

Function Machines

Concept — ANSWER KEY

Guess my rule, then use it.

Think: Look at what happens to each IN number. What is done to it every time?

1. Guess my rule. Fill the blanks, then write the rule.

Machine A

IN ($\triangle$)	$\rightarrow$	OUT ($\square$)
8	$\rightarrow$	16
9	$\rightarrow$	17
1	$\rightarrow$	9
10	$\rightarrow$	18
12	$\rightarrow$	20

Rule: $\square = \triangle + 8$

Machine B

IN ($\triangle$)	$\rightarrow$	OUT ($\square$)
4	$\rightarrow$	1
7	$\rightarrow$	4
10	$\rightarrow$	7
12	$\rightarrow$	9
15	$\rightarrow$	12

Rule: $\square = \triangle - 3$

Machine C

IN ($\triangle$)	$\rightarrow$	OUT ($\square$)
21	$\rightarrow$	14
17	$\rightarrow$	10
8	$\rightarrow$	1
9	$\rightarrow$	2
14	$\rightarrow$	7

Rule: $\square = \triangle - 7$

Machine D

IN ($\triangle$)	$\rightarrow$	OUT ($\square$)
2	$\rightarrow$	7
9	$\rightarrow$	14
13	$\rightarrow$	18
7	$\rightarrow$	12
6	$\rightarrow$	11

Rule: $\square = \triangle + 5$

2. A machine adds 8.

- If 15 goes IN, what comes OUT? **23**
- If 30 comes OUT, what went IN? **22**
- Make your own rule and give it to a friend. Rule: $\square =$ **(answers will vary)**