I. General Probability (p.163):
1. $P(E \text{ or } F) = P(E) + P(F) - P(E \text{ and } F)$
2. An experiment consists of rolling two (fair) die. What is the probability of obtaining either a sum which is less than four or is an even number?

II. Mutually Exclusive Events (p.163):
1. Events $E$ and $F$ cannot both occur (e.g., $E$ and $\sim E$)
2. $P(E \text{ and } F) = 0$
3. $P(E \text{ or } F) = P(E) + P(F)$

III. Conditional Probability (p.156):
1. The Probability that event $E$ will occur once event $F$ has occurred is denoted as $P(E|F)$...
2. $P(E|F) = P(E \text{ and } F) \div P(F)$
   or $P(E \text{ and } F) = P(E|F) \times P(F)$
IV. **Independent Events** (p.156):
   1. The occurrence of event $E$ is unaffected by the occurrence event $F$, and vice versa
   2. $P(E|F) = P(E)$ and $P(F|E) = P(F)$

V. **Examples** (pp.169-174): #4,6,8,16,18,22,26

VI. **Summary of Probability Rules:** see p.168

**HW:** pp.169-175 / #3-13 (odd), 19, 21, 25, 33, 35
Read pp.177-184 (section 4.3)