

Solutionbank M1

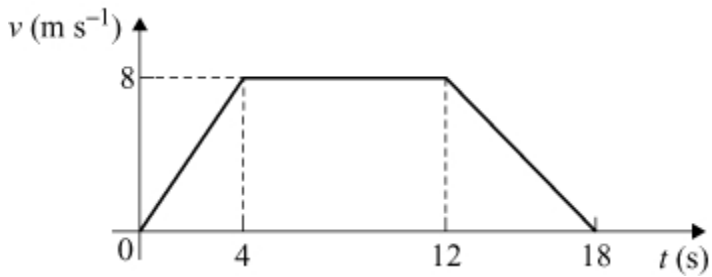
Heinemann Modular Maths for Edexcel AS and A-level

2 Kinematics in one dimension

Exercise A, Question 2

Question:

This graph shows how the velocity of a cyclist changes over a short period of time as she travels along a straight road. Find the total distance travelled by the cyclist.



Solution:

$$\begin{aligned} \text{Distance travelled} &= \left(\frac{1}{2} \times 4 \times 8 \right) + \left[(12 - 4) \times 8 \right] + \left(\frac{1}{2} \times (18 - 12) \times 8 \right) \\ &= 104 \text{ m} \end{aligned}$$

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