

Worksheet: Motion in a Plane

NIOS · Class 11 · Physics · 5 questions · 15 marks

Name: _____

Date: _____

Score: _____ / 15

Q1. A vector has components $A_x = 3$, $A_y = 4$. Find its magnitude and direction. [2 marks]

Q2. What are $i \cdot j$ and $i \times j$? [2 marks]

Q3. A projectile is fired at 50 m/s at 30 degrees to the horizontal. Find T, H, and R ($g = 10 \text{ m/s}^2$). [5 marks]

Q4. A stone is thrown horizontally at 20 m/s from 80 m height. Find its range ($g = 10 \text{ m/s}^2$). [3 marks]

Q5. A particle moves in a circle of radius 20 cm at 5 revolutions per second. Find its speed and centripetal acceleration. [3 marks]
