

What Should I Be Able to Do?

LESSON

1.1 **1.2** 1. 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.

4. 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 $n + 13$ |
|--------------|--------------------|
| 1 | |
| 2 | |
| 3 | |
| 4 | |
| 5 | |

b)

| Input n | Output $5n + 1$ |
|--------------|--------------------|
| 1 | |
| 2 | |
| 3 | |
| 4 | |
| 5 | |

c)

| Input n | Output $6n - 3$ |
|--------------|--------------------|
| 1 | |
| 2 | |
| 3 | |
| 4 | |
| 5 | |