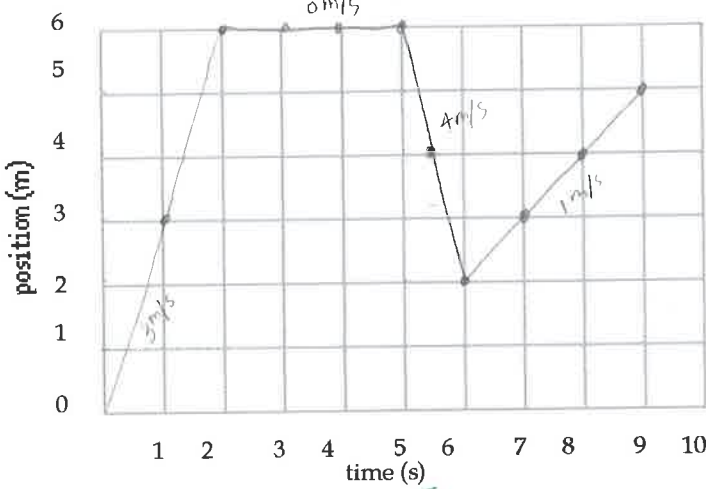


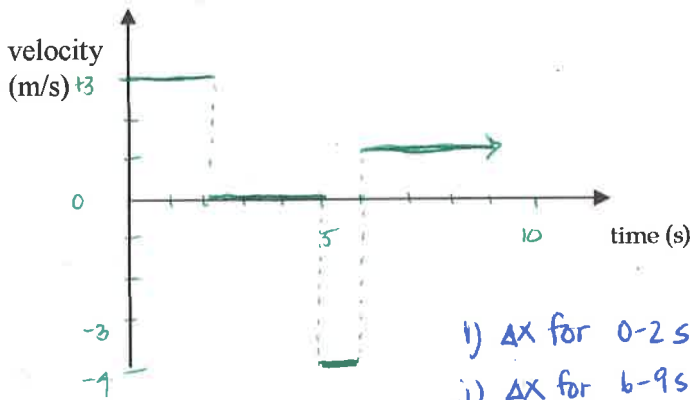
Physics
Interpreting x-t Graphs & Constructing v-t Graphs

Name Key
Date _____

1. Use the position vs. time graph below to answer the questions that follow.

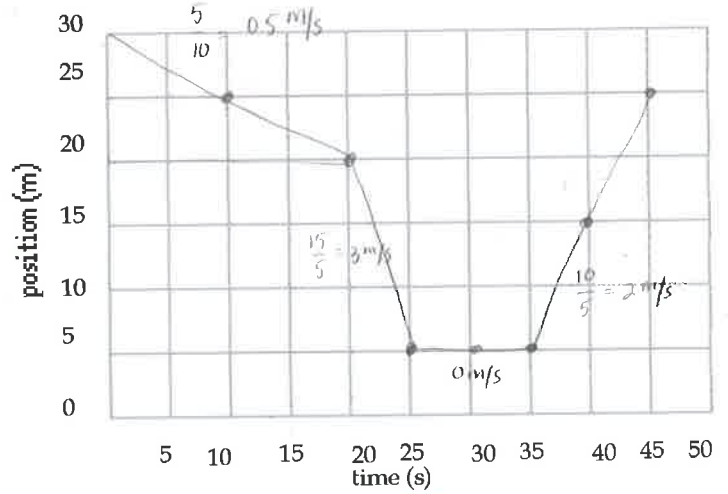


- What is the position at 7 seconds? 3m
- During what time interval is the object moving the fastest? How can you tell? $5-6\text{s}$ steepest
- What is the object doing from $t=2\text{s}$ to $t=5\text{s}$?
Standing still
- What is the velocity of the object from $0-2\text{s}$?
⊕ constant \vec{v} , 3m/s , Away
- What is the velocity of the object from $2-5\text{s}$?
 0m/s , ~~Away~~
- What is the velocity of the object from $5-6\text{s}$?
⊖ constant \vec{v} , -4m/s , ~~forward~~
- What is the velocity of the object from $6-9\text{s}$?
⊕ constant \vec{v} , 1m/s , Away
- Draw the velocity vs. time graph that corresponds to this position vs. time graph

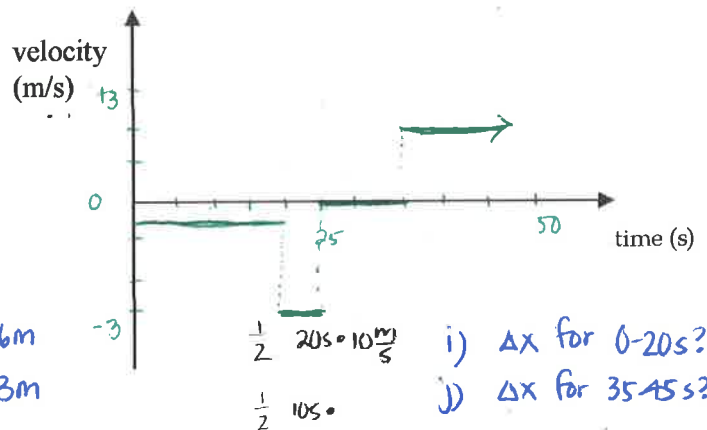


- Δx for $0-2\text{s}$? $+6\text{m}$
- Δx for $6-9\text{s}$? $+3\text{m}$

2. Use the position vs. time graph below to answer the questions that follow.



- What is the position at 45 seconds? 25m
- During what time interval is the object moving the fastest? How can you tell? $20-25\text{s}$ steepest
- What is the object doing from $t=0\text{s}$ to $t=20\text{s}$?
moving toward origin - moving in the \ominus direction
- What is the velocity of the object from $0-20\text{s}$?
⊖ constant \vec{v} , -0.5m/s , ~~forward~~
- What is the velocity of the object from $20-25\text{s}$?
⊖ constant \vec{v} , -3m/s , ~~forward~~
- What is the velocity of the object from $25-35\text{s}$?
 0m/s
- What is the velocity of the object from $35-45\text{s}$?
⊕ constant \vec{v} , 2m/s , Away
- Draw the velocity vs. time graph that corresponds to this position vs. time graph



- Δx for $0-20\text{s}$? -10m
- Δx for $35-45\text{s}$? $+20\text{m}$