Planning the Safety Fair: Advertising

It is important to advertise the safety fair so that a lot of people attend. You decided to place ads in the local newspaper and on the radio. You will also distribute flyers to local businesses and to residents by going door-to-door. The following questions will help you decide how much to spend on advertising.

1. You place 14 newspaper ads. Each ad costs \$47. Estimate the total cost of the newspaper ads. Show or explain how you found the answer.

I know that 10 x 47 would be \$470, and we can add another 1/2 of that since 4 is almost half of 10. If I add 470 + 235, I get 705.

2. Calculate the total cost of the newspaper ads using the multiplication algorithm.

14 x \$47 = \$658

3. Describe how you can use division to check your answer to question #2

I know that multiplication and division are opposite operations. The multiplication problem is asking how much is 47 groups of 14. I can use division to see how many groups of 47 are in my total of 658. If I did the multiplication correctly, I should get 14.

4. Use repeated multiplication and subtraction to divide your answer from question #2 by 47.

658 - (47x10) = 188188 - (47x4) = 010 + 4 = 14 with a remainder of 0

5. You place 135 radio ads. Each ad costs \$3. Estimate the total cost of the radio ads. Show or explain how you found the answer.

One hundred radio ads would cost \$300 and 150 radio ads would cost \$450. My estimate is between \$300 and \$450.

6. Calculate the total cost of the radio ads. Show or explain how you found the answer.

3 x 100 = 300, 3 x 30 = 90, and 3 x 5 = 15. If I add these all together, I get \$405. 135 x 3 = \$405

7. You purchase 2000 flyers that cost \$0.07 each. Estimate the total cost for the flyers. Show or explain how you found the answer.

I can estimate the cost of the flyers by rounding 0.07 to 0.05. If each of the flyers costs \$0.50 the total cost would be \$1,000 because \$0.50 is half of one dollar. Since 0.05 is ten times less than 0.50, I can divide 1,000 by 10 to get approximately \$100 for the cost of the flyers.

8. Using what you know about the place value of whole numbers and decimals, determine the total cost of the flyers. Show or explain how you found the answer.

2,000 x 7 would be 14,000. If we had .7, it would be seven tenths, which would mean the answer to 2,000 x 7 should be divided by 10, which is 1,400. Since we have seven hundredths, the answer to 2,000 x 7 needs to be divided by 100, which is 140.

9. You can mail one flyer for an additional \$0.38. Use your understanding of place value to determine the cost of printing and mailing one flyer.

It costs 7 hundredths of a dollar to print one flyer. I can add this to the 8 hundredths that it costs to mail one flyer. I get 15 hundredths. Since 10 hundredths is the same as one tenth, I can add ten hundredths to the 3 hundredths from the cost of mailing a flyer. I get 4 tenths and 5 hundredths. The total cost is \$0.45.

10. Calculate the total cost for the newspaper ads, radio ads, and flyers. Show or explain how you found the answer.

\$658 + \$405 + \$100 = \$1163