

Math 118 G1

Exam #2 Review

This is NOT necessarily a complete list of topics that you should know. Consult your class notes to see what we have covered, and meet with me to discuss any material that you do not understand.

Chapter 3

1. Use the list-processing algorithm to schedule a list of independent tasks on a given number of processors.
2. Use the decreasing-time-list algorithm to schedule a list of independent tasks on a given number of processors.
3. Determine if a schedule for independent tasks is optimal.
4. Explain how bin-packing is related to and different from scheduling.
5. Use NF, FF, and WF to solve a bin-packing problem.
6. Use NFD, FFD, WFD to solve a bin-packing problem.
7. Explain advantages and disadvantages of each of the previous algorithms, and when you might use each one.

Chapter 16

1. Understand the purpose of using check digits in identification numbers.
2. Compute the check digit in the following schemes:
 - Money Orders
 - Traveller's Checks
 - Codabar
 - UPC
 - ISBN
 - Bank Routing Numbers
3. Given an identification number in any of the previous schemes, verify that the number is correct using the check digit.
4. Explain how information is encoded into UPC, ISBN, iCard, and Social Security identification numbers.
5. Use the Soundex algorithm to encode a last name.
6. Compute an encoded birthdate using the Illinois Driver's License scheme.
7. Determine a birthdate from an Illinois Driver's License.