Name: ----------ID: ----------

Q.No.1: Suppose that X has a lognormal distribution with parameters $\theta = 5$ and $\omega^2 = 9$. Determine the following:

(a) $P(X < 13{,}300)$

(b) Value for x such that $P(X \leq x) = 0.95$

Q.No.2: Assume that in a digital communication channel, the number of bits received in error can be modeled by a binomial random variable, and assume that the probability that a bit is received in error is 0.1. If 50 bits are transmitted, what is the **approximate** probability that 2 or fewer errors occur?