

Grade 12 Physics, Unit 1A
Topic Title

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Contents

1	Review of Describing and Graphing Motion	2
1.1	Position: \vec{d}	2
1.2	displacement: $\Delta\vec{d}$	2
1.3	Velocity: \vec{v}	2
1.4	Graphing motion	2

1 Review of Describing and Graphing Motion

1.1 Position: \vec{d}

Position is the **straight-line distance** from a fixed reference point to a location, with a direction to the location from the reference point.

1.2 displacement: $\Delta\vec{d}$

Displacement is the **change of position**

Formula:

$$\Delta\vec{d} = \vec{d}_2 - \vec{d}_1$$

or

$$\Delta\vec{d}_{tot} = \sum_{i=0}^n \Delta\vec{d}_i$$

1.3 Velocity: \vec{v}

Velocity is the **rate of change of position**

$$\vec{v} = \frac{\Delta\vec{d}}{\Delta t}$$

1.4 Graphing motion

- For a position/displacement vs time graph, the velocity = the *slope*
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