

1) Write a NOW-NEXT equation for each sequence of numbers. Then find the 10th term of the sequence.

- a) 3, 9, 21, 45, ... **START @ 3 NEXT = 2 * NOW + 3 → 10th TERM =**
- b) 2.2, 1.7, 1.2, 0.7, ... **START @ 2.2 NEXT = NOW - .5 → 10th TERM =**
- c) -2, 4, -8, 16, -32, ... **START @ -2 NEXT = NOW * -2 → 10th TERM =**
- d) 21, 17, 13, 9, ... **START @ 21 NEXT = NOW - 4 → 10th TERM =**
- e) -5, 15, -45, 135, ... **START @ -5 NEXT = NOW * -3 → 10th TERM =**
- f) 2, 9, 16, 23, ... **START @ 2 NEXT = NOW + 7 → 10th TERM =**

2) 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.

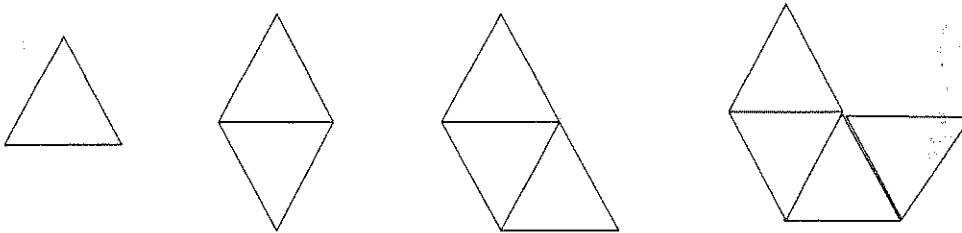
Input	Output
25	15
30	18
35	21
40	24
45	27
50	30

a) OUTPUT = INPUT * .6

c) OUTPUT = 60

b)

3) Consider the sequence of figures below made from triangles.



a) Complete the table below for the first four figures

Figure	Perimeter
1	3
2	4
3	5
4	6

- b) Write a NOW-NEXT equation to find the perimeter of each figure.
- c) Find the perimeter of the 10th figure. **12**
- d) Which number figure has a perimeter of 42? **40th**

**START @ 3
NEXT = NOW + 1**

4) Complete each table below.

a)

Input	Output
1	3
2	8
3	13
4	18
5	23
6	28
7	33
8	38
9	43

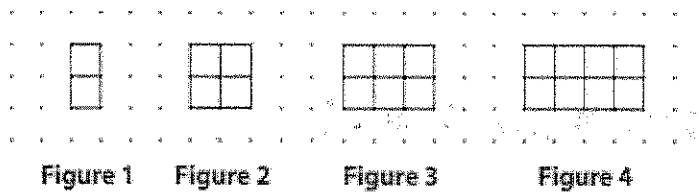
b)

Input	Output
1	9
2	14
3	19
4	24
5	29
6	34
7	39
8	44
9	49

c)

Input	Output
0	4
1	10
2	16
3	22
4	28
5	34
6	40
7	46
8	52

5) Henry made this pattern.



a) Complete the table:

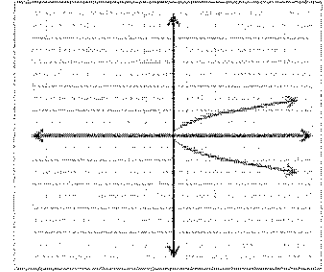
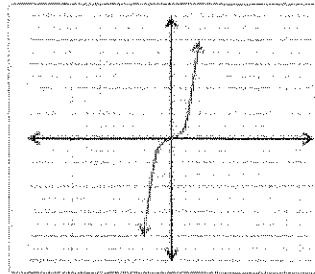
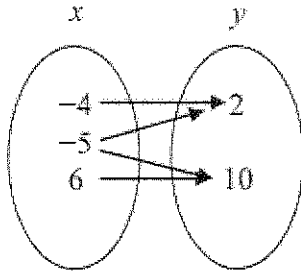
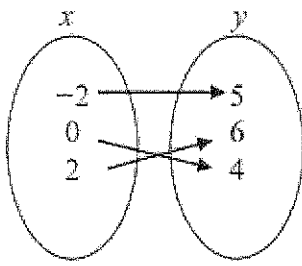
Figure Number	Number of Squares
1	2
2	4
3	6
4	8

B) What Figure Would have 12 Squares? **6TH FIGURE**

C) What is the Now-Next Formula?

START @ 2 NEXT = NOW + 2

6) Which of the following represents a function? Justify your answer



A) Yes / No

B) Yes / No

C) Yes / No

D) Yes / No

7) A recent catalog price for tennis balls was \$4.25 for a can with three balls. The shipping charge per order was \$1.00. An equation that models the cost per order is $C(t) = 4.25t + 1.00$, where C is the total cost per order and t is the number of cans of tennis balls purchased.

- a) Fill in the table below and then graph this relationship.
- b) What would 10 balls cost?

b) \$43.50

t	$C(t)$
1	5.25
2	9.50
3	13.75
4	18
5	22.25

8) Each term of the sequence is found by adding 5 to the preceding term. The starting number is 3.

- a) Fill in the Chart.
- b) What is the 12th Term?
- c) Write the Now-Next Formula.

Term	1	2	3	4	5
Number	3	8	13	18	23

b) 58
 START @ 3
 c) NEXT = NOW + 5

Function Test Review QR Codes

Names:

9) Which of the follow represent a function?

x	y
2	8
3	11
5	12
7	3
9	5
8	7
4	11

x	y
3	7
4	9
8	4
3	5
9	3
11	9
7	6

x	y
0	5
1	7
3	10
7	9
5	7
4	5
2	8

A) Yes No

B) Yes No

C) Yes No

10) Write the Input-Output Rule

INPUT	OUTPUT
0	-2
1	5
2	12
3	19
4	26

INPUT	OUTPUT
0	-2
1	10
2	2
3	4
4	6

OUTPUT = 7 * INPUT - 2

OUTPUT = 2 * INPUT - 2

11) Are the following (Input, Output) Relationships Functions?

a) Person, Cellphone Number: Yes No

b) Country, Cities Yes No

c) Student ID, Student Yes No

d) Birthday, Person Yes No