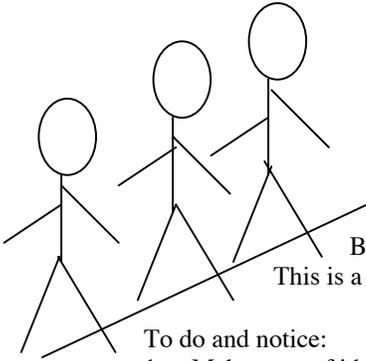


## Graph Dance

Students do a dance based on a graph.



By reading a graph, students move back and forth and vary their speed accordingly.  
This is a kinesthetic way to help students interpret and understand how motion is graphed.

To do and notice:

1. Make a set of identical graphs of time versus distance (or time versus velocity.)  
See following page for two samples.
2. Distributed the graphs to class members.
3. Have the class stand in a single line facing the instructor.
4. Do a dance based on the graph. The instructor should call out or clap the seconds between steps.  
...practicing the first round helps.
5. Create your own graphs.

Sample graph **A** for time vs. distance :

**See following page**

To dance (or walk) this graph, students would do the following from one second to the next in a straight line:

1. Move forward 2 steps in 2 seconds.
2. Stay in the same spot for 1 second.
3. Move backwards 1 step the next second.
4. Stay still for 3 seconds
5. Move forward 3 steps in 3 seconds

Sample graph **B** for time vs. velocity:

**See following page**

To dance (or walk) this graph, students would do the following from one second to the next in a straight line:

6. Move forward and speed up for 2 second.
7. Keep walking forward for 1 seconds.
8. Slow down to a full stop in one second.
9. Stop for 3 seconds.
10. Start walking backwards for one second
11. Continue pacing backwards at the same rate for 1 second.

Sample graph **C** for time vs. distance!:

**See following page**

This is a dance! Students would do the movements, associated motions, gestures and vocalizations according to the graph. Many other creative dances can be made with other moves and with students moving linearly, but starting from multiple directions.

Option:

Have students split into groups and have each group create a set of graphs for another group. Exchange graphs and have each group present their new dance.

