What Should I Be Able to Do?

LESSON

- Use the divisibility rules to find the factors of 90.
 - **2.** Which of these numbers is 23 640 divisible by? How do you know?

a) 2	b) 3	c) 4
d) 5	e) 6	f) 8
g) 9	h) 10	i) 0

- 3. I am a 3-digit number.
 I am divisible by 4 and by 9.
 My ones digit is 2.
 I am less than 500.
 Which number am I?
 Find as many numbers as you can.
- Draw a Venn diagram with 2 loops. Label the loops "Divisible by 6," and "Divisible by 9."
 - a) Should the loops overlap? Explain.
 - **b)** Write these numbers in the Venn diagram.

 330
 639
 5598
 10 217

 2295
 858
 187
 12 006

 How did you know where to put

 each number?

- **1.3 5.** i) Write an algebraic expression for each statement.
 - ii) Evaluate each expression by replacing the variable with 8.
 - a) five less than a number
 - b) a number increased by ten
 - c) triple a number
 - d) six more than three times a number

- **1.4 6.** There are *n* women on a hockey team.
 Write a relation for each statement.
 - a) the total number of hockey sticks, if each player has 4 sticks
 - b) the total number of lockers in the dressing room, if there are 3 more lockers than players
 - c) the total number of water jugs on the bench, if each group of 4 players shares 1 jug
- 1.5 7. Copy and complete each table.Explain how the Output number is related to the Input number.

a)	Input n	Output <i>n</i> + 13
	1	
	2	
	3	
	4	
	5	
b)	Input n	Output 5 <i>n</i> + 1
	1	
	2	
	3	
	4	
	5	
c)	Input n	Output 6 <i>n</i> - 3
	1	
	2	
	3	
	4	
	5	

LESSON

8. Use algebra. Write a relation for each Input/Output table.



1.6 9. Match each graph with one of the relations below.

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4



- i) 7 3n is related to *n*.
- ii) 4n + 3 is related to *n*.
- iii) n 1 is related to n.
- iv) n + 3 is related to n.
- **v)** 3*n* 3 is related to *n*.
- vi) 7 n is related to n.

- **10.** For each relation below:
 - i) Describe a real-life situation that could be represented by the relation.
 - ii) Make a table of values.
 - iii) Graph the relation.
 - iv) Describe the graph.
 - v) Write 2 questions you could answer using the graph. Answer the questions.
 - a) 4 + 2m is related to m.
 - **b)** 15 2*d* is related to *d*.
- 11. Gerad is paid \$6 to supervise a group of children at a day camp.He is paid an additional \$2 per child.
 - a) Write a relation to show how the total amount Gerad is paid is related to the number of children supervised, c.
 - **b)** Copy and complete this table of values for the relation.

с	Amount Paid (\$)
0	
5	
10	
15	

- c) Draw a graph to show the relation. Describe the graph.
- d) Use the graph to answer these questions:
 - i) How much money is Gerad paid when he supervises
 25 children?
 - ii) Gerad was paid \$46.How many children did he supervise? Show your work.

LESSON

12. Suggest a real-life situation that could be represented by this graph.



- **1.7 13.** Write an equation for each sentence.
 - a) A pizza with 15 slices is shared equally among *n* students.
 Each student gets 3 slices.
 - **b)** Four less than three times the number of red counters is 20.
 - 14. The drum ring of this hand drum is a regular octagon.It has perimeter 48 cm.Write an equation you could use to find the side length of the drum ring.



- **15.** i) Write an equation you can use to solve each problem.
 - ii) Use tiles to solve each equation.
 - iii) Draw pictures to represent the steps you took to solve each equation.
 - iv) Use tiles to verify each solution.
 - a) Thirty-six people volunteered to canvas door-to-door for the Heart and Stroke Foundation. They were divided into groups of 3. How many groups were there?
 - b) A garden has 7 more daffodils than tulips. There are 18 daffodils. How many tulips are there?
 - c) A sleeve of juice contains
 3 juice boxes. Marty buys
 24 juice boxes. How many
 sleeves does he buy?
 - d) Jan collects foreign stamps. Her friend gives her
 8 stamps. Jan then has 21 stamps. How many stamps did Jan have to start with?
- 16. A number is multiplied by 4, then 5 is added. The result is 21. What is the number?
 - a) Write an equation to represent this situation.
 - **b)** Solve the equation to find the number.
 - c) Verify the solution.