UNIT 1

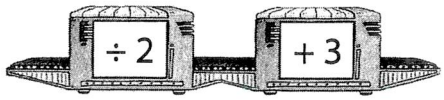
STUDENT BOOK 2 LESSON

Patterns from Tables

Quick Review

At Home At School

This Input/Output machine divides each input by 2, then adds 3.



The pattern rule that relates the input to the output is: Divide the input by 2. Then add 3.

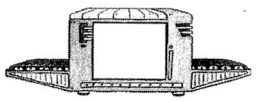
We can use this rule to predict the output for any input.
For an input of 70, the output is:
$70 \div 2 + 3 = 38$

Input	Output
20	13
30	18
40	23
50	28
60	33

Try These

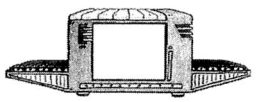
1. Each table of values shows the input and output from a machine with 1 operation. Write the number and the operation in each machine.

a)



Input	Output
2	4
4	8
6	12
8	16
10	20

b)



Input	Output
24	6
20	5
16	4
12	3
8	2

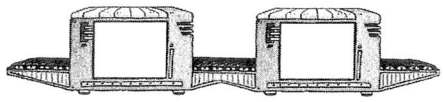
2. Write the pattern rule that relates the input to the output for each table of values in question 1.

a) _____

b) _____

Practice

1. Each table shows the input and output from a machine with 2 operations.



For each table, write the numbers and the operations in the machine.

a)

Input	Output
4	25
5	32
6	39
7	46

_____

b)

Input	Output
50	20
55	22
60	24
65	26

_____

c)

Input	Output
7	26
8	28
9	30
10	32

_____

2. Write the pattern rule that relates the input to the output for each table in question 1.

a) _____

b) _____

c) _____

3. This table shows the input and output from a machine with 2 operations.

a) Write the numbers and the operations in the machine.

_____

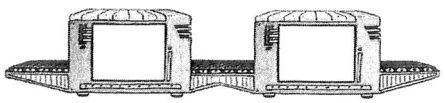
b) Write the next 3 input and output numbers.

c) Predict the output when the input is 100.

_____

Input	Output
25	15
30	18
35	21

Stretch Your Thinking



The first 5 input numbers for the machine are:
2527, 2577, 2627, 2677, and 2727.
The first 5 output numbers for the machine are:
5061, 5161, 5261, 5361, and 5461.
Write the numbers and the operations in the machine.