Unit 2 Show What You Know

LESSON

1

1. Write each number in standard form.
   a) 3 billion 400 thousand 7 hundred
   b) 20 000 000 + 3 000 000 + 60 000 + 4000 + 900 + 7
   c) twenty-seven trillion fifty-seven million three hundred twenty-four thousand eighty-three

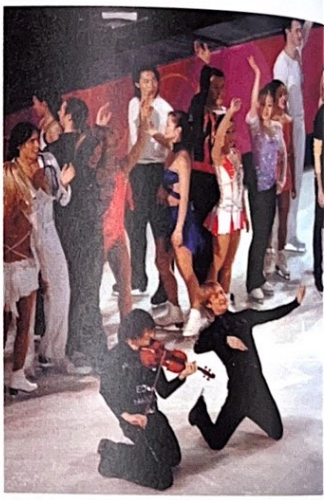
2. Write each number in expanded form.
   a) 86 209 402 b) 23 854 265 001

2

3. Mrs. Wisely has $635 000 in the bank.
   How much more money does she need before she can call herself a millionaire?
   How did you decide which operation to use?

4. Top Tickets sells tickets for the Olympic Figure Skating Gala Exhibition, where all the medal-winning skaters perform. Use the table below.

Tickets Sold by Top Tickets		
Seating Level	**Price**	**Number Sold**
A	$525	126
B	$325	348
C	$175	1235



2006 Olympic Figure Skating Gal

   a) How much money did Top Tickets take in?
   b) Suppose Top Tickets wants to take in $700 000.
   How much more money do they need to take in?
   c) Suppose Top Tickets sold $284 725 worth of Level C tickets.
   How many Level C tickets did they sell?

3

5. Which numbers below are multiples of 7?
   How did you find out?
   24 35 42 27 63 96 84

6. Find a common multiple of 4, 5, and 6.
   Explain how you know the number you found is a common multiple.

LESSON

4 **7.** Tell if each number is prime or composite. How do you know?
a) 18 **b)** 21 **c)** 48 **d)** 37

8. Only one prime number is even.
Which number is it? How do you know it is a prime number?

5 **9.** List all the factors of each number.
Sort the factors into prime numbers and composite numbers.
a) 52 **b)** 28 **c)** 63 **d)** 76

10. Find the common factors of each pair of numbers.
a) 16, 32 **b)** 18, 27 **c)** 30, 75

11. Draw a factor tree to find the factors of each number that are prime.
a) 18 **b)** 48 **c)** 21 **d)** 75

7 **12.** Evaluate each expression.
a) $35 - 16 \div 4$ **b)** $8 \times (6 + 4)$ **c)** $86 - 9 \times 9$

13. Evaluate each expression.
a) $16\,974 - (18 \times 45)$ **b)** $8537 + 4825 \div 25$

8 **14.** Draw a number line. Mark each integer on the line.
How did you know where to place each integer?
$+3, -5, +1, -2, 0$

15. Use an integer to represent each situation.
a) Sandha skated backward 100 m.
b) Karl earned $140 mowing lawns.
c) The temperature in Alida, SK, was 12°C below zero.
d) The elevator went up 7 floors.

9 **16.** Use a number line.
Order the integers in each set from least to greatest.
a) $+4, -3, -2, +1, -4$
b) $+8, +5, 0, -5, -17$
c) $+10, -9, +8, -7, +6$

UNIT 2 **Learning Goals**

- ☑ use place value to represent whole numbers greater than one million
- ☑ solve problems involving large numbers, using technology
- ☑ determine multiples and factors of numbers less than 100
- ☑ solve problems involving multiples
- ☑ identify composite and prime numbers
- ☑ apply the order of operations to solve multi-step problems, with or without technology
- ☑ demonstrate an understanding of integers