Homework Packet for Mrs. Duffey 8th Grade Math

Math 8 Mrs. Duffey	Chapter 7 Anticipation Guide	Chapter 7 Vocab	Practice 2-6	Practice 3-7	Skills Practice 7-1	Skills Practice 7-2

Total Points Received / **Total Points Available**	

Student Name:_____

Hour:_____

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7 Anticipation Guide

Functions and Graphing

Step 1 ***Before you begin Chapter 7***

- Read each statement.
- Decide whether you Agree (A) or Disagree (D) with the statement.
- Write A or D in the first column OR if you are not sure whether you agree or disagree, write NS (Not Sure).

STEP 1 A, D, or NS	Statement	Step 2 A or D
	1. A relation is a set of ordered pairs.	
	2. The range of a function is the set of x-coordinates.	
	3. All functions are relations.	
	4. The equation $2x - y = 6$ cannot be solved because it contains two variables.	
	5. The graph of any linear equation is a straight line.	
	6. The x-intercept is the point where a graph crosses the x-axis.	
	7. The slope of a line refers to the steepness of that line.	
	8. A steeper slope represents a smaller rate of change.	
	9. A vertical line has a slope of 0.	
	10. In the line $y = \frac{2}{5}x + 4$, $\frac{2}{5}$ is the slope.	

Step 2 ***After you complete Chapter 7***

- Reread each statement and complete the last column by entering an A (Agree) or a D (Disagree).
- Did any of your opinions about the statements change from the first column?
- For those statements that you mark with a D, use a separate sheet of paper to explain why you disagree. Use examples, if possible.

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7 Student-Built Glossary

This is an alphabetical list of key vocabulary terms you will learn in Chapter 7. As you study this chapter, complete each term's definition or description. Remember to add the page number where you found the term. Add these pages to your Pre-Algebra Study Notebook to review vocabulary at the end of the chapter.

Vocabulary Term	Found on Page	Definition/Description/Example
constant of variation VEHR-ee-AY-shuhn		
constant rate of change		
direct variation		
function		
line of fit		
linear (LIHN-ee-uhr) equation		
linear relationship		

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7

Student-Built Glossary *(continued)*

Vocabulary Term	Found on Page	Definition/Description/Example
rate of change		
slope		
slope-intercept (IHNT-uhr-SEHPT) form		
vertical line test		
y-intercept		

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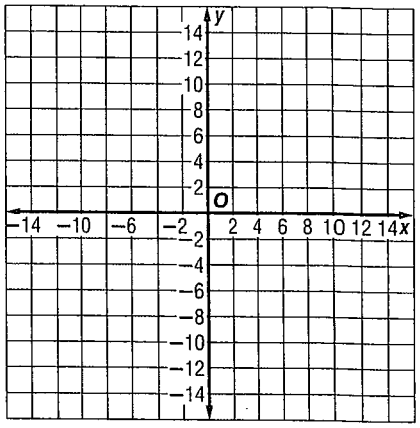
2-6 Practice

The Coordinate System

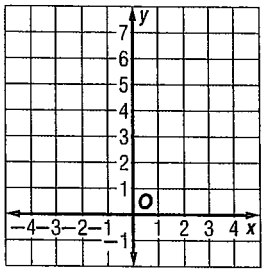
Graph and label each point on the coordinate plane. Name the quadrant in which each point is located.



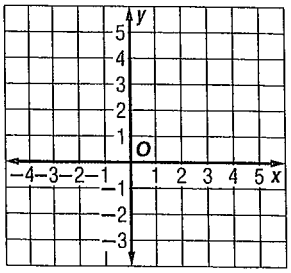
1. A (8, 6)
2. B (−8, 6)
3. C (−4, −11)
4. D (3, −6)
5. E (9, 0)
6. F (−4, 1)
7. G (−10, −10)
8. H (0, −8)
9. I (6, −2)
10. J (2, 13)

11. **ALGEBRA** Make a table of values and graph six sets of ordered pairs for the equation $y = 5 - x$. Describe the graph.

$y = 5 - x$		
x	y	(x, y)



12. **GEOMETRY** On the coordinate plane, draw a rectangle $ABCD$ with vertices at $A(1, 4)$, $B(5, 4)$, $C(5, 1)$, and $D(1, 1)$. Then graph and describe the new rectangle formed when you subtract 3 from each coordinate of the vertices in rectangle $ABCD$.



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3-7 Practice

Sequences and Equations

Describe each sequence using words and symbols.

1. 46, 52, 58, 64, ...

2. 5, 13, 21, 29, ...

3. 9, 14, 19, 24, ...

4. 11, 14, 17, 20, ...

5. 3, 5, 7, 9, ...

6. 44, 60, 76, 92, ...

Write an equation that describes each sequence. Then find the indicated term.

7. 20, 33, 46, 59, ...; 17th term

8. 29, 38, 47, 56, ...; 21st term

9. 101, 103, 105, 107, ...; 30th term

10. 64, 67, 70, 73, ...; 44th term

11. 26, 29, 32, 35, ...; 57th term

12. 112, 140, 168, 196, ...; 74th term

13. RUNNING Luisa ran 3 miles on the 3rd day of a month, and she repeated her run every 4 days for the rest of the month. What equation describes the sequence of days of that month that Luisa ran?

14. DEPRECIATION A new hybrid car costs $25,000. If it depreciates at $2,000 of its value each year, find the value of the car over the next 5 years.

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7-1 Skills Practice

Functions

Determine whether each relation is a function. Explain.

1. {(3, −8), (3, 2), (6, −1), (2, 2)}

2. {(0, 1), (−4, −3), (−3, 6), (3, 6)}

3. {(−6, 3), (2, −2), (0, 8), (1, 1)}

4. {(1, 8), (−6, 21), (−11, 21), (−3, 11), (0, 21)}

5.

x	1	−3	8	−8	20
y	2	6	6	5	11

6.

x	4	11	8	−13	−4
y	2	−4	1	2	20

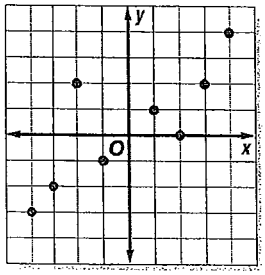
7.

x	−1.2	1.1	1.7	−1.2	1.0
y	2.8	2.3	−2.4	2.3	2.6

8.

x	7	0	−6	1	−11
y	−1	4	8	8	14

9.



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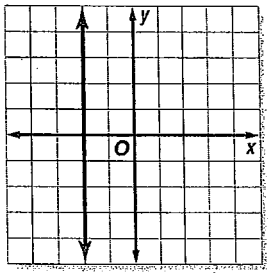

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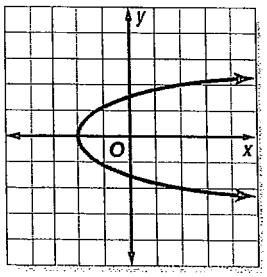

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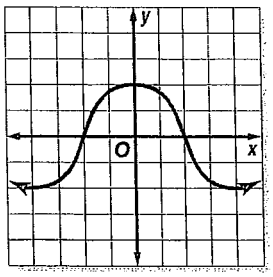

Lesson 7-1

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7-2 Skills Practice

Representing Linear Functions

Find four solutions of each equation. Write the solutions as ordered pairs.

1. $y = 8x - 4$

2. $y = -x + 12$

3. $4x - 4y = 24$

4. $x - y = -15$

5. $y = 7x - 6$

6. $y = -3x + 8$

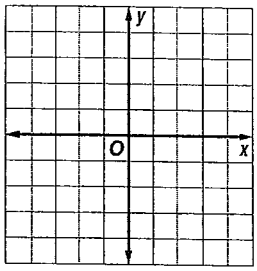
7. $y = 12$

8. $4x - 2y = 0$

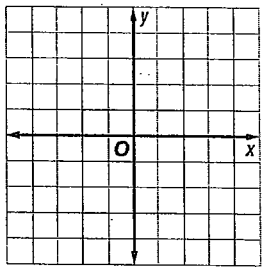
9. $4x - y = 4$

Graph each equation by plotting ordered pairs.

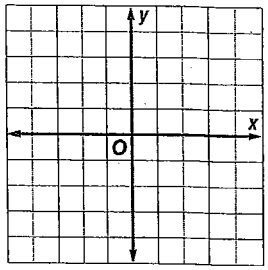
10. $y = 3x - 2$



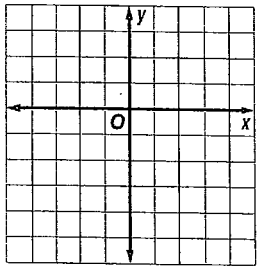
11. $y = -x + 3$



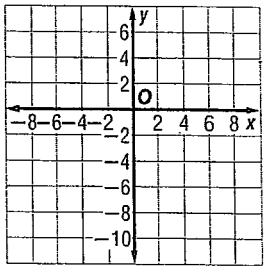
12. $y = -\frac{1}{2}x + \frac{3}{2}$



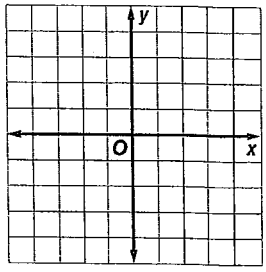
13. $y = -2x - 5$



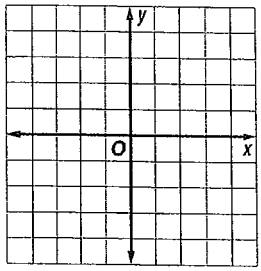
14. $y = 4x - 8$



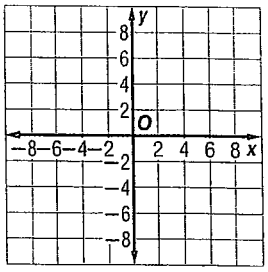
15. $y = \frac{2}{3}x - 2$



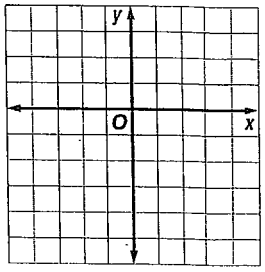
16. $y = -5x$



17. $y = -2x + 6$



18. $y = 5x + 1$



Lesson 7-2