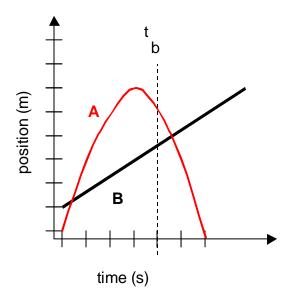
## Homework 1:

Consider the following position (distance) vs. time graph of two objects



- 1. Construct a motion diagram for each object.
- 2. Mark on the graph with the label  $t_a$ , any instants at which one ball is passing the other.
- 3. Which ball has a larger velocity at time  $t_b$
- 4. Mark at any instants with  $t_c$  that the balls have the same velocity.
- 5. Mark with  $t_d$  any instants at which either of the balls has a zero velocity.
- 6. Describe the motion for both objects A and B for the period shown