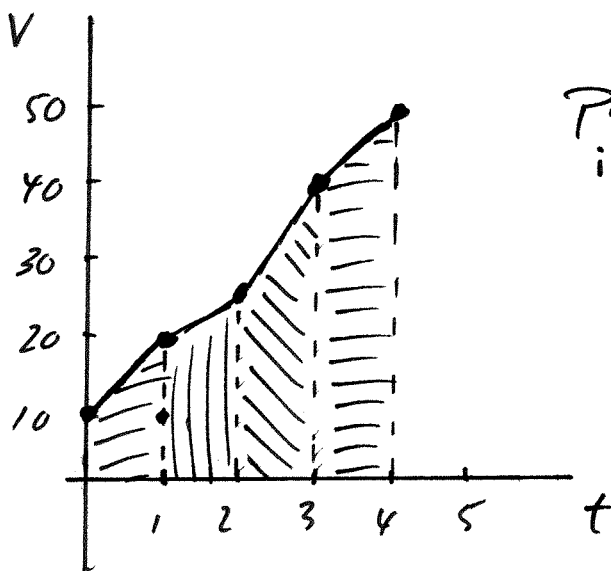


5.3 #25

| Time (sec) $t$                    | 0  | 1  | 2  | 3  | 4  |
|-----------------------------------|----|----|----|----|----|
| Velocity ( $\frac{ft}{sec}$ ) $v$ | 10 | 20 | 25 | 40 | 50 |



Possible velocity curve is shown on the graph

We can approximate the distance traveled by finding the areas of the four trapezoidal regions.

$$\begin{aligned}
 \text{So, Distance Traveled} &\approx \frac{1}{2}(1)(10+20) + \frac{1}{2}(1)(20+25) \\
 &\quad + \frac{1}{2}(1)(25+40) + \frac{1}{2}(1)(40+50) \\
 &\approx \frac{1}{2}(30+45+65+90) \\
 &\approx 115
 \end{aligned}$$

The car travels about 115 feet in 4 seconds