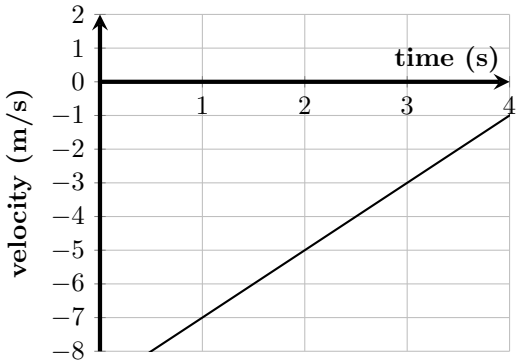
Name: Date: Period:

Motion #6

1. For each of the following graphs, answer the accompanying questions.

   (a) Consider this graph and answer the questions



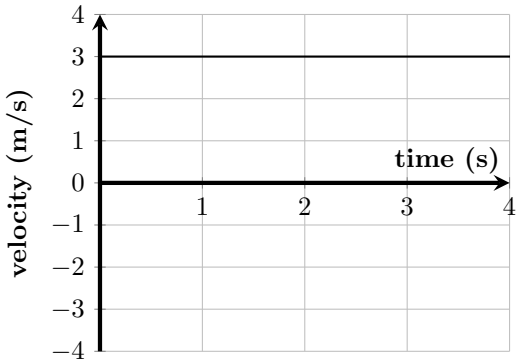
   i. The object is moving
   ◯ forward ◯ backward

   ii. The object is
   ◯ speeding up ◯ slowing down
   ◯ moving at a constant speed

   iii. Calculate the velocity (if possible).

   iv. Calculate the acceleration.

   (b) Consider this graph and answer the questions



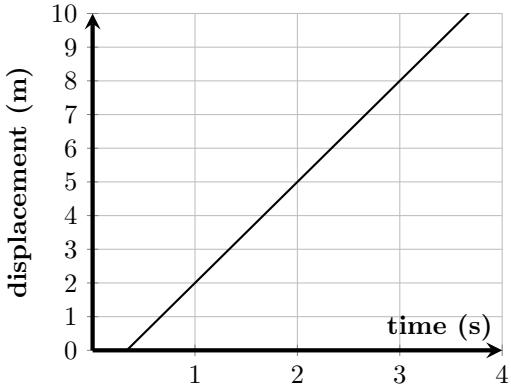
   i. The object is moving
   ◯ forward ◯ backward

   ii. The object is
   ◯ speeding up ◯ slowing down
   ◯ moving at a constant speed

   iii. Calculate the velocity (if possible).

   iv. Calculate the acceleration.

   (c) **Be careful! This is a *displacement* graph.**



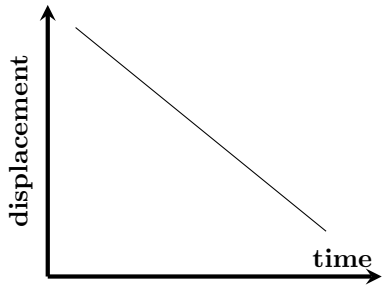
   i. The object is moving
   ◯ forward ◯ backward

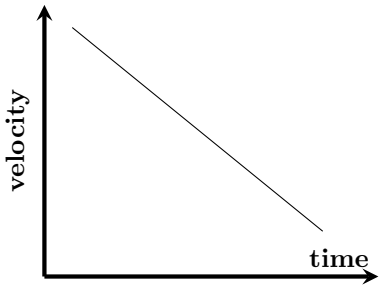
   ii. The object is
   ◯ speeding up ◯ slowing down
   ◯ moving at a constant speed

   iii. Calculate the velocity (if possible).

   iv. Calculate the acceleration.

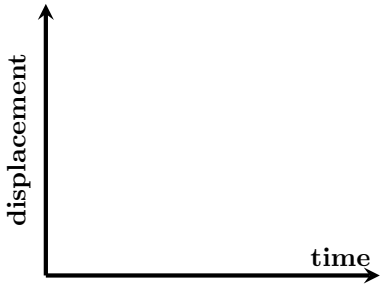
2. What is the difference between the motion of these two objects?

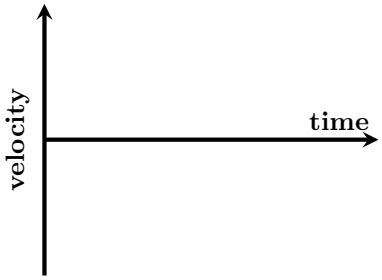




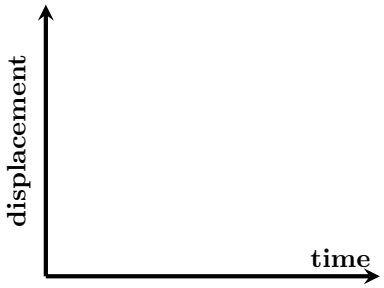
3. Draw the position and velocity graphs for each of the following situations

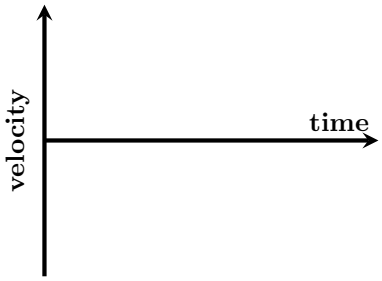
   (a) Going backward at a constant speed.





   (b) Going forward and speeding up.





   (c) Going backward and speeding up.