

Physics 4810 / 7810 Week 2 - Getting Going

Day 4: Fa2008

Field Sites

quick feedback: any questions / comments

Kinematics in 1-D:

content –

structural organization of content

pedagogical implications ---



??

Kinematics (desc. of motion)

Not the CAUSE of motion

General comments about the chapter:

- What tools were present to help students learn?
- What do students do?

??

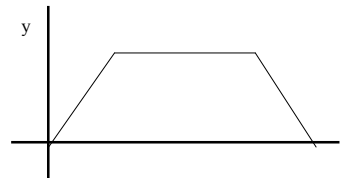
Focus on Representations

- How many different representations of motion are present in this chapter?
- What explicit efforts are used to link these?

?

Graphs (for example)

Describe the following (real world scenario):

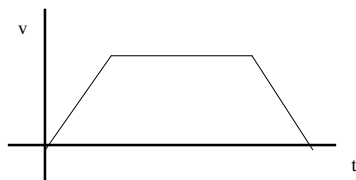


WYSIWYG

??

Now for v vs. t

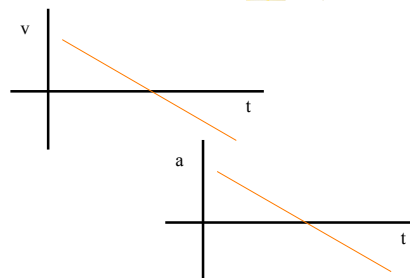
Describe the following (real world scenario):



non-WYSIWYG

??

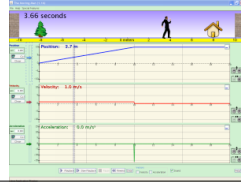
Challenging reps?



Another Rep

?

- Volunteer (just to walk)
- Walk with:
 - Constant position
 - Constant velocity
 - Constant acceleration

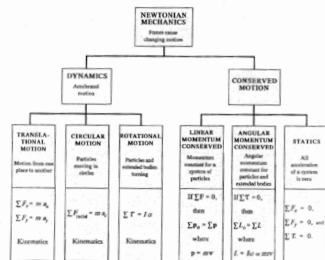


Making sense of it all

??

- List many (~15 - 20) ideas from the chapter
- Sort as Big ideas, middle level, and little
- Organize these and their relations to each other
- Now revisit the chapter and see if these are the same / different

What did Van Heuvelen Say?



Additional Thoughts

- What do Checkpoints do? Problems do?
- What is the connection of this chapter to the real world?
- Does this develop student personal interest?
- What is the underpinning theory of education?