Name _____ Class _____ Date _____

Use after Section 9.7

Extra Practice

Problems and Applications

1 Suppose that apples cost \$0.79 a pound.

a Complete the table.

Pounds	0	1	2	3	4	5
Cost	0	0.79				

b Write an equation for the cost, c, of x pounds of apples. 1b _____

2 Complete the table for the equation $y = -2x + 5$.

x	−3	−2	−1	0	1	2	3	4	5
y	11								

3 Make a table for each equation.

a $y = 3x - 5$ b $y = 2x + 1$ c $y = -\frac{1}{2}x + 1$

3a _____

b _____

c _____

4 Draw a graph for each table.

a

x	−2	−1	0	1	2
y	7	5	3	1	−1

b

x	−3	−2	−1	0	1	2	3
y	−4	−3	−2	−1	0	1	2

5 Make a table and draw a graph for each equation.

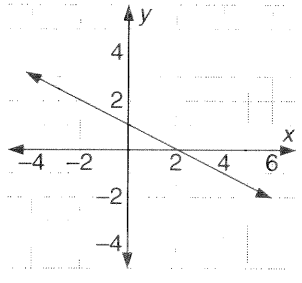
a $y = x + 2$ b $y = \frac{2}{3}x + 1$

6 For the graph shown,

a Find the increase in the value of y for each increase of 1 in x.

b Find the value of y when $x = 0$.

c Write an equation for the graph.



6a _____

b _____

c _____

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7 For each table, write an equation of the form $y = ax + b$. 7a _____

a

x	−3	−2	−1	0	1	2
y	−11	−8	−5	−2	1	4

b _____

b

x	−3	−2	−1	0	1	2	3	4	5	6
y	$\frac{7}{2}$	3	$\frac{5}{2}$	2	$\frac{3}{2}$	1	$\frac{1}{2}$	0	$-\frac{1}{2}$	−1

8 A plane is descending at a rate of 440 feet per minute. At time zero its altitude is 9000 feet. Negative time means minutes just past. Positive time means minutes to come.

a Complete the table. 8b _____

Time	−3	−2	−1	0	1	2	3
Altitude				9,000			

b Write an equation for this table. c _____

c When will the plane be at 4,600 feet?

9 Complete the table, and draw a graph, for the equation $y = -1 + \frac{4}{5}x$. 9 _____

		A				B			C		
x	−5	−4	−3	−2	−1	0	1	2	3	4	5
y											

Compute the distance between A and B and between C and B.

◀ Spiral Learning ▶

10 Evaluate $g(x) = 2x + 9 - 3(-x + 4)$ for $x = -2$. 10 _____

11 Find the next three numbers in the pattern $2, \frac{3}{4}, \frac{4}{9}, \frac{5}{16}, \ldots$ 11 _____

12 Given A (8, −4) and B (−4, −8), find the coordinates of 12a _____

a The point one fourth of the way from A to B

b The point three fourths of the way from A to B b _____

13 Point B has coordinates (1, −2). It is translated <−3, 7> to produce B'; then B' is translated <−3, 7> to produce B''. 13a _____

a What are the coordinates of B' and B''? b _____

b What are the coordinates of the midpoint of $\overline{BB''}$?