

True/False - No explanation needed. (2pts)

1. A normal distribution is completely determined by its μ and σ . True/False
2. When using a random variable X and one experiment with it to estimate a parameter θ , we compare all values of $L(x|\theta)$ for $X = x$ fixed and θ varying. True/False

Problems - Need justification. No justification means **zero!**

Prof. Stankova counted number of students who attended the lecture everyday, and she found that there were 400 students who came to the class yesterday. Let λ be an average number of students who came to the class.

Specify the distribution that the number of students may follows, and find the maximum likelihood function fo the given data. Also, find the maximum likelihood estimate for λ given this data. You can use derivative or log-derivative. (10pts)