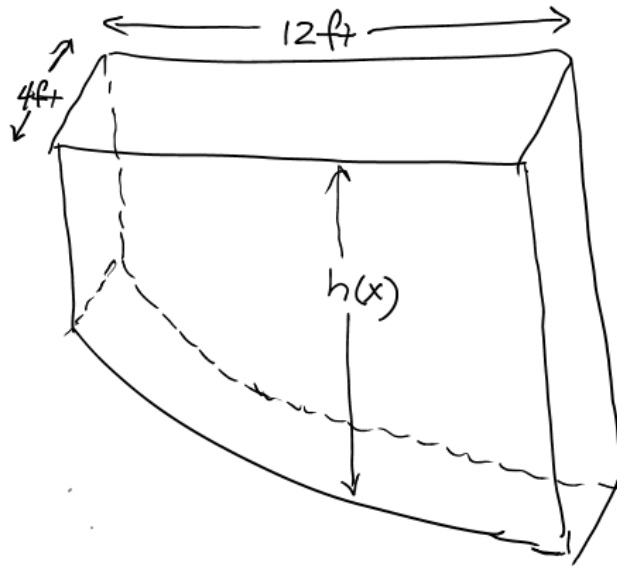


6.1 Day 3 - Estimating with Finite Sums

1. Use LRAM_6 to approximate the volume of a 12-foot-long, 4-foot-wide trench running from west to east if the depth of the trench varies from one end to the other following the formula $h(x) = 8 + 0.15x^2$ (where x is the distance from the west end).



2. The following table shows the rate at which cars are passing through an intersection at specific times during the afternoon.

Time	Traffic Rate (cars/min)
1:00 pm	25
1:15 pm	29
1:25 pm	27
1:35 pm	39
1:50 pm	68
2:15 pm	64
2:35 pm	45
2:45 pm	33
3:00 pm	20

Use an LRAM and an RRAM approximation to estimate the total number of cars that passed the intersection between 1pm and 3pm that day. Choose an appropriate number of intervals to use for your approximation.