62. Two movie theaters compete for the business of 1,000 customers. Assume that each customer chooses between the movie theaters independently and with "indifference." Let n denote the number of seats in each theater.

   (a) Using the binomial distribution, find an expression for N that will guarantee that the probability of turning away a customer because of a full house is less than 1%.

   (b) Use the normal approximation to get a numerical value for N.