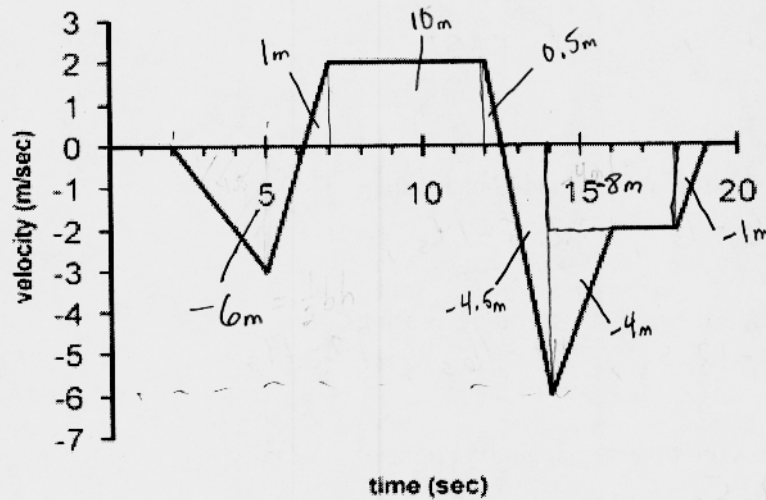


AP1 Graphing Activity

Name: KEY



① Describe the object's motion using physics quantities and terminology.

0-2s: Not moving

2-5s: speeding up with (-) velocity and (-) acceleration

5-7s: 5-6s slowing down with (-) velocity and (+) acceleration

• 6-7s changes direction and speeding up w/ (+) velocity and (+) acceleration

7-12s moving with constant (+) velocity

12-14s: slowing down w/ (+) velocity and (-) acceleration.

• @ 12.5s changes direction, speeding up w/ (-) velocity and (-) acceleration

14-16s: slowing down w/ (-) velocity and (+) acceleration

17-18s: moving w/ a constant (-) velocity

18-19s: slowing down w/ (-) velocity and (+) acceleration

• @ 19s the object is at rest.

19-20s: Object is at rest.

2. During what time(s) is the object's speed increasing?

$2-5s$, $6-7s$, $12.5-14s$,

3. During what time(s) is the object's speed decreasing?

$5-6s$, $12-12.5s$, $14-16s$, $18-19s$

4. At what time(s) does the object change directions of motion?

$6s$, $12.5s$

5. During what time(s) is the object at rest?

$0-2s$, $19-20s$

6. During what time(s) is the object accelerating?

$2-7s$, $12-14s$, $18-19s$

7. What is the displacement of the object during the first 6 seconds of motion?

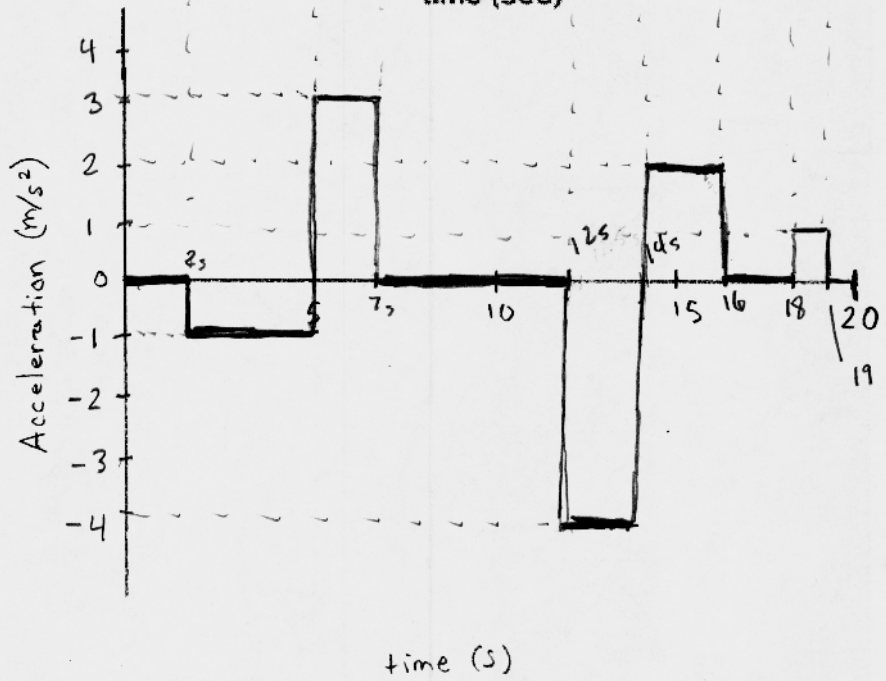
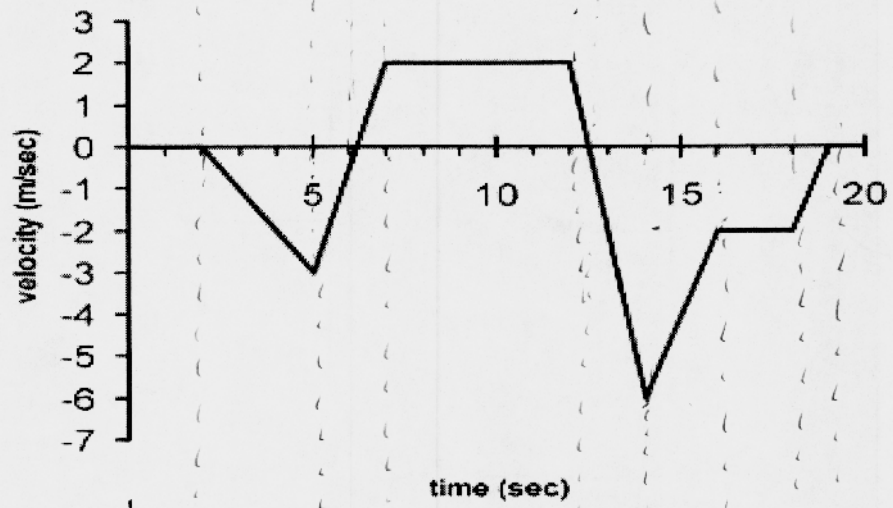
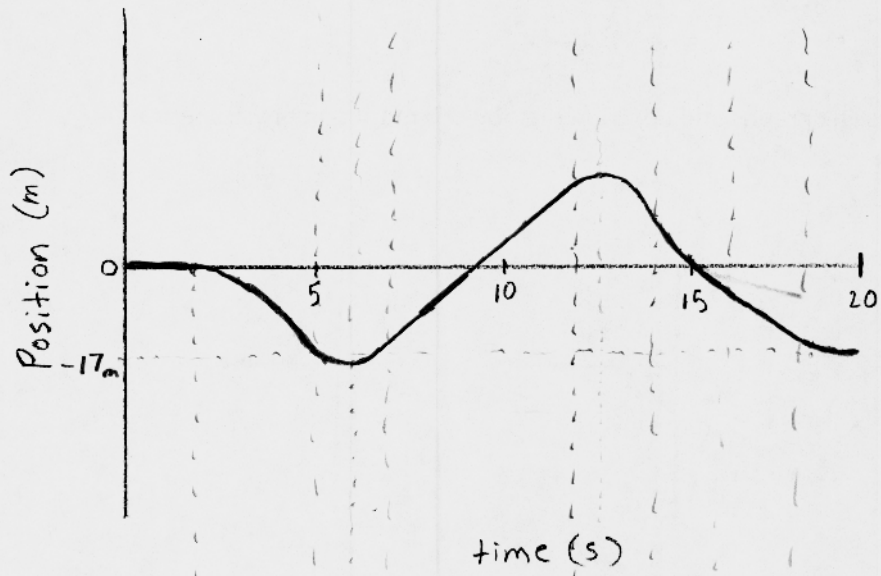
$\Delta x = -6m$ found as the area under the slope.

8. What is the total displacement of the object for the entire journey?

$\Delta x = ~~17m~~$ found as the sum of all areas
 $-12m$

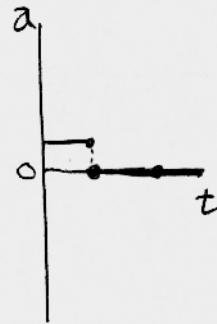
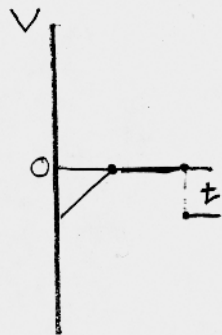
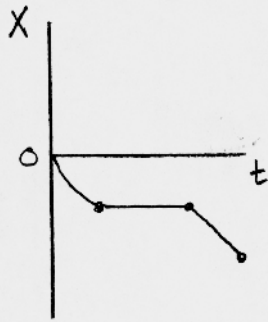
9.

Create the missing graphs.

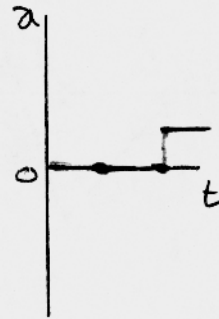
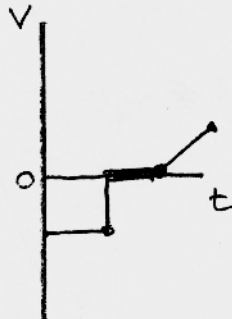
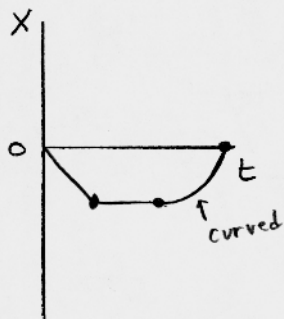


10. Create the missing graphs and describe the object's motion in physics terminology.

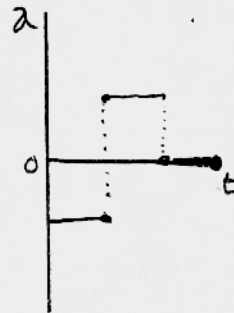
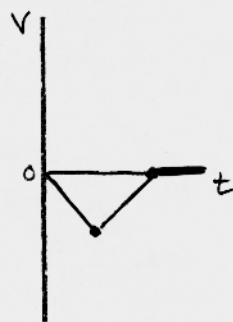
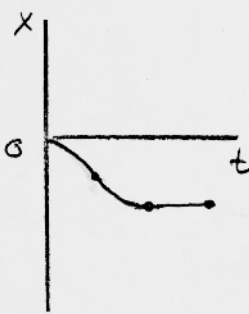
Description



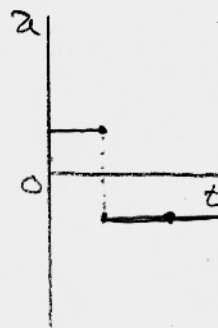
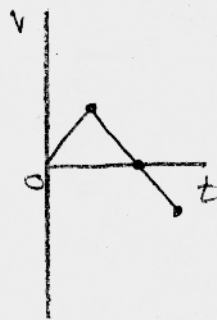
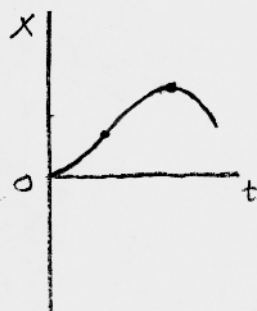
- decreasing (-) velocity (slows down)
- at rest
- constant (-) velocity



- constant (-) velocity
- at rest
- speeds up in the (+) direction



- increasing (-) velocity (speeds up)
- decreasing (-) velocity (slows down)
- at rest



- increasing (+) velocity (speeds up)
- decreasing (+) velocity (slows down)
- increasing (-) velocity (change of direction and speed up)