

6) E : wire is expired $P(E) = 3/500 = \frac{1}{100}$

F :

a) $P(\text{second one expired} \mid \text{first one expired}) = \frac{4}{499} = \frac{1}{125.75}$

b) $P(\text{both expired}) = \left(\frac{1}{100}\right) \cdot \left(\frac{4}{499}\right) = \frac{4}{49,900} = 0.00008$

c) $P(\text{neither are past expiration}) = \left(\frac{495}{500}\right) \cdot \left(\frac{494}{499}\right) \approx 0.98$