Derivatives

Introduction

On the next pages, you will watch videos about derivatives and will then answer some questions about the video.

The key ideas of these videos are:

- The goal of this video is to understand how a GPS unit can find the speed of a car 10 seconds after it leaves an intersection.
- You can approximate the speed at 10 seconds by finding an average speed over an interval immediately before or after the 10-second mark.
- Average speed is found by dividing change in distance by change in time
- For fixed amounts of change in time t, the changes in the cars distance will be increasing. Consequently, using the interval before the 10-second mark produces an underestimate of the cars speed.

Learning outcomes: