Ceng 272 - Quiz 2

Solve all questions.

For Monday section

1. An electrical engineering lab has 20 probes of which 3 are bad. A student selects 2 probes randomly, what is the probability that both are bad?

2. Define events

   - $H = $ *having a high blood pressure,*
   - $S = $ *have had a stroke within 5 years.*

   Among elderly people who are 70 years of age, suppose we have

   - $P(S) = 0.1$,
   - $P(H|S) = 0.4$,
   - $P(H|S') = 0.2$.

   What is $P(S|H)$?

For Thursday section

1. A rigged coin is twice as likely to come up heads than tails. If the coin is flipped 3 times what is the probability of getting 3 heads?

2. Dice roll: $S = \{1, 2, 3, 4, 5, 6\}$. Two events
   $A:$ *dice rool is even* and
   $B:$ *dice rool is greater than* 2.

   (i) $P(A|B) = ?$
   (ii) Are these two events (A, B) independent?