Problem statement Water is flowing through mighty Mill Brook. Two engineering students, Albert and Betty, are assigned the task of estimating the water flow through the brook between 8 AM and noon. They are provided with instruments which allow them to tell what the water flow is at any time in **gallons per minute**.

a) Albert makes observations of the water flow every hour on the hour from 8 AM to noon. Here are Albert's observations:

Time	Flow	
8:00	5.6	
9:00	8.9	
10:00	12.4	(Thunderstorm!)
11:00	7.2	
12:00	. . . . . .	(Lunch break.)

Find Albert's estimate of the total water drained through Mill Brook during those 4 hours.

b) Student Betty checks the water flow every *half* hour. Here's Betty's data:

Time	Flow	
8:00	5.6	
8:30	7.3	
9:00	8.9	
9:30	8.3	
10:00	12.4	(Thunderstorm!)
10:30	11.2	
11:00	7.2	
11:30	6.1	
12:00	. . . . . .	(Lunch break.)

Find Betty's estimate of the total water drained through Mill Brook during those 4 hours.