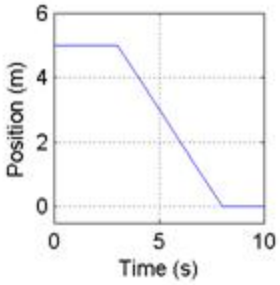
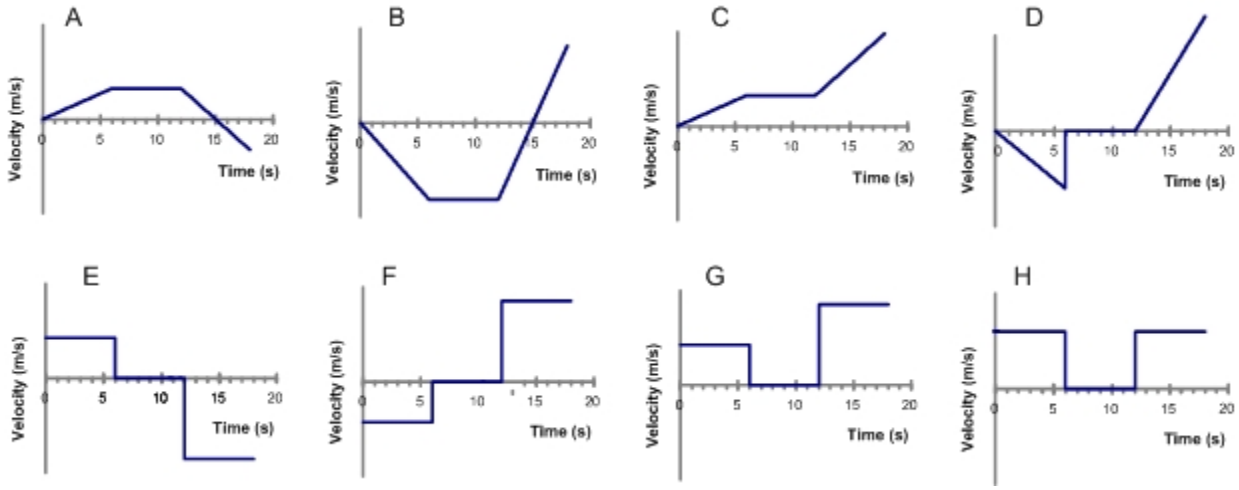
Conceptual Physics Worksheet 03a: **Motion & The Moving Man**

Directions: Use the "Moving Man" PhET model to assist you in answering the questions below. Give detailed responses for each question.

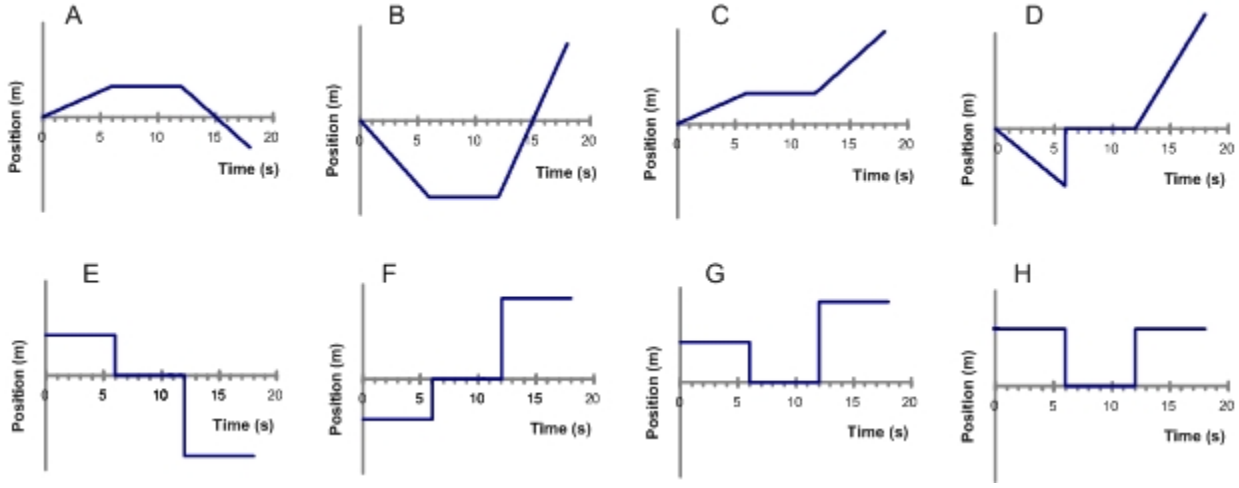
1. Below is a graph of a balls motion. Write a sentence which clearly describes the motion of the ball.



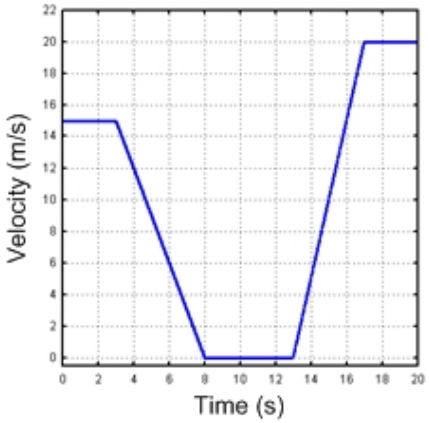
2. Which graph would best depict the following scenario? **A man starts at the origin, walks back slowly and steadily for 6 seconds. Then he stands still for 6 seconds, then walks forward steadily about twice as fast for 6 seconds.** Note that these are ***velocity-time*** graphs. Explain your choice.



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

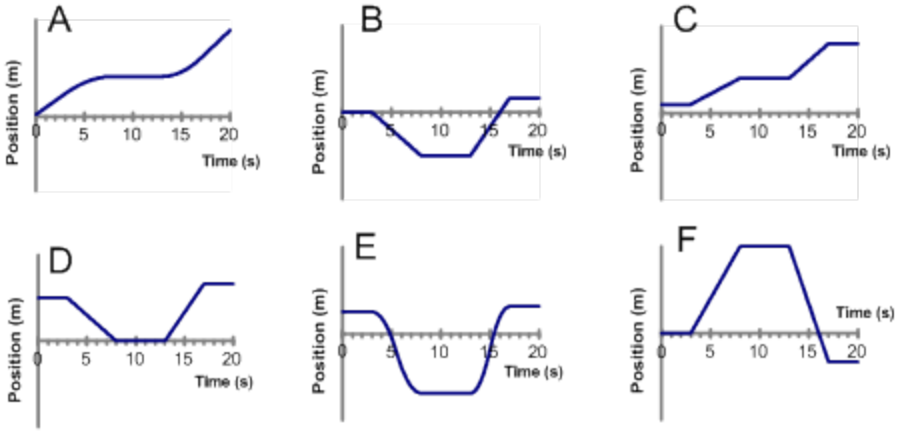
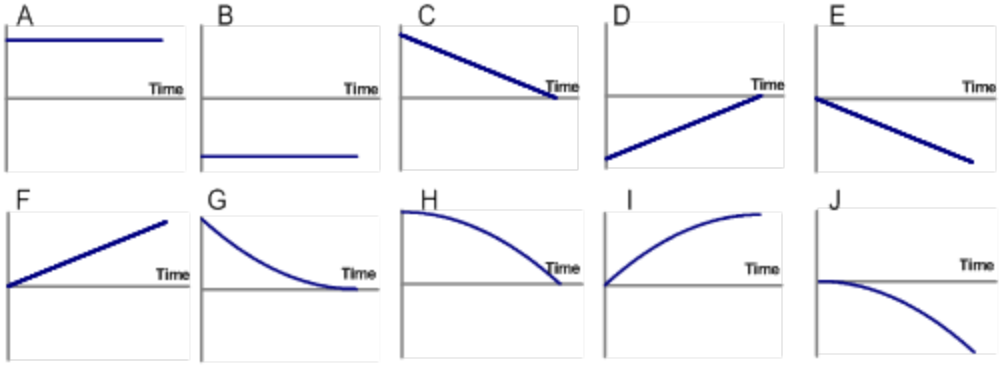


4. A car is traveling along a road in a straight path. Its velocity is recorded as a function of time and is shown in the graph below.



Label the intervals at which the car is accelerating, and indicate the direction of acceleration (i.e. in the direction of motion or against the direction of motion)

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



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