

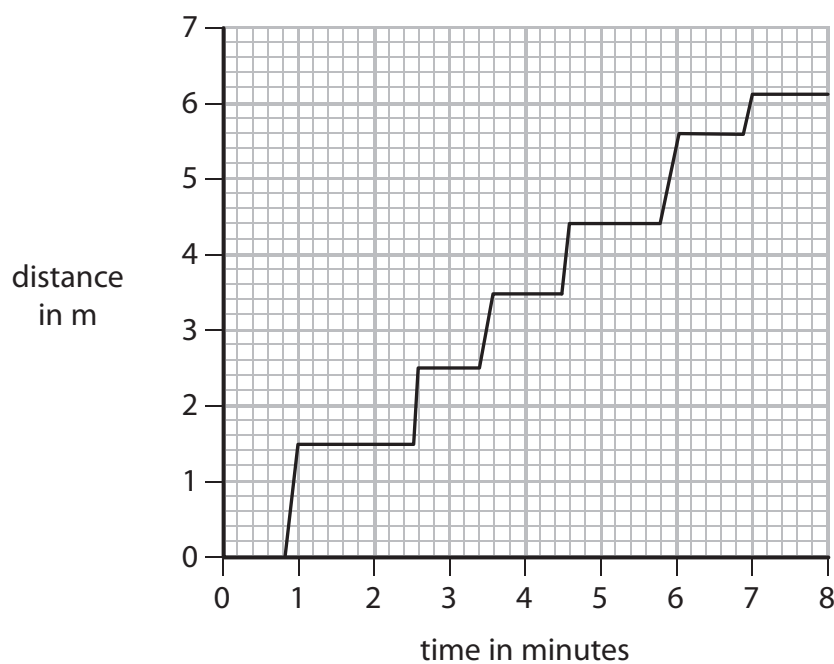
- 4 The diagram shows some people waiting in a queue at a supermarket.



The queue moves forward each time a person leaves the checkout.

Person X spends seven minutes in the queue before reaching the checkout.

The graph shows how distance changes with time for person X.



(a) (i) What is the initial length of the queue?

(1)

initial length = ..... m

(ii) Explain how you could use the graph to work out the number of times person X is stationary.

(2)

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(b) (i) State the equation linking average speed, distance moved and time taken.

(1)

(ii) Calculate the average speed of person X in the queue.

Give the unit.

(3)

average speed = ..... unit .....

**(Total for Question 4 = 7 marks)**

