Answer #344

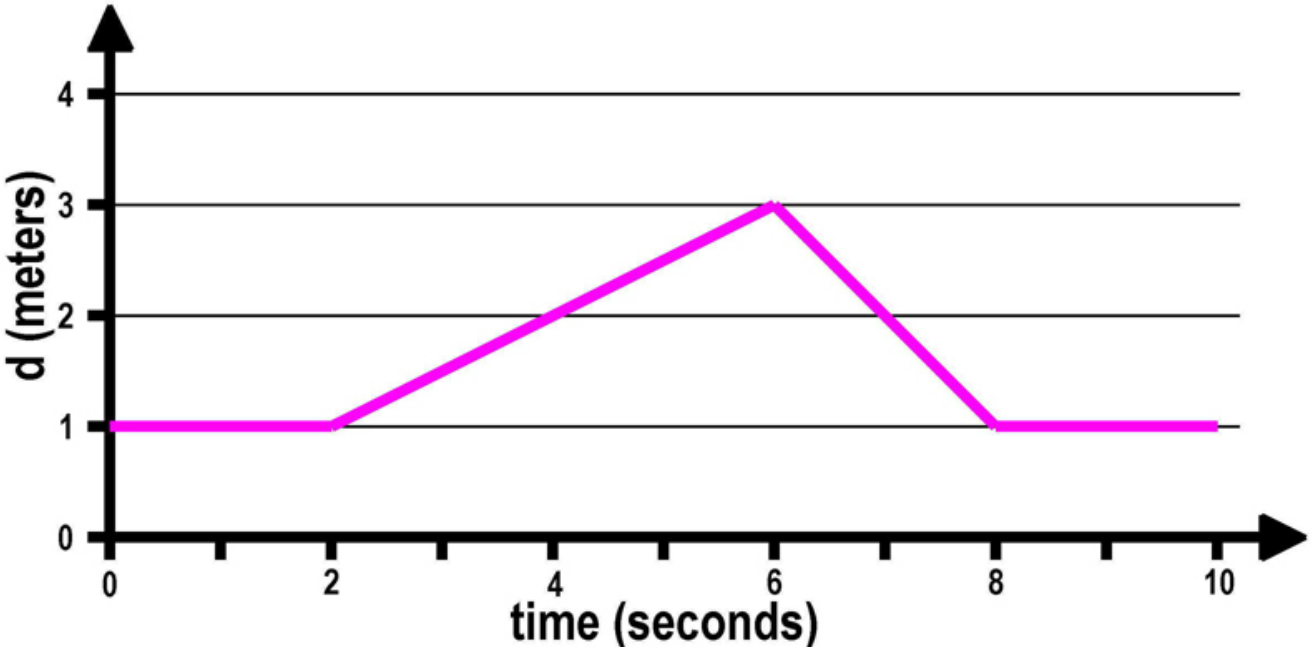
The answers for each of the questions are presented in order; shown for each case as jpeg figures are

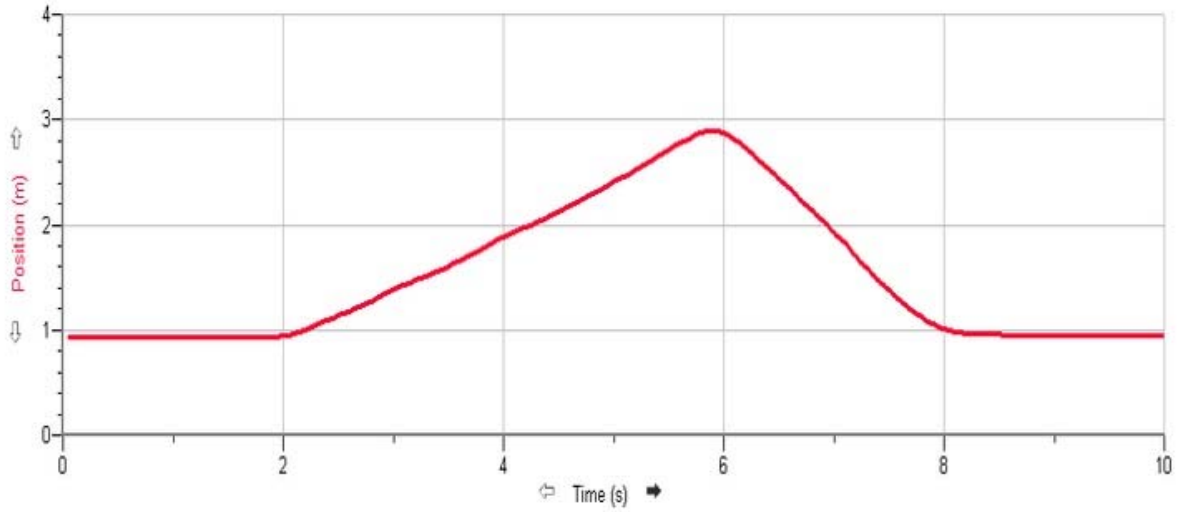
Question (a): (1) the theoretical graph of d(t) vs. t followed by (2) the actual experimental graph of d(t) vs. t,

Question (b): (1) the theoretical graph of v(t) vs. t followed by (2) the actual experimental graph of v(t) vs. t.

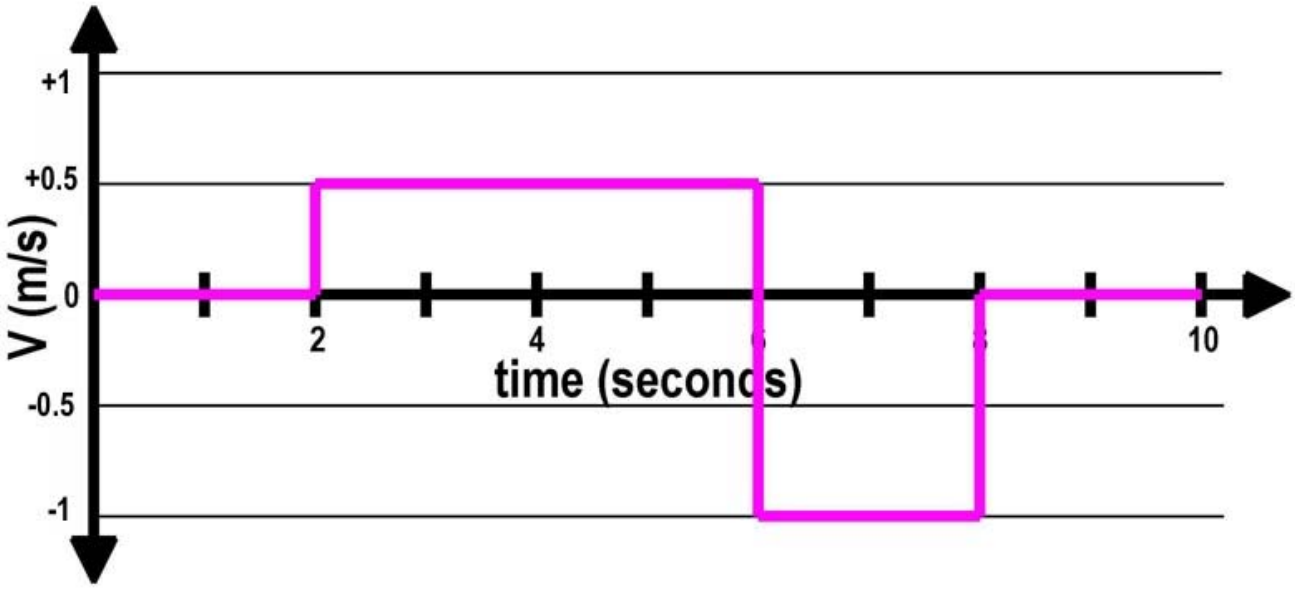
A video of my motion can be seen by clicking your mouse on the experimental d(t) vs. t or v(t) vs. t graph.

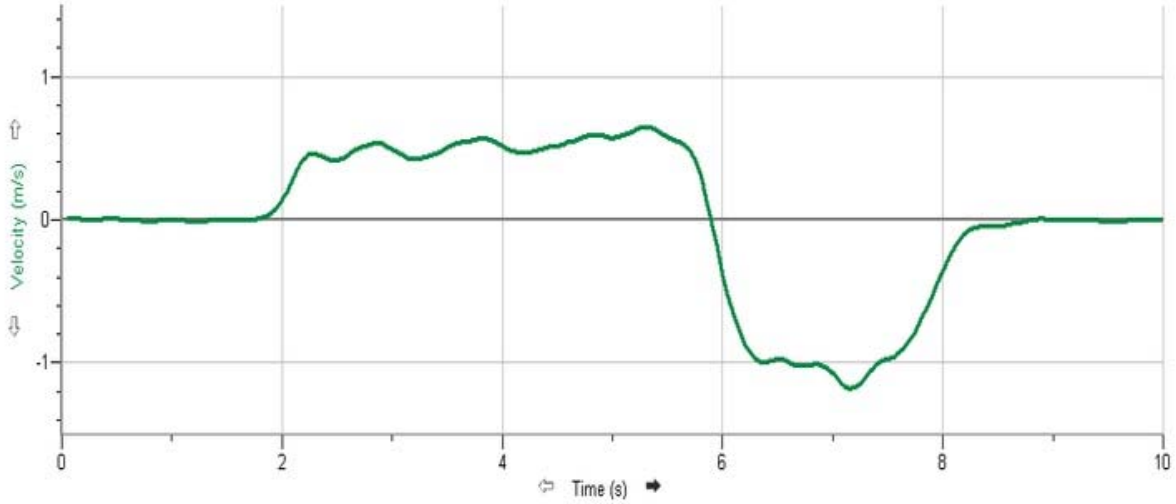
Question (a): the answer is Video #4.





Question (b): the answer is Video #4.





Notice that Video #4 is the proper solution to both Question (a) and Question (b), while none of the other videos are correct d vs t or v vs. t sequences for either of the theoretical given.

Your final task for this question is to draw the d vs. t and v vs. t graphs for the motion sequences seen in the remaining three videos. When you have drawn these graphs you may click here to see the correct answers.

Question of the Week

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For questions and comments regarding the *Question of the Week* contact Dr. Richard E. Berg by e-mail or using phone number or regular mail address given on the Lecture-Demonstration Home Page.

Answer #344a

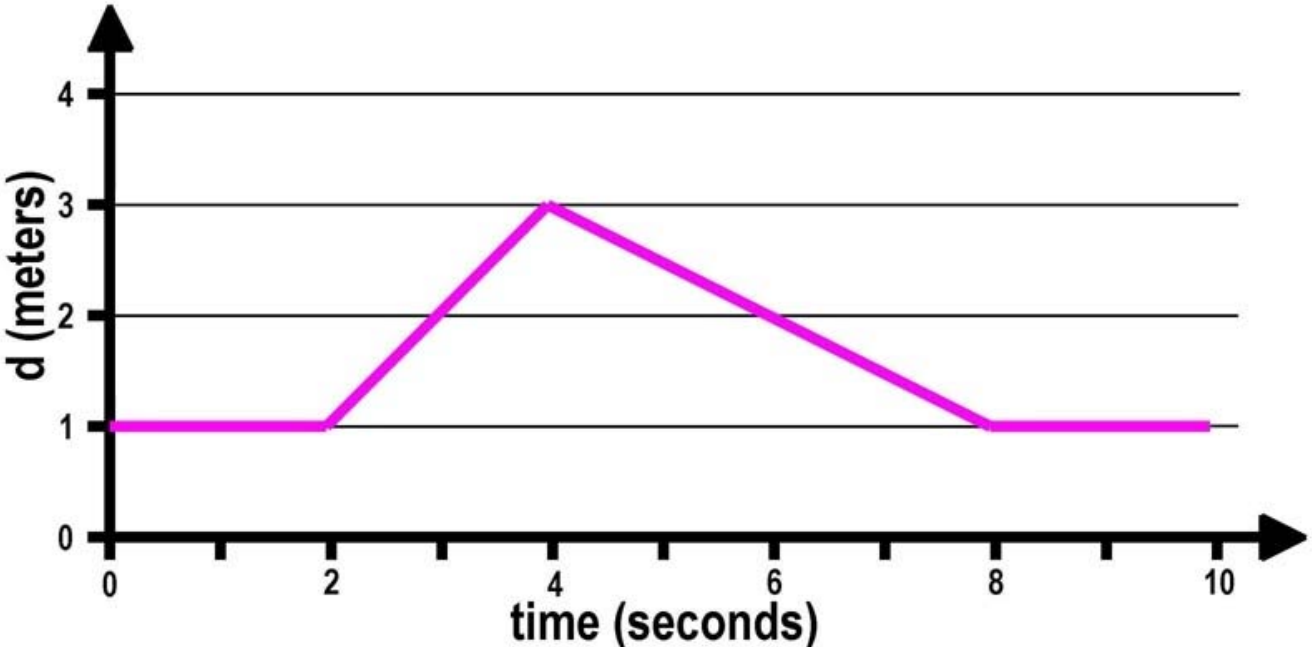
The answers for each of the questions are presented in order; shown for each case as jpeg figures are

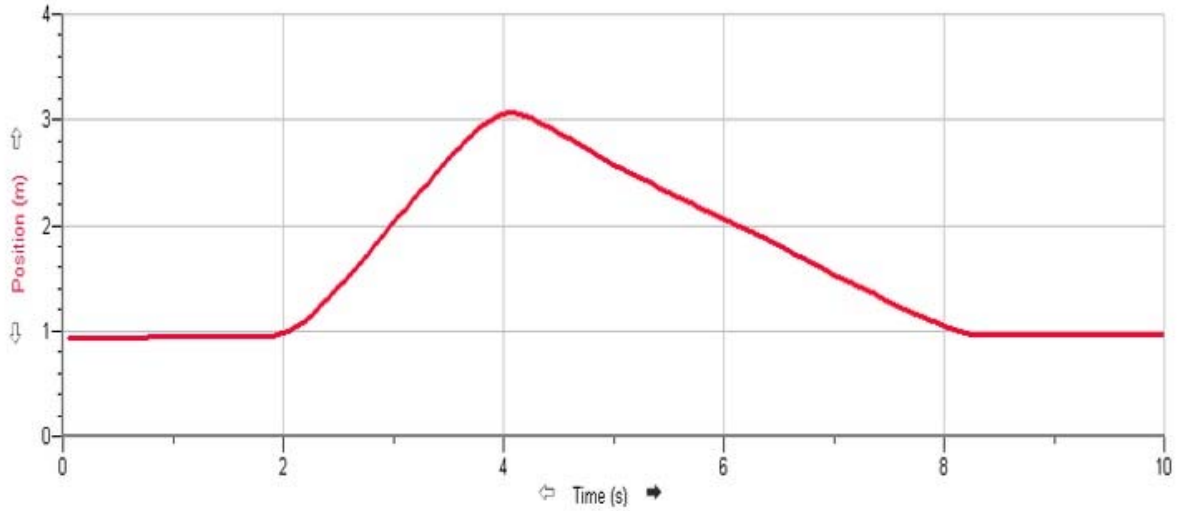
for each Video: (1) the theoretical graph of d(t) vs. t followed by (2) the actual experimental graph of d(t) vs. t,

for each Video: (1) the theoretical graph of v(t) vs. t followed by (2) the actual experimental graph of v(t) vs. t.

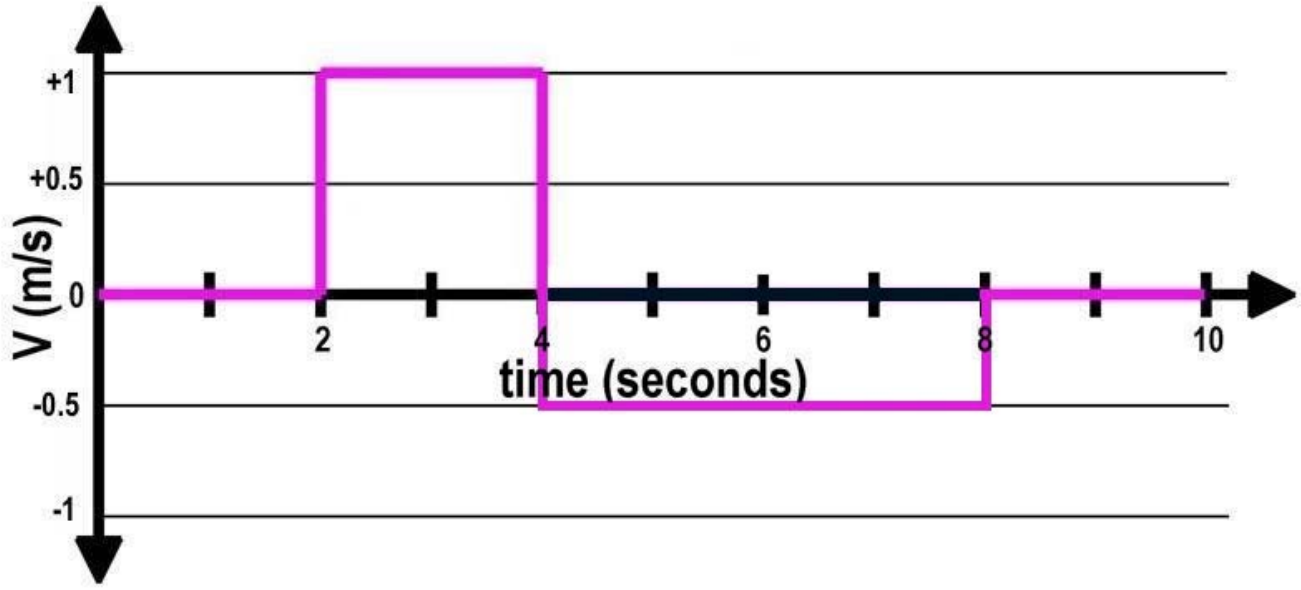
A video of my motion can be seen by clicking your mouse on the experimental d(t) vs. t or v(t) vs. t graph.

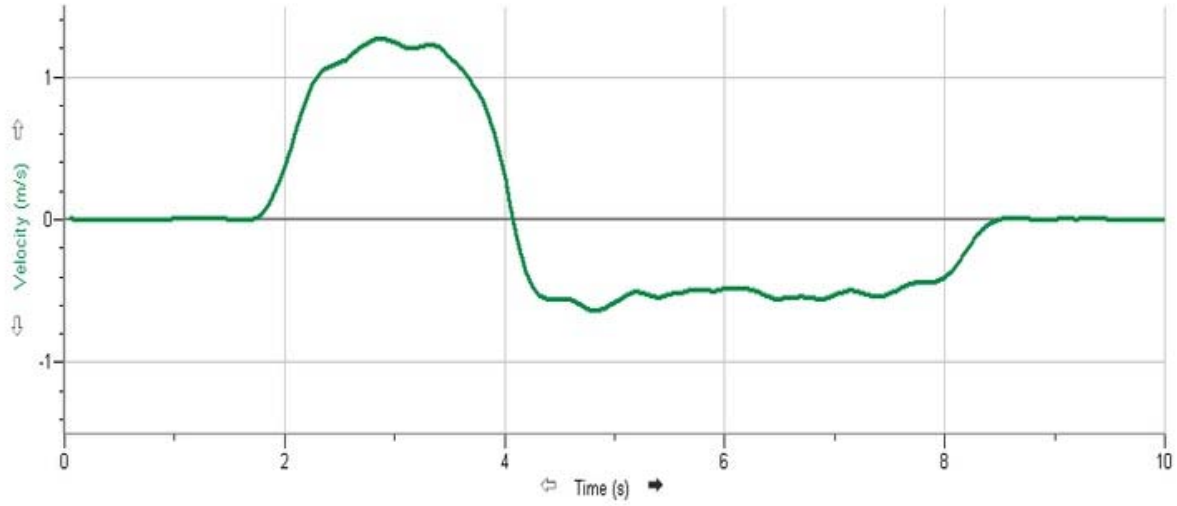
Video #1 (distance):



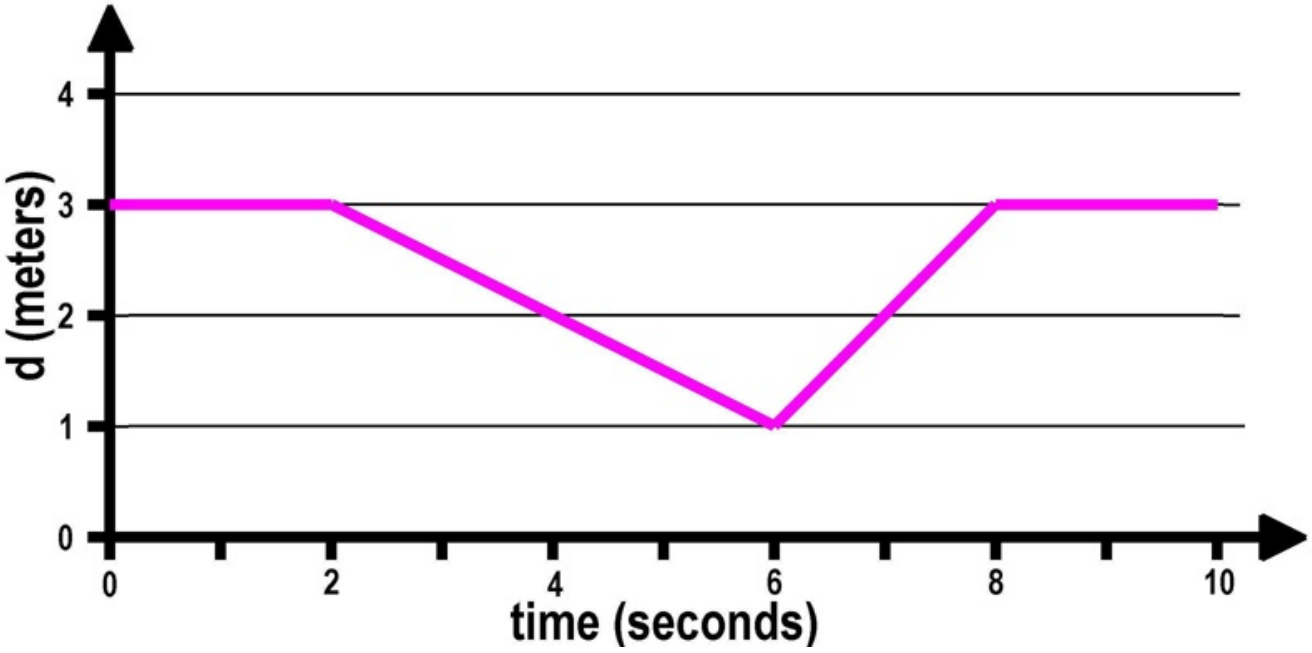


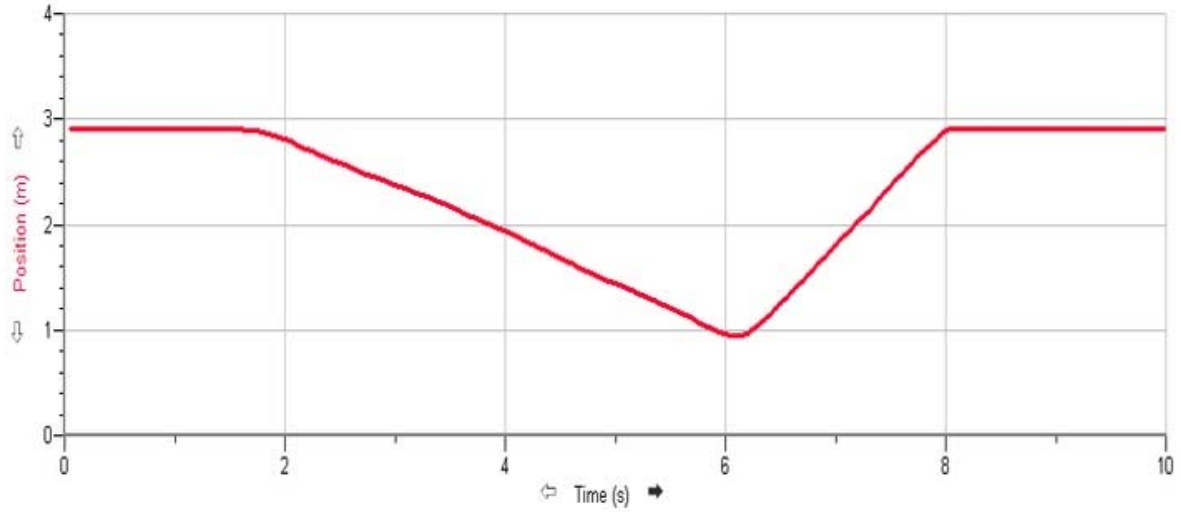
Video #1 (velocity):



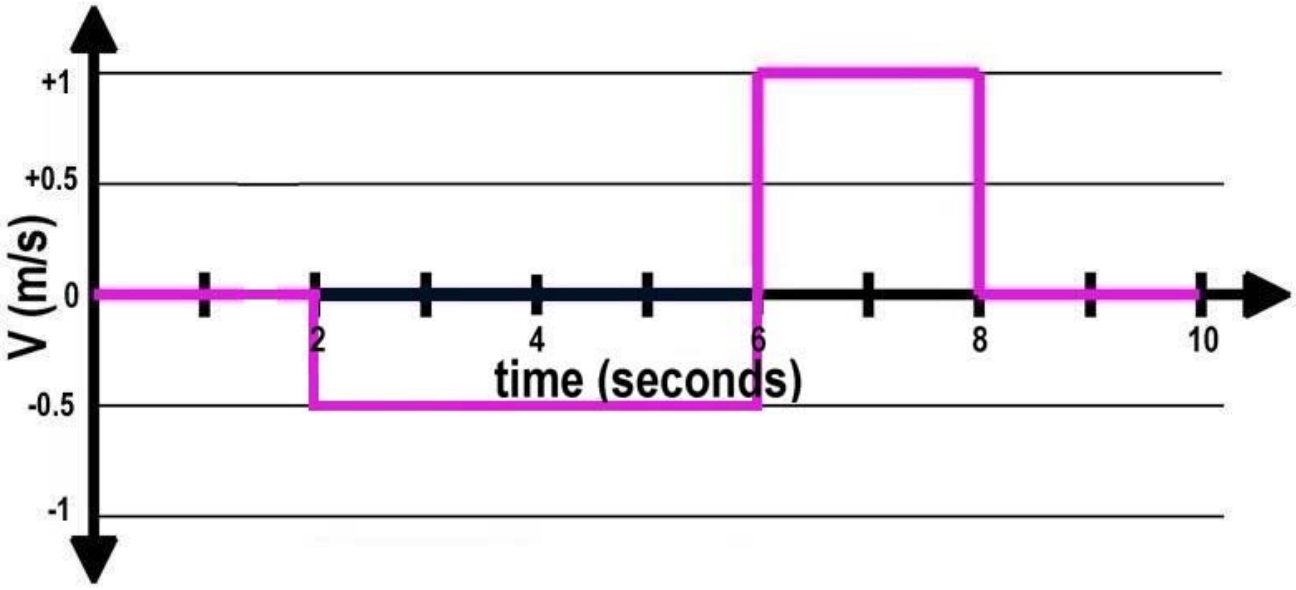


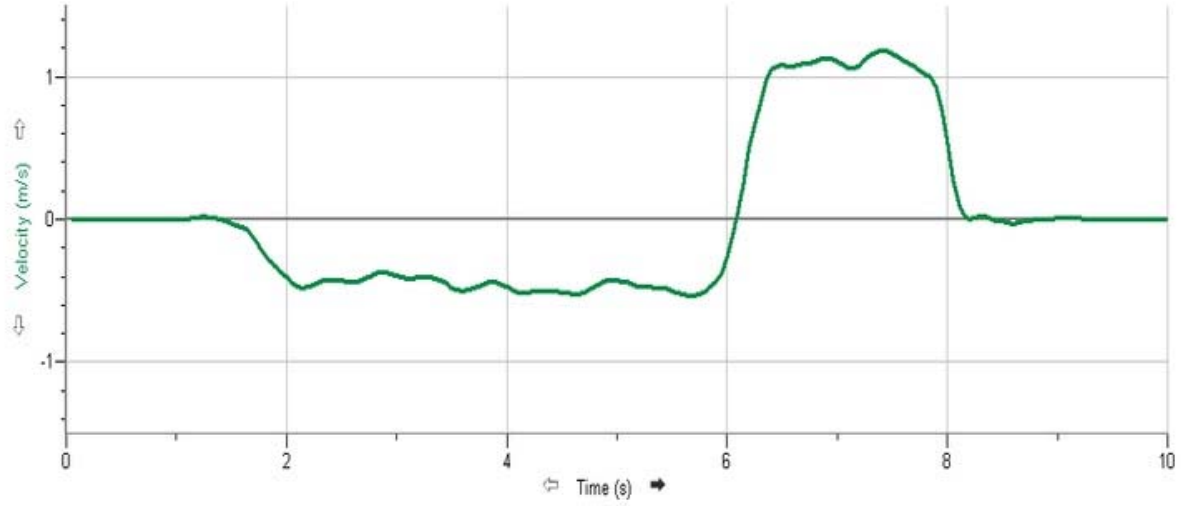
Video #2 (distance):



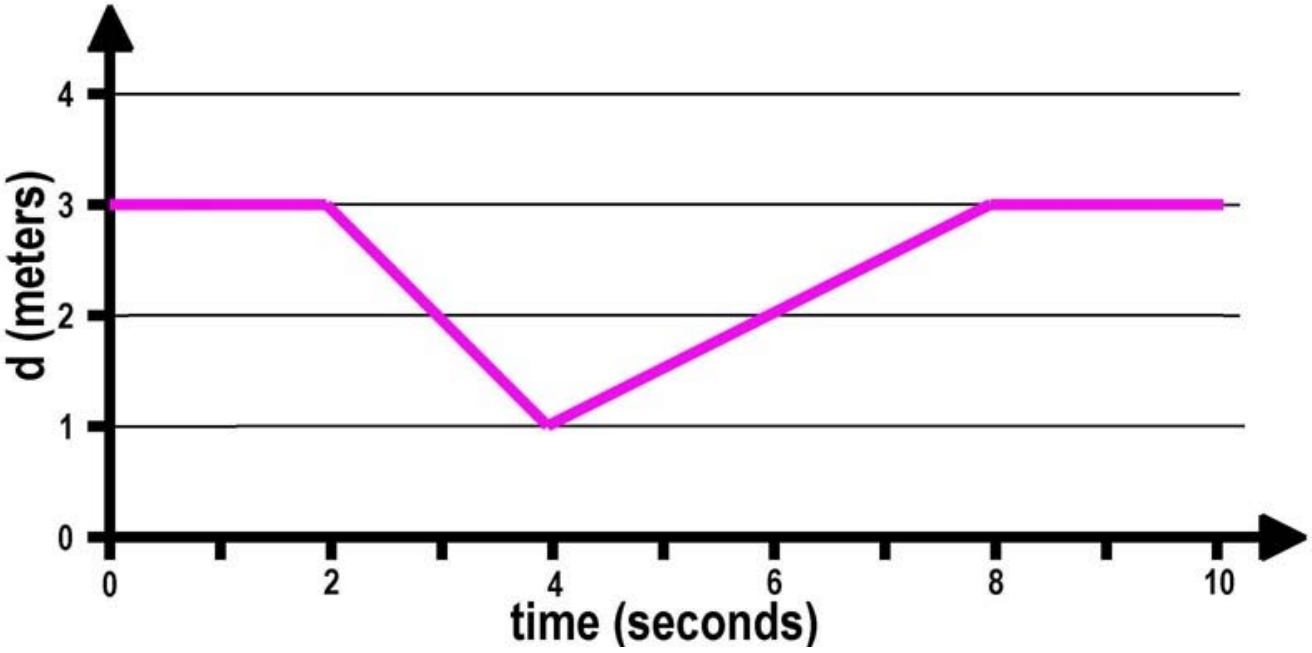


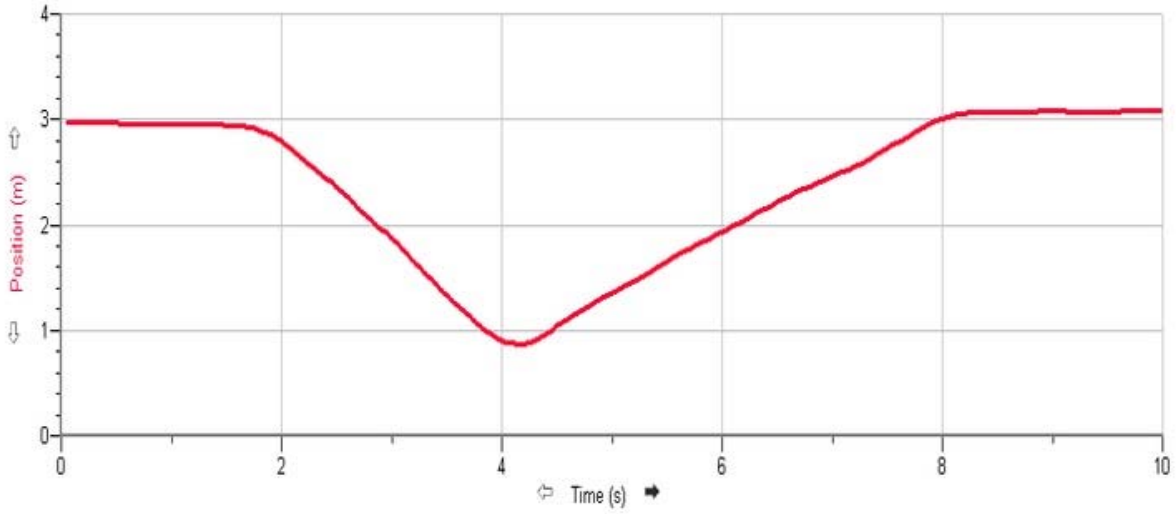
Video #2 (velocity):



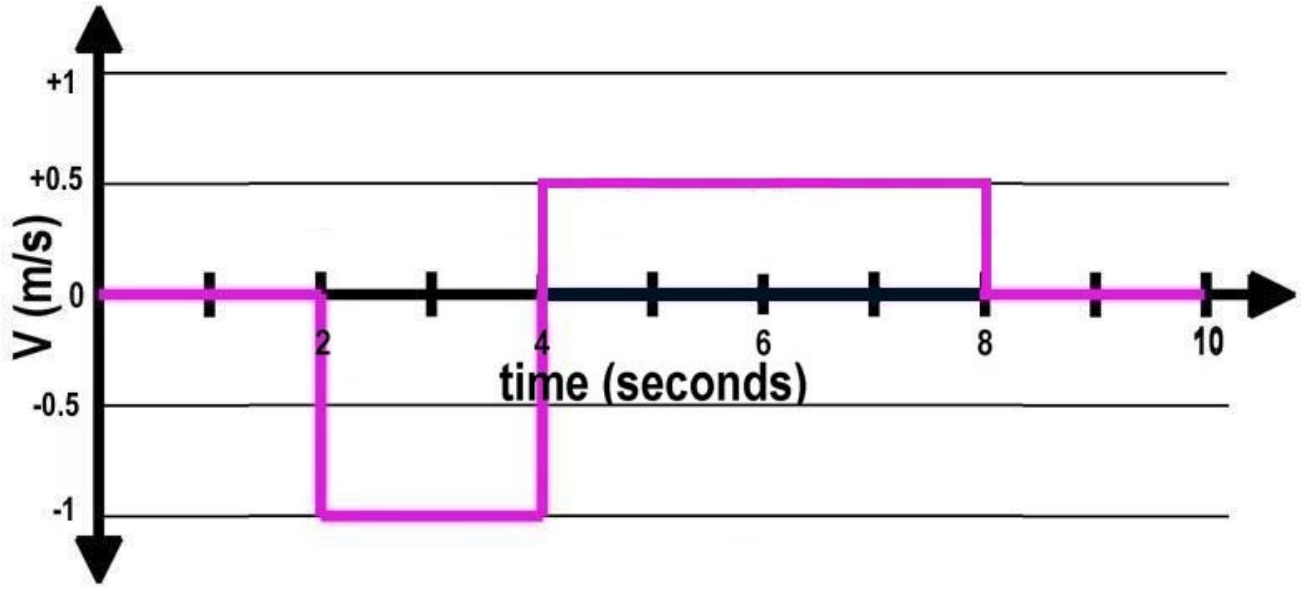


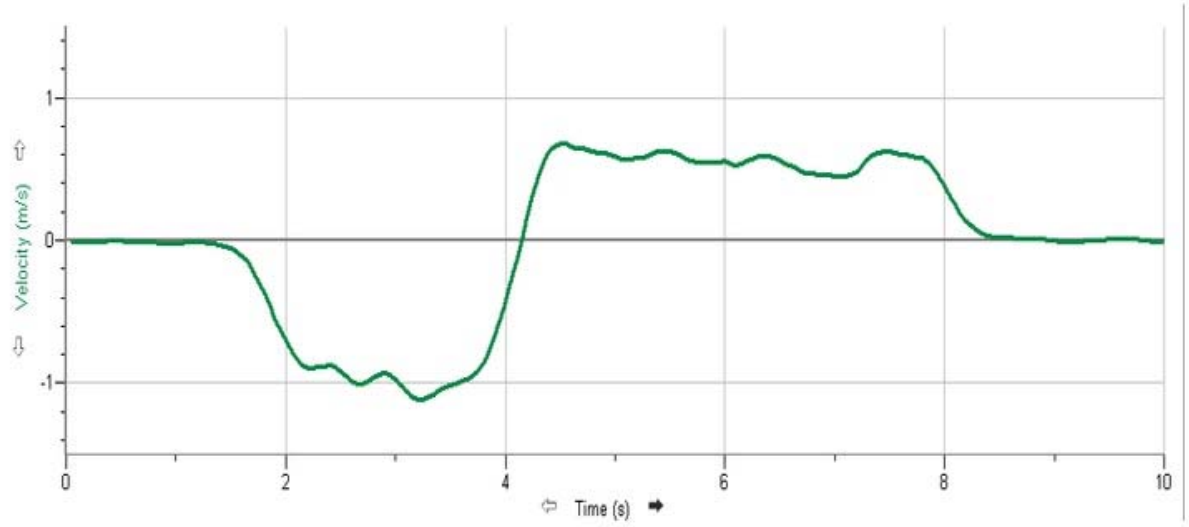
Video #3 (distance):



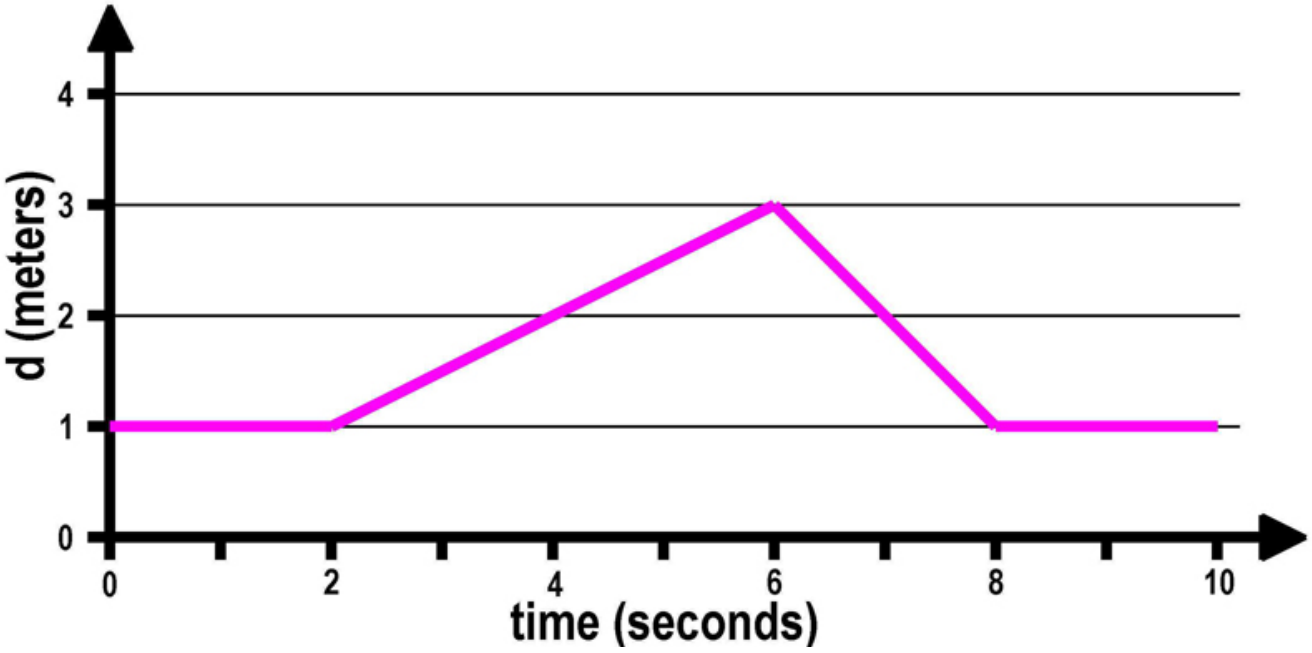


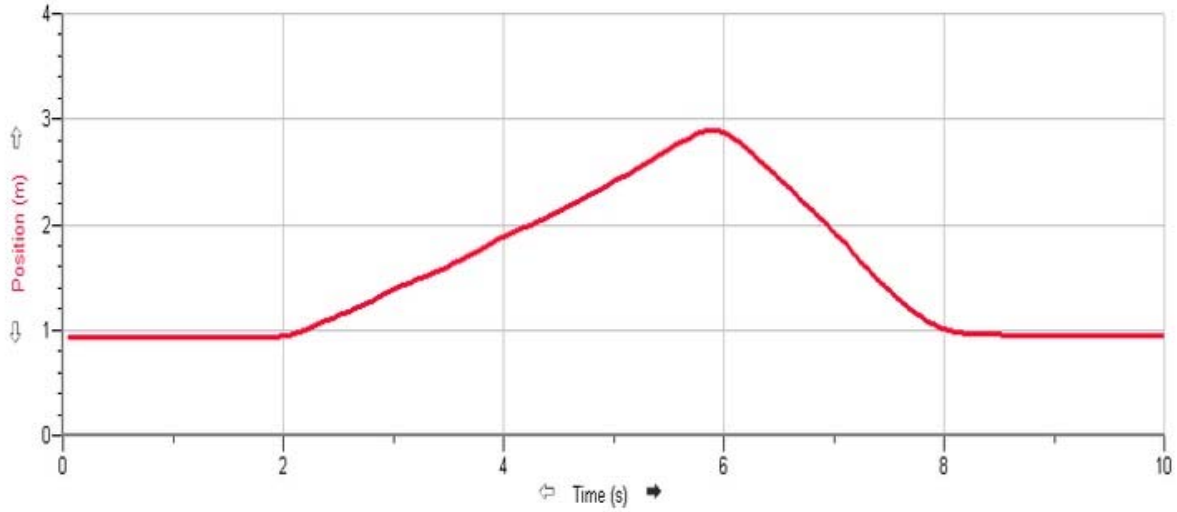
Video #3 (velocity):



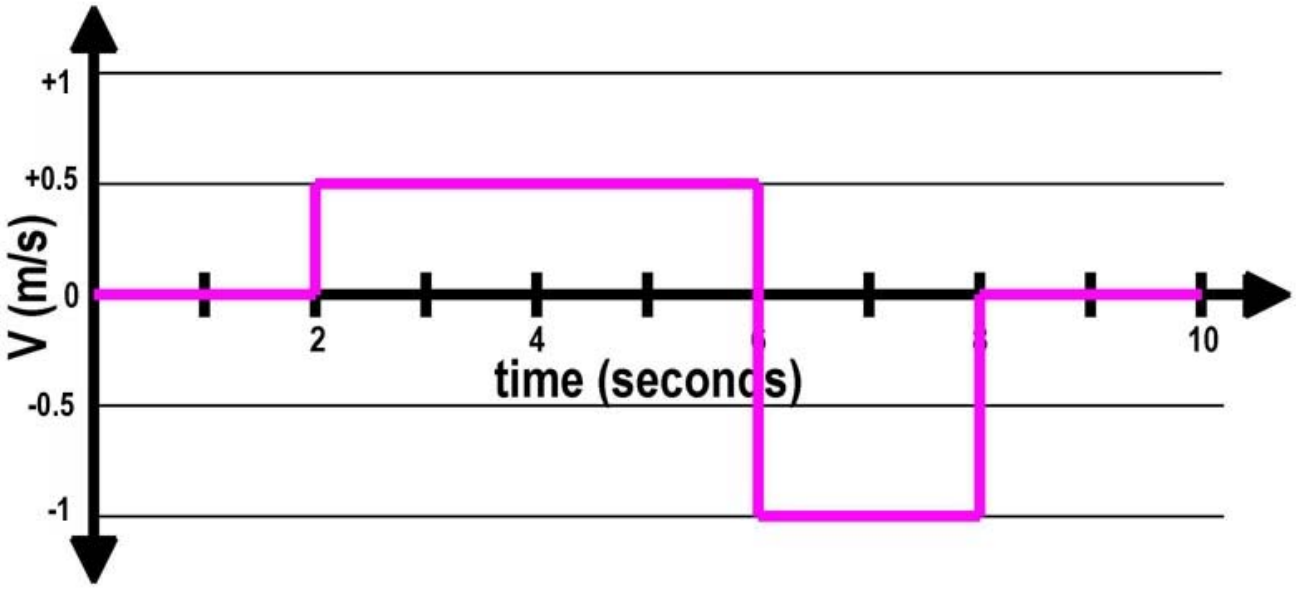


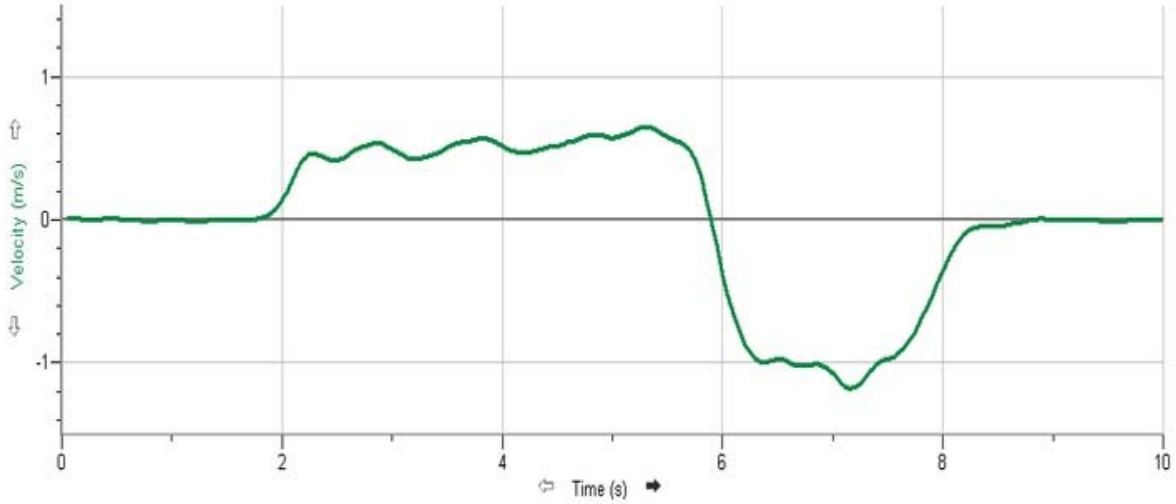
Video #4 (distance):





Video #4 (velocity):





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DEPARTMENT OF PHYSICS
UNIVERSITY OF MARYLAND

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