NAME _____ DATE _____

Parent Guide for Student Success

For use with Chapter 2:

Chapter Overview **One way that you can help your student succeed in Chapter 2 is by discussing the lesson goals in the chart below. When a lesson is completed, ask your student to interpret the lesson goals for you and to explain how the mathematics of the lesson relates to one of the key applications listed in the chart.**

Lesson Title	*Lesson Goals*	*Key Applications*
2.1: The Real Number Line	Graph and compare real numbers using a number line. Find the opposite and the absolute value of a number in real-life applications.	• Space Shuttle • Golf • Wind Chill
2.2: Addition of Real Numbers	Add real numbers and use addition of real numbers to solve real-life problems.	• Atoms • Profit and Loss • Time Zones
2.3: Subtraction of Real Numbers	Subtract real numbers and use subtraction of real numbers to solve real-life problems.	• Stock Market • Hiking Elevations • Water Cycle
2.4: Adding and Subtracting Matrices	Organize data in a matrix. Add and subtract two matrices.	• Congress • Dog Kennel • Wages and Raises
2.5: Multiplication of Real Numbers	Multiply real numbers using properties of multiplication. Multiply real numbers to solve real-life problems.	• Flying Squirrels • Grocery Stores • Vacation Travel
2.6: The Distributive Property	Use the distributive property. Simplify expressions by combining like terms.	• Getting to School • Freight Trains • Leaving a Tip
2.7: Division of Real Numbers	Divide real numbers. Use division to simplify algebraic expressions.	• Hot-Air Ballooning • Basketball • Model Rocket
2.8: Probability and Odds	Find the probability of an event. Find the odds of an event.	• Surveys • Pets • Earthquakes

Study Strategy

Studying a Lesson is the study strategy featured in Chapter 2 (see page 62). Have your student show you an example of each of the following elements that appear in lessons: goal, study tip, example, highlighted vocabulary, rule or property given in a box. For each one, ask your student how that element can help in taking notes and in studying the lesson.

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

Lesson	Exercise
2.1	A company has the following outstanding debits and credits: \$140, −\$265, \$97, −\$107, and −\$168. Write these in increasing order.
2.2	After getting a first down, a football team lost 3 yards, gained 12 yards, and then lost 1 yard. What was their total gain or loss on the three plays? In order to get another first down, the team needed to gain 10 yards. Did the team get another first down?
2.3	Clara McDougan shot 7 under par in golf last week. She shot 2 over par this week. Write an expression that shows how much better she did last week than this week. Evaluate the expression and interpret the result.
2.4	Find the difference of the matrices. $\begin{bmatrix} -5 & 4 \\ -9 & 7 \end{bmatrix} - \begin{bmatrix} -8 & 12 \\ 3 & -8 \end{bmatrix}$
2.5	Evaluate $y^3 - 5$ when $y = -3$.
2.6	Apply the distributive property. Then simplify by combining like terms. $(7 - 3x)(-4) - 2(x - 9)$
2.7	A submarine dives 156 feet in 8 seconds. What is the submarine's average velocity per second?
2.8	A parking lot has a total of 25 spaces. Blue cars are parked in 7 of the spaces. If you randomly pick any space in the lot, what is the probability that it contains a blue car? What are the odds that it contains a blue car?

Home Involvement Activity

You will need: Newspaper

Directions: Find an item on sale for under \$20 in the newspaper. Show how to use the distributive property and mental computations to find how much 3 of them would cost. Similarly, find the cost of 5 of them. Write an expression to show how to find the cost of x of them mentally.

Answers

2.1: −\$265, −\$168, −\$107, \$97, \$140 **2.2:** 8 yd gain; no **2.3:** −7 −2; −9, her score was 9 points lower which is 9 points better in golf **2.4:** $\begin{bmatrix} 3 & -8 \\ -12 & 15 \end{bmatrix}$ **2.5:** −32 **2.6:** $10x - 10$ **2.7:** −19.5 ft/sec **2.8:** $\frac{7}{25}$ or 0.28; 7 to 18

Activity Sample Answers

Subtract from dollar amount to express price. For example, \$19.88 = \$20 − \$.12. Cost of 3 items is $3(20 - .12) = 3(20) - 3(.12) = 60 - .36 = 59.64$; 5 items: use $5(20 - 0.12)$; x items: use $x(20 - 0.12)$.