

Examples, Lecture 15, part 2.

1. Find the probability that a five card hand is a full house? (A full house is 3 cards from one rank and 2 from a different rank.)

2. Suppose that 60% of the population is overweight and the remaining 40% are of a healthy weight. Statistics show that 20% of the overweight people will suffer a heart attack and 10% of the rest will suffer a heart attack. Find the probability that a person will have a heart attack.

3. Suppose that  $E$  and  $F$  are independent and  $P(E) = 1/4$  and  $P(F) = 3/4$ . Find  $P(E \cup F)$ .