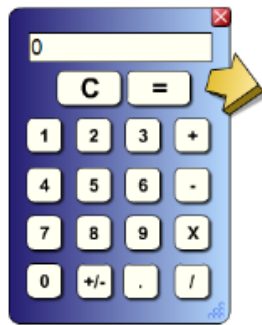


Susan says  $45-9-9-9-9-9=0$   
describes division do you agree?  
Explain.



I can relate multiplication to division using repeated addition and repeated subtraction.



# My Thinking Sheet

Name: \_\_\_\_\_

Date: \_\_\_\_\_

x	1	2	3	4	5	6	7	8	9	10	11	12
1	1	2	3	4	5	6	7	8	9	10	11	12
2	2	4	6	8	10	12	14	16	18	20	22	24
3	3	6	9	12	15	18	21	24	27	30	33	36
4	4	8	12	16	20	24	28	32	36	40	44	48
5	5	10	15	20	25	30	35	40	45	50	55	60
6	6	12	18	24	30	36	42	48	54	60	66	72
7	7	14	21	28	35	42	49	56	63	70	77	84
8	8	16	24	32	40	48	56	64	72	80	88	96
9	9	18	27	36	45	54	63	72	81	90	99	108
10	10	20	30	40	50	60	70	80	90	100	110	120
11	11	22	33	44	55	66	77	88	99	110	121	132
12	12	24	36	48	60	72	84	96	108	120	132	144

Susan says  $45-9-9-9-9-9=0$  describes division do you agree? Explain.



You must record your steps symbolically to prove or disprove the above in at least two different ways.

## Representation

I did not use a math representation to help solve the problem and explain my work.



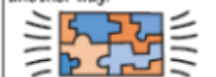
I tried to use math representation to help solve the problem and explain my work, but it has mistakes in it.



I made a math representation to help solve the problem and explain my work, and it is labeled and correct.



I used another math representation to help solve the problem and explain my work in another way.



<http://youtu.be/6sTYV35rEB4>

A handwritten multiplication problem  $9 \times 7 = \underline{\quad}$  is shown on a grid. The number 9 is written in green, and the number 7 is written in blue. The grid method involves writing the numbers in a grid and then adding the products of the rows and columns. The grid shows 9 rows of 7 and 7 columns of 9. The final result is 63.

<http://youtu.be/hp6Mwm5Ouxc>

Three different ways to represent the division  $12 \div 3$  are shown. The first is  $12 \div 3$  with a plus sign. The second is a long division problem  $3 \overline{)12}$  with a red horizontal line. The third is a fraction  $\frac{12}{3}$ .

[http://youtu.be/twv-ynv\\_m9o](http://youtu.be/twv-ynv_m9o)



Jumbo the elephant loves peanuts.  
His trainer has 20 peanuts.  
If he gives Jumbo 5 peanuts each day, how many days will the peanuts last?

Day	Number of Peanuts







