Physics 131 Name_____

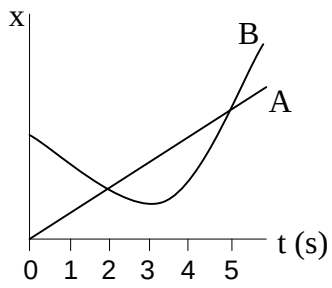
Recitation Instructor (circle one): Moe Larry Curly Groucho Chico Harpo

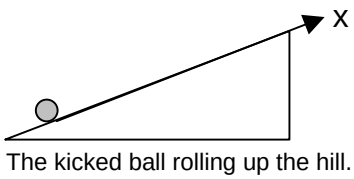
Class time (circle one): 10:30 11:30

QUIZ #2

1) **(a)** At approximately what time or times do particles A and B have the same speed? If none, just write "NONE". _____

(b) A girl kicks a ball up a hill. Which graph, A or B, could reasonably represent the position of the ball after the kick. If none, just write "NONE". _____





The kicked ball rolling up the hill.

2) A rocket, starting from rest, travels 3.0×10^8 m in 500 s at constant acceleration. What was is final speed?

3) A particle's position is given by $x(t) = 12\ t^3 - 8$, with t in seconds and x in meters. What is its acceleration at t = -2.0 s?

4) A pilot abandons his plane and falls for 20 m. He then deploys his parachute and decelerates at 3.0 m/s^2. He hits the ground at 10.0 m/s (painful!). From what height did he abandon his plane?