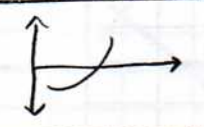
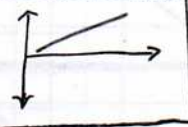
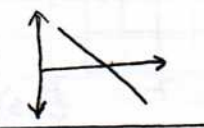
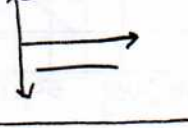
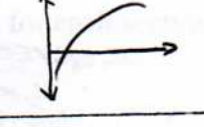
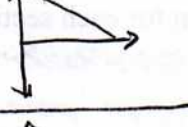

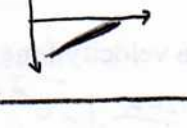
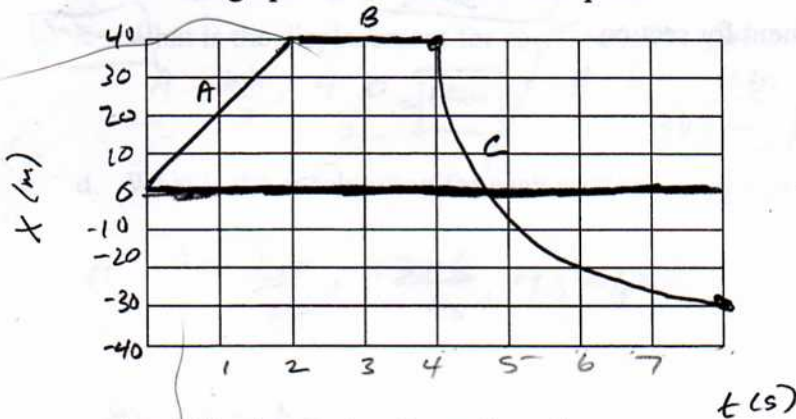


1. For each example, sketch the missing graph, or give the missing description of motion.

Descript ⁿ	x vs. t	v vs t
speeding forward		
const speed, backward		
slowing, forward		
slowing, backward		

2. Use the graph below to answer the questions.



- a. Describe the motion for each section.

A - const. fwd

C: slowing, backward

B. - At rest

- b. What is the average velocity for each section?

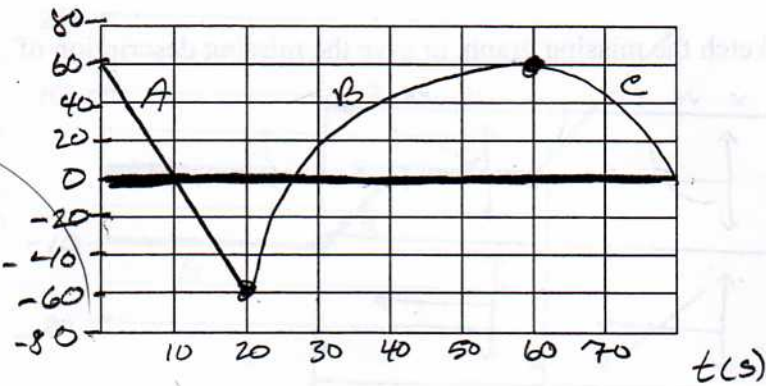
A: $\bar{v} = \frac{\Delta x}{\Delta t} = \frac{+40\text{m}}{2\text{s}} = 20\text{m/s}$ B = 0

C: $\bar{v} = \frac{\Delta x}{\Delta t} = \frac{-70\text{m}}{4\text{s}} = -17.5\text{m/s}$

- c. What is the displacement for section C?

$\boxed{-70\text{m}}$

3. Use the graph below to answer the questions.



a. Describe the motion for each section.

A: cons. speed, backward
 B: SLOWING DOWN, FWD

C: SPEED UP, backward

b. What is the average velocity for each section?

$$A \bar{v} = \frac{\Delta x}{\Delta t} = \frac{-120\text{m}}{20\text{s}} = -6\text{m/s}$$

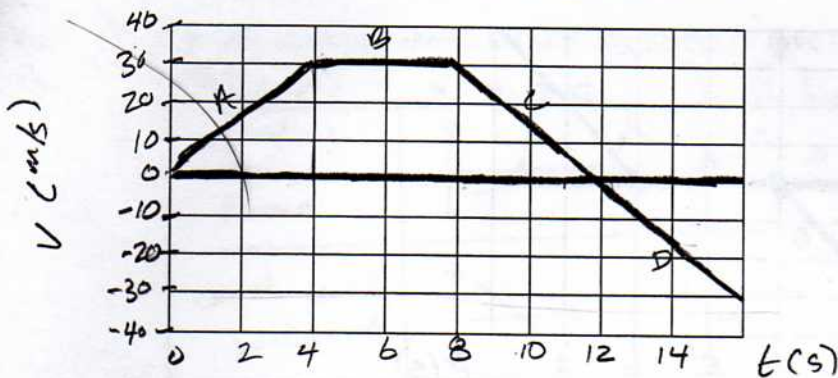
$$B \bar{v} = \frac{\Delta x}{\Delta t} = \frac{+120\text{m}}{40\text{s}} = 3\text{m/s}$$

$$C \bar{v} = \frac{\Delta x}{\Delta t} = \frac{-60\text{m}}{10\text{s}} = -6\text{m/s}$$

c. What is the displacement for section C?

$$\boxed{-60\text{m}}$$

4. Use the graph below to answer the questions.



a. Describe the motion for each section.

A - SPEED UP, FWD

C - SLOWING, FWD

B - CONST. SPEED, FWD

D - SPEED UP, SLOW

b. What is the average velocity for each section? - (midpt.)

A $\rightarrow +15 \text{ m/s}$

C $+15 \text{ m/s}$

B $\rightarrow 30 \text{ m/s}$

D -15 m/s

c. What is the displacement for each section? (area)

$$A: \frac{b \cdot h}{2} = \frac{4 \cdot 30}{2} = \boxed{60 \text{ m}}$$

$$B: b \cdot h = 4 \cdot 30 = \boxed{120 \text{ m}}$$

$$C: \frac{b \cdot h}{2} = \frac{4 \cdot 30}{2} = \boxed{60 \text{ m}}$$

$$D: \frac{b \cdot h}{2} = \frac{4 \cdot (-30)}{2} = \boxed{-60 \text{ m}}$$

d. What is the acceleration for each section? - (slope)

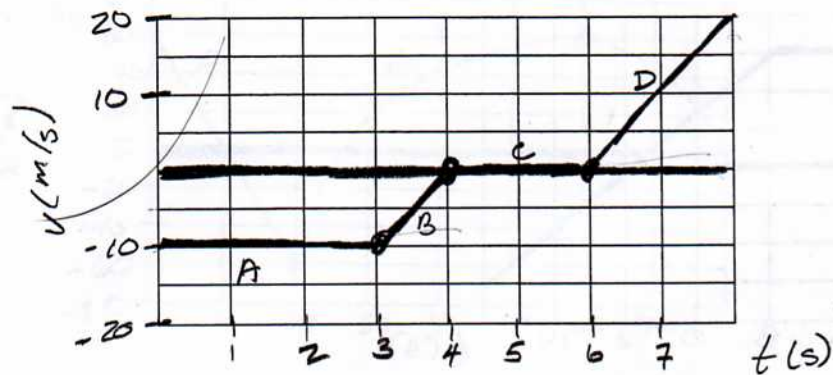
$$A: a = \frac{\Delta v}{\Delta t} = \frac{+30 \text{ m/s}}{4 \text{ s}} = 7.5 \text{ m/s}^2$$

$$B: a = \frac{\Delta v}{\Delta t} = 0$$

$$C: a = \frac{\Delta v}{\Delta t} = \frac{-30 \text{ m/s}}{4 \text{ s}} = -7.5 \text{ m/s}^2$$

$$D: a = \frac{\Delta v}{\Delta t} = \frac{-30 \text{ m/s}}{4 \text{ s}} = -7.5 \text{ m/s}^2$$

5. Use the graph below to answer the questions.



a. Describe the motion for each section.

A - cons. speed, bkwd

C - AT REST

B - SLOWING DOWN BKWD

D - SPEED UP, FWD.

b. What is the average velocity for each section? (m/s)

A - -10 m/s

C - 0 m/s

B - -5 m/s

D - 10 m/s

c. What is the displacement for each section? (m)

A: $b \cdot h = 3 \cdot 10 = 30 \text{ m}$

C: 0

B: $b \cdot h / 2 = 1(10) / 2 = 5 \text{ m}$

D: $b \cdot h / 2 = 2 \cdot 20 / 2 = 20 \text{ m}$

d. What is the acceleration for each section? (slope)

A: $a = \frac{\Delta v}{\Delta t} = 0$

B: $a = \frac{\Delta v}{\Delta t} = \frac{+10 \text{ m/s}}{1 \text{ s}} = +10 \text{ m/s}^2$

C: $a = 0$

D: $a = \frac{\Delta v}{\Delta t} = \frac{+20 \text{ m/s}}{2 \text{ s}} = +10 \text{ m/s}^2$