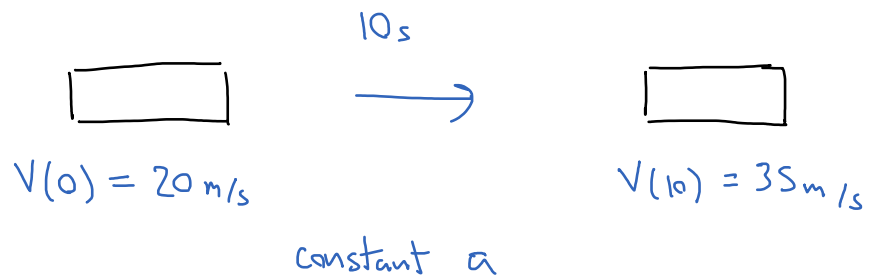


Question 1:

You are in a van that steadily accelerates from 20 m/s to 35 m/s over the course of 10 seconds. What is the rate of acceleration.



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

$$a(t) = \frac{dV(t)}{dt} = \boxed{1.5 \text{ m/s}^2}$$