

Exploratory Challenge:

Expenses on Your Family Vacation John and Ag are summarizing some of the expenses of their family vacation for themselves and their three children, Louie, Missy, and Bonnie. Write an algebraic equation, create a model to determine how much each item will cost using all of the given information, and answer the questions that follow.

Expenses:

Car and insurance fees: \$400

Airfare and insurance fees: \$875

Motel and tax: \$400

Baseball game and hats: \$103.83

Movies for one day: \$75

Soda and pizza: \$37.95

Sandals and T-shirts: \$120

Scenario 1

During one rainy day on the vacation, the entire family decided to go watch a matinee movie in the morning and a drive-in movie in the evening. The price for a matinee movie in the morning is different than the cost of a drive-in movie in the evening. The tickets for the matinee morning movie cost \$6 each. How much did each person spend that day on movie tickets if the ticket cost for each family member was the same? What was the cost for a ticket for the drive-in movie in the evening?

Scenario 2

For dinner one night, the family went to the local pizza parlor. The cost of a soda was \$3. If each member of the family had a soda and one slice of pizza, how much did one slice of pizza cost?

Scenario 3

One night, John, Louie, and Bonnie went to see the local baseball team play a game. They each bought a game ticket and a hat that cost \$11. How much was each ticket to enter the ballpark?

Scenario 4

While John, Louie, and Bonnie went to see the baseball game, Ag and Missy went shopping. They bought a T-shirt for each member of the family and bought two pairs of sandals that cost \$11 a pair. How much was each T-shirt?

Scenario 5

The family flew in an airplane to their vacation destination. Each person had to have his own ticket for the plane and also pay \$22 in insurance fees per person. What was the cost of one ticket?

Scenario 6

While on vacation, the family rented a car to get them to all the places they wanted to see for five days. The car costs a certain amount each day, plus a one-time insurance fee of \$55. How much was the daily cost of the car (not including the insurance fees)?

Scenario 7

The family decided to stay in a motel for four nights. The motel charges a nightly fee plus \$66 in state taxes. What is the nightly charge with no taxes included?