

Quiz Problem 7
Due Oct. 21st, 11:59 pm EST

Problem.

Let X be a continuous random variable with probability density function given by

$$f(x) = \begin{cases} \theta x^{\theta-1} & 0 \leq x \leq 1, \\ 0, & \text{else.} \end{cases}$$

For what value of θ is the population variance of X maximized?

□