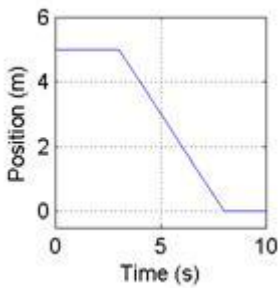
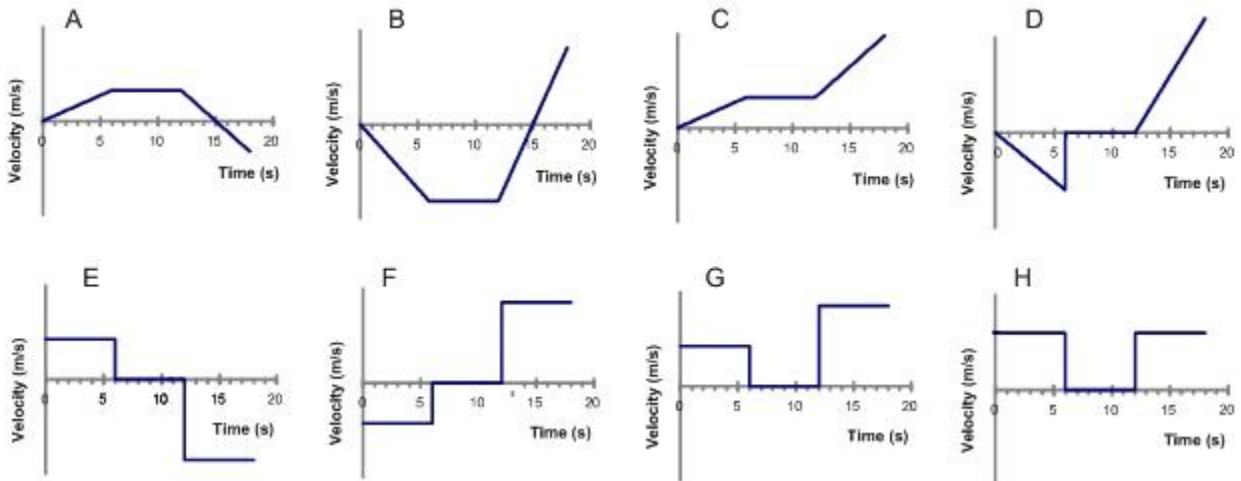


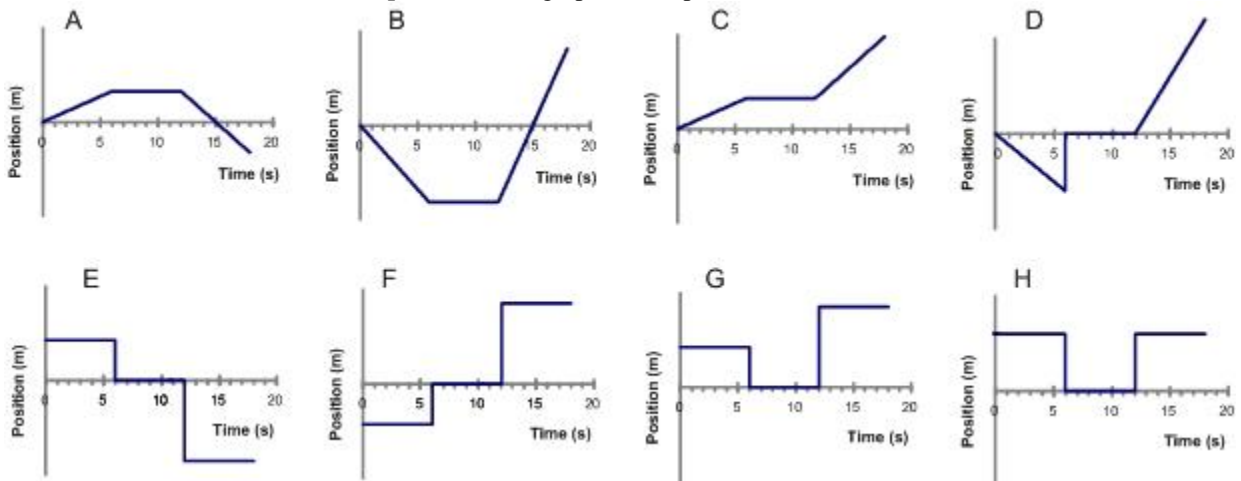
1. Below is a graph of a ball's motion. Which of the following gives the best interpretation of the ball's motion?



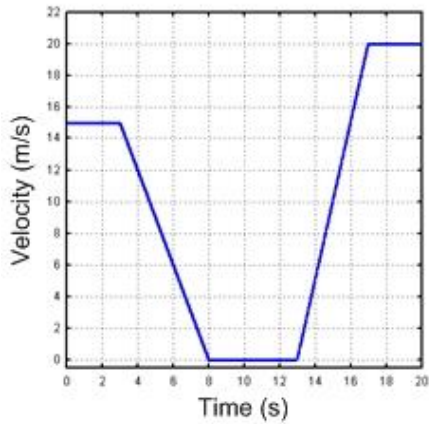
- The ball moves along a flat surface. Then it moves forward down a hill, and then finally stops.
 - The ball doesn't move at first. Then it moves forward down a hill and finally stops.
 - The ball is moving at constant velocity. Then it slows down and stops.
 - The ball doesn't move at first. Then it moves backwards and then finally stops.
 - 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?

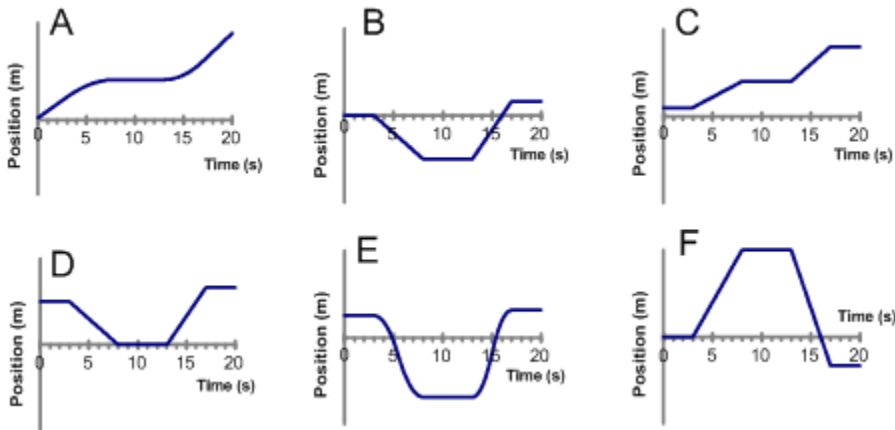


4. A car is traveling along a road. Its velocity is recorded as a function of time and is shown in the graph below.

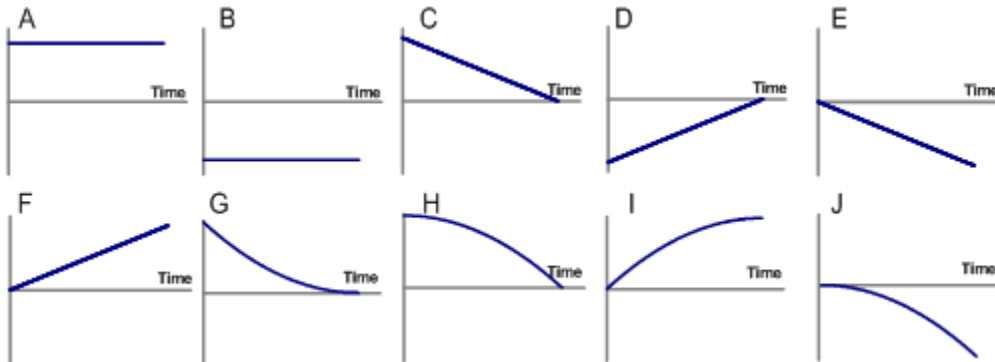


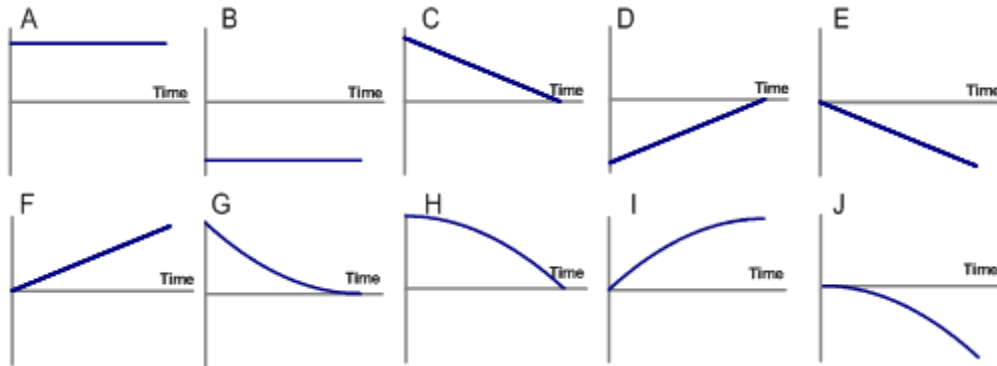
During which intervals is the car accelerating? Choose all the answers that apply.

- 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?





Using the graphs above answer the following questions. There may be more than one correct answer for each question.

7. A car that is not moving. Which *position-time* graph best depicts this motion?
8. A car with a constant acceleration. Which *position-time* graph best depicts this motion?
9. A car with a constant velocity. Which *position-time* graph best depicts this motion?
10. A car with a negative velocity. Which *position-time* graph best depicts this motion?
11. A car with a positive velocity. Which *position-time* graph best depicts this motion?