

The Case of the Kid Bargain Hunter

In this worksheet, you'll use your skills at setting up and solving equations to help determine the best bargain from a number of price options.

Assume you are helping to plan a family vacation, and that your family has decided to take a two-week road trip to visit three national parks. You consult a map and estimate that 1,150 miles will be driven during the trip. Your family investigates costs of different car rental companies, and discover the following options:



- **LET'S GO RENTAL CARS** charges \$220 per week plus 10¢ for each mile driven.
- **SMOOTH RIDE RENTALS** charges \$100 per week plus 40¢ for each mile driven.
- **CHEAP WHEELS** has no weekly charge but charges 60¢ per mile driven.
- **UNCLE TEDDY'S RENTALS** charges \$300 per week and has no charge per mile.

WORK THE MATH

Show your work—use separate paper as needed.

1 Which company should your family use? Explain your answer.

2 Let's Go Rental Cars would like to provide its customers with a formula they can use to estimate the cost of renting from them. Construct this formula using the cost information above for Let's Go, and the following variables: t for the total cost, n for the number of miles to be driven, and w for the number of weeks the car is rented.

NOW TRY THIS:

Calculate the distance of a two-week trip where the total cost of using Let's Go Rental Cars and Smooth Ride Rentals would be exactly the same. *Hint:* Think about constructing a formula for Smooth Ride Rentals as you did above for Let's Go Rental Cars. Then set the formulas equal to each other and solve.