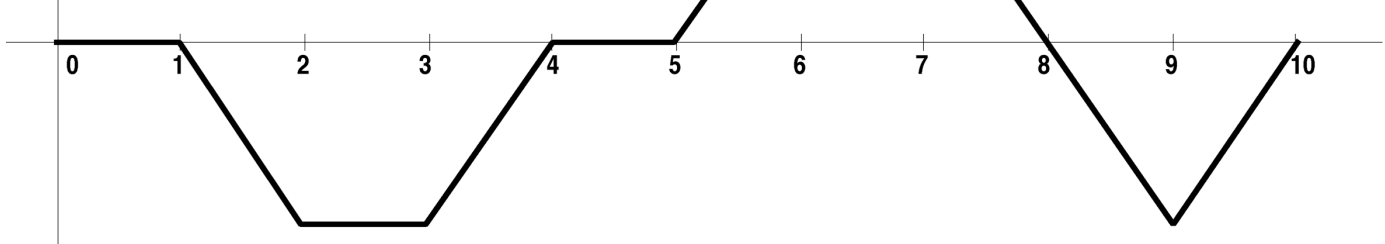


# PhyzJob: How's it Goin'?

verbal interpretations of motion graphs



1. This plot shows the **velocity vs. clock reading** of a body. Label the axes accordingly. Consider the following descriptions of motion.



The vehicle below is shown in several states of motion.



0: At rest



+UM: Uniform motion in the positive direction



-UM: Uniform motion in the negative direction



-UAM+: Moving in the negative direction while slowing down



-UAM-: Moving in the negative direction while speeding up



+UAM+: Moving in the positive direction while speeding up



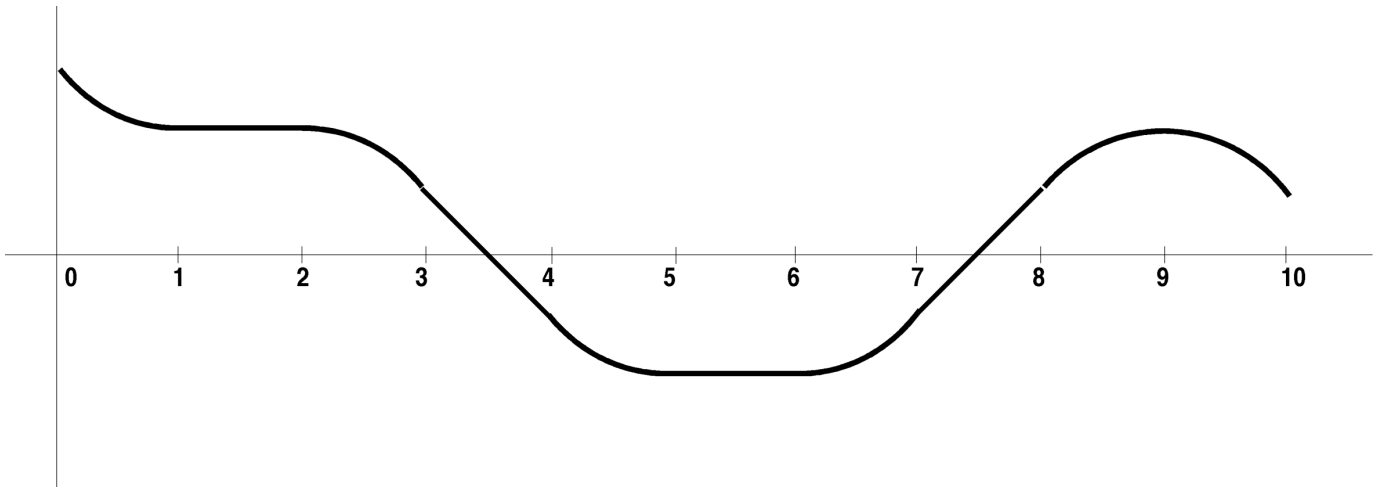
+UAM-: Moving in the positive direction while slowing down

Use these descriptions to identify each segment of the motion depicted in the graph. Leave the “v:” and “a:” spaces blank for now.

- a. between  $t = 0$  and  $t = 1$  s. \_\_\_\_\_ v:\_\_\_ a:\_\_\_      b. between  $t = 1$  s and  $t = 2$  s. \_\_\_\_\_ v:\_\_\_ a:\_\_\_
- c. between  $t = 2$  s and  $t = 3$  s. \_\_\_\_\_ v:\_\_\_ a:\_\_\_      d. between  $t = 3$  s and  $t = 4$  s. \_\_\_\_\_ v:\_\_\_ a:\_\_\_
- e. between  $t = 4$  s and  $t = 5$  s. \_\_\_\_\_ v:\_\_\_ a:\_\_\_      f. between  $t = 5$  s and  $t = 6$  s. \_\_\_\_\_ v:\_\_\_ a:\_\_\_
- g. between  $t = 6$  s and  $t = 7$  s. \_\_\_\_\_ v:\_\_\_ a:\_\_\_      h. between  $t = 7$  s and  $t = 8$  s. \_\_\_\_\_ v:\_\_\_ a:\_\_\_
- i. between  $t = 8$  s and  $t = 9$  s. \_\_\_\_\_ v:\_\_\_ a:\_\_\_      j. between  $t = 9$  s and  $t = 10$  s. \_\_\_\_\_ v:\_\_\_ a:\_\_\_

2. Identify the nature of the velocity and the acceleration of each interval as positive, negative, or zero. Go back and add this to the description you provided for each interval in the space above. For example, during interval A ( $t = 0$  to  $1$  s) the velocity is zero and the acceleration is zero; during interval D (from  $t = 3$  s to  $4$  s), the velocity is negative and the acceleration is positive.

3. This plot shows the **position vs. clock reading** of a body. Label the axes accordingly. Consider the following descriptions of motion.



The vehicle below is shown in several states of motion.



**0: At rest**



**+UM: Uniform motion in the positive direction**



**-UM: Uniform motion in the negative direction**



**-UAM+: Moving in the negative direction while slowing down**



**-UAM-: Moving in the negative direction while speeding up**



**+UAM+: Moving in the positive direction while speeding up**



**+UAM-: Moving in the positive direction while slowing down**

Use these descriptions to identify each segment of the motion depicted in the graph. Leave the “v:” and “a:” spaces blank for now.

- a. between  $t = 0$  and  $t = 1$  s. \_\_\_\_\_ v:\_\_\_ a:\_\_\_      b. between  $t = 1$  s and  $t = 2$  s. \_\_\_\_\_ v:\_\_\_ a:\_\_\_
- c. between  $t = 2$  s and  $t = 3$  s. \_\_\_\_\_ v:\_\_\_ a:\_\_\_      d. between  $t = 3$  s and  $t = 4$  s. \_\_\_\_\_ v:\_\_\_ a:\_\_\_
- e. between  $t = 4$  s and  $t = 5$  s. \_\_\_\_\_ v:\_\_\_ a:\_\_\_      f. between  $t = 5$  s and  $t = 6$  s. \_\_\_\_\_ v:\_\_\_ a:\_\_\_
- g. between  $t = 6$  s and  $t = 7$  s. \_\_\_\_\_ v:\_\_\_ a:\_\_\_      h. between  $t = 7$  s and  $t = 8$  s. \_\_\_\_\_ v:\_\_\_ a:\_\_\_
- i. between  $t = 8$  s and  $t = 9$  s. \_\_\_\_\_ v:\_\_\_ a:\_\_\_      j. between  $t = 9$  s and  $t = 10$  s. \_\_\_\_\_ v:\_\_\_ a:\_\_\_

4. Identify the nature of the velocity and the acceleration of each interval as positive, negative, or zero. Go back and add this to the description you provided for each interval in the space above. For example, during interval A ( $t = 0$  to  $1$  s) the velocity is negative and the acceleration is positive; during interval D (from  $t = 3$  s to  $4$  s), the velocity is negative and the acceleration is zero.