**Physics 141: Group Worksheet**

1. Suppose that at a given instant one object is moving faster than another. The number obtained for the instantaneous speed of the faster object will be larger than that obtained for the instantaneous speed of the slower one. (Statement about instantaneous speed always apply to just one instant, since things might be different at different times.)

Example: Object B is faster than Object A

Let us think about a small interval of time and see what happens to each object in that time interval. Suppose that Object A has an instantaneous velocity of 20 mph and Object B has an instantaneous velocity of 30 mph at the time we are comparing them. Suppose Object B is ahead of Object A at this time. How far does each object move in an interval of 0.5 hours?

1. Sketch the velocity versus time graph given the position versus time graph for the same time interval. Explain

