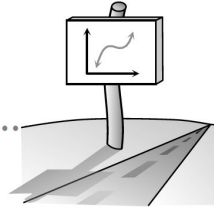


CW# _____

Name: _____

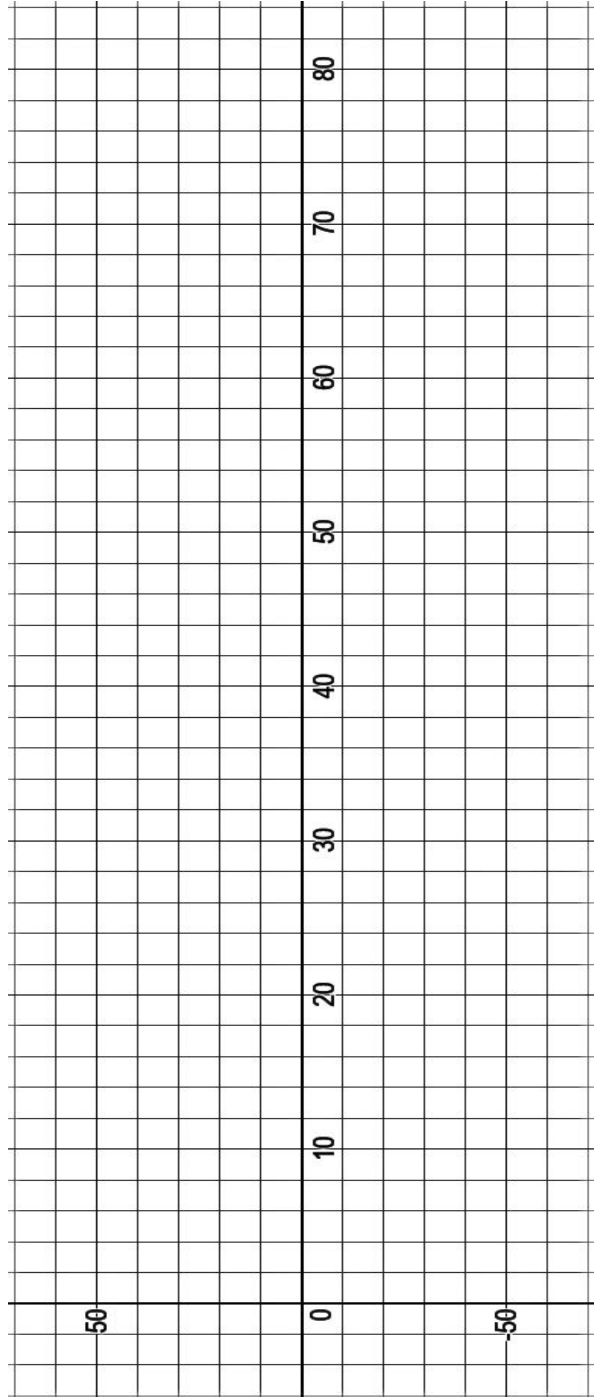
1.1.3 How can I minimize the cost?

.....
Modeling with Functions



#19 Functions of America: Modeling the Course

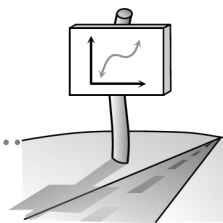
Sketch your graph of the dirt bike course below:



Explain why your design is the lowest cost design possible:

1.1.4 What is the rate?

Rates of Change



#29 Carlos was driving on the New Jersey Turnpike (a toll road that collects money every few miles). He was given a speeding ticket as he reached the last booth. Since there were no highway patrolmen or radar on the turnpike, he could not figure out how anyone knew that he had been speeding.

a. How do you suppose his speed had been determined?

b. Using your answer from part (a), do you think it would be possible for someone to speed on part of their turnpike trip and not get caught?

#30 Macario started in Vacaville and drove to Davis (a distance of 28 miles) in 30 minutes. Most of his journey was spent driving on the freeway. He stopped in Davis.

a. What was Macario's average speed in miles per hour?

b. Sketch a possible speed vs. time graph for Macario's trip. Then compare your graph with the graphs of your teammates. What do you notice?

b. Did Macario drive at his average speed the entire trip? Explain.

d. Did he *ever* drive the average speed of 56 mph? Discuss this in your team.

1.1.4 What is the rate?

Rates of Change

