

# Distance-Time Graph Questions for GCSE Physics

1. What is plotted on the x-axis and y-axis of a distance–time graph?

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2. What does a horizontal line on a distance–time graph show about the motion of the object?

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3. What does the gradient of a distance–time graph represent?

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4. How is constant velocity shown on a velocity–time graph?

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5. What does a steep gradient mean about the speed of the object?

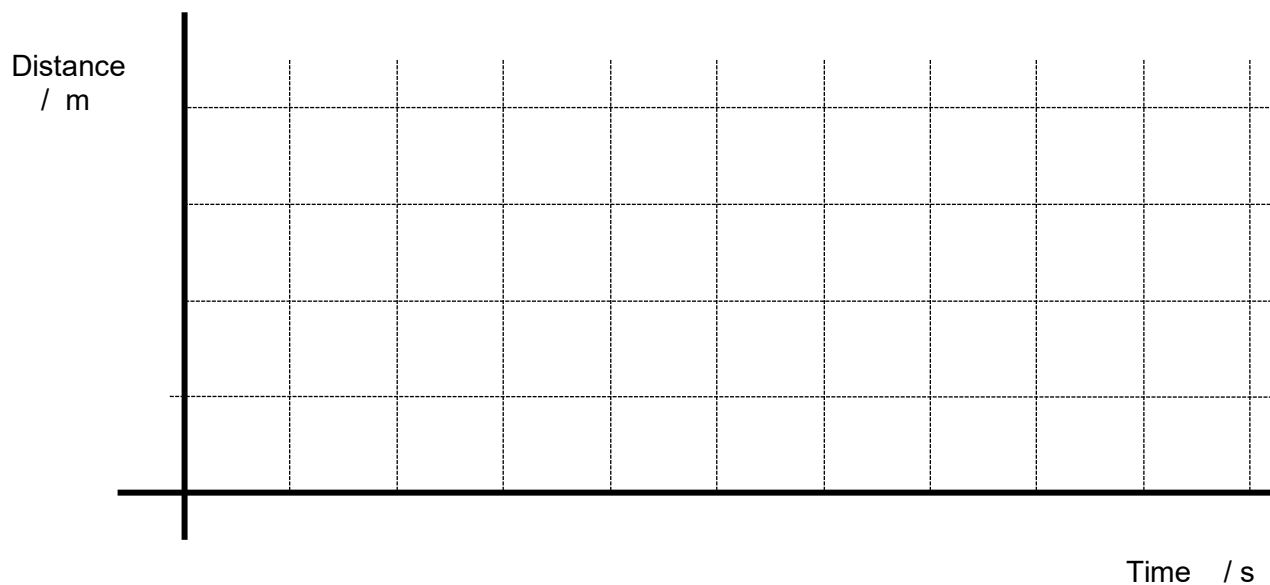
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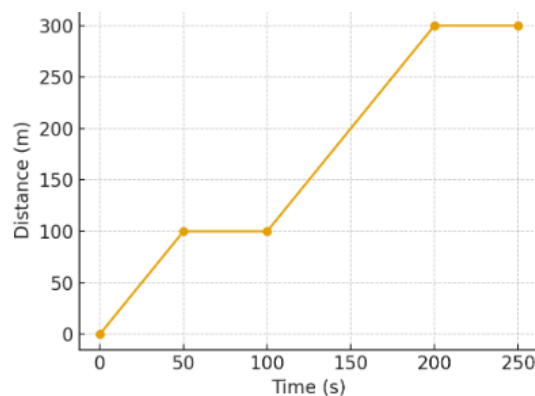
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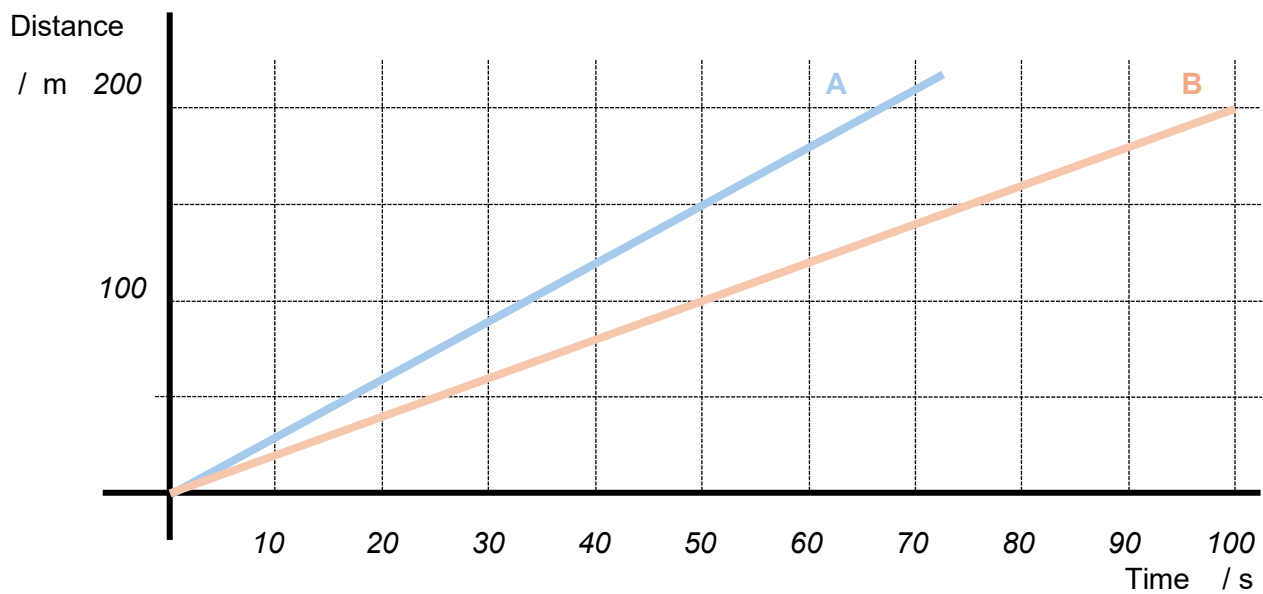
6. A student walks 100 m in 50 s. Plot this motion on a distance–time graph and state their speed.



7. This graph shows someone walking a short distance.

- What is the total distance travelled.
- When was the walker stationary?
- What was the speed of the walker between 100 and 200 seconds?





8. Take a look at the graph above. Which object, A or B, is travelling the fastest?

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9. Using the same graph, calculate the speed of both objects.

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10. Which object has travelled the furthest after 50 seconds? How much further has it travelled?

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