

I. Terminology & Notation (p.144):

1. Event “E” is any outcome(s) from an experiment
e.g., obtaining a “3” on the roll of one die,
or getting a “full-house” in a poker hand
2. $P(E)$ represents the Probability that event E occurs
e.g., $P(\text{odd \#}) = 3/6 = 1/2$ or 0.5 when rolling one die
probability values are **always between zero and one...**
 $P(E) = 0$ means that event **E is impossible**
 $P(E) = 1$ means that event **E is certain** to occur
3. Sample Space is the listing (set) of all possible outcomes (or simple events in an experiment)
e.g., $S = \{1,2,3,4,5,6\}$ when rolling one die
4. When using a frequency distribution, $P(E)$ is equal to the relative frequency corresponding to E.

II. $\sim E$, *a.k.a.* E complement (p.148):

1. “ \sim ” is the logical negation symbol, thus...
“ $\sim E$ ” means “**not E**” (*i.e.*, the event “E does not occur”)
2. $P(\sim E) = 1 - P(E)$

III. Examples (pp.152-154): #**2,8**,10,12,14,18,20

HW: pp.152-155 / #3,7,11,13,17,19,21,23

Read pp.155-169 (section 4.2)