48. A manufacturer receives a lot of 100 parts from a vendor. The lot will be unacceptable if more than five of the parts are defective. The manufacturer will randomly select K parts from the lot for inspection and the lot will be accepted if no defective parts are found in the sample. Use $R$ for all computations.

    (a) How large does $K$ need to be to ensure that the probability that the manufacturer accepts an unacceptable lot is less than 0.10?

    (b) Suppose the manufacturer decides to accept the lot if there is at most one defective part in the sample. How large does $K$ need to be to ensure that the probability that the manufacturer accepts an unacceptable lot is less than 0.10?