



Physics Quiz

No. of Pages: (2)

No. of Questions: ( 2 )

Mark: (\_\_\_\_/ 13 )

Name: \_\_\_\_\_

Date: / 9 / 2025

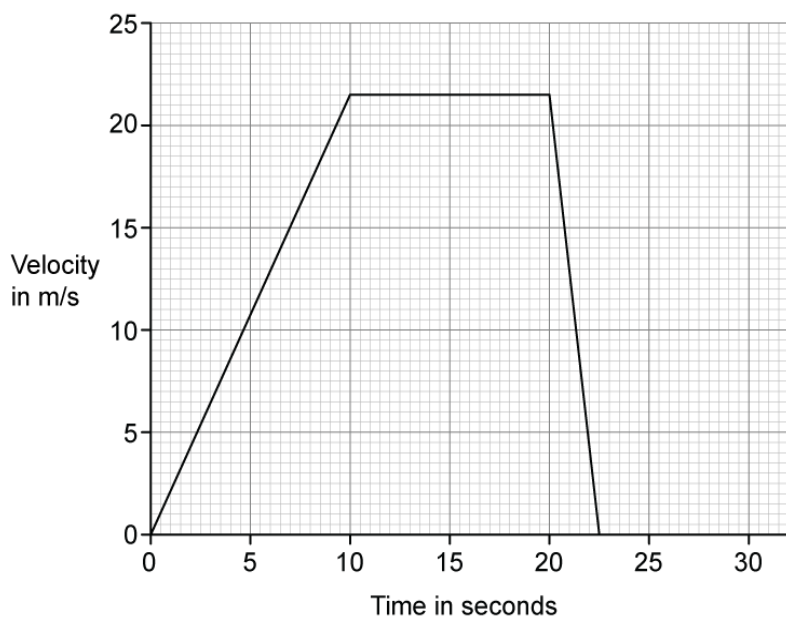
Grade: 9 ( )

Duration: 15 min.

Form 2

Question 1: ( / 10)

The velocity-time graph shows how the velocity of a motorcycle changes with time.



- a. With reference to the graph, state and explain which part of the graph shows that the motorcycle has constant deceleration. [4]

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b. State the formula linking acceleration, change in velocity and time taken. [1]

c. Calculate the acceleration of the motorcycle between 20 and 22.5 seconds. [2]

acceleration = .....  $\text{m/s}^2$

d. Calculate the distance travelled between 20 and 22.5 seconds. [3]

Distance = ..... m

**Question 2:**

( / 3 )

A runner reaches a speed of  $3\text{m/s}$  after accelerating at  $2.25\text{ m/s}^2$  whilst travelling a distance of  $2\text{m}$ . Calculate the initial speed of the runner.