

Determining Rules Using Two Operations

NCTM Standards 1, 2, 6, 8, 9


Complete the tables and shorthand rules.


1	INPUT	7	1	4	12	0	21		x
	OUTPUT	14	2	8				50	$2x$

2	INPUT	1	7	8	5	14	29		x
	OUTPUT	13	19	20				12	$x + \underline{\hspace{1cm}}$

3	INPUT	1	2	5	10	9	50	100	x
	OUTPUT	3	5	11					$2x + \underline{\hspace{1cm}}$

4	INPUT	2	1	3	5	7	10		x
	OUTPUT	4	1	7				22	$\underline{\hspace{1cm}} - 2$

-  5 One week, Beth charged \$5 for each of the 3 days she worked in her neighbor's garden and \$8 for mowing the lawn once. How much did she earn? Explain.

-  6 Tim earned \$7 for each of the 4 days he raked leaves in his neighbor's yard. He spent \$10 to buy a new rake. How much did he have left? Explain.

Complete the tables and write shorthand rules.

7	INPUT	10	7	11	8	15	31	200	x
	OUTPUT	19	13	21					

8	INPUT	3	1	5	7		9		x
	OUTPUT	18	6	30		24		48	

9	INPUT	2	3	5	7	50	44	110	x
	OUTPUT	9	12	18					

10	INPUT	2	1	10	4			100	x
	OUTPUT	9	5	41		25	37		



11 Challenge Complete the table and then describe what a machine might be doing to generate these outputs. Use pictures, numbers, or words to explain the machine's rule.

INPUT	14	20	11	18		21	
OUTPUT	7	10	$5\frac{1}{2}$		5		$17\frac{1}{2}$
