

1D Kinematics - Lab Notebook Items

For the Two Stage Rocket Lab:

Tape the graph below into the Data section of your lab. Leave room below it for slope and area calculations. Then tape the summary table into your lab notebook. The Post-Lab Questions should be addressed using paragraphs in the Discussion section.

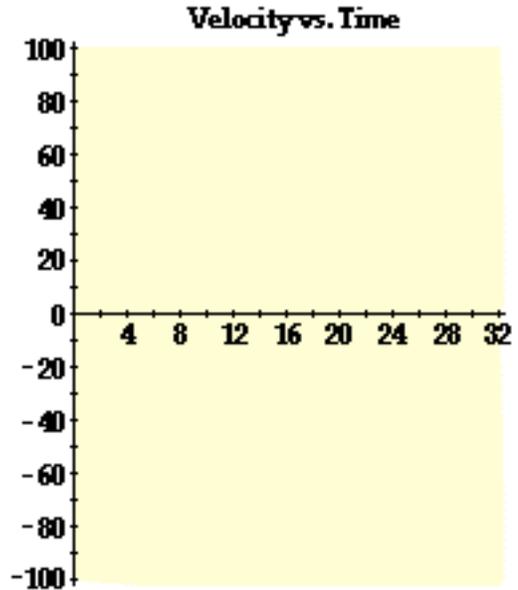
Sketch the graph for your rocket's motion (as displayed on the screen). Be accurate and show strategic coordinates - for example, at the end of stage 1 and stage 2 and at the rocket's peak position. These coordinates can be read off the screen by moving your mouse over the graphical display.

End of stage 1: (t, v) = _____

End of stage 2: (t, v) = _____

When crossing axis: (t, v) = _____

At explosion time: (t, v) = _____



	Slopes of v-t Graph	Area of v-t Graph
End of Stage 1		
End of Stage 2		
At the peak of motion		
At the time of explosion		

Post-Lab Questions:

1. Compare the rocket's motion during the first stage to its motion during the second stage. When is it moving faster? What is it accelerating at a greater rate?
2. Is the rocket ever moving in one direction (up or down) and accelerating in the opposite direction (down or up)? If so, when does this occur (list some times)? And what does it mean to be accelerating in the opposite direction of the motion?
3. What is the line on the graph doing as the rocket reaches the peak of its trajectory? What is the velocity value at the peak? What is the acceleration value at the peak?
- 3.