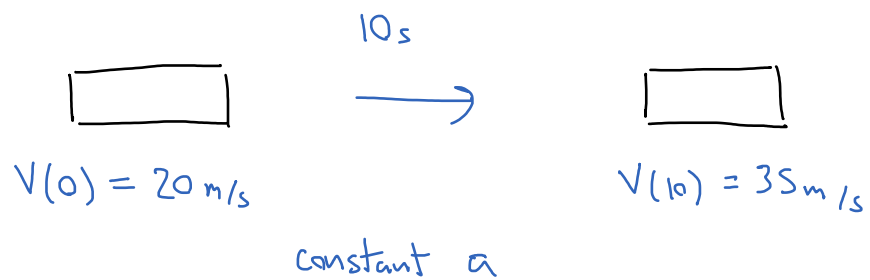


## Question 2:

You are in a van that steadily accelerates from 20 m/s to 35 m/s over the course of 10 seconds. How far did you travel in meters over the course of those ten seconds.



$$V(t) = 1.5t + 20$$

$$X(t) = \int V(t) dt = .75t^2 + 20t + C$$

$$X(10) = .75(10)^2 + 20(10) = \boxed{275 \text{ m}}$$