B: 1 all

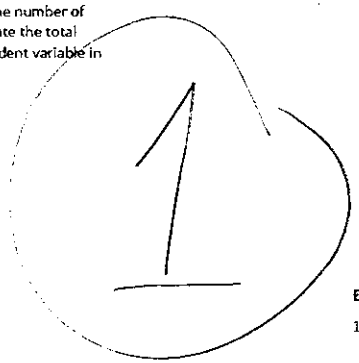
Lesson 32: Multi-Step Problems in the Real World

Classwork

Opening Exercise

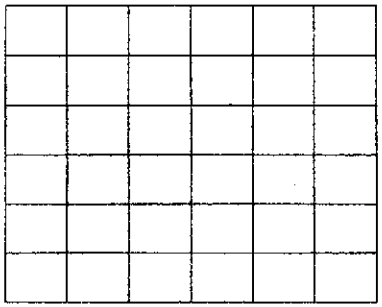
Xin is buying beverages for a party, which are individually packaged and come in packs of 8. Let p be the number of packages Xin buys and t be the total number of beverages. The equation $t = 8p$ can be used to calculate the total number of beverages when the number of packages is known. Determine the independent and dependent variable in this scenario. Then make a table using whole number values of p less than 6.

Number of Packages (p)	Total Number of Beverages ($t = 8p$)
0	
1	
2	
3	
4	
5	



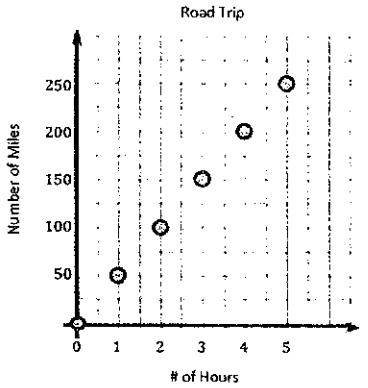
Example 1

Make a graph for the table in the Opening Exercise.



Example 2

Use the graph to determine which variable is the independent variable and which is the dependent variable. Then state the relationship between the quantities represented by the variables.



Exercises

1. Each week Quentin earns $30. If he saves this money, create a graph that shows the total amount of money Quentin has saved from week 1 through week 8. Write an equation that represents the relationship between the number of weeks that Quentin has saved his money (w) and the total amount of money he has saved (s). Then name the independent and dependent variable. Write a sentence that shows this relationship.