



Class 11 Physics | Motion In A Straight Line

MCQ WORKSHEET • 15 questions • Choose one correct option • Suggested time: 25 minutes

1. A car travels 60 m east and then 20 m west. Its displacement is:

- A. 80 m west B. 40 m east
C. 80 m east D. 40 m west

2. A body moves 100 m in 5 s and 100 m in 10 s. Average speed is:

- A. 20 m/s B. 15 m/s C. 13.3 m/s D. 10 m/s

3. Slope of a position-time graph represents:

- A. Velocity B. Distance C. Acceleration D. Force

4. Area under a velocity-time graph gives:

- A. Displacement B. Acceleration
C. Speed D. Jerk

5. A body starts from rest with acceleration 3 m/s^2 . Speed after 4 s is:

- A. 24 m/s B. 12 m/s C. 6 m/s D. 48 m/s

6. A car slows uniformly from 20 m/s to rest in 5 s. Distance travelled is:

- A. 20 m B. 50 m C. 100 m D. 25 m

7. For $x=2t^2+3t$ in SI units, velocity at $t=2 \text{ s}$ is:

- A. 14 m/s B. 7 m/s C. 11 m/s D. 8 m/s

8. For $x=4t^3$ in SI units, acceleration at $t=1 \text{ s}$ is:

- A. 24 m/s^2 B. 48 m/s^2 C. 12 m/s^2 D. 4 m/s^2

9. At the highest point of a vertical throw, neglecting air resistance:

- A. Velocity is zero; acceleration is downward
B. Both velocity and acceleration are zero
C. Acceleration is upward
D. Velocity is maximum

10. A stone is dropped from rest. Distance fallen in 3 s ($g=10 \text{ m/s}^2$) is:

- A. 45 m B. 30 m C. 90 m D. 15 m

11. A ball is thrown upward at 20 m/s. Time to return to launch height ($g=10$) is:

- A. 2 s B. 1 s C. 4 s D. 8 s

12. A negative acceleration implies that velocity:

- A. Is always negative
B. Must be zero
C. Always decreases in magnitude
D. Decreases algebraically with time

13. A horizontal position-time graph indicates:

- A. Increasing speed
B. Rest
C. Uniform acceleration
D. Constant nonzero speed

14. With uniform acceleration, speeds at 2 s and 6 s are 8 and 20 m/s. Acceleration is:

- A. 7 m/s^2 B. 3 m/s^2 C. 5 m/s^2 D. 2 m/s^2

15. A particle returns to its starting point after 8 s. Its average velocity is:

- A. 8 m/s
B. Equal to average speed
C. 0
D. Impossible to determine

ANSWER KEY — check after completing all 15 questions

1.B 2.C 3.A 4.A 5.B 6.B 7.C 8.A 9.A 10.A 11.C 12.D 13.B 14.B 15.C

Original exam-style practice • Reference notes: www.physics.guru/cbse-practice-papers/ • Not an official paper