## Graphs in Motion

Name $\qquad$
Label each tick mark with the correct velocity or time and answer the following questions


1) Please complete this table using the choices increasing speed, decreasing speed, constant speed:

| Interval | What the object is doing during that interval? |
| :--- | :--- |
| $0-4 \mathrm{~s}$ |  |
| $4-5 \mathrm{~s}$ |  |
| $5-6 \mathrm{~s}$ |  |
| $6-8 \mathrm{~s}$ |  |
| $8-9 \mathrm{~s}$ |  |
| $9-10 \mathrm{~s}$ |  |
| $10-12 \mathrm{~s}$ |  |
| $12-14 \mathrm{~s}$ |  |

2) How fast is the object moving at 2 seconds?
3) What is its acceleration from 0.0 to 4.0 seconds?
4) What is its acceleration from 6.0 to 8.0 seconds?
5) How fast is it moving at 7 seconds?
6) What is its acceleration from 4.0 to 5.0 seconds?
7) What is its acceleration from 8.0 to 9.0 seconds?
8) What is its acceleration from 10.0 to 12 seconds?
9) During which interval is the object speeding up most rapidly?
10) During which interval is it slowing down most abruptly?
11) How far did the object travel in the first second?
12) How far did it travel in the first four seconds?
13) How far did it travel from 6.0 to 8.0 seconds?
14) How far did it travel from 10.0 to 14.0 seconds?
15) How far did it travel overall? What is the object's overall displacement?
16) Use the space below to plot a graph of the object's distance traveled during the first four seconds.

