

Pulling Out Rules

1. Write a rule for each In-Out table. Use a complete sentence to describe what to do with the *In* to get the *Out*. Be as clear as you can.

a.

In	Out
10	23
5	13
1	5
0	3

b.

In	Out
1	3
3	17
10	66
6	38

c.

In	Out
3	17
8	12
15	5
0	20

2. These In-Out tables have only one row. Therefore, many rules would fit each table. Find three possible rules for each table. Use a complete sentence to describe how to get the *Out* as a **function** of the *In*.

a.

In	Out
10	24

b.

In	Out
5	25

3. This In-Out table gives two rows, which makes it harder to find different rules. Find at least two rules that fit this table.

In	Out
1	2
2	5

4. The supervisor of a community garden project organizes volunteers to help dig out weeds. The more people they have, the more weeds get pulled. The results are better than one might think. Although one person will pull only two bags a day, two people will pull five bags a day, and three people will pull eight bags a day.
- The garden must be cleared of winter weeds. The supervisor estimates that there are 30 bags' worth of weeds to be pulled. How many volunteers are needed to get the job done in a day?
- Make an In-Out table that shows the information. Use "Number of people" as the *In* and "Number of bags of weeds pulled" as the *Out*.
 - Use your In-Out table to solve the problem. Explain your reasoning.




Inside Out

Supply the missing entries in each In-Out table. If you think there is more than one answer, describe the possibilities. Then write a rule for each table that tells what to do with the *In* to get the *Out*. Express each rule as a complete sentence, such as "The *Out* is 1 more than 4 times the *In*." Be as clear as you can.

1. In	Out
2	4
3	6
11	22
27	?
?	18

2. In	Out
0	1
2	7
4	13
7	22
10	31
12	?
?	76

3. In	Out
house	4
cup	2
writer	5
elephant	7
spin	?
mathematics	?
?	3
?	8
?	0

4. In	Out
	3
	11
	15
?	7

5. In	Out
division	I
ever	E
opportunity	O
toast	A
safe	E
people	O
mathematics	?
?	(can't be done)

6. Create two In-Out tables of your own. Give both the table and the rule you used.