Question 1.

Method of Moment Estimate

Given $f\left(x\right)=xθ^{x}e^{x} 0\leq x\leq 1$

And the sample data {0.3, 0.4, 0.1, 0.6, 0.8, 0.9, 0.1, 0.4, 0.8, 0.9}

What is the method of moments estimate of $θ$?