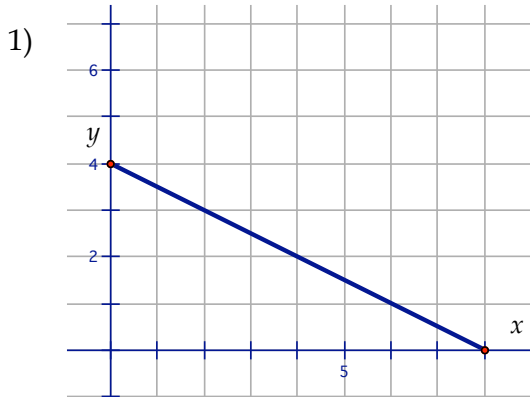
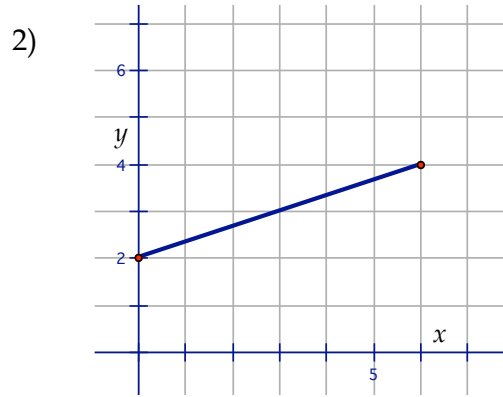


For each of the following graphs, explain the walk that would have produced it. State:

- a) the walker's starting point
- b) how fast the walker is walking
- c) whether the walker is walking toward or away from the motion sensor
- d) write an equation for each walk, where x is the time in seconds and y is the distance in meters



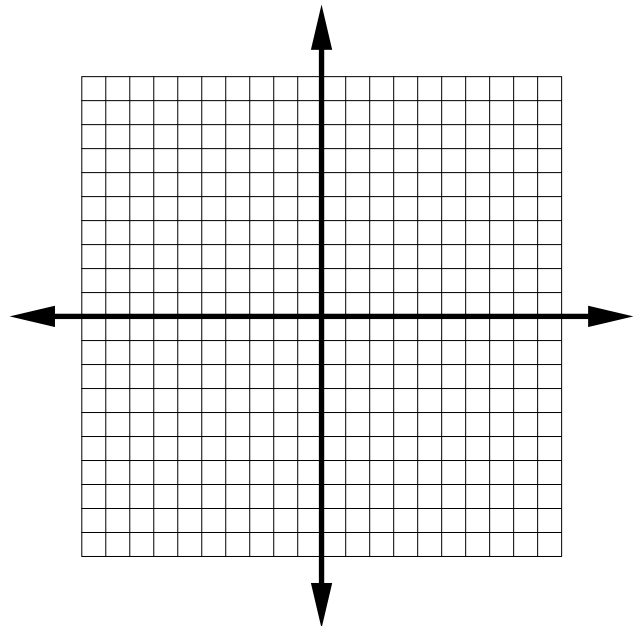
- a) _____
- b) _____
- c) _____
- d) _____



- a) _____
- b) _____
- c) _____
- d) _____

3) For the equation $y = 2x + 6$

- a) find the y -intercept: _____
- b) find the x -intercept: _____
- c) sketch a graph
- d) If this was a walk, where would the walker start?
- e) Find the slope. _____
- f) If this was a walk in which the x -axis showed time in seconds and the y -axis showed distance in meters, what would the slope mean for the walker?



4) Hiroki jogs to the gym and then swims laps. The equation that models his workout is $y = 215 + 20x$, where x is the number of laps Hiroki swims and y is the total number of calories burned.

- a) What does the 215 represent? _____
- b) What does the 20 represent? _____



5) Alex bought an ant farm with 50,000 ants in it. Every month, the population grows by 250 ants.



a) If x represents the number of months that have passed and y the population of the ant farm, write an equation for this situation.

b) If the population was shrinking by 250 ants each month, how would the equation be different?

6) Write equations for the following linear patterns:

a)

x	y
0	5
1	3
3	-1
4	-3

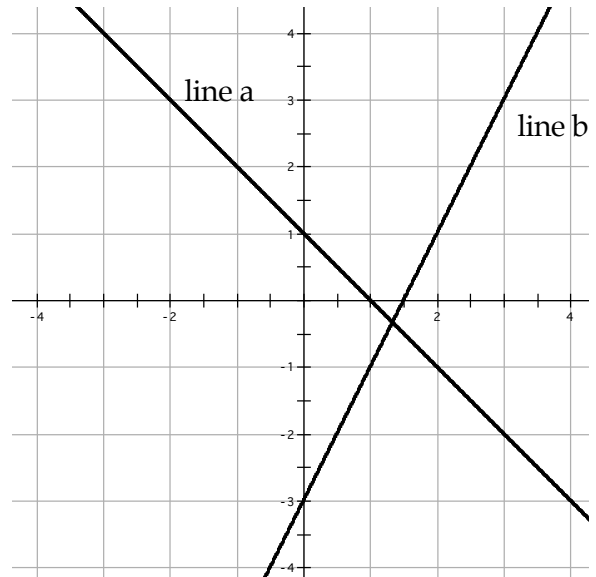
b)

x	y
-4	-5
-2	-3.5
0	2
4	1

c)

x	y
4	-8
4	0
4	3
4	20

7) Lines a and b are shown on the graph at right. Write an equation for each line.



*8) Della has been saving money for a trip abroad. She had some money stashed away from her birthday, and she has been able to also set aside the same amount of money each week. After saving for 1 week, Della had \$70. Two weeks later (at the end of week 3), she had \$100.

- a) If x represents the number of weeks for which Della has been saving and y represents the total amount saved, write an equation relating x and y . _____
- b) What is the y -intercept of your equation and what does it mean?
- c) What is the slope of your equation and what does it mean?