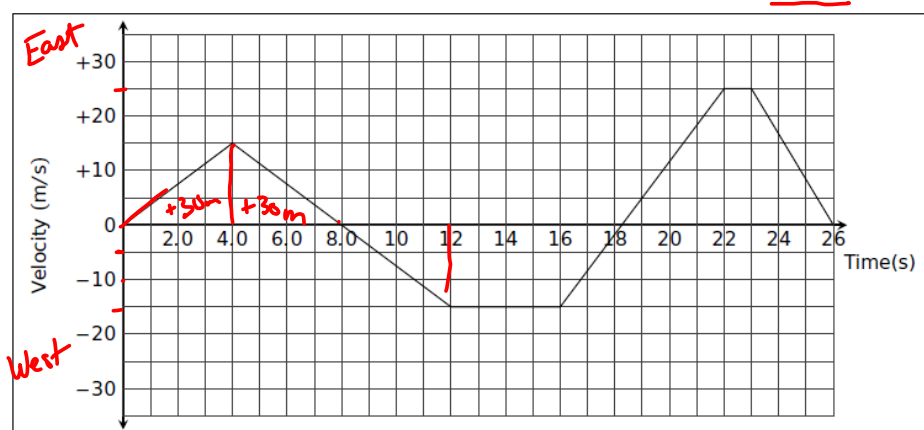
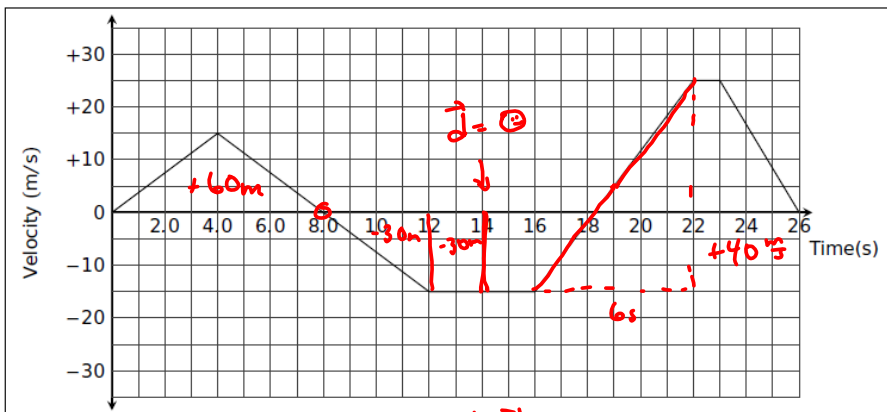


Motion Graph #6 - The following graph indicates the motion of a cart along a East-West path.



1. What was the maximum velocity achieved by the car? +25 m/s
2. What was the cart's velocity at the 10 s point? max -7.5 m/s
3. Between what times was there constant velocity? slope=0 12-16, 22-23s
4. During what time was there max. positive acceleration? slope 16-22s
5. What distance was travelled from 0 to 8.0 s? 60m

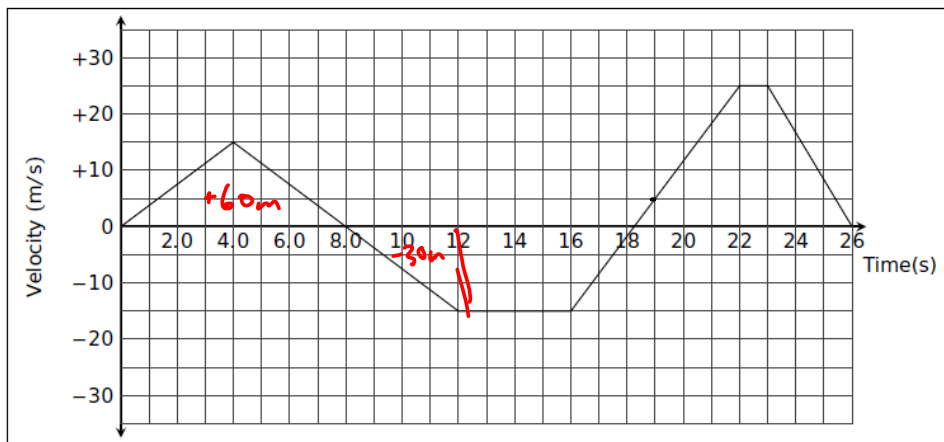
Motion Graph #6 - The following graph indicates the motion of a cart along a East-West path.



$-30m$ at $-15 \frac{m}{s}$
 $\Rightarrow 2s$
 $\vec{v} = \frac{\Delta \vec{L}}{\Delta t}$
 $-15 = \frac{-30}{t}$
 $t = 2s$

6. What was the average acceleration between $t = 0$ to 12 s? $\vec{a} = \frac{\Delta \vec{v}}{\Delta t} = \frac{-15 \frac{m}{s} - 0}{12s} = -1.25 \frac{m}{s^2}$
7. When did the cart first start to move west? $-\vec{v}$ 8.0s
8. When did the cart first return to the starting point? $\vec{J} = 0$ 14s
9. What was the cart's acceleration at 18 s? slope = $\frac{+40m}{6s} = +6.7 \frac{m}{s^2}$
10. What was the average velocity for the first 8.0 s? $\vec{v}/t = \frac{+60m}{8s} = +7.5 \frac{m}{s}$

Motion Graph #6 - The following graph indicates the motion of a cart along a East-West path.



11. What was the average speed for the first 8.0 s? $d/t = \frac{60m}{8s} = 7.5m/s$
12. What was the average velocity for the first 12 s? $\vec{d}/t = \frac{+30m}{12s} = +2.5m/s$
13. What was the average speed for the first 12 s? $d/t = \frac{90m}{12s} = 7.5m/s$
14. Explain the motion of the cart at $t = 14$ s?
2 of 3 $\Rightarrow \vec{v}, \vec{a}, \vec{d}$
Travelling at constant $\vec{v} = -15 \frac{m}{s}$
through the $\vec{a} = \ominus$ starting point
 $\vec{d} = \ominus$

Homework: Finish Graph # 7 for tomorrow. If you finish that in class, please work on #8.

When is the 10th second? (9-10s)

the nth second is the second ending in n's

5th second 4-5s

Test Monday.

