Station 1

The Distributive Law:

https://www.youtube.com/watch?v=0v-G6OwcKmU&feature=youtu.be

1. Watch the video
2. In your own words, what is the distributive law? Define it in your notes.

3. **Simplify:** a(b–c)a(b–c)
   Answer: ab–ac x ab–ac
   Do not change the order of the letters:
   write 'ab–ac x ab–ac', not (say) 'ba–ac x ba–ac'.
4. **Simplify:** (–a+b)(–c)(–a+b)(–c)

5. **Simplify:** –(–a+c) x –(–a+c)

6. **Simplify:** 2a(4b–3c)

7. Check your answers for questions 3-6.
8. For the word problems below, write the expressions so that they can be solved using the distributive law. After writing the expressions, solve the problems using the distributive law.

Problem #1

Five people visited a local restaurant to get some lunch. A burger costs 6 dollars and a bottle of apple juice costs 2 dollars. If all five people ordered a burger and a bottle of apple juice, write a numerical expression to show the amount of money the restaurant made for this order.

Problem #2

Each row in a classroom has 3 girls and 2 boys. There are 4 rows of people in a class. Write a numerical expression to show the number of students in that class.

Problem #3

Two men are trying to see how many computers they can build together in a month. One of the men was able to build 75 computers while the other was able to build 60. Write a numerical expression showing the number of computers both men were able to build together.

Problem #4

A rectangle has a width of 4 and a length of 10. The rectangle is folded, so that it creates a rectangle with a width of 4 and a length of 5 and another rectangle with a width of 4 and a length of 5. Write a numerical expression to show the area of the rectangle.

Problem #5

To build a computer, you need to buy a motherboard for 120 dollars, a CPU for 100 dollars, RAM memory for 45 dollars, storage for 30 dollars, a case for 15 dollars, and a power supply for 50 dollars. What is the cost of building 10 computers?

Problem #6

Two rectangular gardens have the same width of 10 feet. However, the length of one is 20 feet while the other is 30 feet. Write a numerical expression to show what the area is for the two gardens combined?

Problem #7

Write your own word Problem. Exchange it with someone else in your group and see if they can solve it.