

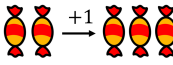
Using Rules in Input/Output Tables

Let's read to find out how input/output tables and graphs help us figure out the rules that connect numbers.

Pay Attention To:

- What an input/output table shows
- How a rule connects input and output
- What the numbers in the table represent
- How a rule can be different in each table
- What happens when the same rule is used with different input numbers

input/output table

ADDITION INPUT/OUTPUT TABLE		SUBTRACTION INPUT/OUTPUT TABLE		MULTIPLICATION INPUT/OUTPUT TABLE		DIVISION INPUT/OUTPUT TABLE	
input	output	input	output	input (yd)	output (ft)	input (oz)	output (c)
2	$\xrightarrow{+1}$ 3	4	$\xrightarrow{-2}$ 2	1	$\times 3$ 3	8	$\div 8$ 1
4	$\xrightarrow{+1}$ 5	5	$\xrightarrow{-2}$ 3	2	$\times 3$ 6	16	$\div 8$ 2
6	$\xrightarrow{+1}$ 7	6	$\xrightarrow{-2}$ 4	3	$\times 3$ 9	24	$\div 8$ 3
8	$\xrightarrow{+1}$ 9	7	$\xrightarrow{-2}$ 5	4	$\times 3$ 12	32	$\div 8$ 4
10	$\xrightarrow{+1}$ 11	8	$\xrightarrow{-2}$ 6	5	$\times 3$ 15	40	$\div 8$ 5
rule = + 1		rule = - 2		rule = $\times$ 3		rule = $\div$ 8	
							

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An **input/output table** helps us see how numbers change. Each row shows two numbers: one is the **input**, and the other is the **output**. A **rule** tells us how to change the **input** into the **output**.

For example, if the rule is “add 3,” then 1 becomes 4, and 2 becomes 5. These pairs can be written as (1,4) and (2,5).

We can use **input/output tables** to find patterns in numbers. If we change the **rule**, the numbers change too. A bigger number makes the **output** grow faster. A smaller number makes it grow slower. These tables help us see and understand number patterns.

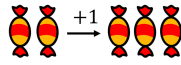
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An **input/output table** is a tool that helps show how numbers change using a **rule**. Each row in the table shows a pair of numbers. The first number is the **input**, and the second is the **output**. A **rule** explains how the **input** changes to become the **output**.

For example, a **rule** might say "multiply by 2." If the input is 3, the output would be 6. If the input is 4, the **output** would be 8. These pairs (3,6), (4,8) can help us find patterns.

Input/output tables help us practice using rules and number patterns. If we change the **rule**, the pattern changes. A rule like "add 5" grows more slowly than "multiply by 3." These patterns help us understand how math works.

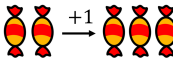
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An **input/output table** organizes pairs of numbers that follow a specific **rule**. The input is the starting number, and the rule explains how to find the **output**. These tables are used to identify patterns, test number relationships, and make predictions.

For example, with the rule “multiply by 2,” the input 5 gives an **output** of 10. A set of these (2,4), (3,6), (5,10) shows how numbers grow based on the rule.

Changing the **rule** changes the pattern. Adding 2 creates a slower increase, while multiplying by 4 creates a steeper one. Exploring **input/output tables** helps us understand the behavior of numbers and how different **rules** produce different results.