*COMP Summer 2016 – Middle Grades Wednesday, June 22, 12:00 – 1:15*

*Materials: Tony’s Walk task handout, packets of student responses (1 packet per table)*

This morning, we explored distance-time graphs, but what about speed or velocity vs. time? First, are speed and velocity the same? If not, how are they different?

* Give teachers the Tony’s Walk Task handout. As you can see, Tony’s Walk is a middle school task from NCTM’s *Using Assessment to Improve Middle-Grades Mathematics Teaching and Learning*. Ask teachers to work independently first to write a story about Tony’s walk. Then allow time for them to share their stories with their table group, and finally ask selected teachers to share their stories with the group.
* As middle school teachers, how do you think student would perform on this task? When we consider using a task with our students, we should anticipate possible student responses, difficulties, etc. Allow time for teachers to think about this and discuss with their table group before opening up discussion with the whole group.
* Give each table 1-2 packets of students’ work. Analyze each student’s work and summarize common successes and difficulties with this task.
* Share analyses with the group and discuss.

*If time …* How might a graph of velocity vs. time compare to a graph of speed vs. time?

*COMP Summer 2016 – Middle Grades Wednesday, June 22, 1:30 – 2:45*

*Materials: CBRs, post-its, measuring tapes, TI 83/84 Ranger – Velocity-Time Match handout, Analyzing Velocity-Time Graphs handout*

Now, we are going to use the CBRs to match Velocity-Time graphs!

* Give teachers the TI 83/84 Ranger – Velocity-Time Match handout. Show a velocity-time match graph on the CBR at the document camera. Ask teachers to independently analyze the graph and decide how the person should walk in order to match the graph. Then share ideas with table group.
* Ask for a group to volunteer. One person is the walker and the others will give directions. How did it go? What should they do differently? Do this one more time with another group.
* Give teachers the Analyzing Velocity-Time Match handout. Ask them to analyze each graph independently before discussing as a table group.
* When ready, teachers will work in groups of 2-3 with the CBRs and the Velocity-Time Match app.
* Come back together as a group and share experiences, observations, and findings.

*If time …* Go to Position, Velocity, and Acceleration vs. Time Graphs – GeoGebra using link on website and explore!