

INPUT - OUTPUT TABLES

ANSWERS

Complete each input-output table.

1.

Input	Output
1	3
3	7
5	11
6	13

Rule: Multiply by 2, add 1

2.

x	y
18	7.2
22	8.8
36	14.4
50	20

Rule: Divide by 2.5

3.

x	y
1	7
2	9
4	13
6	17

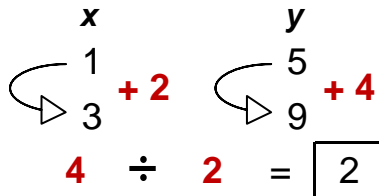
Rule: Multiply by 2, add 5

Find the rule and complete each input-output table.

Helpful Example

THIS INPUT-OUTPUT TABLE HAS A TWO-STEP RULE. THE EASIEST WAY TO FIND IT IS TO CALCULATE HOW THE x AND y CHANGE.

x	y
1	5
3	9
4	11



DIVIDE THE CHANGE IN y BY THE CHANGE IN x, WHICH MAKES 2. THIS TELLS US THAT y IS CHANGING TWICE AS FAST AS x. SO $y = 2x$.

Rule: ?

BUT $1 \times 2 = 2$, NOT 5. HOW DOES 2 CHANGE TO 5? HOW ABOUT ADDING 3? SO THE RULE MIGHT BE: MULTIPLY BY 2, ADD 3. TRY THIS ON THE OTHER VALUES TO SEE IF IT IS CORRECT.

$3 \times 2 = 6 + 3 = 9$ ✓

$4 \times 2 = 8 + 3 = 11$ ✓

Rule: Multiply by 2, add 3 ✓

Now your turn.

4.

x	y
0	3
1	11
2	19
3	27

Rule: **Multiply by 8, add 3**

5.

x	y
2	8
6	10
10	12
14	14

Rule: **Divide by 2, add 7**

6.

x	y
1	3
3	13
7	33
10	48

Rule: **Multiply by 5, subtract by 2**

7. William is paid 50% more money than Harold, and receives an additional \$2,500 sales bonus at the end of every year. Below is an input-output table showing the total amount each person made over the past 7 years. Complete the table by filling in the empty spaces.

		Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7
Input	Harold's wages	\$25,000	\$28,000	\$31,000	\$35,000	\$38,000	\$39,000	\$42,000
Output	William's wages	\$40,000	\$44,500	\$49,000	\$55,000	\$59,500	\$61,000	\$65,500