SAFETY RULES ARE THE BEST TOOLS

Planning the Safety Fair: Booths

The following questions will help you decide how many booths to have at your fair and which safety topics to cover.

This table shows the supplies that can be provided to each booth and the cost for each item.

Supplies	Cost
1 table	$12
1 chair	$7
1 canopy	$60
1 banner	$16

1. The fair will be two hours shorter at Location #1, so you will not provide chairs for each booth. Write an expression to show how to find the total cost of one table, one canopy, and one banner. Explain your thinking.

(12 + 60 + 16) I can find the total cost by adding the cost for each supply.

2. The fair will be two hours longer at Location #2. You will provide one table, one canopy, one banner, and two chairs for each booth. Write an expression to show how to find the total cost of these supplies. Explain your thinking.

2(7) +12 + 60 + 16 I can find the cost of the supplies for one booth at Location #2 by multiplying the cost for one chair by two, and then adding that to the cost of one table, one canopy, and one banner.

3. Write an expression to show how to find the total cost for five booths at Location #1.

5(12 + 60 + 16) I can find the cost for one booth at Location #1 by adding together everything except for the chairs. If I multiply this by five, I will get the cost of five booths at Location #1.

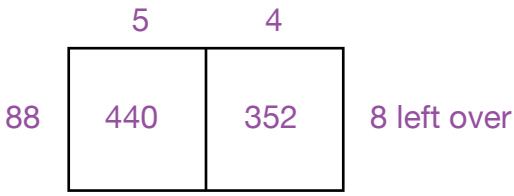
4. Write an expression to show how to find the total cost for 5 booths at Location #2.

5(14 + 12 + 60 + 16) I can find the cost for one booth at Location #2 by multiplying the cost of one chair by two, and then adding that to the cost of one canopy, one table, and one banner. If I multiply the sum by five, I will get the cost of five booths at Location #2.

5. Describe how the expression (12 + 60 + 16) relates to the expression 5(12 + 60 +16).

The value of the expression 5(12 + 60 + 16) is five times greater than the expression (12 + 60 + 16).

6. Your budget for the booths is $800. Each booth at Location #1 is provided with one canopy, one table, and one banner. Use repeated multiplication and subtraction or an area model to show how to determine the number of booths you can have with a budget of $800.



800 – (88 x 5) = 360

360 – (88 x 4) = 8

5 + 4 = 9 with a remainder of 8

I know that one canopy, one table, and one banner will cost $88. I think ten 88s will be too many, because five 88s would be 880. I chose five 88s, which will be half of 880, or 440. Since five 88s is 440 and 360 is a little less than 440, I tried four 88s. That leaves 8 left over, so my answer is 9, remainder 8. I can have nine booths.

7. Now that you know how many booths you can have at Location #1, determine the total cost for the booths if each one has one table, one canopy, and one banner. Show or explain how you found the answer.

9 x $88 = $792

80 x 9 = 720 and 8 x 9 = 72

720 + 72 = 792

8. Each booth at Location #2 is provided with one canopy, one table, one banner, and two chairs. Use repeated multiplication and subtraction to show how to determine the number of booths you can have with a budget of $800.

800 – (102 x 7) = 86
7 with a remainder of 86

I know that one canopy, one table, one banner, and two chairs will cost $102. Ten 102s will be over 1000, so that's too many. I chose seven 102s, which will be 714. I have 86 left over, which is smaller than 102. My remainder will be 86, and I can have seven booths.

9. Now that you know how many booths you can have at Location #2, determine the total cost for the booths if each one has one table, one canopy, one banner, and two chairs. Show or explain how you found the answer.

7 x $102 = $714
7 x 100 = 700 and 7 x 2 = 14
700 + 14 = 714

10. Choose the booths you will have at your fair.

Vehicle Safety Learn about seatbelts, car seats, and the dangers of distracted driving	**Electricity Safety** Learn what to do if the power goes out or if you see a downed power line	**Fire Prevention** Tips for preventing fires at home and in the forest	**Earthquake Safety** Learn how to prepare for an earthquake and what to do if one occurs
Animal Safety Learn what to do when you encounter pets you don't know or wild animals like skunks and possums; learn the importance of your pet wearing a collar	**Summertime Safety** Learn why you need to wear sunscreen, the importance of hydration, and what to do about those pesky insects	**Water Safety** Learn how to properly wear a life jacket, water temperature guidelines, and the dangers of river and ocean currents	**Bike Safety** Learn how to check bike equipment, practice hand signals, and be sure your helmet fits correctly
Tornado Safety Learn how to prepare for a tornado and what to do if one occurs	**Hurricane Safety** Learn how to prepare for a hurricane and what to do if one occurs	**Flood Safety** Learn how to prepare for a flood and what to do if one occurs	**Pedestrian Safety** Learn how to be safe when walking during the day and at night

