MATH10282: INTRODUCTION TO STATISTICS

SEMESTER 2

QUIZ PROBLEM 5

(Deadline: Thursday 18 March 2021, 10:00am)

Suppose $X_1, \ldots, X_n$ is a random sample from Uniform$[a, 1]$. Suppose $\widehat{a} = \min(X_1, \ldots, X_n)$ is an estimator of a. The bias of $\widehat{a}$ is

a) bias $= \frac{1-a}{n+1}$.

b) bias $= \frac{1+a}{n+1}$.

c) bias $= \frac{1-a}{n}$.

d) bias $= \frac{1+a}{n}$.

This problem is worth 1 mark. Marking scheme: 1 mark if the answer is correct, 0 mark if the answer is incorrect.

Please use Blackboard to enter your answer.