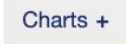

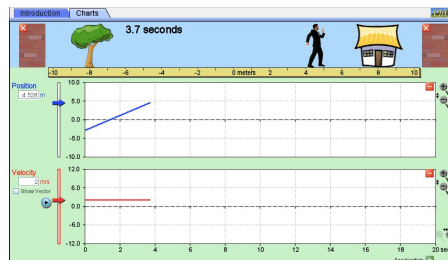



Physics Simulation: Moving Man for Acceleration

Getting Started:

- Go to the simulation by [clicking this link](#)
- Click the **charts** tab at the top  to bring up the motion graphs.
- Click the  to exit out of the acceleration graph (we won't use this one yet).
- Give the moving man a positive velocity, then give the




moving man a negative velocity by typing a number into the  velocity box.

1. How is the motion different when the velocity is positive vs. negative?

Type answer here

2. Use the Moving man simulation to act out the situations. **Draw** the position vs. time graphs and the velocity vs. time graphs for each situation.

- a. Draw on the graph by [clicking the picture](#) then clicking the  **Edit** button, then select either

 **Line** or  **Scribble** from the  drop down menu.

A. A man moving at a slow constant speed of 2 m/s starting at 0 m.



B. A man moving at a fast speed of 10 m/s starting at 0 m.



C. A man standing *at rest* at 4 m




D. A man moving a negative velocity of -5 m/s.



- Turn acceleration back on by clicking **Acceleration +**.

- Then set **Acceleration** m/s² set **Velocity** m/s and set **Position** m.

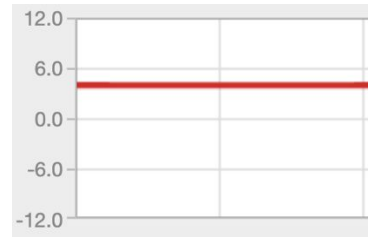
3. **Draw** what the position and velocity graphs will look like when you press play.

- a. Draw on the graph by clicking the picture then clicking the  **Edit** button, then select either

 **Line** or  **Scribble** from the  drop down menu.



4. A student took a graph of a moving man moving at a *constant velocity* of 4 m/s. They forgot to label if the graph was a position-time or a velocity-time graph. Which label would be correct? **Highlight the correct answer.**



- a. This should be a position-time graph.
b. This should be a velocity-time graph.

Explain:

Type answer here

5. A student took a graph of a moving man that was *accelerating*. They forgot to label if the graph was a position-time or a velocity-time graph. Which label would be correct? **Highlight the correct answer.**



- c. This should be a position-time graph.
d. This should be a velocity-time graph.

Explain:

Type answer here

6. Use moving man to try and create the graphs shown on the right and then **explain what the moving man did** to make the motion:

Type answer here

