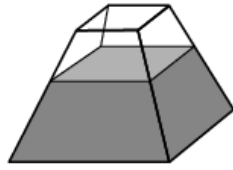


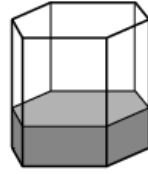
Question 1

Below are three containers, labelled 1, 2, and 3.

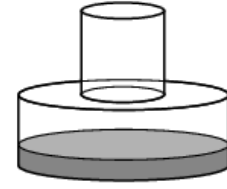
Water is poured into each container at a constant rate, until it is full.



1

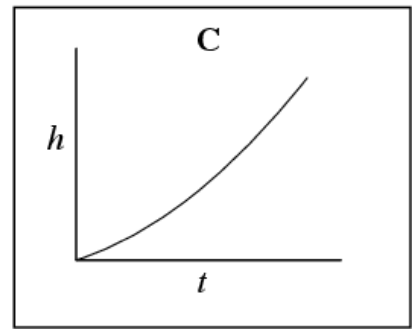
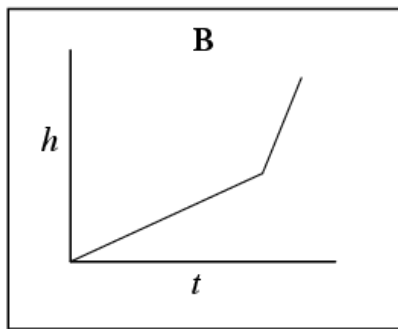
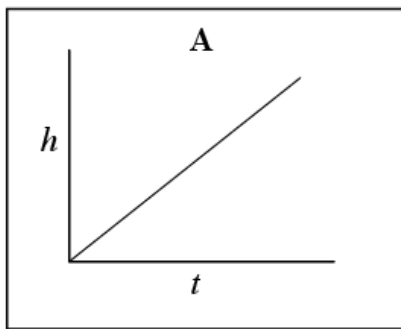


2



3

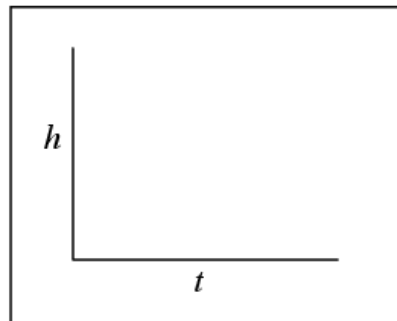
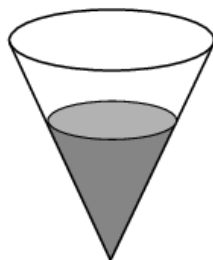
The three graphs, A, B, and C, show the height of the water, h , in the containers after time t .



(a) Write A, B, and C in the table below to match each container to its corresponding graph.

Container	1	2	3
Graph			

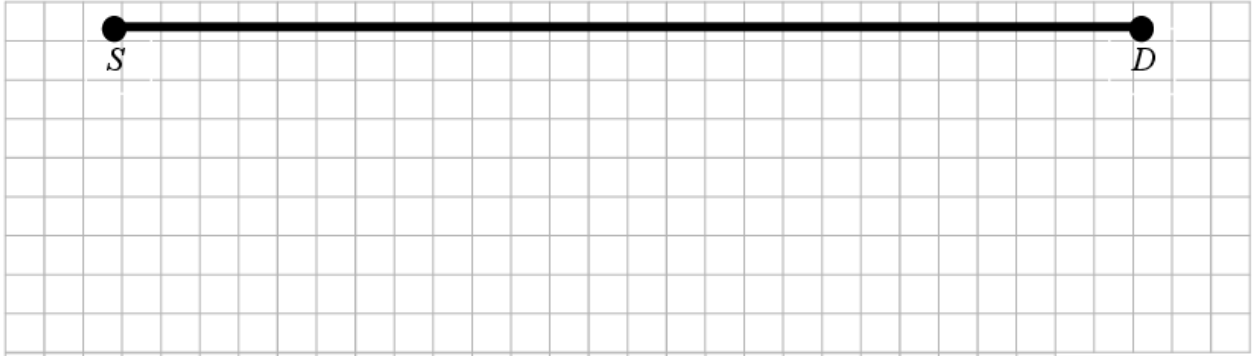
(b) Another container is shown below. Water is also poured into this container at a constant rate until it is full. Sketch the graph you would expect to get when plotting height (h) against time (t) for this container.



Question 2

Car A and Car B set off from a starting point S at the same time. They travel the same route to destination D , which is 70 km away. Car A travels at an average speed of 50 km/h and car B travels at an average speed of 45 km/h.

How far will car B have travelled by the time car A arrives at destination D ?

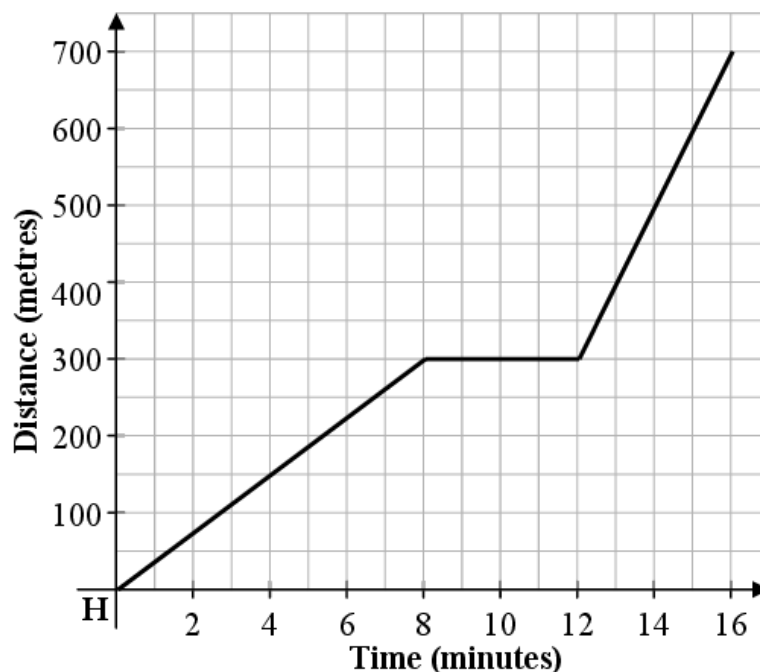


Question 3

Question 7

(Suggested maximum time: 10 minutes)

Angela leaves home (H) at 5 pm to go to football practice, which is 700 m away. The graph shows her journey, on foot, to football practice.



- (a) One of the stories below matches Angela's journey. Place a tick in the box beside the correct matching story. (Note: Only one story matches Angela's journey).

Story	Tick one story (✓)
Angela walks at a constant pace and stops at 5.08 for four minutes. She then walks at a slower pace and arrives at practice at 5.16.	
Angela walks at a constant pace and stops at 5.12 for four minutes. She then walks at a faster pace and arrives at practice at 5.16.	
Angela walks at a constant pace and stops at 5.08 for five minutes. She then walks at a faster pace and arrives at practice at 5.16.	
Angela walks at a constant pace and stops at 5.08 for four minutes. She then walks at a faster pace and arrives at practice at 5.16.	
Angela walks at a constant pace and stops at 5.08 for four minutes. She then walks at the same pace and arrives at practice at 5.16.	

- (b) Mary also lives 700 m from football practice, but cycles to practice. She leaves home five minutes after Angela. She cycles at a constant pace and arrives at practice two minutes before Angela. Represent Mary's journey on the graph above.