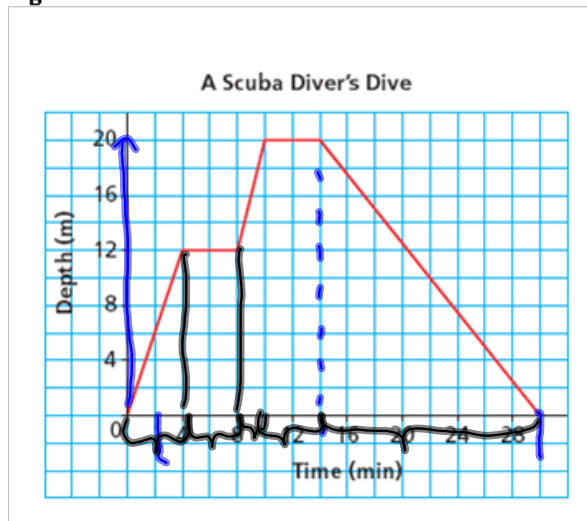


Unit 4: Linear Functions & Relations
L1: Interpreting Graphs

In math we often use graphs to show information. The easiest way to understand graphs is to look at the title and then the labels.

Eg



- a) How long did the dive last?

30 min.

- b) When did the diver stop descending?

10 min.

- c) What was the deepest the diver reached?

20 m

- d) What happened between the 4th to the 8th minute?

Stayed at the same depth

- e) Explain the complete dive.

0-4 min: he dove 12 m

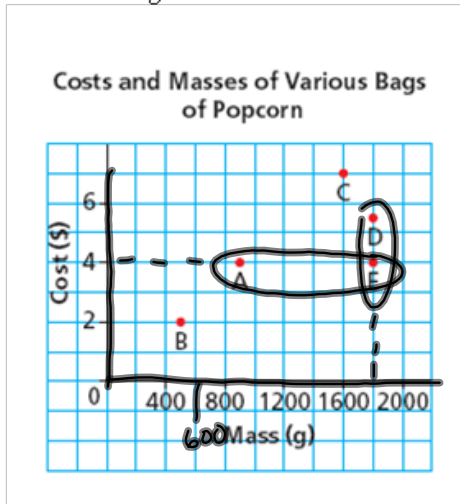
4-8 min: he stayed at same depth

8-10 min: he dove to 20 m

10-14 min: he stayed at same depth

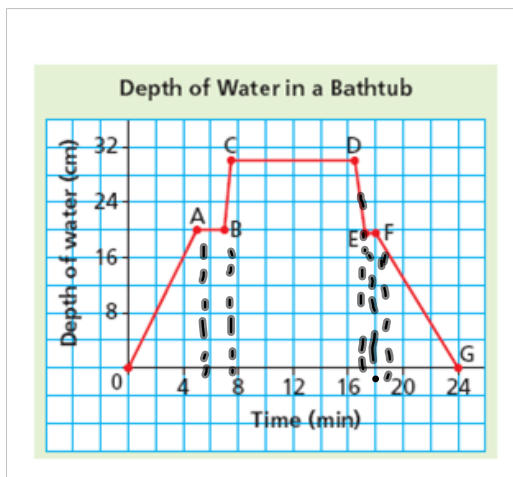
14-30 min: he came to surface

Eg



Each point on this graph represents a bag of popping corn. Explain the answer to each question below.

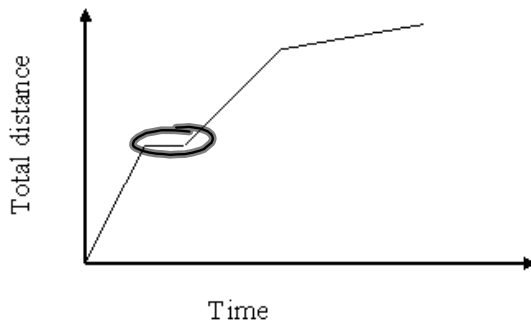
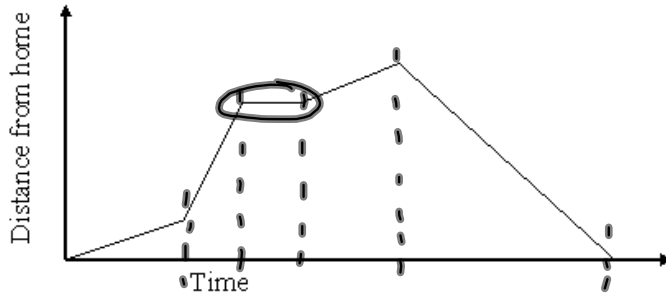
- Which bag is the most expensive? What does it cost?
C: \$7
- Which bag has the least mass? What is this mass?
B: 500g
- Which bags have the same mass? What is this mass?
D & E: 1800g
- Which bags cost the same? What is this cost?
A & E: \$4
- Which of bags C or D has the better value for money?
D: weighs more but costs less



Explain each section of the graph?

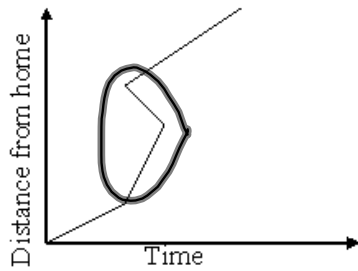
0 → A : for 5 min, you fill the tub
 A → B : Water turned off because our depth doesn't change
 B → C : Person gets in, displacing water / a little extra hot or cold
 C → D : Reading about trig
 D → E : Person gets out
 E → F : Water level stays same
 F → G : Water drains

Explain a situation for each graph

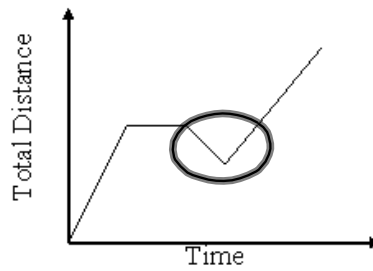


* At level pieces, nothing is changing, person stopped.

Why can't each of the following occur?



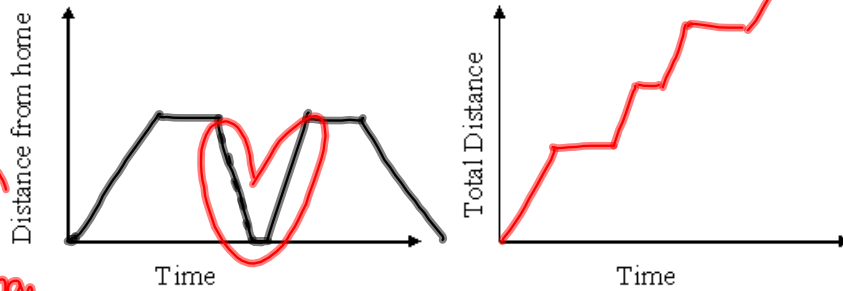
can't go back in time.



Total distance cannot go down.

Draw a graph for each situation

- a) Andrea walked to school, at lunch she ran home to eat, ran back to school, after school she walked home



* When andrea runs, the line is steeper than when she walks.

- b) Bill drove to Edmonton from Grande Prairie. He started with a full tank of gas and filled up in White Court.



- c) You put the plug in the bath and turn on the taps. You leave the bathroom and return to discover the bath has overflowed. You turn off the taps and pull out the plug to let some water out. You put the plug back in.

