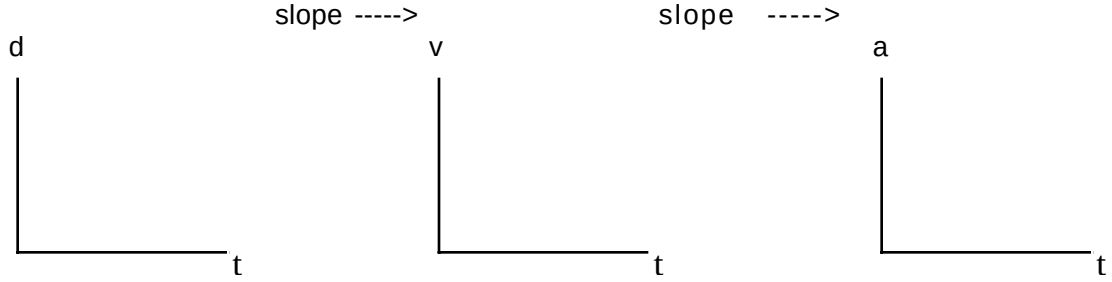
PHYSICS
REVIEW: GRAPHICAL KINEMATICS

Test Date: _____

- find slope of straight-line graph, including both value and units
- write equation for straight-line graph
- find slope at point on curved graph (find slope of tangent)
- definitions and common units for following:
  - distance
  - displacement
  - speed
  - velocity
  - acceleration
- find area under graph
- given v-t graph, construct d-t graph and a-t graph
- given d-t graph, construct v-t graph
- identify or interpret characteristics of motion by inspection of graph, particularly v-t graph
- given graph, tell story of motion, and/or
  given description of motion, construct graph
- unit analysis method for speed conversions from metric to English, or vice-versa; MEMORIZE the following
  conversion factors:
  2.54 cm = 1 in 5280 ft = 1 mile
  (you are also expected to know other "common sense" conversion factors such as 60 sec = 1 min, 60 min = 1 hr, 12 in = 1 ft, 100 cm = 1 m)
- percent error estimation and/or calculation
- major ideas and processes in the following labs
  - 4 x 4 Truck and Rolling Ball
  - Hot Wheels
  - 2-Speed Shifter
- relationship of d-t, v-t and a-t graphs



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