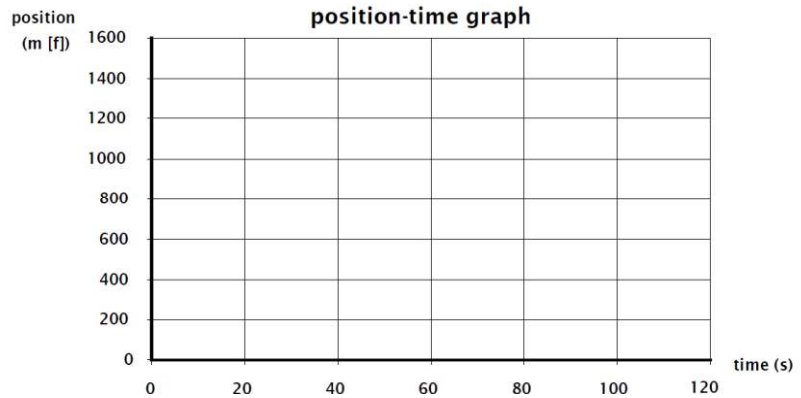
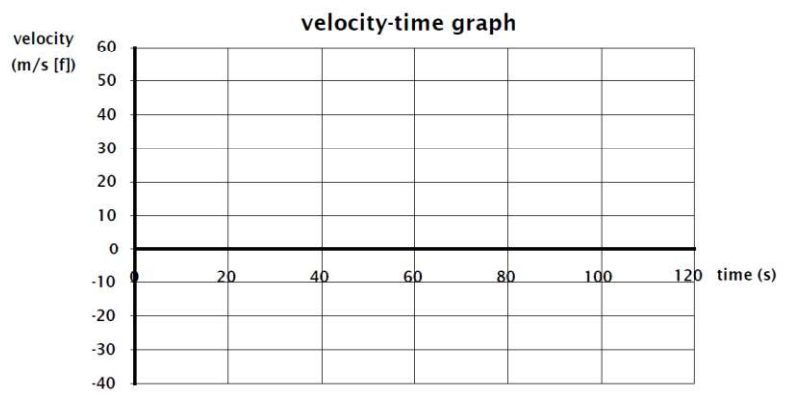


A cart moves along a straight line track starting at rest at the origin. You only know acceleration information.

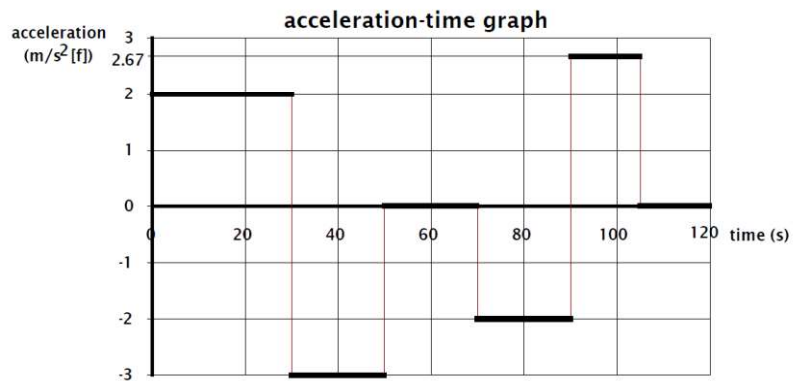
- Interpret.** What does the area between an acceleration graph and the axis represent? (Hint: the width is a time interval and the height is an acceleration. For extra hints look in the text!)



- Reason.** During the first 30 s, what is happening to the cart? Explain.



- Reason.** According to the acceleration graph and important event takes place at 30 s? What might have happened?



- Reason.** How will the velocity value **just** before and **just** after the event at 30 s compare? What does this imply about the slope of the position graph at those times?

- Reason.** We know the cart started from rest. How can we decide based on the acceleration graph when next it is at rest? (Hint: Use some simple calculations)

- Calculate.** Complete the calculations necessary to reconstruct the velocity graph. Then complete the calculations necessary to reconstruct the position graph.