

Test Outline: Chapter 1 to 7

Name _____ Date _____

- (2) 1.a) Here is an Input/output table for this machine. Check the data in the table. Find any output numbers that are incorrect and circle them. Then fix the numbers in the table. ($\times 4$ then subtract 2)

Input	Output
1	2
2	6
3	7
4	17
5	22
6	22

b) Write the pattern rule for the input:

c) Write the pattern rule for the corrected output:

2. Write an expression with a variable to represent each pattern rule.
Let n represent the input number.

a) double the input, then subtract 7. _____

b) share 15 among friends, then add 10. _____

c) Multiply the input by 13, then add 11. _____

3. Plot the coordinates of each point on the coordinate grid.(Need grid paper)

A: (4,2), B: (2,7), C: (10, 1),

D: (0, 5) E: (7, 0)

4. This table shows the input and output from a machine with two operations.

- a) Identify the numbers and operations in the machine. Show work on how you get the expression

Input	Output
1	8
2	11
3	14
4	17

- b) Write an expression to represent the pattern. Use letter 'n'

- c) Write a pattern rule that relates the input to the output. (In Words)

- d) Find the output when the input number is 15. (Show work)

5. Jim is in a marathon. He get paid \$12 for joining the race and \$3 for each kilometer he runs.

- a) Make a table to show how much Jim will get paid if she goes on 1, 2, 3, and 4 kilometers

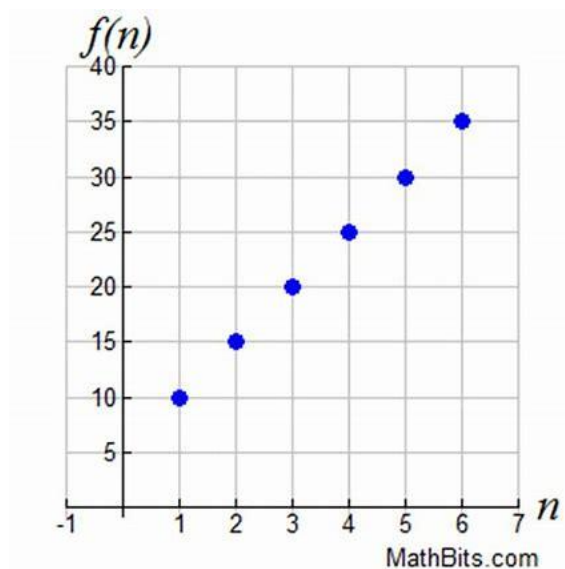
#5 CONTINUED...

b) Write an expression with "k" to represent the pattern.

c) Write a pattern rule that relates the number of kilometers to the amount of money he earns. (In words but use their names for input and output)

d) Suppose Jim runs 9 km. How much will he get paid? (Show work)

6. Make a table of values for the graph



7. Would you use a line graph or a series of points to display each set of data? Explain your choice.

a) The number of dog attending obedience school for each day of the week

b) The time it takes for each student to run 5 laps

8. For each of the following indicate if the expressions are equivalent
(Show work....use BEDMAS)

a) $26 - 4 + 8$

6×5

b) $9 + 3 \times 2$

$30 \div 2 + 3$

9. Use the concept of commutative law to rewrite $9 + 4$ and 7×6 .

10. Use the law of preservation with addition for $9w = 16$