Which of the sets of ordered pairs represents a function?

J = {(–2, 5), (–3, 7), (2, 4), (3, –4)}

K = {(–4, 2), (–2, –4), (–4, 4), (–9, 4)}

a. Only K
b. Both J and K
c. Neither J nor K
d. Only J

Which of the tables represents a function?

Table J

x	*y*
–2	–8
–3	5
2	–4
3	1

Table K

x	*y*
–2	4
–3	–4
–2	3
–7	–9

Table M

x	*y*
4	–7
3	–2
3	–6
9	7

a. K
b. M
c. J

If $y = 3x - 2$, which of the following sets represents possible inputs and outputs of the function, represented as ordered pairs?

a. {(–3, –11), (2, 4), (–1, –6)}
b. {(1, 1), (2, 4), (–5, –17)}
c. {(–1, –4), (1, 1), (–2, –8)}
d. {(2, 4), (3, 6), (5, 13)}

You and your buddy spend a certain amount of money from your money box each month to buy comic books.The table shows the relationship between the amount of money (y) remaining in your money box and the number of months (x):

Function 1	
Number of months (x)	Amount remaining in dollars (y)
1	76
2	62
3	48
4	34

The equation shows the relationship between the amount of money (y) remaining in your buddy's money box and the number of months (x):

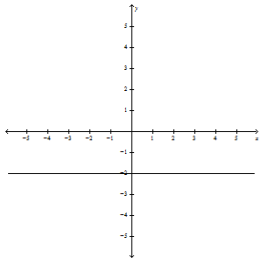
Function 2:

$y = -11x + 100$

Which statement explains which function shows a greater rate of change?

a. Function 2 shows a greater rate of change, because you spend $14 each month and your buddy spends $11 each month.
b. Function 1 shows a greater rate of change, because you spend $14 each month and your buddy spends $11 each month.
c. Function 2 shows a greater rate of change, because you spend $76 each month and your buddy spends $11 each month.
d. Function 1 shows a greater rate of change, because you spend $14 each month and your buddy spends $100 each month.

The graph represents function 1, and the equation represents function 2:



Function 2:

$y = -7x + 4$

By how much does the rate of change of function 1 and function 2 differ?

a. 7
b. 8
c. 5
d. 4

Amanda sells homemade birthday cakes for a profit of $38 per cake. She is considering switching to a new type of icing that will increase her profit, as expressed by the function $y = 45x$, where x is the number sold and y is the amount of profit.

How many more dollars will Amanda earn on each cake if she switches to the new material?

You are folding a piece of paper to make an origami figure. Each time you fold the paper, the thickness of the paper is doubled. The paper starts out flat, with a thickness of 2 millimeters.

A. Write a list of three ordered pairs showing the output as the thickness of the paper when the input is the number of times it is folded. Explain how you came up with your ordered pairs.

B. Is this relation a function? Explain why or why not using the ordered pairs you came up with in Part A.

If $y = 2x - 2$, which of the following sets represents possible inputs and outputs of the function, represented as ordered pairs?

a. {(–1, –4), (–0, –2), (3, 4)}
b. {(1, 0), (–2, –5), (5, 8)}
c. {(3, 4), (4, 6), (7, 13)}
d. {(–1, –3), (1, 0), (–2, –6)}