

Solving multi-step Real world problems **HOMEWORK**

Name: _____ Class: _____

Write and solve an equation to represent each situation. Define variable and show all work steps.

1. The Lubbers family are running in a relay marathon. The total distance is 26.1 miles. Bryce is running 8 miles and his brother Jordan is running 7.6 miles. His other 2 siblings will run equal distances. How far will each of the siblings run?

Define a variable:

Relate the information:

Write and solve an equation:

2. The Avink family has a family cell phone plan that cost \$190 this month. They pay a basic fee of \$54 and Joshua's iphone costs \$52. Mr. Avink's phone costs \$21, and Mrs. Avink's phone costs \$18. This month, they went over on data. The overage charge is \$15 per gig of data. How many gig of data did they go over by?

Define a variable:

Relate the information:

Write and solve an equation:

- 3) Nathan is saving up for a new DeMarini voodoo baseball bat. The best price he could find was \$349. He has saved \$130 so far and earned another \$35 by helping his grandparents. He would like the bat by the beginning of June for his tournament in New York. He thinks he can earn \$16 each week. How many weeks will he need to work and save in order to be able to buy the bat?

Define a variable:

Relate the information:

Write and solve an equation:

4) Emma solved the multi-step equation below. Do you agree with her solution? If not, please explain her mistake AND give the correct solution.

$$\begin{aligned} -3(x-5) &= 51 \\ -3(x) + -3(5) &= 51 \\ -3x + (-15) &= 51 \\ +15 \quad +15 & \\ -3x &= 66 \\ \div -3 \quad \div -3 & \\ x &= -22 \end{aligned}$$

5) Growing up, Mrs. Neal and her brother played travel soccer. Their parents paid for their expenses to play on their travel teams. Expenses included a fixed amount each year to be on the team. Plus the family spent \$20 per game on gas. The amount of money Mrs. Neal's parents had to save for their 2 kids to play soccer is modeled by the equation below:

$$2(20 + 250) = 900$$

Explain how each number and letter in the equation relates to the problem. AND Solve the equation . What does the solution represent?

2 = _____

Work to solve:

20 = _____

x = _____

250 = _____

900 = _____

The solution represents:
