

Unit 2B Speed and Velocity

Name:

Note-Taking Guide and Questions to Consider

Date:

Main Ideas, Key Points, Questions:

After watching the video segment, write down key points, main ideas, and big questions.

Objective(s):

- *Differentiate between speed and velocity.*
- *Calculate speed and velocity using the constant speed and velocity equations.*

Notes:

During the video segment, use words, phrases, or drawings to take notes.

Summary:

After watching the video segment, write at least three sentences explaining what you learned. You may ask yourself: "If I was going to explain this to someone else, what would I say?"

Answer the following.

1. Define speed in your own words.

2. Why does a car speedometer only have positive values, even though you can move in reverse?

3. Fill in the equation for average speed below:

$$\text{average speed} = \underline{\hspace{2cm}}$$

4. Define velocity in your own words.

5. Because velocity is a _____ quantity, _____ matters.

6. Fill in the equation for average velocity below:

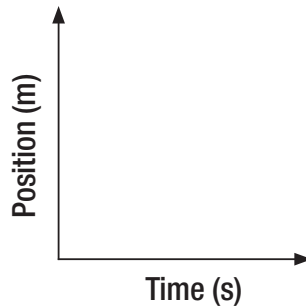
$$\text{average velocity} = \underline{\hspace{2cm}}$$

7. How does instantaneous velocity differ from average velocity?

Answer the following.

8. If you travel at a constant velocity, how does the average velocity compare to the instantaneous velocity throughout the trip?

9. Sketch a position versus time graph below for an object traveling at a constant positive velocity.



10. Will an object's average velocity and average speed always be the same? Explain what happens when the two are not equal.

11. Complete the Venn diagram below to compare and contrast speed and velocity.

