

Lesson 1-4: Patterns and Functions

Part 1: Writing a Function Rule

1. 080420a, P.I. 7.A.10

Which linear equation represents the data in the accompanying table?

c	d
0	20.00
1	21.50
2	23.00
3	24.50

- [A] $d = 1.50c + 20.00$
 [B] $d = 20.00c + 1.50$
 [C] $d = 1.50c$ [D] $d = 21.50c$

2. 010813a, P.I. 7.A.10

Which equation expresses the relationship between x and y , as shown in the accompanying table?

x	0	1	2	3	4
y	2	5	8	11	14

- [A] $y = 3x + 2$ [B] $y = x + 2$
 [C] $y = 2x + 3$ [D] $y = x + 3$

3. 010211a, P.I. 7.A.10

If x and y are defined as indicated by the accompanying table, which equation correctly represents the relationship between x and y ?

x	y
2	1
3	3
5	7
7	11

- [A] $y = 2x + 2$ [B] $y = x + 2$
 [C] $y = 2x - 3$ [D] $y = 2x + 3$

4. 010113a, P.I. 7.A.10

Which equation could represent the relationship between the x and y values shown in the accompanying table?

x	y
0	2
1	3
2	6
3	11
4	18

- [A] $y = x + 2$ [B] $y = 2^x$
 [C] $y = x^2$ [D] $y = x^2 + 2$

Part 2: Relationships in a Function

5. 080417a, P.I. A.A.32

If the value of dependent variable y increases as the value of independent variable x increases, the graph of this relationship could be a

- [A] vertical line [B] horizontal line
 [C] line with a negative slope
 [D] line with a positive slope