

Name _____

Date _____

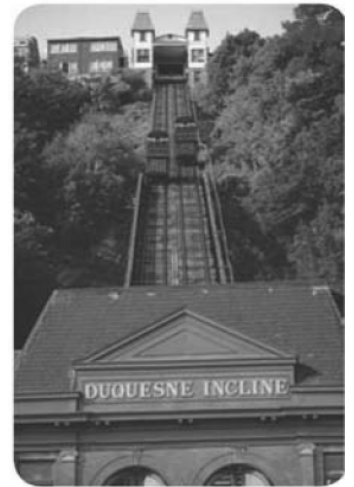
Open-ended Task: Geometry Chapter 3

Directions:

To receive full credit you must do the following:

1. Show OR describe each step of your work, even if you did it in your head (“mental math”) or used a calculator,
AND
2. Write an explanation stating the mathematical reason(s) why you chose each of your steps.

Question: The Duquesne Incline was built in 1888 in Pittsburgh Pennsylvania, to move people up and down a mountain there. On the incline, you move about 29 feet vertically for every 50 feet you move horizontally. When you reach the top of the hill, you have moved a horizontal distance of about 700 feet.



A. Make a table showing the vertical distance that the incline moves for each 50 feet of horizontal distance during its climb. How high is the incline at the top?

B. Write a fraction that represents the slope of the incline's path. Draw a graph to show the climb path.



C. The Burgenstock Incline in Switzerland moves about 144 vertical feet for every 271 horizontal feet. Write a fraction to represent the slope of the incline's path. Which incline is steeper, the Burgenstock Incline or the Duquesne Incline?