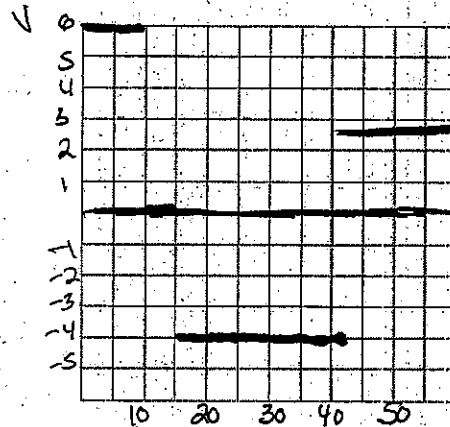
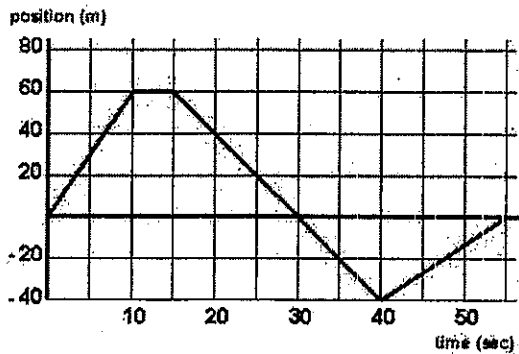


Topic 1C: Constant Velocity

Skill 11

oops
didn't
mean to
have
2 #46.
sorry

46. The graph below represents the motion of a teacher down the long "back hallway" of the school. The starting point is her classroom. Positive is to the right of the classroom and negative is to the left.



- a. On the graph provided to the left, create a velocity vs. time graph that corresponds to the given position vs. time graph (Label and scale the graph)

- b. What is the teachers displacement after 10 seconds? How is this represented on the velocity vs. time graph?

60m this is the area of the v vs t graph

- c. During what time interval is the teacher moving with a constant velocity?

0-10 ; 15-40 ; 40-55s

- d. During what time interval is the teacher left of his/her classroom?

30-55s

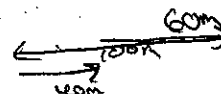
- e. What is the total distance traveled during the 55 second time frame?

200m

- f. What is the total displacement of the teacher after the 55 seconds?

0

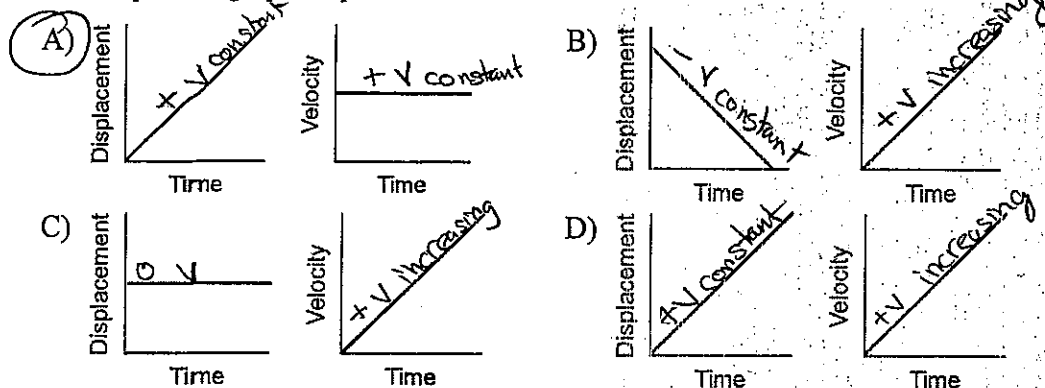
- g. Represent the motion in terms of a set of parallel vectors.



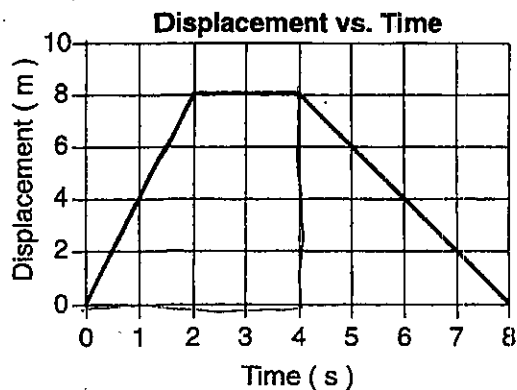
Topic 1C: Constant Velocity

Skill 11

47. Which pair of graphs represent the same motion?



48. Base your answer to the following question on the graph below, which represents the relationship between the displacement of an object and its time of travel along a straight line.



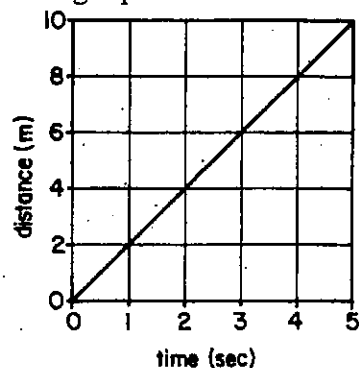
What is the average speed of the object during the first 4.0 seconds?

- A) 0 m/s B) 2 m/s C) 8 m/s D) 4 m/s

$$\bar{v} = \frac{\text{total } d}{\text{total } t} = \frac{8\text{m}}{4\text{s}} = 2\text{m/s}$$

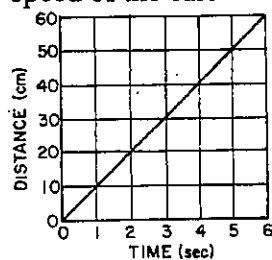
Topic 1C: Constant Velocity

49. The uniform motion of a cart is shown in the distance versus time graph below. What is the average speed of the cart?



- A) 0.5 m/s B) 2 m/s C) 5 m/s D) 50 m/s

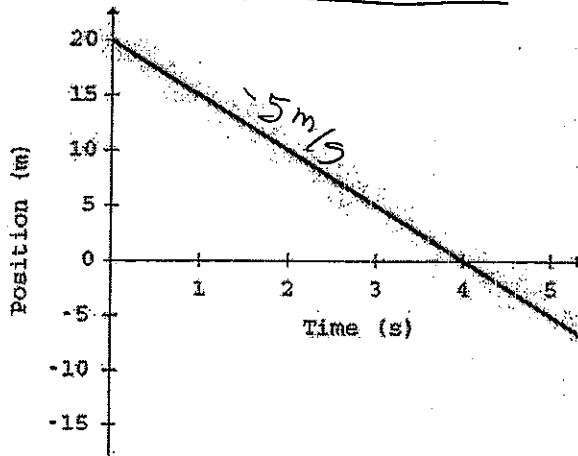
50. The graph represents the motion of a cart. According to the graph, as time increases, the speed of the cart



- A) decreases B) increases
C) remains the same

Topic 1C: Constant Velocity

51. The graph below represents the motion of frisbee relative to a person at the 0 position mark. Consider the positive direction to be east.



What is the velocity of the frisbee?

- A) 5 m/s west B) 5 m/s east C) 20 m/s east D) 40 m/s east

52. A blinking light of constant period is situated on a lab cart. Which diagram best represents a photograph of the light as the cart moves with constant velocity?

- A)  B) 
C)  D) 