1. If you were standing under a tree which object would appear to be moving?



- 2. Describe the frame of reference when you are riding in a car.
- 3. List three things you might measure with a ruler.
- 4. What does the prefix kilo mean?
- 5. What is your displacement if you run one lap around the track?
- 6. What is the distance traveled if you walk 3 blocks north, then 3 blocks east, then 3 blocks south? Displacement?
- 7. A ball is rolled up a hill 3 meters, and then roll backdown 6 meters. What is the magnitude of the ball's displacement? Distance?
- 8. What would be the proper SI unit for the last kilometer of a 10 km bike race?
- Define speed.
- 10. Define instantaneous speed.
- 11. If total distance traveled is 256 km and total time traveld in 10 hours, then what is the average speed?
- 12. What does the slope of a distance-time graph represent?
- 13. On a distance time graph it shows a bobsled moved 100m in 25 s. What is its average speed?
- 14. In vector addition if two objects are moving in opposite directions what do you do with their quantities?
- 15. What is vector addition?
- 16. Define acceleration.
- 17. What ways can an object accelerate?
- 18. What is the acceleration of gravity on earth?
- 19. What is the formula for acceleration?
- 20. If your running speed goes from 6 m/s to 9 m/s in 3 s, what is your acceleration?
- 21. An object moving 60 m/s comes to a stop in 10s. What is its acceleration?
- 22. What does the slope on a speed-time graph show?
- 23. Define instantaneous acceleration.
- 24. How are speed and velocity alike and different?
- 25. How is acceleration shown on a speed-time graph?
- 26. How is a constant speed shown on a distance-time graph?
- 27. How is a constant velocity shown on a speed-time graph?

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