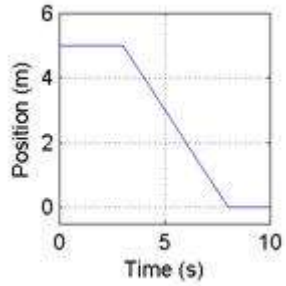
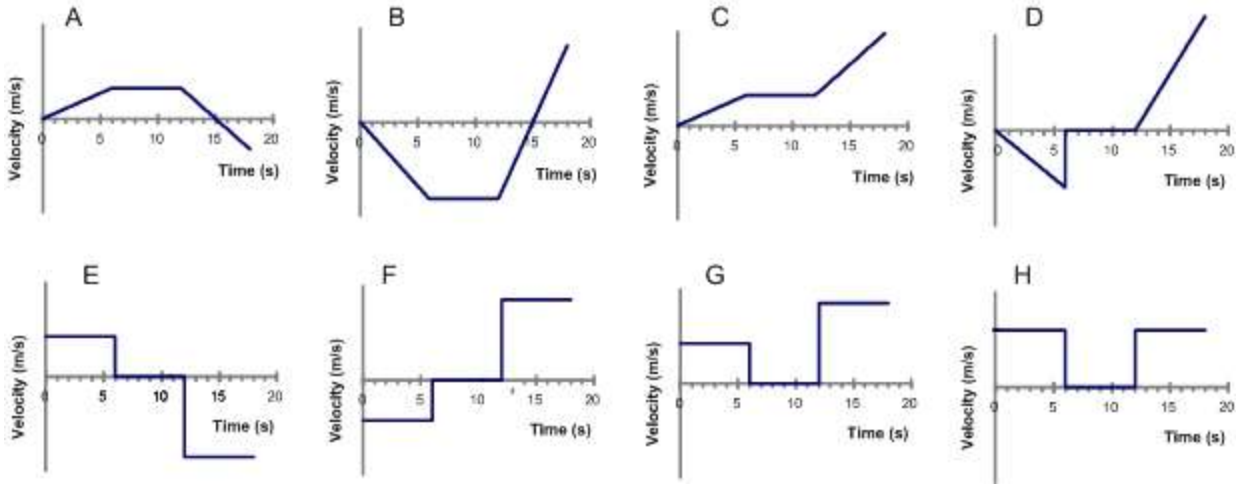
Prelab and Postlab questions for Moving Man

1. Below is a graph of a balls motion. Which of the following gives the best interpretation of the ball's motion?

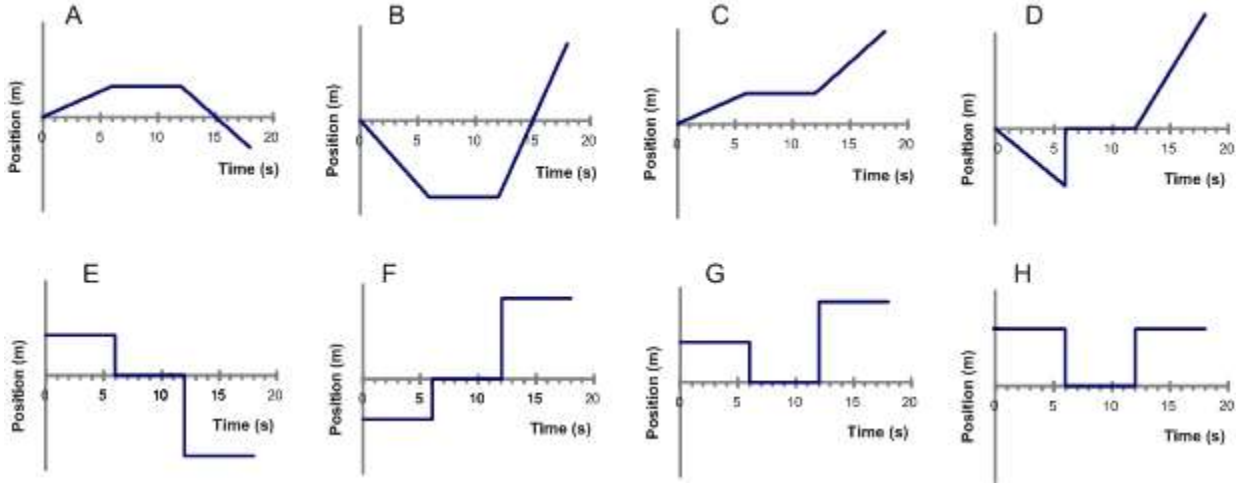


   a. The ball moves along a flat surface. Then it moves forward down a hill, and then finally stops.
   b. The ball doesn't move at first. Then it moves forward down a hill and finally stops.
   c. The ball is moving at constant velocity. Then it slows down and stops.
   d. The ball doesn't move at first. Then it moves backwards and then finally stops.
   e. The ball moves along a flat area, moves backwards down a hill and then it keeps moving.

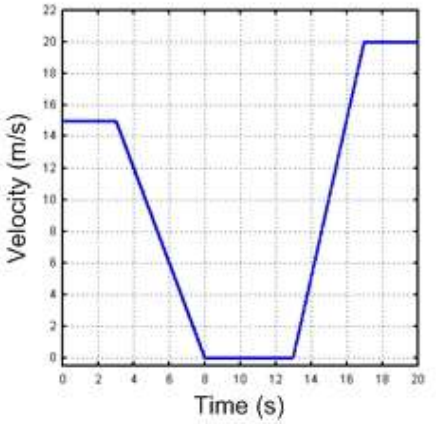
2. Which graph would best depict the following scenario? A man starts at the origin, walks back slowly and steadily for 6 seconds. Then he stands still for 6 seconds, then walks forward steadily about twice as fast for 6 seconds. Note that these are ***velocity-time*** graphs.



3. For the same scenario as # 2, which ***position-time*** graph best depicts the motion?



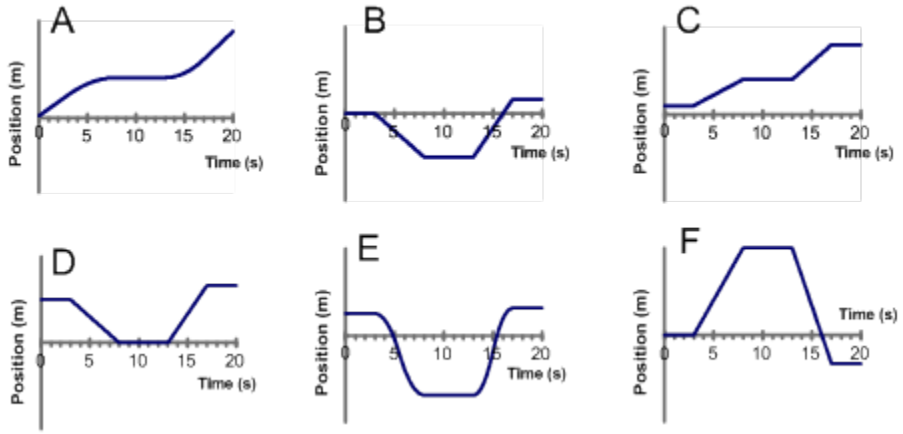
4. A car is traveling along a road. Its velocity is recorded as a function of time and is shown in the graph below.



During which intervals is the car accelerating? Choose all the answers that apply.

a. between 0 and 3 seconds
b. for a brief instant at 3,8,13 and 17 seconds
c. between 3 and 8 seconds
d. between 8 and 13 seconds
e. between 13 and 17 seconds
f. between 17 and 20 seconds

5. Which of the following ***position-time*** graphs would be consistent with the motion of the car in question #4?



6. A car is moving forward and applying the break. Which ***position-time*** graph best depicts this motion?