Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Physics 11

**Section 2.3: Position and Velocity Graphs
(Bossy the Cow)**

In this activity, we look at ***uniform motion***, that is, motion with \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

Velocity is a vector, so in order for it to be constant, both its \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ must be constant.

|  |  |  |
| --- | --- | --- |
| **“Out to Pasture”** | **“Out to Hereford”** | **“Big Bad Wolf”** |
| Position (m) | Time (s) | Position (m) | Time (s) | Position (m) | Time (s) |
| 0 |  | 0 |  | 0 |  |
| 1 |  | 1 |  | 1 |  |
| 2 |  | 2 |  | 2 |  |
| 3 |  | 3 |  | 3 |  |
| 4 |  | 4 |  | 4 |  |
| 5 |  | 5 |  | 5 |  |
| 6 |  | 6 |  | 6 |  |
|  |  |  |  | 5 |  |
|  |  |  |  | 4 |  |
|  |  |  |  | 3 |  |
|  |  |  |  | 2 |  |
|  |  |  |  | 1 |  |
|  |  |  |  | 0 |  |

Below, draw position-time graphs and velocity-time graphs for Bossy’s adventures. Remember, **these graphs are not pictures of Bossy’s path!**

|  |  |  |
| --- | --- | --- |
| **“Out to Pasture”** | **“Out to Hereford”** | **“Big Bad Wolf”** |
| What’s the slope of your line above?What are the units of the slope? | What’s the slope of your line above? | What are the slopes of your lines above? |
| Is this uniform motion? Why or why not? | Is this uniform motion? Why or why not? | Is this uniform motion? Why or why not? |