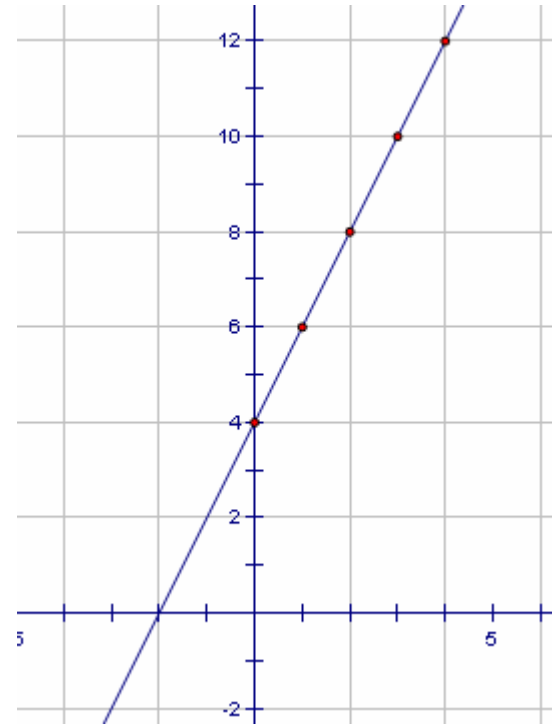


Chapter 3 Review for Final Exam

- 1) Using the graph at the right,  
a. Make a table of values that are shown on the line.



- b. Write a recursive rule for the graph
- c. Write an explicit (intercept) rule for the graph.
- d. If  $x = 20$ , then use your equation to find what the  $y$  value would be.

- e. If  $y = 346$ , then use your equation to find what the  $x$  value would be.

- 2) Consider the sequence  $-11.2, -13.6, -16.0, -18.4$ . Consider  $-11.2$  the first term of the sequence.
- a) Write a recursive routine for this sequence.

- b) Find the 10<sup>th</sup> term of the sequence.

- 2) For each table, write an equation for  $y$  in terms of  $x$ .

a.

$x$	$y$
0	4
1	6
2	8
3	10
4	12
5	14

b.

$x$	$y$
1	-5
2	-7
3	-9
4	-11
5	-13
6	-15

c.

$x$	$y$
-3	-62.4
-1	-39.0
0	-27.3
2	-3.9
5	31.2
7	54.6

3) Suppose Stan gets a gift from his uncle for \$2000 which he uses to start a savings account. Stan then adds \$1750 each year to his savings.

a) Complete the table of values.

Time elapsed (year)	0	1	2	3	4
Value (dollars)					

b) Write an equation relating the value of the account,  $y$ , to the number of years elapsed,  $x$ .

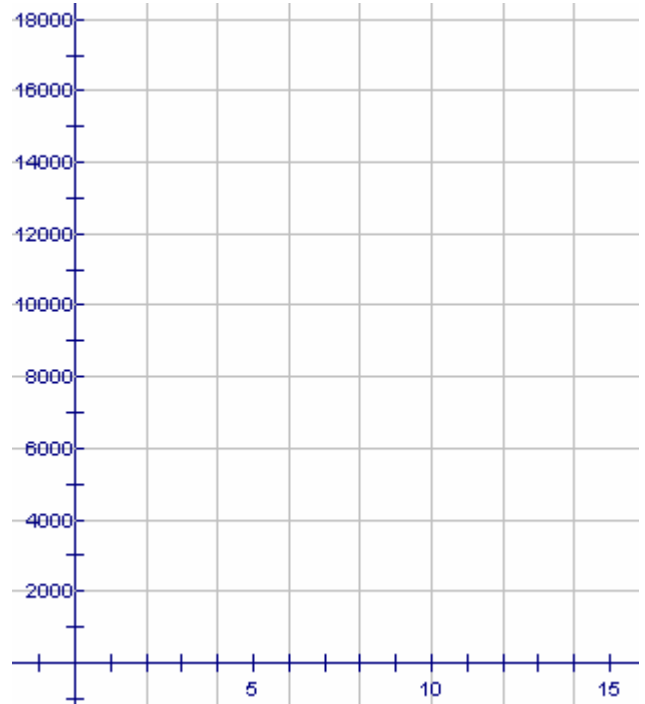
c) Graph the equation on the grid provided.

d) What is the coefficient of  $x$  in your equation?

e) What does this coefficient mean in the context of the problem?

f) What is the  $y$ -intercept of the graph?

g) What does the  $y$ -intercept mean in the context of the problem?



4) Solve each equation. Show your work to receive full credit.

a)  $3(x + 5) = -20$

b)  $\frac{-7 - 4x}{3} = 3$

c)  $3(2 + 4x) + 36 = 12$

d)  $\frac{x}{4} - 7 = 15$