

Incline Exploration Questions

1. Watch as the biker travels along the default path. Based on the graph, what kind of relationship do you think exists between speed and inclines?
2. Move one of the points to the very top of the graph and set the initial speed to 20. What happens to the biker? Why do you think this occurs?
3. Increase the biker's initial speed to 25 and arrange the points on the graph to create a long diagonal section of track. Is the graph of the biker's speed on this incline straight or curved? If you aren't sure, try using a straightedge to check.
4. Based on your results from Question 3, what type of relationship do you think exists between speed and inclines?
5. What is the independent variable in this scenario? Justify your response.
6. What is the dependent variable in this scenario? Justify your response.