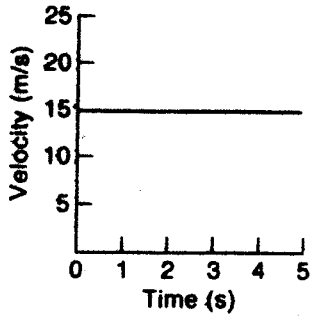
Name:_____ Date: _____

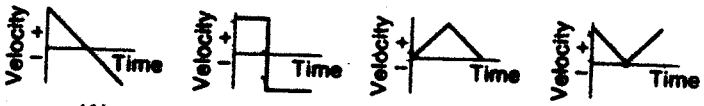
Physics Do Now: Acceleration and Velocity (II)

1. The graph below represents the relationship between velocity and time for an object moving in a straight line. What is the acceleration of the object?



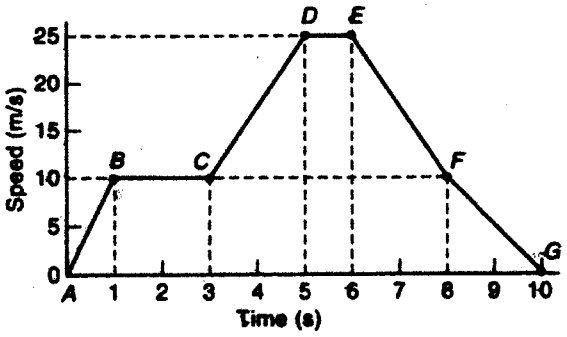
(1) 0 m/s^2 (2) 5 m/s^2 (3) 3 m/s^2 (4) 15 m/s^2

2. An object is thrown vertically upward from the surface of the Earth. Which graph best represents the relationship between velocity and time for the object as it rises and then returns to the Earth?



(1) (2) (3) (4)

3.



3a. What is the total distance traveled by the object during the first 3 seconds?
(1) 15 m (2) 20 m (3) 25 m (4) 30 m

3b. During which interval is the object's acceleration the greatest?
(1) *AB* (2) *CD* (3) *DE* (4) *EF*

3c. During the interval t = 8 seconds to t = 10 seconds, the speed of the object is
(1) zero (2) increasing (3) decreasing (4) constant, but not zero

3d. What is the maximum speed reached by the object during the 10 seconds of travel?
(1) 10 m/ s (2) 25 m/s (3) 150 m/s (4) 250 m/s