

Practice

1. Each table shows the input and output from a machine with one operation. For each table:

- Identify the number and the operation in the machine.
- Continue the patterns.
Write the next 4 input and output numbers.
- Write the pattern rule that relates the input to the output.



a)

Input	Output
1	7
2	14
3	21
4	28

b)

Input	Output
50	39
49	38
48	37
47	36

c)

2. Each table shows the input and output from a machine with two operations. For each table:

- Identify the numbers and the operations in the machine.



- Predict the output when the input is 10. Check your prediction.

a)

Input	Output
1	2
2	5
3	8
4	11

b)

Input	Output
1	9
2	14
3	19
4	24

c)

Input	Output
3	3
4	5
5	7
6	9

d)

Input	Output
4	17
5	21
6	25
7	29

3. Each table shows the input and output from a machine with two operations.
- Find the pattern rule that relates the input to the output.
 - Use the pattern rule to find the missing numbers in the table.
 - Use the patterns in the columns to check your answers.
 - Predict the output when the input is 40. Check your prediction.

a)

Input	Output
5	21
6	24
7	27
?	30
9	?
10	?

b)

Input	Output
0	1
5	2
10	3
?	4
20	?
25	?



4

- a) Write a pattern rule that relates the input to the output.
- b) Predict the output when the input is 9. Extend your pictures to check.
- c) Which input has an output of 28? Describe the strategy you used to find out.

Input	Output
1	6
2	8
3	10
4	12

5) a)

Write the pattern rule that relates the input to the output

Input	Output
1	15
2	19
3	23
4	27

b)

Input	Output
1	4
2	10
3	16
4	22