CHAPTER

1

Name _____ Date _____

Parents as Partners

For use with Chapter 1

Chapter Overview One way you can help your student succeed in Chapter 1 is by discussing the lesson goals in the chart below. When a lesson is completed, ask your student the following questions. "What were the goals of the lesson? What new words and formulas did you learn? How can you apply the ideas of the lesson to your life?"

Lesson Title	Lesson Goals	Key Applications
1.1: Expressions and Variables	Evaluate and write variable expressions.	• Blue Whales • Astronauts • Music Competition • DVD Rentals
1.2: Powers and Exponents	Use powers to describe repeated multiplication.	• Ice Sculpture • Gift Box • E-mail • Aquariums
1.3: Order of Operations	Use order of operations to evaluate expressions.	• Flower Flag • Twin Convention • Plants • Digital Cameras
1.4: Comparing and Ordering Integers	Compare and order integers.	• Supercooled Insects • Volcanoes • Neptune's Moons • Underwater Cities
1.5: Adding Integers	Add integers.	• Scuba Diver • Food Science • Hockey • Lake Vostok
1.6: Subtracting Integers	Subtract integers.	• The Big Dig • Ice Cream Production • Chemistry • Avalanches
1.7: Multiplying and Dividing Integers	Multiply and divide integers.	• Antarctic Temperatures • Electronics • MIR Submersible • Free Diving
1.8: The Coordinate Plane	Identify and plot points in a coordinate plane.	• Fish • Earth Science • Fuel Economy

Notetaking Strategies

Keeping a Notebook is the strategy featured in Chapter 1 (see page 4). Encourage your student to include assignments, formulas, rules and properties, vocabulary, symbols, and worked-out examples in his/her notebook. Remind your student that it may be helpful to draw a diagram when he/she copies examples into his/her notebook. Also, he/she should include comments that make the solution process clear to help him/her study for an exam.

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Key Ideas Your student can demonstrate understanding of key concepts
by working through the following exercises with you.

Lesson	Exercise
1.1	You can evaluate the expression $8n$ to find the amount spent on 8 notebooks. Find the amount spent if each notebook costs $2.50.
1.2	Evaluate the expression when $m = 4$ and $m = 0.4$. **a.** m^2 **b.** m^3 **c.** m^4
1.3	Evaluate the expression $\dfrac{2y^2 - 5}{x + 8}$ when $x = 1$ and $y = 5$.
1.4	The daily low temperatures (°C) for one week in December in Fargo, North Dakota are given below. Order the temperatures from least to greatest. $-15, -20, -13, -14, -22, -11, -21$
1.5	Find the sum. **a.** $-15 + (-24)$ **b.** $30 + (-57)$ **c.** $-9 + 18$
1.6	Evaluate the expression when $d = -3$. **a.** $d - 7$ **b.** $-11 - d$ **c.** $d - 13 - 21$
1.7	Find the product or quotient. **a.** $-9(-17)$ **b.** $112 \div (-8)$
1.8	What is the y-coordinate of the point $(-5, 5)$?

Home Involvement Activity

Directions: Make a coordinate grid of your neighborhood. Use the front door to
your house or apartment building as the origin. Plot the objects found in your
neighborhood, such as a mailbox, trees, or a park. Use the number of steps you
take to each object as the units. Use left, right, forward, and backward as the
directions you walk to each object to find the object's coordinates. Keep the scale
of the grid in mind. Label each point with its coordinates and state the quadrant the
object lies in.

Answers:
1.1: $20   **1.2: a.** 16; 0.16   **b.** 64; 0.064   **c.** 256; 0.0256   **1.3:** 5
1.4: $-22, -21, -20, -15, -14, -13, -11$ **1.5: a.** -39 **b.** -27 **c.** 9
1.6: a. -10 **b.** -8 **c.** -37 **1.7: a.** 153   **b.** -14 **1.8:** 5