

KEY.

Math 125-Quiz 13¹

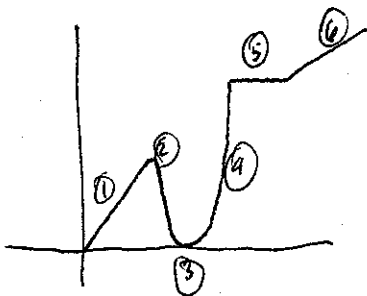
October 3, 2011

You have ten minutes to complete this quiz.

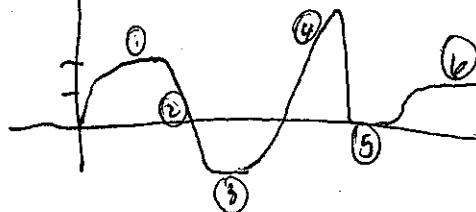
1. Draw three graphs based on the following story, one of *position* (distance from home as a function of time), one of *velocity* and one of *acceleration*.

Prof. B^2 and his kids leave the house for a birthday party travelling at a constant speed (just above the speed limit)^①. Prof B^2 then realizes that he's left the present at the house, so he has to turn around and go back^②. Fearing that he'll be late for the party, he then leaves the house at an increasing rate of speed^③, until a police officer sees him and pulls him over^④. It takes some time for the officer to check the license and registration (but ultimately lets Prof. B^2 go, as his kids start crying). Prof B^2 , duly admonished, continues on to the party at a constant rate of speed (this time, just under the speed limit)^⑤.

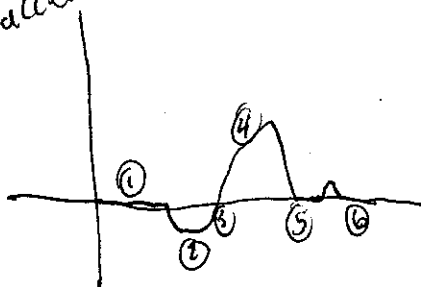
position



velocity



acceleration



① acceleration for constant speed.

¹You are excused to leave when you're finished with this quiz.