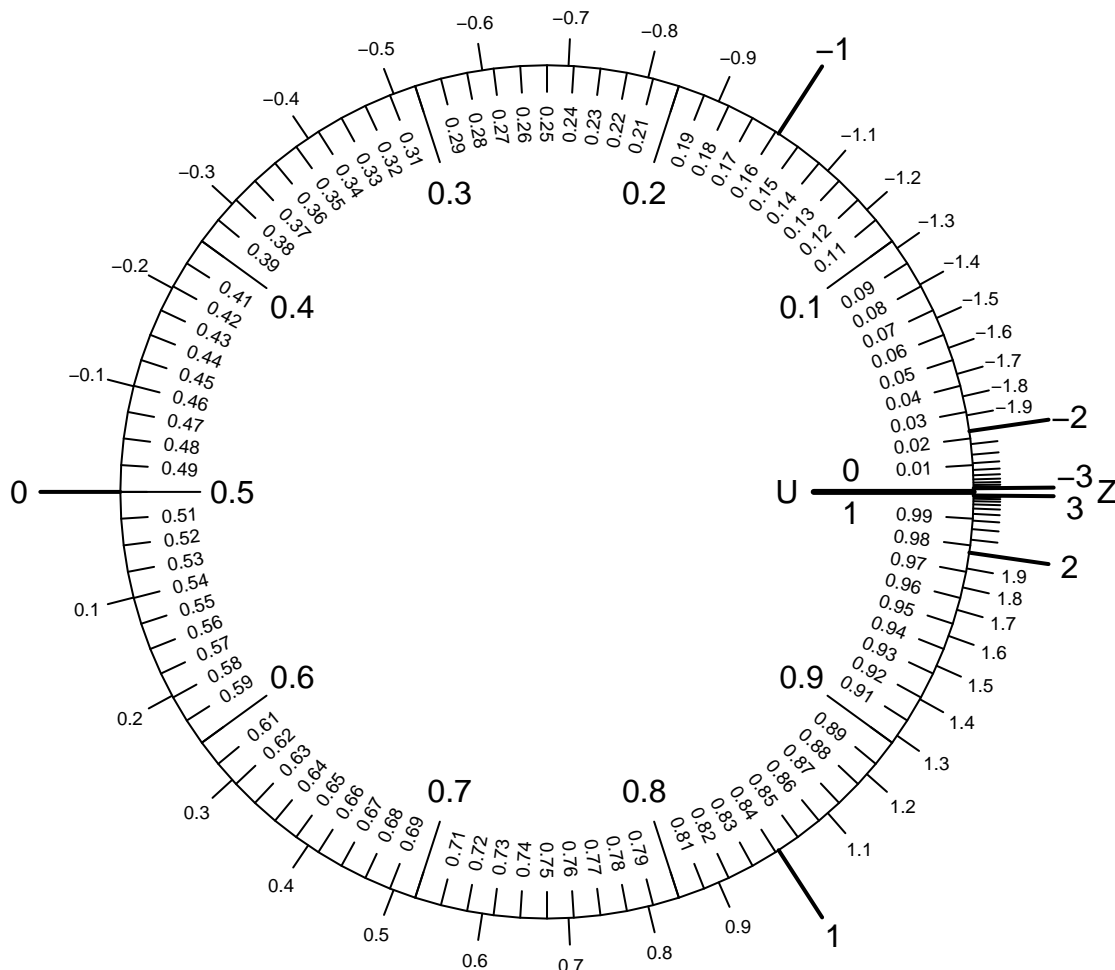# Question

The spinner below has two distributions. The outer distribution (Z) is the standard normal distribution. The inner distribution (U) is the standard uniform distribution, which also corresponds to the percentile. To answer the questions below, assume the spinner is equally likely to land in any direction.

Answerlist ——— * Evaluate $P(0.5 < Z < 1)$. * What is the probability that Z is more than 1.6? In other words, determine $P(Z > 1.6)$. * What is the probability that Z is less than -0.2? In other words, determine $P(Z < -0.2)$. * Determine z such that $P(Z > z) = 0.63$. * Determine z such that $P(Z < z) = 0.7$.

Solution

Answerlist

- $P(0.5 < Z < 1) = \boxed{0.15}$
- $P(Z > 1.6) = \boxed{0.055}$
- $P(Z < -0.2) = \boxed{0.421}$
- $z = \boxed{-0.33}$
- $z = \boxed{0.52}$

Meta-information

extype: cloze exclosetype: string|string|string|string|string exsolution: $P(0.5 < Z < 1) = \boxed{0.15}$ | $P(Z > 1.6) = \boxed{0.055}$ | $P(Z < -0.2) = \boxed{0.421}$ | $z = \boxed{\text{-0.33}}$ | $z = \boxed{0.52}$ exname: UZ extol: 0.01