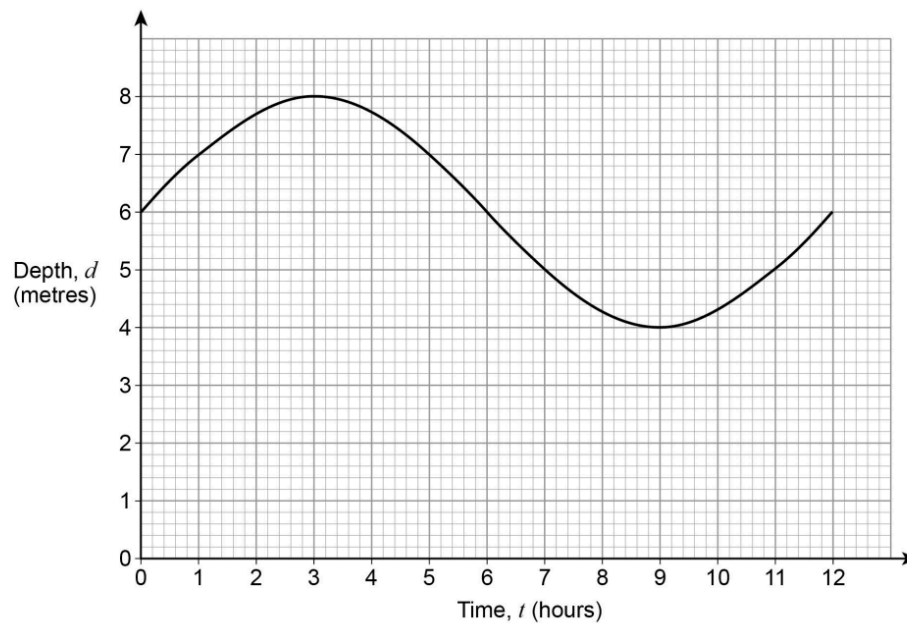


Q1. (2017)

15 The graph shows the depth of water in a harbour for 12 hours. d is the depth of water in a harbour in metres t is the number of hours after 9 am

(A)

15 (a) For how many of the 12 hours is the depth more than 5 metres?**[1 mark]**

Answer _____

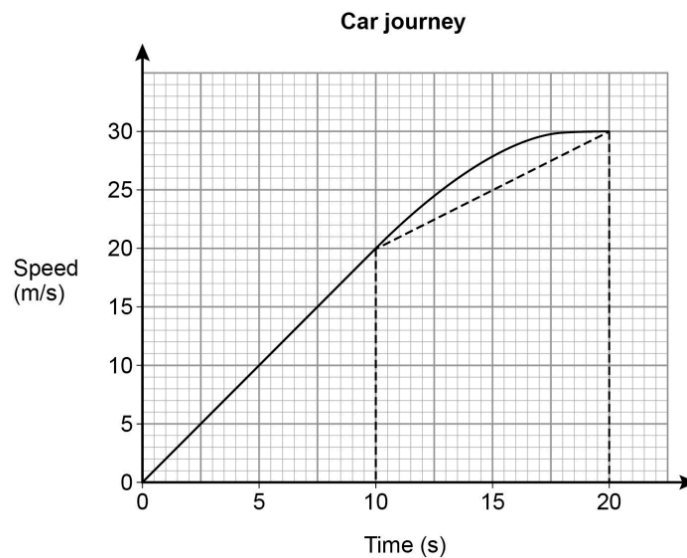
(B)

15 (b) By how much does the depth change between 12 noon and 4 pm?**[1 mark]**

Answer _____ metres

Q2. (2018)

- 24** The speed-time graph shows 20 seconds of a car journey.
Harry wants to estimate the distance the car travels in this time.
He uses a triangle and a trapezium, as shown, to estimate the area under the graph.



- 24 (b)** For this journey, which of these is true for Harry's method?
Tick **one** box.

[1 mark]☐

It works out an overestimate of the distance

☐

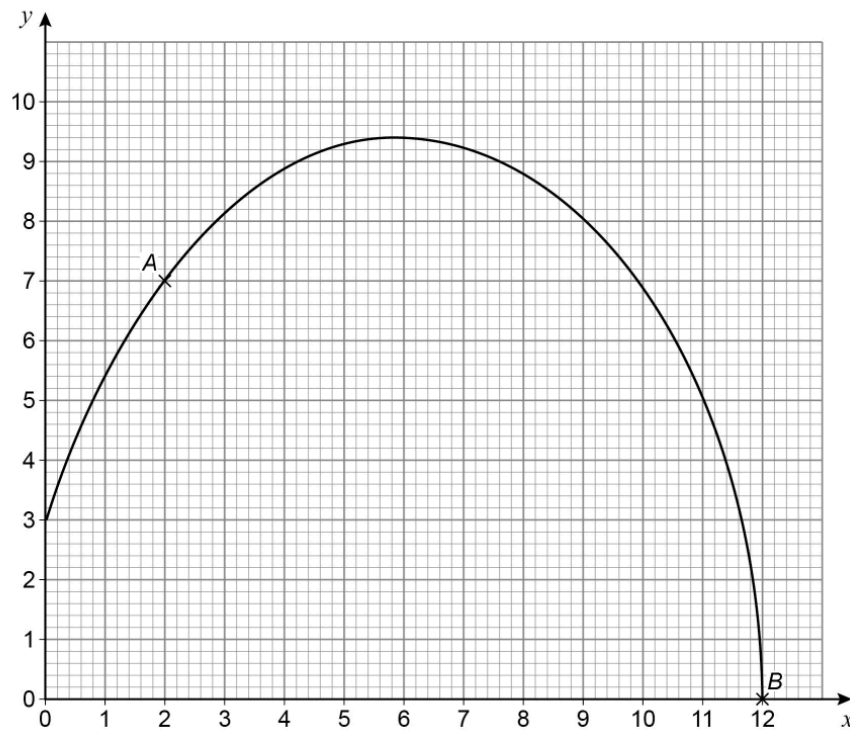
It works out an underestimate of the distance

☐

It could work out an overestimate or an underestimate of the distance

Q3a,b (2020)

- 24** A and B are points on a curve.
 A is $(2, 7)$ B is $(12, 0)$



(A)

- 24 (a)** Work out the instantaneous rate of change of y with respect to x at point A .

[2 marks]

(B)

- 24 (b)** The average rate of change of y with respect to x between points A and B is worked out.

Which statement is correct?

Tick **one** box.

[1 mark]☐

It is positive.

☐

It is zero.

☐

It is negative.

☐

You cannot tell if it is positive or negative.