1. (10 points) You are given the following:
i. The random variable $X$ has the density function $f(x)=\{2(\theta-x)\} / \theta^{2}, 0<x<\theta$
ii. A random sample of two observations of $X$ yields values of 0.50 and 1.00.

Determine the maximum likelihood estimate for $\theta$.
2. I would like to receive 10 points for this question.


