bananalearn

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Speed, velocity and acceleration for Grade 9

Practice worksheet - Science · Grade 9

Name: _____ Date: _____

Show your working. Answers are not included in this copy.

Try each task before opening its answer. Give an example or reason, not only a label.

Write an answer and your reason before opening the explanation. Check the reasoning as well as the final answer.

1. Go 30 m east then 10 m west. Find distance.

2. Go 30 m east then 10 m west. Find displacement.

3. Cover 150 m in 30 s. Find average speed.

4. Cover 150 m in 30 s then stop 20 s. Find whole-interval average speed.

5. Return to the start after 60 s. What is average velocity?

6. Convert 72 km/h to m/s.

7. Change from 2 to 14 m/s in 4 s. Find average acceleration.

8. Velocity changes from 12 to 4 m/s in 2 s along the positive direction. Find average acceleration.

Practice continued

9. Can constant speed involve acceleration?

10. Does zero average velocity prove no movement occurred?

11. What does a velocity-time gradient represent?

12. What does signed area under a velocity-time graph represent?

13. Can average speed be negative?

14. Why not simply average two speeds for equal-distance legs?