

Graphical Representation of Position-Time and Velocity-Time Graphs

Position-Time Graphs:

1. Uniform Motion:

- **Graph:** A straight line with a constant slope.
- **Explanation:** The position changes at a constant rate over time, indicating constant velocity.

2. Non-Uniform Motion:

- **Graph:** A curved line.
- **Explanation:** The position changes at a varying rate, indicating acceleration.

Velocity-Time Graphs:

1. Uniform Motion:

- **Graph:** A horizontal line.
- **Explanation:** The velocity remains constant over time, indicating zero acceleration.

2. Non-Uniform Motion:

- **Graph:** A straight, diagonal line.
- **Explanation:** The velocity changes at a constant rate, indicating constant acceleration.