Writing Function Equations Homework Name _____

Period _____

Do Level 1 or Level 2 and ALL BACK PROBLEMS.

Level 1

Write the algebraic equation rule for each table.

1.

Input (x)	Output (y)
0	8
2	10
4	12
6	14

_____

2.

Input (x)	Output (y)
10	7
14	11
18	15
22	19

_____

3.

Input (x)	Output (y)
18	6
15	5
12	4
9	3

_____

4.

x	1	2	3	4	5
y	5	10	15	20	25

_____

5.

x	23	24	25	26	27
y	22	23	24	25	26

_____

Level 2

Write the algebraic equation rule for each table.

1.

Input (x)	Output (y)
0	4
1	7
2	10
3	13

_____

2.

Input (x)	Output (y)
1	8
2	10
3	12
4	14

_____

3.

Input (x)	Output (y)
3	1
4	7
5	13
6	19

_____

4.

x	0	1	2	3	4
y	0	1	8	27	64

_____

5.

x	2	4	6	8	10
y	2	4	6	8	10

_____

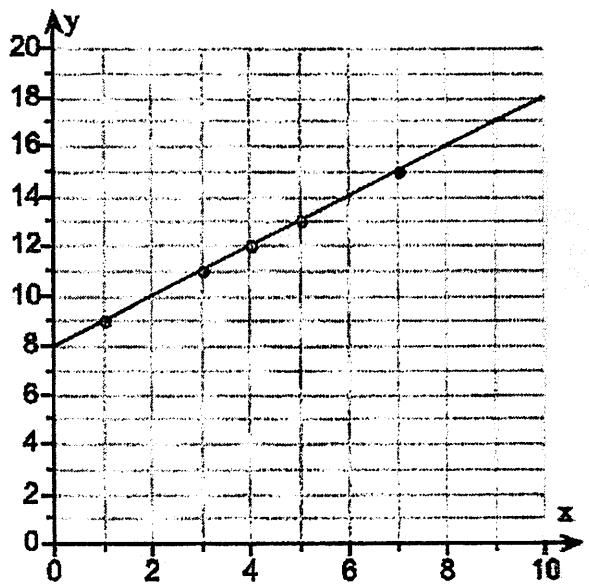
6. What is the relationship suggested by the table?

A	B
22	88
23	92
24	96
25	100
26	104

- O A. Add 4 to each value of B to get A.
- O B. Multiply each value of A by 4 to get B.
- O C. Add 4 to each value of A to get B.
- O D. Multiply each value of B by 4 to get A.

7. **a)** Use the graph to complete the table of values for x and y.

x	1	3	4	5	7
y	____	____	____	____	____



b) Write an equation that represents the relationship between x and y.

_____

8. **Error Analysis** Anna had this table as part of her homework last night. She had to use it to relate the independent variable x to the dependent variable y. First, she used words and then she wrote an equation. She incorrectly said the value of x times 2 equals the value of y, and that the equation is $y = 2x$.

x	1	4	5	6
y	2	5	6	7

a) Describe the relationship in words correctly.

b) Write an equation that represents the relationship between x and y.

_____

Explain Anna's likely error.

- O A. She considered only the first (x, y) pair, not all four.
- O B. She used the correct number but the incorrect operation.
- O C. She used the correct operation but the incorrect number.
- O D. She formed the correct equation, but did not give the correct description in words.

Writing Function Equations Homework Name Key

Period _____

Do Level 1 or Level 2 and ALL BACK PROBLEMS.

Level 1

Write the algebraic equation rule for each table.

1.

Input (x)	Output (y)
0	8
2	10
4	12
6	14

$x + 8 = y$

2.

Input (x)	Output (y)
10	7
14	11
18	15
22	19

$x - 3 = y$

3.

Input (x)	Output (y)
18	6
15	5
12	4
9	3

$x \div 3 = y$

4.

x	1	2	3	4	5
y	5	10	15	20	25

$x \cdot 5 = y$

5.

x	23	24	25	26	27
y	22	23	24	25	26

$x - 1 = y$

Level 2

Write the algebraic equation rule for each table.

1.

Input (x)	Output (y)	
0	4	+3
1	7	+3
2	10	+3
3	13	

$3x + 4 = y$

2.

Input (x)	Output (y)	
1	8	+2
2	10	+2
3	12	+2
4	14	

$2x + 6 = y$

3.

Input (x)	Output (y)	
3	1	+6
4	7	+6
5	13	+6
6	19	

$6x - 17 = y$

4.

x	0	1	2	3	4
y	0	1	8	27	64

$x^3 = y$

5.

x	2	4	6	8	10
y	2	4	6	8	10

$x = y$

6. What is the relationship suggested by the table?

- ○ A. Add 4 to each value of B to get A.
- ● B. Multiply each value of A by 4 to get B.
- ○ C. Add 4 to each value of A to get B.
- ○ D. Multiply each value of B by 4 to get A.

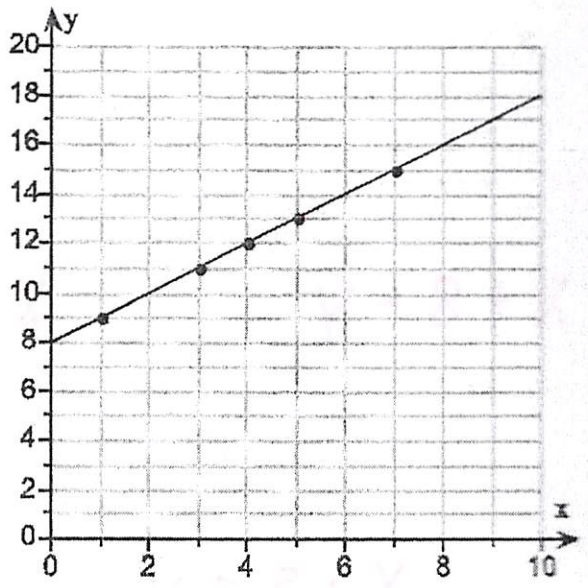
A		B
22	· 4	88
23	· 4	92
24	· 4	96
25	· 4	100
26	· 4	104

7. a) Use the graph to complete the table of values for x and y.

x	1	3	4	5	7
y	9	11	12	13	15

b) Write an equation that represents the relationship between x and y.

$x + 8 = y$



8. **Error Analysis** Anna had this table as part of her homework last night. She had to use it to relate the independent variable x to the dependent variable y. First, she used words and then she wrote an equation. She incorrectly said the value of x times 2 equals the value of y, and that the equation is y = 2x.

x	1	4	5	6
y	2	5	6	7

a) Describe the relationship in words correctly.

the value of x plus 1 equals the value of y

b) Write an equation that represents the relationship between x and y.

$x + 1 = y$

Explain Anna's likely error.

- ● A. She considered only the first (x, y) pair, not all four.
- ○ B. She used the correct number but the incorrect operation.
- ○ C. She used the correct operation but the incorrect number.
- ○ D. She formed the correct equation, but did not give the correct description in words.