

Lightning Racer



Split your group into two smaller groups and answer the following questions:

1. Group 1: Find the average velocity of the green train over the 1036 m long track. (Hint: see Appendix B.)

Group 2: Find the average velocity of the red train over the 1036 m long track. (Hint: see Appendix B.)

2. Compare your values from question 1. Which car had the highest average velocity? Did that car win?
3. How is it physically possible for one car to beat the other, assuming the cars and tracks were built identically? Give at least two possible reasons.
4. If the highest hill for each train is 27.43 m, what is the top speed that the coasters can reach? Assume that the trains have no velocity at the top of the hill.