

Problem 1.3

- A**
1. Make a table for each student's pledge plan. Show the amount of money each of his or her sponsors would donate if he or she walked distances from 0 to 6 kilometers. What are the dependent and independent variables?
 2. Graph the three pledge plans on the same coordinate axes. Use a different color for each plan.

3. For each pledge plan, write an equation that represents the relationship between the distance walked and the amount of money donated. Explain what information each number and variable in the equations represents.
 4. For each plan:
 - a. What pattern of change between the two variables do you observe in the table?
 - b. How does this pattern appear in the graph? In the equation?
 - c. How can you determine if a relationship is linear from a table, a graph, or an equation?
 - d. Does this relationship represent a proportional relationship?
- B**
1. Suppose each student walks 8 kilometers in the walkathon. How much money does each sponsor donate? Explain how you found your answer.
 2. Suppose each student raises \$10 from a sponsor. How many kilometers does each student walk? Explain.
 3. On which graph does the point (12, 11) lie? What information does this point represent?
 4. In Alana's plan, how is the fixed \$5 donation represented in
 - a. the table?
 - b. the graph?
 - c. the equation?
- C**
- Gilberto decides to give a T-shirt to each of his sponsors. Each shirt costs him \$4.75. He plans to pay for each shirt with some of the money he raises from each sponsor.
1. Write an equation that represents the amount of money Gilberto raises from each sponsor after he has paid for the T-shirt. Explain what information each number and variable represents.
 2. Graph the equation for distances from 0 to 5 kilometers. Compare this graph to the graph of Gilberto's pledge plan in Question A, part (2).
 3. Is this relationship linear? Explain.