

Uniform Motion Assignment

1. Miranda walks 50.0m East in 25s.

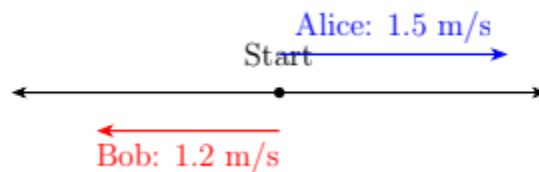
- What is her average speed?
- What is her average velocity?

2. The store is 3km from John's house. John walks to the store and then comes back to his house in 2 hours.

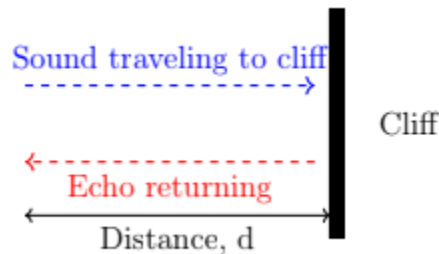
- What is his average speed?
- What is his average velocity?

3. A car travels at a speed of 50km/h. How long will it take to travel 700km?

4. Alice and Bob starts walking from the same location. Alice walks to the right at 1.5m/s and Bob walks left at 1.2m/s. After 44s, how far apart are they?



5. A frustrated physics student shouts towards a cliff. They hear the echo 3.4s later. If the speed of sound in the air is 343m/s, how far away is the cliff?



6. A car drives across Canada. It travels the first 250km at a constant speed of 75km/h. Then it stops for one hour. Then it travels the next 150km at a constant speed of 90km/h.

- a) What is the total distance travelled?
- b) How long did the trip take in total?
- c) What was the average speed of the car for this trip?

7. The mall is 3km East of Daniel and his friend's house is 2.5km West of Daniel. Daniel first jogs to the store in 0.5h. He stays at the mall for 1h before walking to his friend's house, which took 2h.

- a) What is his average speed for this trip?
- b) What is his average velocity for this trip?

