



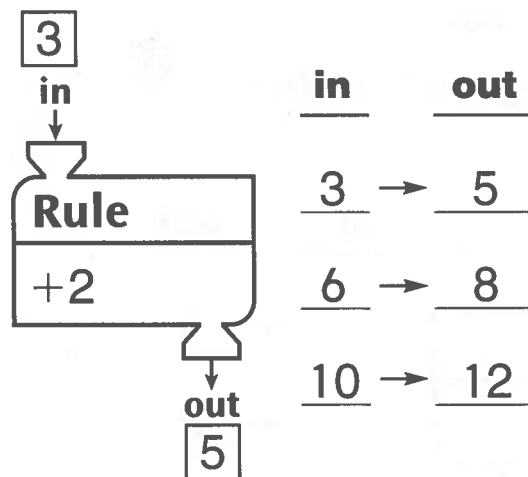
“What’s My Rule?”

Today your child learned about a kind of problem you may not have seen before. We call it “What’s My Rule?” Please ask your child to explain it to you. Here is a little background information you may find useful.

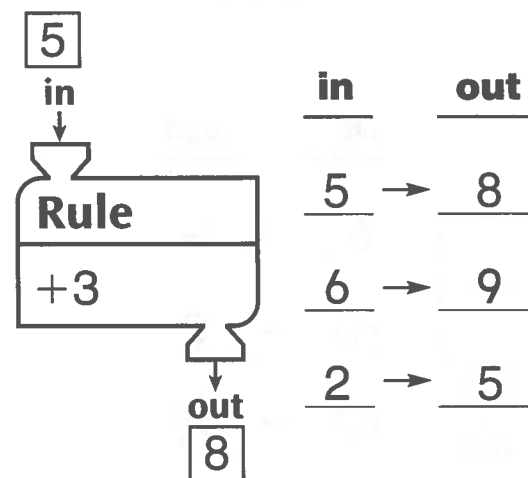
Imagine a machine with a funnel at the top and a tube at the bottom—we call this a *function machine*. The function machine can be programmed so that when you drop a number into the funnel at the top, the machine changes the number according to the rule and a new number comes out of the tube at the bottom.

For example, you can program the machine to add 2 to any number that is dropped into the funnel. If you put in 3, out comes 5; if you put in 6, out comes 8.

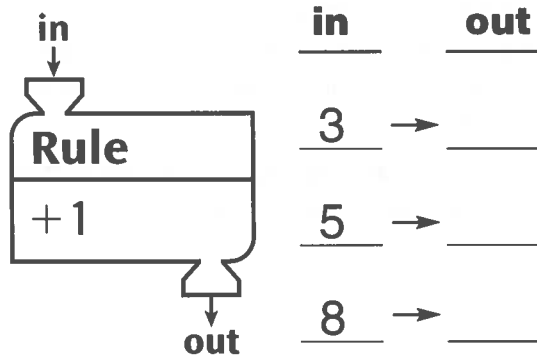
You can show this with a table:



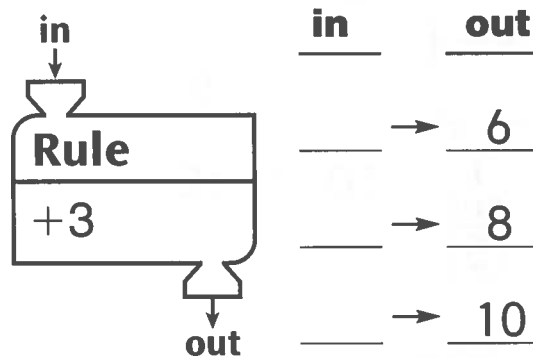
Here is another example of a function machine:



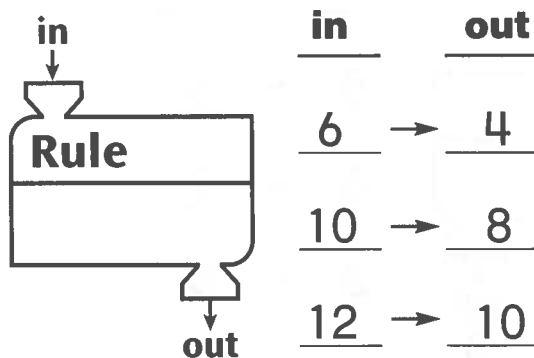
In a "What's My Rule?" problem, some of the information is missing. To solve the problem, you have to find the missing information. The missing information can be the numbers that come out, the numbers that are dropped in, or the rule for programming the machine. *For example:*



Missing "out" numbers



Missing "in" numbers



Missing rule

LESSON
5•12
“What’s My Rule?”


Write the missing numbers.

1.

in		in	out
↓		<u>3</u>	→ <u>7</u>
Rule		<u>10</u>	→ <u>14</u>
+4		<u>9</u>	→ _____
↓	out	<u>15</u>	→ _____
		_____	→ <u>19</u>
		_____	→ <u>24</u>

2.

in		in	out
↓		<u>17</u>	→ <u>8</u>
Rule		<u>22</u>	→ <u>13</u>
-9		<u>10</u>	→ _____
↓	out	<u>29</u>	→ _____
		_____	→ <u>9</u>
		_____	→ <u>35</u>

3.

in		in	out
↓		<u>4</u>	→ <u>10</u>
Rule		<u>13</u>	→ _____
+6		<u>15</u>	→ _____
↓	out	_____	→ <u>6</u>
		_____	→ <u>25</u>
		<u>30</u>	→ _____

4. Make your own.

in		in	out
↓		_____	→ _____
Rule		_____	→ _____
		_____	→ _____
↓	out	_____	→ _____
		_____	→ _____
		_____	→ _____
		_____	→ _____

"What's My Rule?"

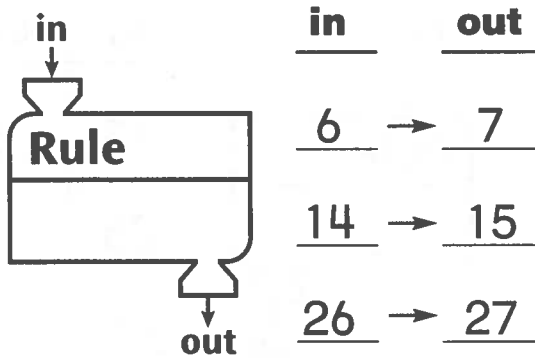


Family Note Ask your child to explain what the function machine is doing to the "in" numbers before filling in the missing "out" numbers. For example, in the first problem, the function machine is adding 1 to each of the "in" numbers.

Please return this Home Link to school tomorrow.

Fill in the missing rule and numbers.

1.

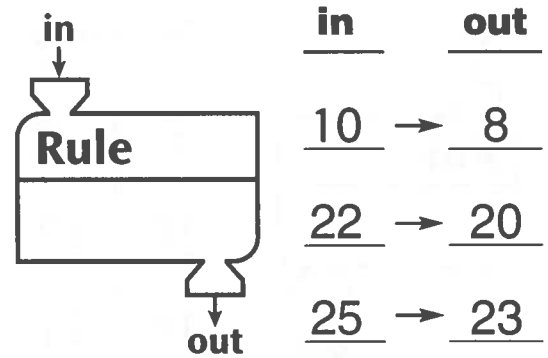


$$\underline{19} \rightarrow \underline{\quad}$$

$$\underline{9} \rightarrow \underline{\quad}$$

Your turn: $\underline{\quad} \rightarrow \underline{\quad}$

2.

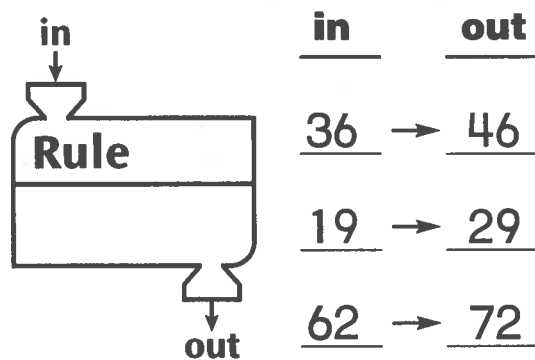


$$\underline{12} \rightarrow \underline{\quad}$$

$$\underline{21} \rightarrow \underline{\quad}$$

Your turn: $\underline{\quad} \rightarrow \underline{\quad}$

3.



$$\underline{25} \rightarrow \underline{\quad}$$

Your turn: $\underline{\quad} \rightarrow \underline{\quad}$

Practice

Add.

4. $5 + 5 = \underline{\quad}$

5. $7 + 7 = \underline{\quad}$

6. $3 + 3 = \underline{\quad}$

7. $9 + 9 = \underline{\quad}$