**Area under Graphs and Gradients GREEN**

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| Question 1     1. Calculate the rate of acceleration from 0 to 10 seconds.   \_\_\_\_\_\_\_\_\_ m/s²   1. Calculate the distance travelled.   \_\_\_\_\_\_\_\_\_ m | Question 2     1. Calculate the rate of deceleration from 0 to 10 seconds.   \_\_\_\_\_\_\_\_\_ m/s²   1. Calculate the distance travelled in the first 9 seconds.   \_\_\_\_\_\_\_\_\_ m |
| Question 3     1. Calculate the rate of acceleration from 0 to 6 seconds.   \_\_\_\_\_\_\_\_\_ m/s²   1. Calculate the distance travelled.   \_\_\_\_\_\_\_\_\_ m | Question 4     1. Calculate the rate of deceleration from 6 to 10 seconds.   \_\_\_\_\_\_\_\_\_ m/s²   1. Calculate the distance travelled.   \_\_\_\_\_\_\_\_\_ m |

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| Question 5     1. Calculate the rate of acceleration from 0 to 3 seconds.   \_\_\_\_\_\_\_\_\_ m/s²   1. Calculate the distance travelled.   \_\_\_\_\_\_\_\_\_ m | Question 6     1. Calculate the rate of deceleration from 7 to 10 seconds.   \_\_\_\_\_\_\_\_\_ m/s²   1. Calculate the distance travelled.   \_\_\_\_\_\_\_\_\_ m |
| Question 7     1. Calculate the rate of acceleration from 5 to 7 seconds.   \_\_\_\_\_\_\_\_\_ m/s²   1. Calculate the distance travelled.   \_\_\_\_\_\_\_\_\_ m | Question 8     1. Calculate the rate of deceleration from 7 to 9 seconds.   \_\_\_\_\_\_\_\_\_ m/s²   1. Calculate the distance travelled.   \_\_\_\_\_\_\_\_\_ m |

**Area under Graphs and Gradients AMBER**

Acceleration/deceleration = gradient

Distance travelled = area under the graph

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| Question 1     1. Calculate the rate of acceleration from 0 to 10 seconds.   \_\_\_\_\_\_\_\_\_ m/s²   1. Calculate the distance travelled.   \_\_\_\_\_\_\_\_\_ m | Question 2     1. Calculate the rate of deceleration from 0 to 10 seconds.   \_\_\_\_\_\_\_\_\_ m/s²   1. Calculate the distance travelled in the first 9 seconds.   \_\_\_\_\_\_\_\_\_ m |
| Question 3     1. Calculate the rate of acceleration from 0 to 6 seconds.   \_\_\_\_\_\_\_\_\_ m/s²   1. Calculate the distance travelled.   \_\_\_\_\_\_\_\_\_ m | Question 4     1. Calculate the rate of deceleration from 6 to 10 seconds.   \_\_\_\_\_\_\_\_\_ m/s²   1. Calculate the distance travelled.   \_\_\_\_\_\_\_\_\_ m |

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| Question 5     1. Calculate the rate of acceleration from 0 to 3 seconds.   \_\_\_\_\_\_\_\_\_ m/s²   1. Calculate the distance travelled.   \_\_\_\_\_\_\_\_\_ m | Question 6     1. Calculate the rate of deceleration from 7 to 10 seconds.   \_\_\_\_\_\_\_\_\_ m/s²   1. Calculate the distance travelled.   \_\_\_\_\_\_\_\_\_ m |
| Question 7     1. Calculate the rate of acceleration from 5 to 7 seconds.   \_\_\_\_\_\_\_\_\_ m/s²   1. Calculate the distance travelled.   \_\_\_\_\_\_\_\_\_ m | Question 8     1. Calculate the rate of deceleration from 7 to 9 seconds.   \_\_\_\_\_\_\_\_\_ m/s²   1. Calculate the distance travelled.   \_\_\_\_\_\_\_\_\_ m |

**Area under Graphs and Gradients RED**

Acceleration/deceleration = gradient

Distance travelled = area under the graph

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| Question 1    Area of trapezium = ½ (a + b) h  Gradient = rise  run   1. Calculate the rate of acceleration from 0 to 10 seconds.   \_\_\_\_\_\_\_\_\_ m/s²   1. Calculate the distance travelled.   \_\_\_\_\_\_\_\_\_ m | Question 2     1. Calculate the rate of deceleration from 0 to 10 seconds.   \_\_\_\_\_\_\_\_\_ m/s²   1. Calculate the distance travelled in the first 9 seconds.   \_\_\_\_\_\_\_\_\_ m |
| Question 3     1. Calculate the rate of acceleration from 0 to 6 seconds.   \_\_\_\_\_\_\_\_\_ m/s²   1. Calculate the distance travelled.   \_\_\_\_\_\_\_\_\_ m | Question 4     1. Calculate the rate of deceleration from 6 to 10 seconds.   \_\_\_\_\_\_\_\_\_ m/s²   1. Calculate the distance travelled.   \_\_\_\_\_\_\_\_\_ m |

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| Question 5     1. Calculate the rate of acceleration from 0 to 3 seconds.   \_\_\_\_\_\_\_\_\_ m/s²   1. Calculate the distance travelled.   \_\_\_\_\_\_\_\_\_ m | Question 6     1. Calculate the rate of deceleration from 7 to 10 seconds.   \_\_\_\_\_\_\_\_\_ m/s²   1. Calculate the distance travelled.   \_\_\_\_\_\_\_\_\_ m |
| Question 7     1. Calculate the rate of acceleration from 5 to 7 seconds.   \_\_\_\_\_\_\_\_\_ m/s²   1. Calculate the distance travelled.   \_\_\_\_\_\_\_\_\_ m | Question 8     1. Calculate the rate of deceleration from 7 to 9 seconds.   \_\_\_\_\_\_\_\_\_ m/s²   1. Calculate the distance travelled.   \_\_\_\_\_\_\_\_\_ m |