

Function Machines

Practice — ANSWER KEY

Bigger numbers — and times, not just plus.

Think: The rule might multiply. Try: does OUT = IN doubled? tripled?

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

Machine A

IN ($\triangle$)	$\rightarrow$	OUT ($\square$)
9	$\rightarrow$	24
8	$\rightarrow$	23
13	$\rightarrow$	28
4	$\rightarrow$	19
5	$\rightarrow$	20

Rule: $\square = \triangle + 15$

Machine B

IN ($\triangle$)	$\rightarrow$	OUT ($\square$)
20	$\rightarrow$	15
8	$\rightarrow$	3
6	$\rightarrow$	1
12	$\rightarrow$	7
5	$\rightarrow$	0

Rule: $\square = \triangle - 5$

Machine C

IN ($\triangle$)	$\rightarrow$	OUT ($\square$)
10	$\rightarrow$	30
4	$\rightarrow$	12
0	$\rightarrow$	0
13	$\rightarrow$	39
12	$\rightarrow$	36

Rule: $\square = \triangle \times 3$

Machine D

IN ($\triangle$)	$\rightarrow$	OUT ($\square$)
5	$\rightarrow$	15
2	$\rightarrow$	12
14	$\rightarrow$	24
15	$\rightarrow$	25
11	$\rightarrow$	21

Rule: $\square = \triangle + 10$

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)**