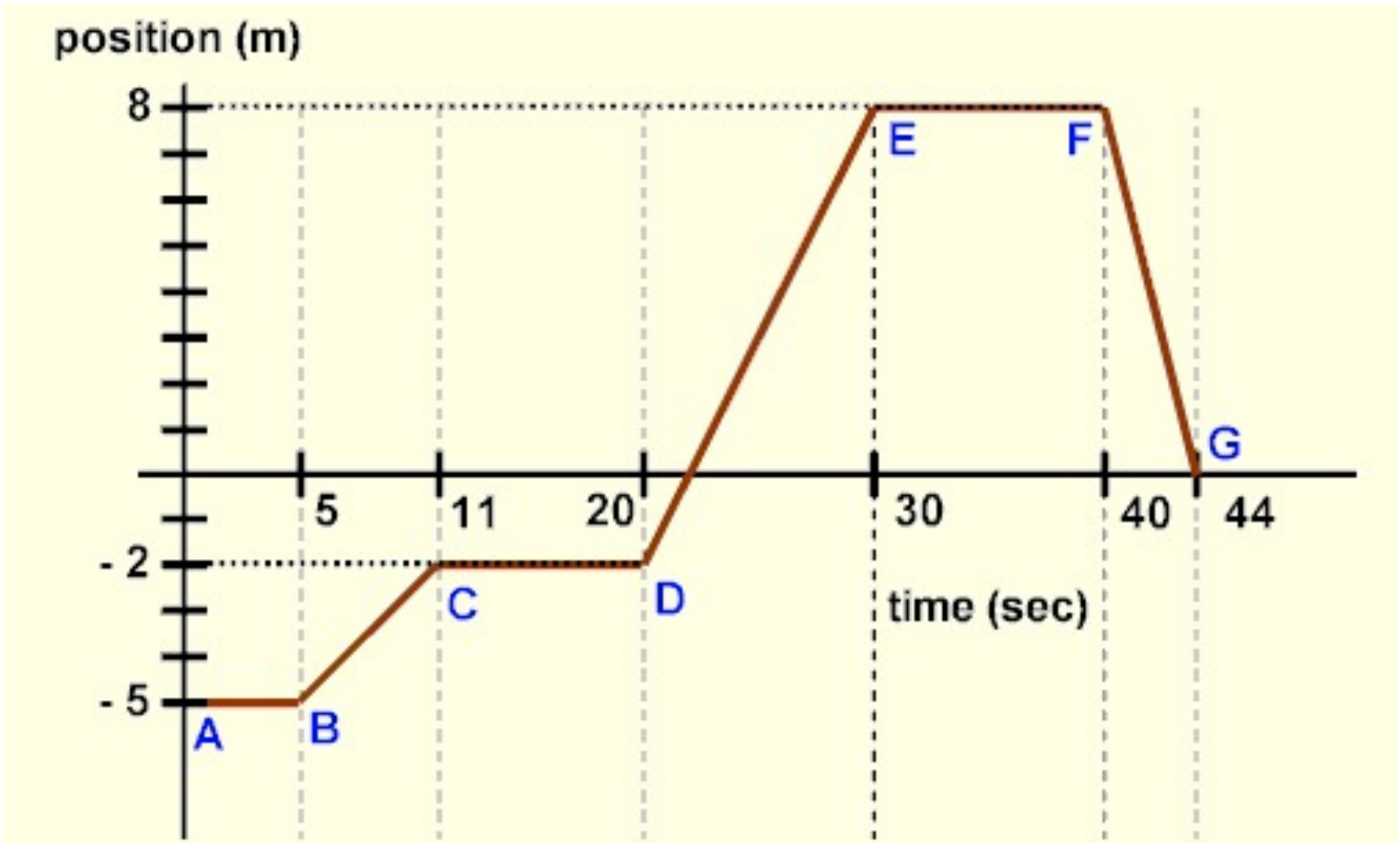
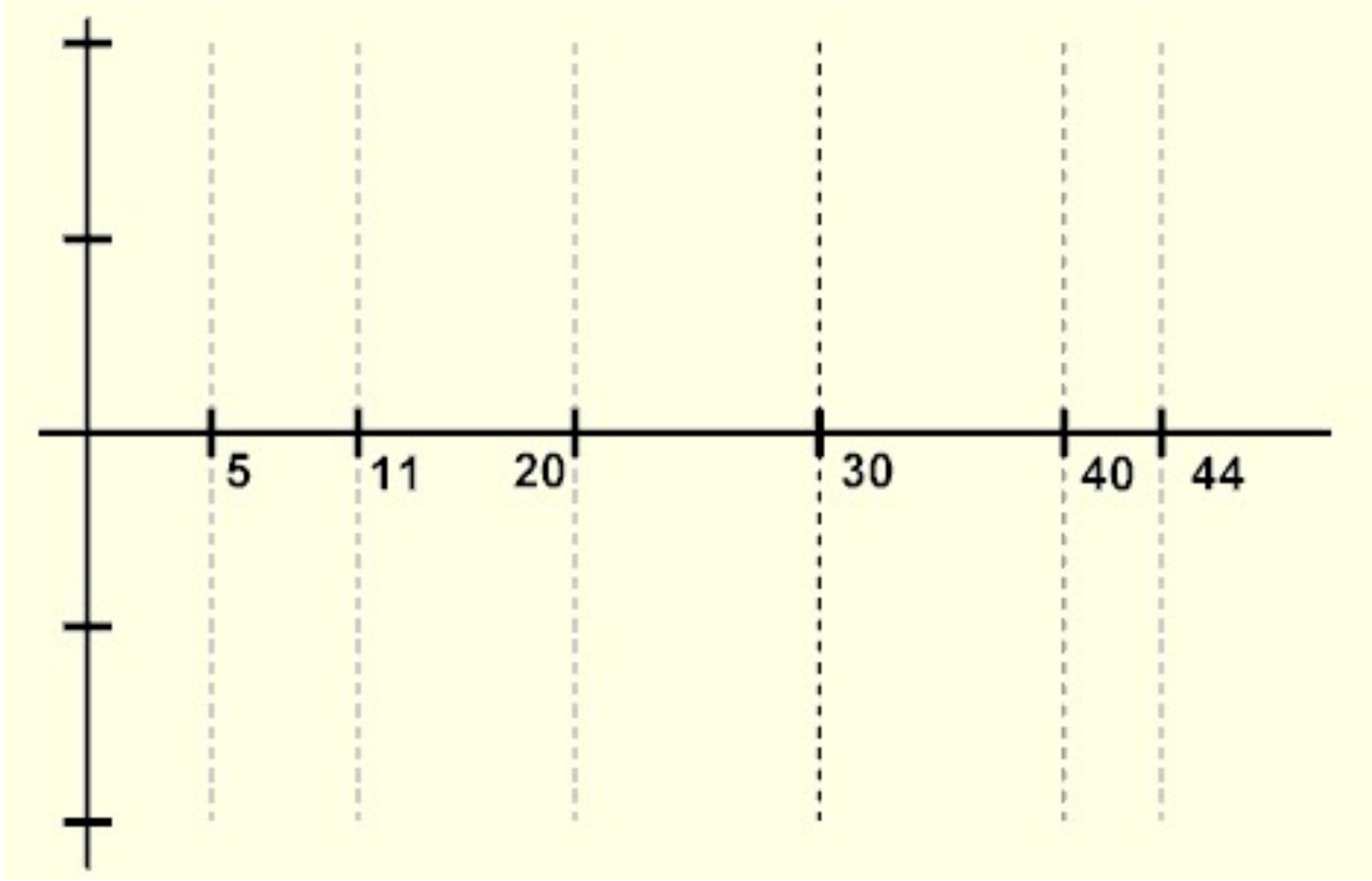
Do Now

- Check the homework on either side of the room.
- Get a whiteboard and write down the problems that you would like to see.



Requested Problems

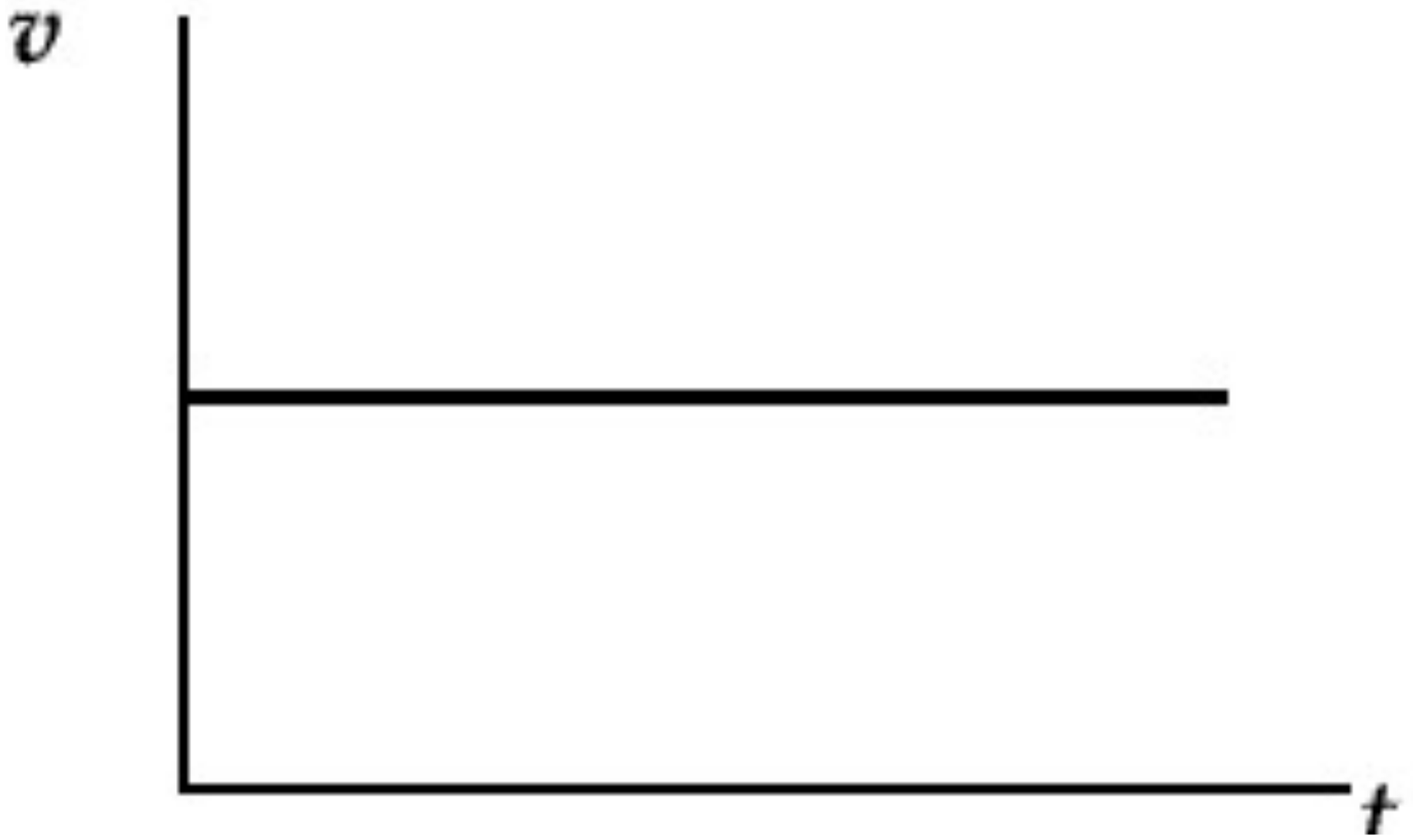


Velocity-time graph

Today

- First kinematic equation.
- Apply first kinematic equation to velocity-time graphs.
- Developing position-time graphs and velocity-graphs from one another.
- Finish Ted Talk: Science Denial.

A drag racer starts from rest and accelerates uniformly at 15m/s^2. The race takes 9 seconds. How fast is she going when she crosses the finish line?

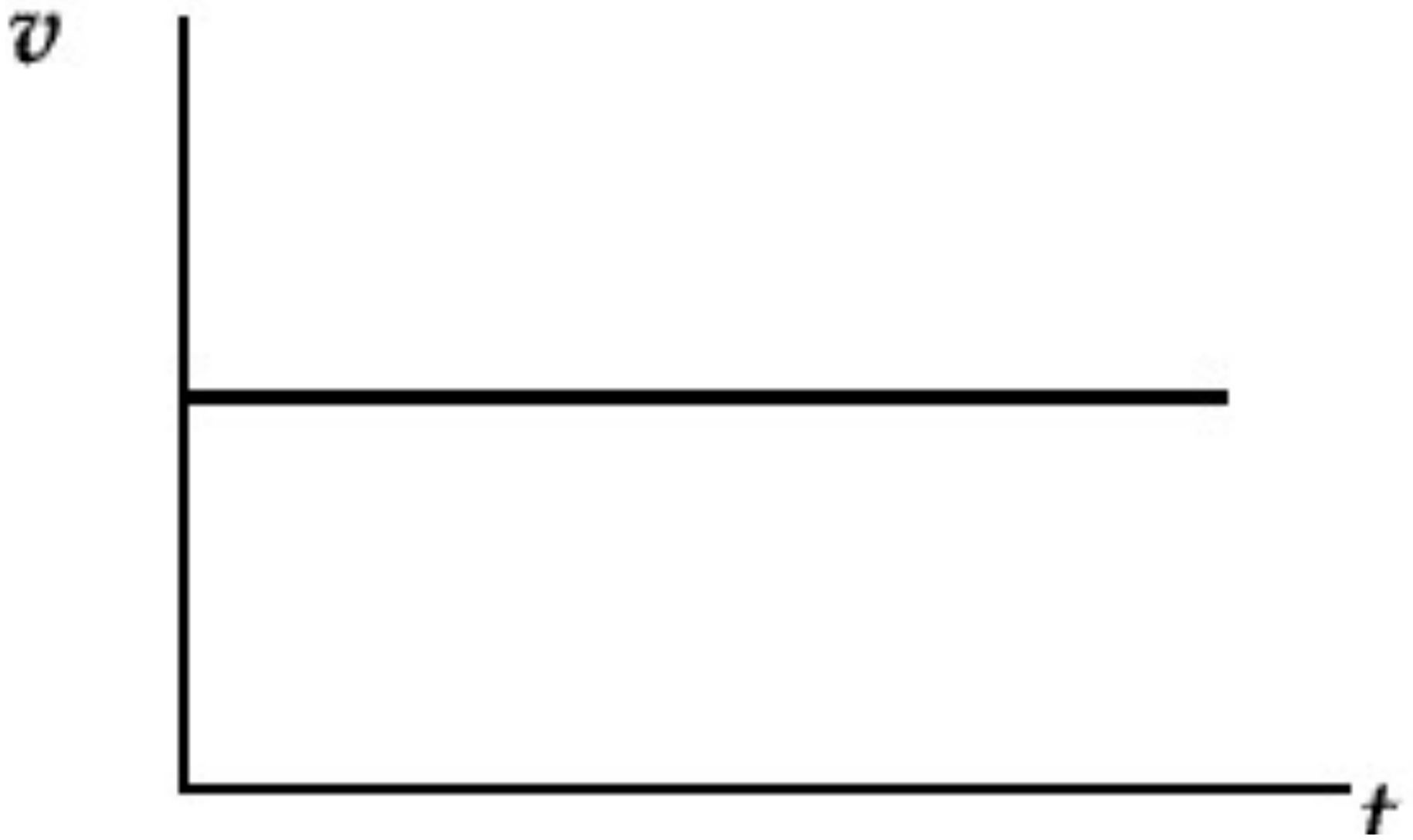


Velocity-time Graph

How far does the drag racer travel?

- How do you attain the displacement from a velocity time graph?

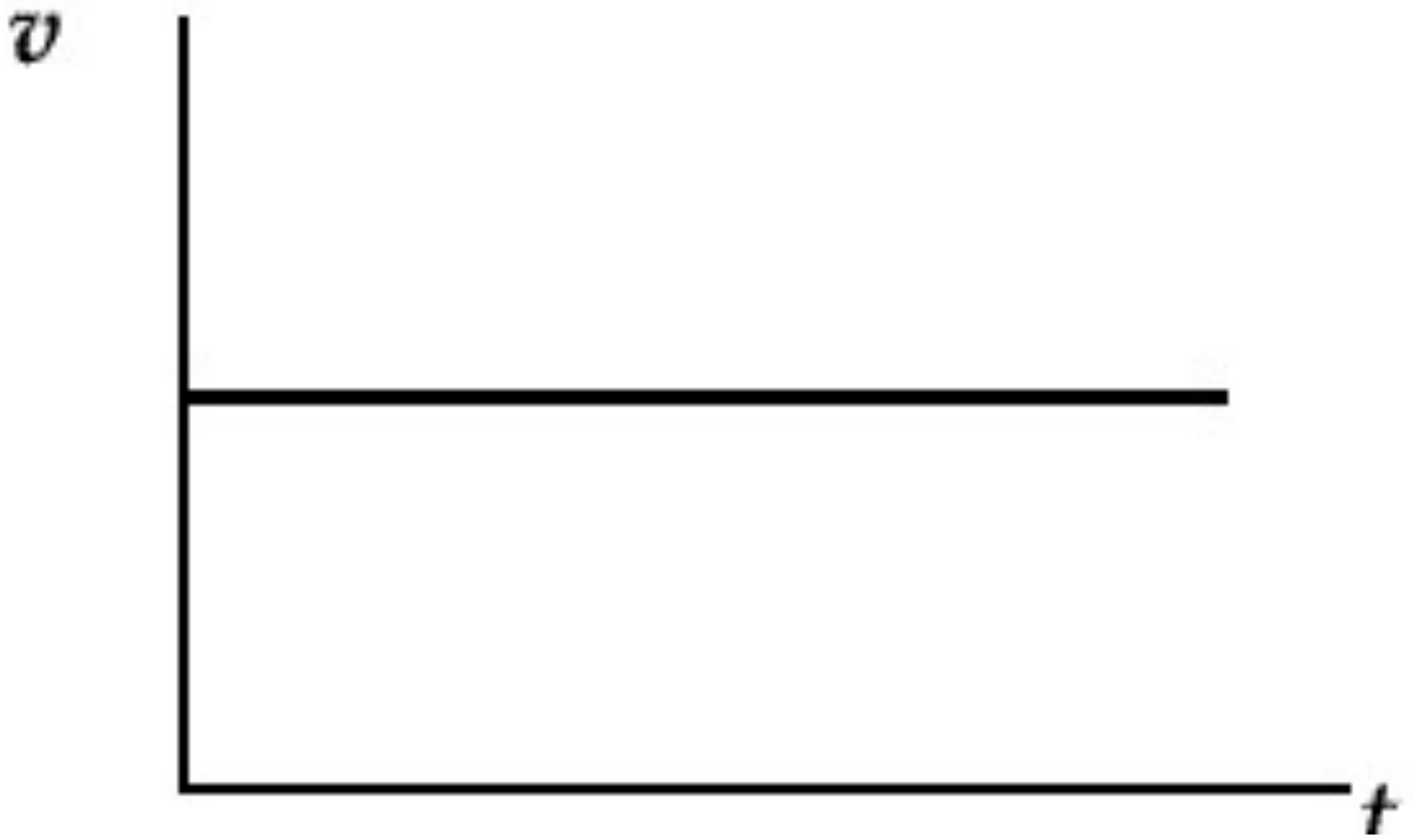
Evil Kinevil rides is doing a wheelie. The front wheel starts to come down and so he accelerates at 3.2m/s^2 to hold the wheelie. After 5 seconds he finishes the stunt at 40m/s. How fast was he going when he started the wheelie?



Velocity-time Graph

How far does Evil Kinevil travel?

A truck is going 30m/s. It slams on the breaks and comes to a stop over 2.5 seconds. What is the acceleration of the truck?



Velocity-time Graph

Worksheet

- You are given either a p-t graph, a v-t graph, or a description of motion.
- Use one to solve for the others.
- Mark the appropriate units on graphs when applicable.

Science Denial 7:00