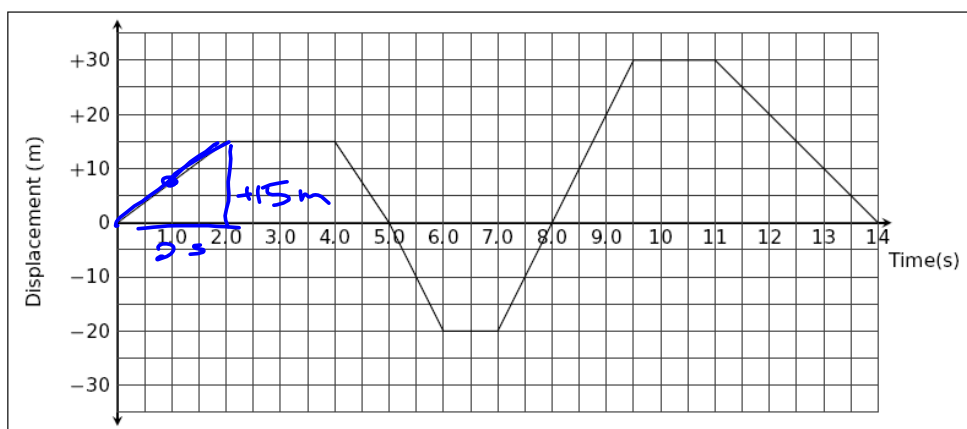
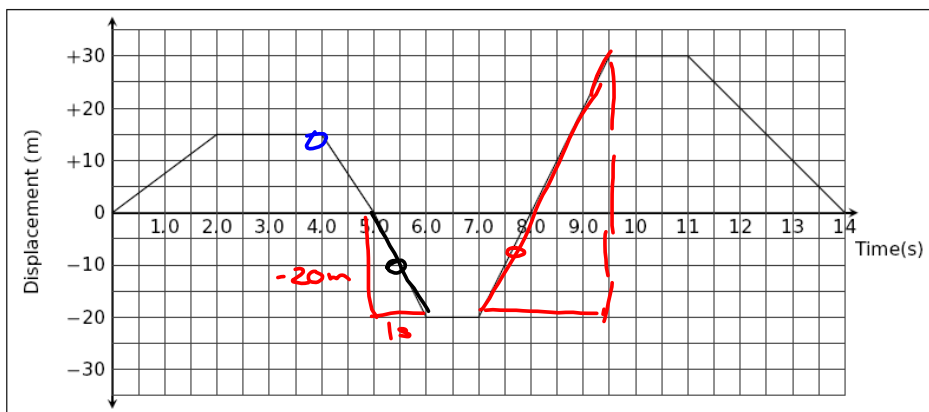


Motion Graph #2 - The following graph indicates the motion of a car along an East-West path.



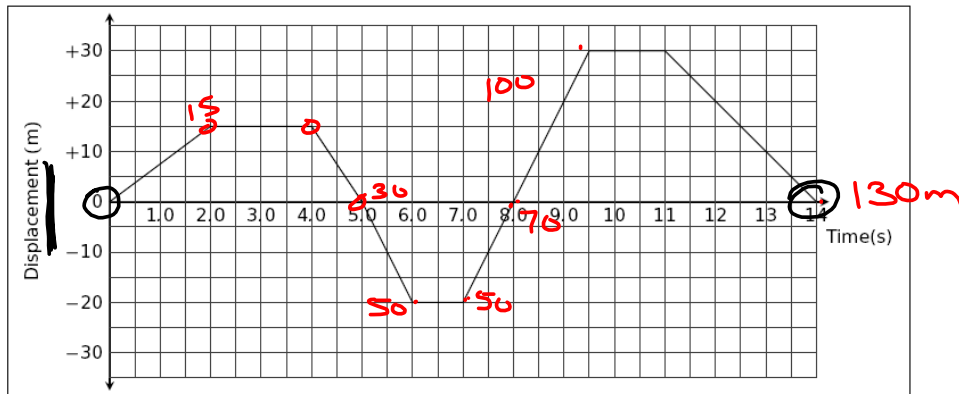
1. During what time intervals was the car going east? $+ \text{slope}$ 1. $0-2, 7-9.5 \text{ s}$
2. During what time intervals was the car stopped? $\text{slope} = \text{smiley face}$ 2. $2-4, 6-7, 9.5-11 \text{ s}$
3. What was the speed of the car at 1.0 s? $|\text{slope}| = \frac{+15\text{m}}{2\text{s}}$ 3. 7.5 m/s
4. What was the velocity of the car at 1.0 s? slope 4. $+7.5 \text{ m/s}$ or $7.5 \frac{\text{m}}{\text{s}} \text{ E}$
5. What was the average velocity of the car in the first 4.0 s? $\frac{\Delta d}{\Delta t}$ 5. $= \frac{+15\text{m}}{4\text{s}} = +3.75 \frac{\text{m}}{\text{s}}$

Motion Graph #2 - The following graph indicates the motion of a car along an East-West path.



- | | | |
|--|--|----------------|
| 6. When did the car start to go west? | First Instantaneous | 4.0s (and 11s) |
| 7. What was the car's velocity at 5.5 s? | $\text{slope} = \frac{-20\text{m}}{1\text{s}}$ | -20m/s |
| 8. What was the car's speed at 5.5 s? | y-axis | 20m/s |
| 9. What was the car's displacement at 6.0 s? | | -20m |
| 10. What was the car's velocity at 7.6 s? | $\text{slope} = \frac{+50\text{m}}{2.5\text{s}}$ | +20m/s |

Motion Graph #2 - The following graph indicates the motion of a car along an East-West path.



11. What was the car's total displacement?
12. What was the total distance the car travelled?
13. What was the average velocity for the trip?
14. What was the average speed for the trip?

11. ☺ m
 12. 130 m
 13. ☺ m/s
 $\vec{d}/t = \frac{130m}{14s} = 9.3 m/s$

Homework: Graph #3. If you finish in class, start #4.
Lab due Wednesday.