1. I throw a coin 10 times. Calculate the probability that
   - I throw exactly 3 heads
   - I throw at least 2 heads
2. 5. Prove the law of total probability, i.e. when $A1, A2, \ldots, An$ form a partition

$$P(B) = P(B|A1)P(A1) + P(B|A2)P(A2) + \ + P(B|An)P(An)$$

3. 2 components A and B.
   - P(A) = event that A is working P(A) = 0.98
   - P(B) = event that B is working P(B) = 0.95
   - P(A and B) = event that both A and B are working = P(A) x P(B) = 0.98 x 0.95 = 0.931
4.
   - Solution: Lots of useless information.
   - Complement event of at least one working is that they are both broken.
   - Answer 100 4% = 96%