

Walking for Charity

Name: _____ Hour: _____

Mrs. Strengholt's class has decided to participate in a walkathon to raise money for the local hospital. Each participant in the walkathon must find sponsors to pledge a certain amount of money for each mile the participant walks.

Mrs. Strengholt says that some sponsors might ask the students to suggest a pledge amount. The class wants to agree on how much they will ask for. Matt says that \$1.00 per mile would be appropriate. Emily says that \$2.00 per mile would be better because it would bring in more money. Jacob points out that if they ask for too much money, not as many people will want to be sponsors. He suggests that they ask each sponsor for \$5.00 donation and 50¢ per mile.

In this problem, we will refer to Matt, Emily, and Jacob's suggestions as pledge plans.

1. Make a table of values showing the amount of money a sponsor would owe under each pledge plan if a student walked the distances between 0 and 10 miles. We will come back to the "your plan" section later.

Distance (Miles)	Money Owed			
	Matt	Emily	Jacob	Your plan:
0				
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				

(equation):

2. On a piece of graph paper, graph the three pledge plans on the same coordinate axes. Use a different color for each plan. Be sure to use even intervals, label the data, include a title and a legend.

3. For each pledge plan, write an equation that can be used to calculate the amount of money a sponsor would owe, given the total distance the student walks.

Matt:

Emily:

Jacob:

4. What effect does increasing the amount pledged per mile have:
on the table?

On the graph?

On the equation?

5. If a student walks 8 miles in the walkathon, how much would a sponsor owe under each pledge plan? Explain how you got your answer.

Matt:

Emily:

Jacob:

6. For a sponsor to owe a student \$10, how many miles would the student have to walk under each pledge plan? Explain how you got your answer.

Matt:

Emily:

Jacob:

7. Jacob suggested that each sponsor make a \$5.00 donation then pledge 50¢ per mile. How is this fixed \$5.00 donation represented in:

The table:

The graph:

The equation:

8. Write an equation for a pledge plan whose graph:
- is steeper than any of the lines you graphed in the problem. Check your equation by graphing it on the coordinate axes with the other three lines.
 - is less steep than any of the lines you graphed in the problem. Check your equation by graphing it on the coordinate axes with the other three lines.
 - has a different set starting amount, and a different per mile donation than Jacob's pledge plan.