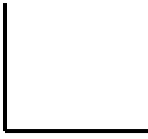
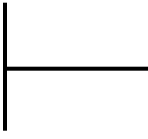
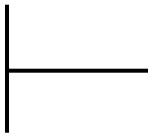

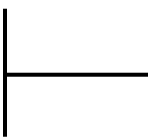
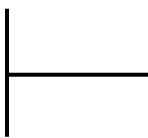




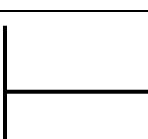
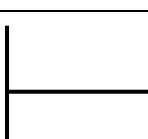
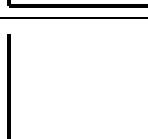
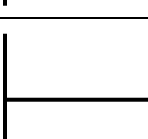
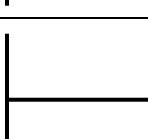
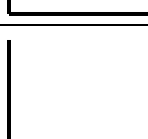
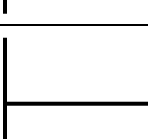
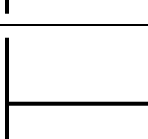
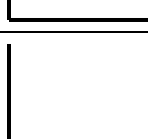
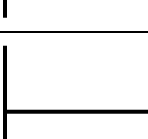
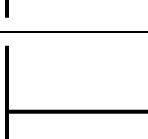


1. Draw the position, velocity and acceleration vs. time graphs for the 7 scenarios of motion discussed in class.

Motion Description	Sign for v & a	Position vs. Time Graph	Velocity vs. Time Graph	Acceleration vs. Time Graph
At Rest	Sign of v: Sign of a:			
Constant Velocity Away	Sign of v: Sign of a:			
Constant Velocity Toward	Sign of v: Sign of a:			
Speeding Up Away	Sign of v: Sign of a:			
Slowing Down Away	Sign of v: Sign of a:			
Speeding Up Toward	Sign of v: Sign of a:			
Slowing Down Toward	Sign of v: Sign of a:			

2. A motorcycle starts from rest and has a constant acceleration. In a certain time interval, its displacement triples. In the same time interval, by what factor does its velocity increase?

3. A car is traveling along a straight road and is decelerating. Does the car's acceleration a necessarily have a negative value?

[Type text]

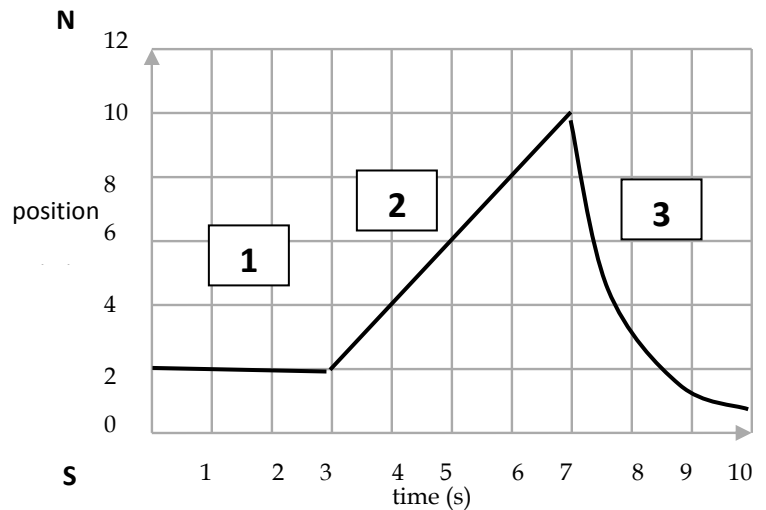
4. A football game customarily begins with a coin toss to determine who kicks off. The referee tosses the coin up with an initial velocity of 5.0 m/s. In the absence of air resistance, how high does the coin go above its point of release?

5. A car has uniformly accelerated motion and starting from rest has a velocity of + 37 m/s after traveling 175 m. Find the car's acceleration.

6. A train running at +26.8 m/s is stopped uniform acceleration (deceleration) in 44 seconds by the application of the brakes.
 - a. What is the acceleration?
 - b. What is the distance traveled before coming to rest?

7. A book is dropped 2.5 m from a second floor balcony. A 1.65-m tall person that was 3.0 m away when the book was dropped is able to catch the book at waist level (1.0 m above the ground). How long did it take the book to fall?

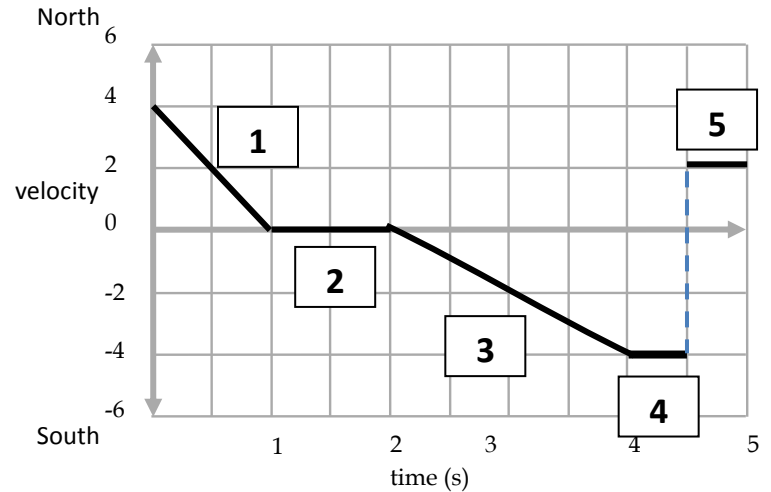
8. Use the position vs. time graph below to answer the questions that follow.
 - a. What is the position at 9 seconds?
 - b. Describe the motion of the object during each segment.
 - c. What is the velocity of the object from 0 s to 3 s?
 - d. What is the velocity of the object from 3 s to 7 s?
 - e. Draw the velocity vs. time and acceleration vs. time graphs that correspond with the above graph.



[Type text]

9. Use the velocity vs. time graph below to answer the questions that follow.

- What is the instantaneous velocity at 3 seconds?
- Describe the motion of the object during each interval.



- What is the acceleration of the object from 0 s to 1 s?
- What is the displacement of the object from 2 s to 4.5 s?
- What is the acceleration of the object from 4 to 4.5 s?
- How far has the object traveled between 4.5 and 5 s?
- Draw the position vs. time and acceleration vs. time graphs that corresponds to this velocity vs. time graph.

