CS 145 – Foundations of Computer Science

Professor Eric Aaron

Lecture – W F 1:30pm
Lab – F 3:30pm

Lecture Meeting Location: SP 105
Lab Meeting Location: SP 309

Business

• HW5 due already
• HW6 due Nov. 21 / Nov. 22
• Lab6 due by end of day Nov. 16

• HW4 back today
• Go over exams today

• Reading: Makinson, Ch. 5; next up: Ch. 6
  – We may not cover all the material in chapter 6, but it’s worth reading anyway

• Make-up lectures: Mondays at 1:30pm?
Counting 3—Repetition

• Using the counting ideas from combinations and permutations…

• Exercises
  – How many ways are there to rearrange the letters in the word *banana*?

(As always, explain your answer, including the way you model the situation)

Counting 3—Repetition

• Using the counting ideas from combinations and permutations…

• Exercises
  – How many ways are there to rearrange the letters in the word *banana*?

  – In general, if we have an *n*-letter word made up of *k* different letters, how many ways are there to rearrange the letters in that word?
Counting Cards

• What’s the number of 5-card hands can be dealt from a standard 52-card deck (standard 4 suits, 13 cards each; no jokers)?

• Number of 5-card hands with 4 of a kind?

• Number of 5-card hands with a full house (i.e., a 3 of a kind and a pair for its 5 cards)?

• Number of 5-card hands with a flush (i.e., all cards having the same suit)?