

Worksheet: Motion in a Straight Line

NIOS · Class 11 · Physics · 5 questions · 13 marks

Name: _____

Date: _____

Score: _____ / 13

Q1. Can an object have zero velocity but non-zero acceleration? Give an example. *[2 marks]*

Q2. A particle moves with $v = 10 + 2t$ m/s. Find the displacement from $t = 0$ to $t = 5$ s. *[3 marks]*

Q3. A car moving at 72 km/h stops in 50 m. Find the deceleration. *[2 marks]*

Q4. Two 100 m trains move at 54 km/h and 72 km/h in opposite directions on parallel tracks. Find the crossing time. *[3 marks]*

Q5. A stone is dropped from an 80 m tower. Find the time to reach the ground and the impact speed ($g = 10$ m/s²). *[3 marks]*
