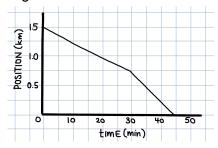
Physics 11 M. Lam

Graphs of Motion

Block:

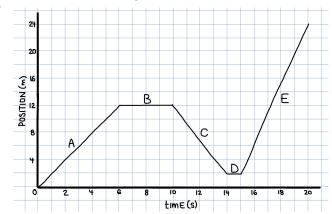
1. Use the following position vs. time graph to answer the following:

- a) What is the speed of the object between 0 and 30 minutes?
- b) What is the speed of the object 30 and 45 minutes?
- c) What is the average speed of the object from 0 to 45 minutes?

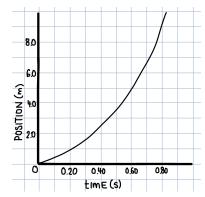


2. Use the following position vs. time graph to answer the following:

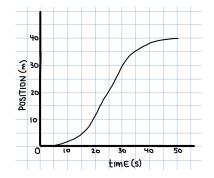
- a) When is the object moving the fastest?
- b) When is the object moving in the positive direction?
- c) When is the object moving in the negative direction?
- d) When is the object not moving?
- e) What is the average velocity of the object between 0 and 20 seconds?



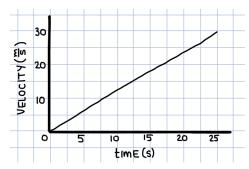
- 3. Use the following position vs. time graph to answer the following:
 - a) What is the average speed of the object between 0 and 0.80 s?
 - b) What is the instantaneous speed of the ball at 0.60 s?



- 4. Use the following position vs. time graph to answer the following:
 - a) What is the average speed of the object between 0 and 50 s?
 - b) What is the instantaneous speed of the object at 25 s?
 - c) When is the object speeding up?
 - d) When is the object slowing down?



- 5. Use the following velocity vs. time graph to answer the following:
 - a) What is the displacement of the object over the 25 seconds?
 - b) What is the acceleration of the object in this time?



6

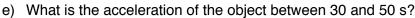
2

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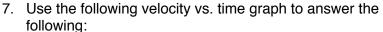
20

time (s)

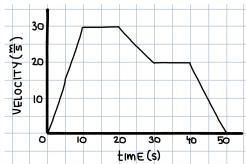
- 6. Use the following velocity vs. time graph to answer the following:
 - a) What is the displacement of the object over the 50 seconds?
 - b) Describe the motion of the object between 0 and 20 s.
 - c) When is the object moving in the positive direction? negative direction?
 - d) What is the acceleration of the object between 20 and 30 s?



- f) What is the average acceleration of the object over the 50 seconds?
- g) What is the average speed of the object over the 50 seconds?



- a) When is the velocity of the object the greatest?
- b) When is the acceleration of the object the greatest (most positive)?
- c) When is the acceleration of the object zero?
- d) When is the object slowing down?
- e) What is the displacement of the object over the 50 s?



- 8. Use the following velocity vs. time graph to answer the following:
 - a) When is the object moving in the positive direction?
 - b) When is the object moving in the negative direction?
 - c) What is the displacement of the ball from 0 to 45 s?
 - d) What is the displacement of the ball from 45 to 85 s?
 - e) What is the total displacement of the ball between 0 and 85 s?
 - f) What is the total distance travelled between 0 and 85 s?
 - g) What is the average velocity over the 85 seconds?

