

Reading Graphs

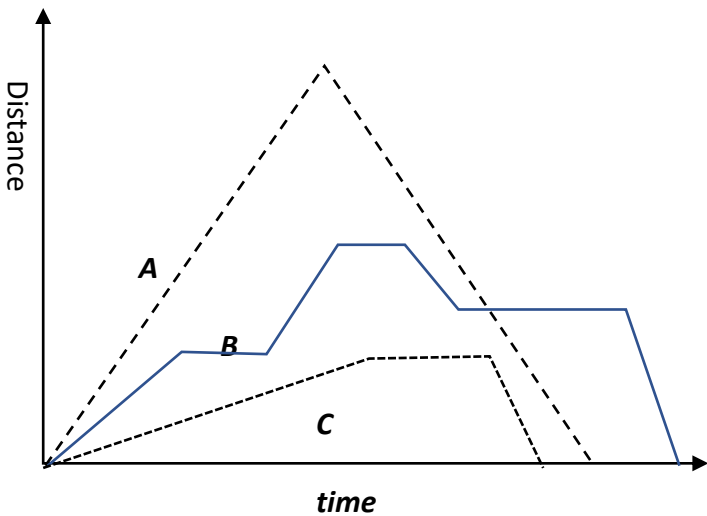
In science and math we often graph a Quantity vs Time

Time is our *independent variable* and is ALWAYS placed on the *x-axis*

Our *x-axis* would ALWAYS start at 0 because *time is positive*

Describing a situation

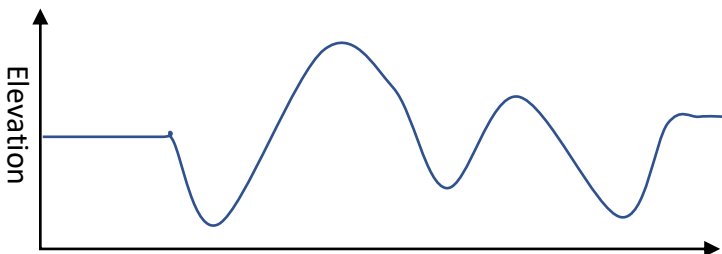
The graph below shows the distance from port vs time for three whale watching companies (A, B, C). The boats only stop when whales are sighted



- a) Which boats saw whales?
B and C (they stopped – flat lines)
- b) Which tourists likely had the best time?
Likely B (3 stops = 3 whale sightings)
- c) Whose trip was the shortest?
C
- d) Which boat went the farthest?
A

Making a graph from a graph

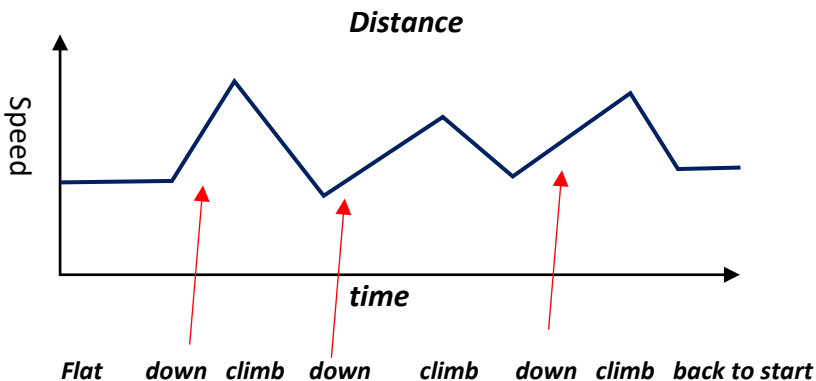
A graph shows the elevation of a cross-country ski trail vs distance



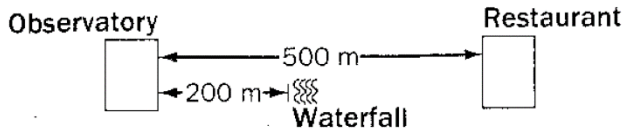
Use this graph to create a
speed vs distance graph

assumptions?

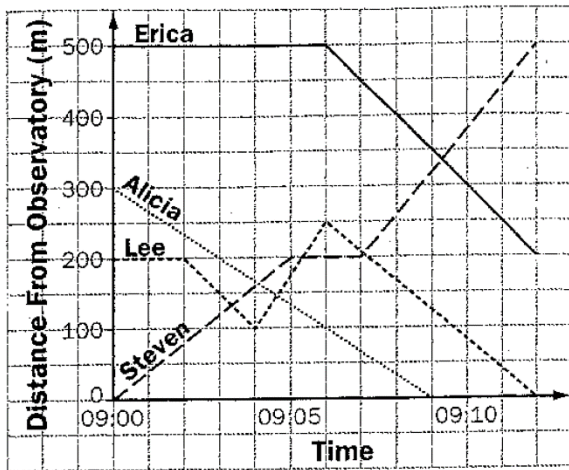
- will speed up going downhill, slow on up
- assume constant speed on all parts



Tourist site An observatory overlooks a waterfall. A path leads from the observatory to a restaurant 500 m from the observatory. The path passes the waterfall 200 m from the observatory.



The graph shows the actions of 4 tourists during a 12-min period, starting at 09:00.



Where are the tourists at 9:00 am?

E: Restaurant **A:** 300m from observatory

L: waterfall **S:** at observatory

Who passed Erica?

Steven

Who passed Alicia?

Steven and Lee

What do the slopes of the lines represent?

Distance/time = velocity of each person

Who stopped and where did they stop?

Steven at waterfall Erica at Restaurant

Lee at Waterfall twice

What's up with Lee?

Dude seems lost!

How many vehicles were stolen in 1995 in

Sweden: 10000

Canada: 6000

France: 8000

Great Britain: 18000

Which countries have experienced at least 9000 vehicles stolen in a year?

Sweden and Great Britain

When did 2 countries have the same amount of thefts?

1991 Sweden and France

What might these graphs represent?

