1. Steve was curious to know just how much snow he shoveled from his driveway last winter. So one day he went out and took measurements. The driveway is approximately 115 feet long, and the widths (in feet) at 5 foot intervals are as follow: 15,16,18,18,19,20,19,18,17,15,15,14,13,12,12,12,12,12,12,13,14,15,17,17.

   (a) Use left and right hand sums to obtain approximations for the area of the driveway. Be sure to give units.

   (b) Over 80 inches of snow fell last winter. How many cubic feet of snow did Steve shovel?

2. A graph of the velocity \( v \) of a car in feet/sec at time \( t \) seconds is shown below.

   (a) How far does the car travel?

   (b) What is the average velocity of the car?

3. Suppose you know that

   \[ \int_{0}^{1} e^{-x^2} dx \approx 0.7468 \quad \int_{0}^{2} e^{-x^2} dx \approx 0.8821 \]

   Compute

   (a) \( \int_{1}^{2} e^{-x^2} dx \)

   (b) \( \int_{-1}^{1} e^{-x^2} dx \)

4. Suppose

   \[ \int_{1}^{4} f(x) dx = 5 \]

   Compute

   \[ \int_{1}^{4} 2 + 3f(x) dx \]