



Grade 6 Math
Date: Oct. 9



then quiz after this warm up

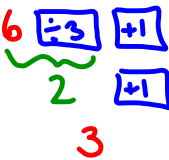
1) a) complete the following table that divide input by 3, then add 1.

$\xrightarrow{\div 3} \xrightarrow{+1} \xrightarrow{\quad}$

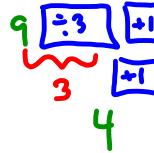
input	output
6	3
9	4
12	5
15	6

show work

$I_n = 6$



$I_n = 9$



$I_n = 12$



b) Write the pattern rule that relates the input to the output. (Machine)

Divide the input by 3, then add 1 to get output.

c) Write the pattern for the input.

Input starts at 6 and increase by 3 each time.

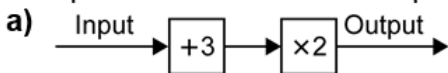
d) Write the pattern for the output.

Output start at 3 then add 1 each time.

Homework Solutions

Extra Practice

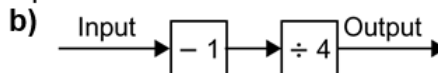
1. Complete the table for each Input/Output machine.



Input	Output
1	8
3	12
5	16
7	20
9	24

$(1 + 3) \times 2$ $= 4 \times 2$ 8	$(3 + 3) \times 2$ $= 6 \times 2$ 12	$(5 + 3) \times 2$ $= 8 \times 2$ 16
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$(7 + 3) \times 2$ $= 10 \times 2$ 20	$(9 + 3) \times 2$ $= 12 \times 2$ 24
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Input	Output
1	0
5	1
9	2
13	3
17	4

$(1 - 1) \div 4$ $= 0 \div 4$ 0	$(5 - 1) \div 4$ $= 4 \div 4$ 1	$(9 - 1) \div 4$ $= 8 \div 4$ 2
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$(13 - 1) \div 4$ $= 12 \div 4$ 3	$(17 - 1) \div 4$ $= 16 \div 4$ 4
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Chapter 1 Pattern _ Equation Lesson 2 Patterns from Tables Day 1 Okeefe, October 09, 2019

Worksheet solutions Homework Solutions

2. Make a chart for the following using the below inputs

- a) Subtract 4, then multiply by 3.
- b) Multiply by 3, then subtract 4.

SHOW WORK

Input	Output
5	3
6	6
7	9
8	12
9	15

$$\begin{aligned}
 (5-4) \times 3 &= 1 \times 3 = 3 \\
 (6-4) \times 3 &= 2 \times 3 = 6 \\
 (7-4) \times 3 &= 3 \times 3 = 9 \\
 (8-4) \times 3 &= 4 \times 3 = 12 \\
 (9-4) \times 3 &= 5 \times 3 = 15
 \end{aligned}$$

Input	Output
5	11
6	14
7	17
8	20
9	23

$$\begin{aligned}
 (5 \times 3) - 4 &= 15 - 4 = 11 \\
 (6 \times 3) - 4 &= 18 - 4 = 14 \\
 (7 \times 3) - 4 &= 21 - 4 = 17 \\
 (8 \times 3) - 4 &= 24 - 4 = 20 \\
 (9 \times 3) - 4 &= 27 - 4 = 23
 \end{aligned}$$

In	Out
20	17
25	22
30	27
35	32
40	37

$\begin{matrix} +5 \\ 20-3 \\ 25-3 \\ 30-3 \end{matrix}$

$\begin{matrix} +5 \\ 17-3 \\ 22-3 \\ 27-3 \end{matrix}$

$8 \leftarrow \text{repeat } 8 \text{ twice with multiplications} \Rightarrow 8 \times 8$