

**CE 3354 Engineering Hydrology**  
**Exercise Set 2**

**Exercises**

1. A raingage is located in a 2.5 acre impervious watershed with non initial abstraction. The gage records a catch of 1.0 inches of precipitation in one hour. The maximum intensity was 2.4 inches per hour for 10 minutes. Assume that 10 minutes is the characteristic time for which all parts of the watershed can contribute runoff to a discharge point.

Determine:

- a) Volume of rainfall in cubic feet for the watershed.
  - b) Maximum (peak) discharge rate for the watershed.
2. Consider the rainfall data in Table 1

Table 1: Somewhere USA Precipitation Data

Time (minutes)	Cumulative Depth (inches)
0.00	0.00
30.0	0.00
60.0	0.00
90.0	0.00
120.	0.00
150.	0.00
180.	0.00

Determine:

- a) A depth (cumulative inches) hyetograph in 30 minute intervals (plot).
- b) An intensity (inches/hour) hyetograph in 30 minute intervals (plot).