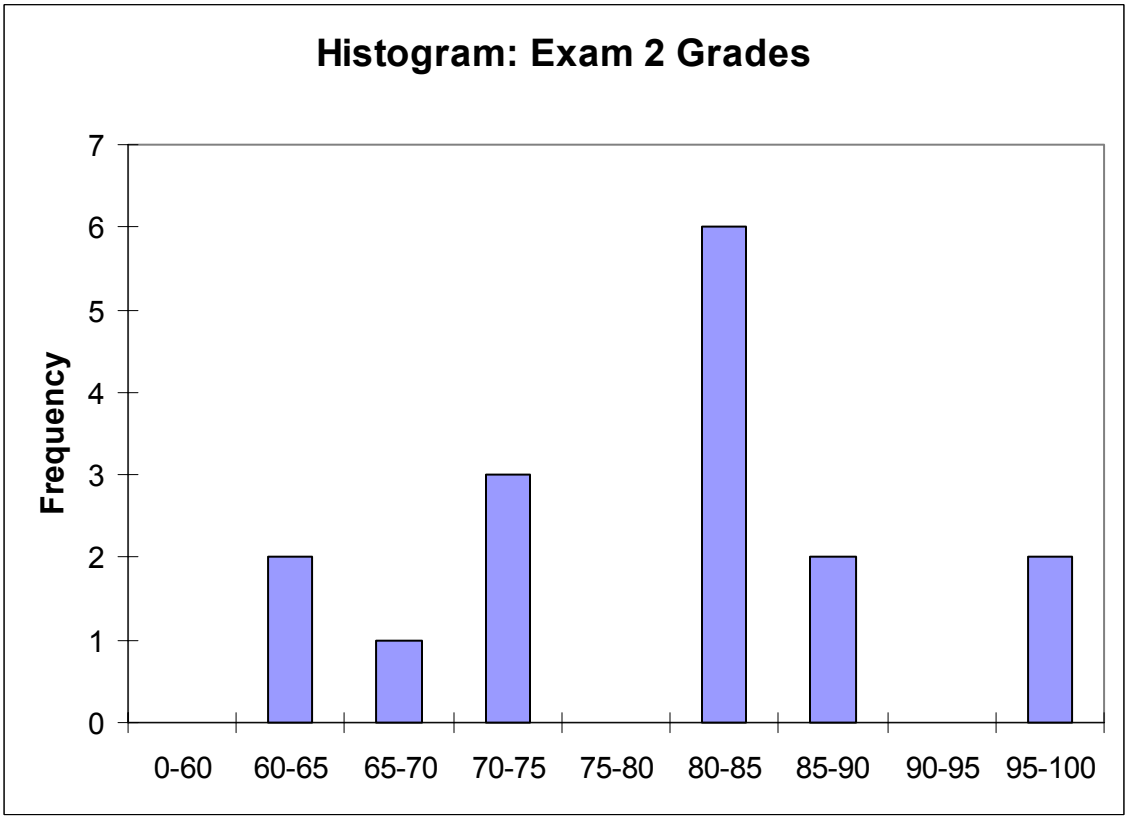
CVEN 463 – Exam #2 – Fall 2003

Grade Statistics

Median	81.5
Mean	80.0
Std. Dev.	10.0
Maximum	97.4
Minimum	61.2



Name: _____

CVEN 463 –Engineering Hydrology
Fall Semester 2003
Dr. Kelly Brumbelow, Texas A&M University

Exam #2

Closed-book, Closed-notes (2 pages, 2 questions in this section, max. 20 minutes)

Complete this section, and submit it to the proctor who will give you the Open-Book section

1. Give complete and intelligible definitions for the following (3 points each):
   a) DEM

   b) Isochrone

2. I have a 3 hour unit hydrograph, and an upcoming storm will have an effective duration of 9 hours. What method(s) could I use to apply my 3 hour unit hydrograph to this storm? (4 points)

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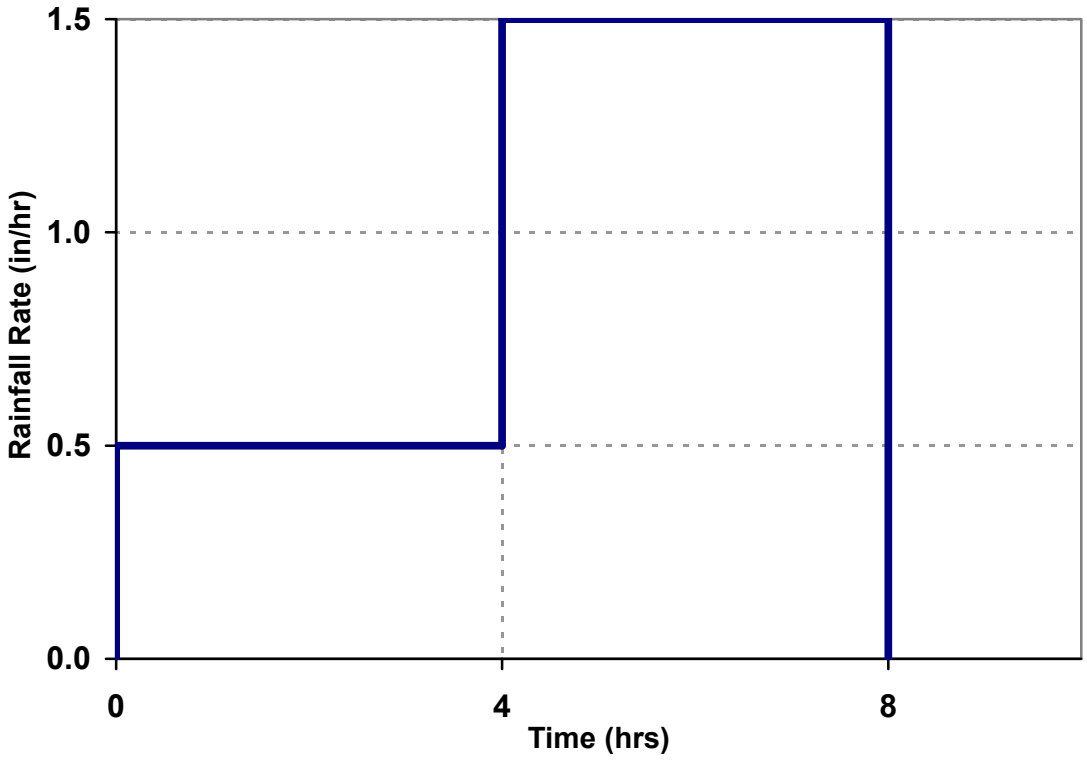
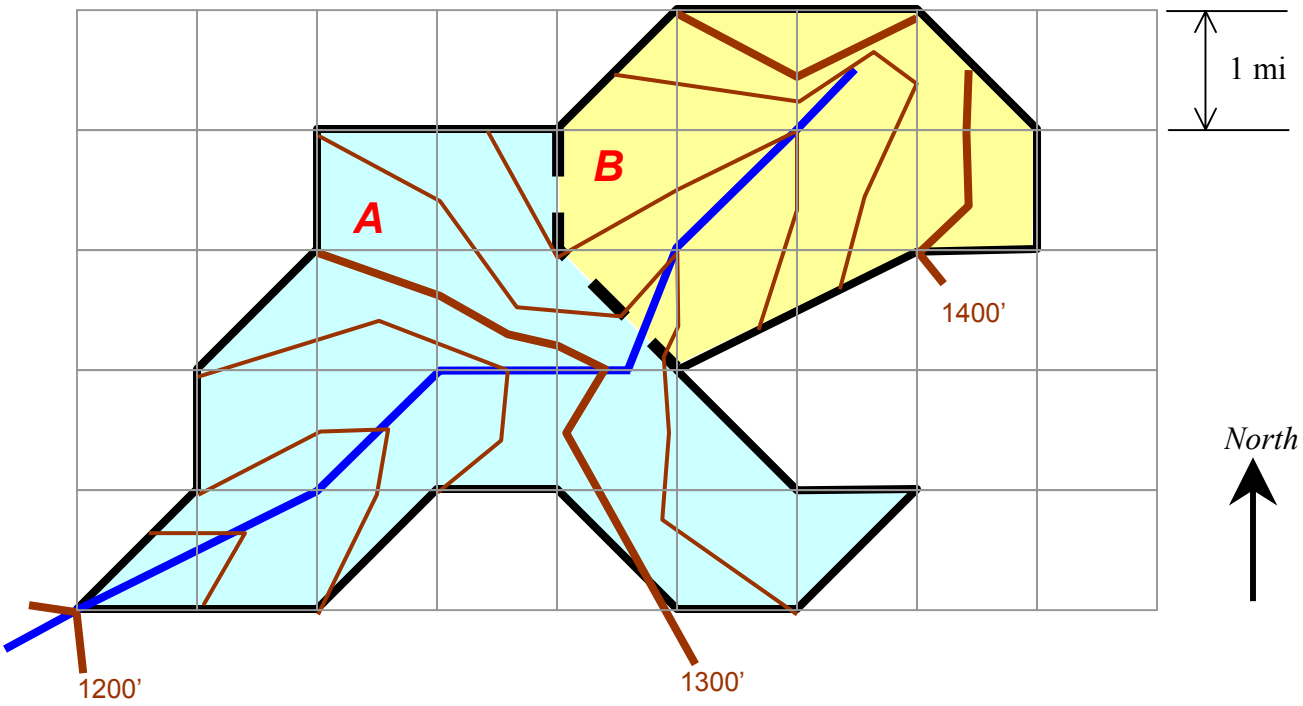
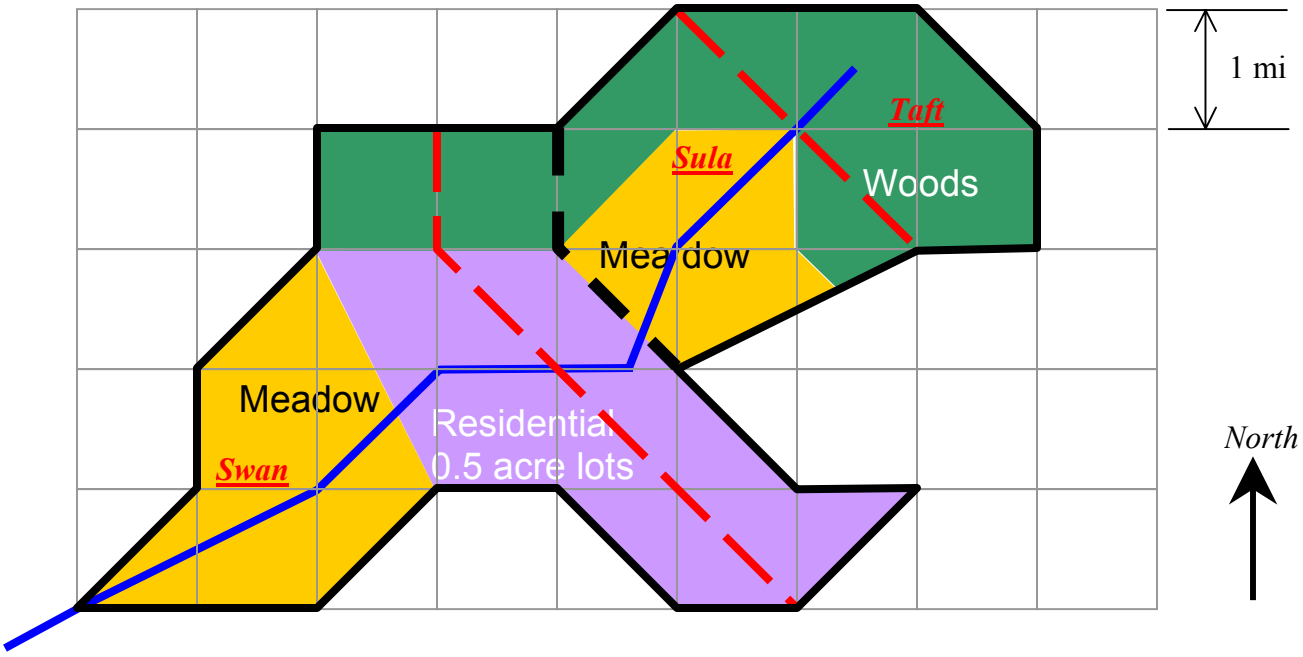
Open-book, Open-notes (3 pages in this section, time allowed is rest of class after submission of closed-book section)

Given on the next several pages are maps and information for a watershed composed of two separate subbasins (labeled *A* and *B*). Shown below is a hyetograph for a forecasted storm that will fall on this watershed. Use appropriate methods to produce a streamflow hydrograph forecast at the outlet of subbasin A for this storm. (90 points)





Watershed topography, areas, and distances



Land cover and soils (shown in red)

Subbasin A

Snyder parameters: $C_t = 3.54$, $C_p = 1.05$.
River reach within the subbasin has Muskingum parameters K = 7.9 hours and X = 0.20.

Subbasin B

Previously derived 4 hour unit hydrograph:

Time (hrs)	4 hr U.H. (cfs/in)
0	0
2	2,541
4	6,357
6	8,852
8	6,952
10	4,123
12	2,451
14	1,203
16	433
18	0

Excerpted pages from TR-55 follow (4 pages printed double-sided).