



 **POWER BASICS**  **PLUS**

Basic Mathematics

Workbook

Table of Contents

To the Student	vii	Activity 18	Subtraction 3	18
Unit 1: Addition and Subtraction		Activity 19	Find the Missing Part	19
Activity 1	Addition 1	Activity 20	Estimation and Exact Answers	20
	1	Activity 21	Addition and Subtraction Puzzle	21
Activity 2	Magic Squares	Activity 22	Tug-of-War with Subtraction	22
	2	Activity 23	Solving One-Step Equations Using Subtraction	23
Activity 3	Addition Bingo	Unit 2: Multiplication and Division		
	3	Activity 24	Multiplication Bingo	24
Activity 4	Addition 2	Activity 25	Partner Facts	25
	4	Activity 26	Multiplication Chart	26
Activity 5	Tug-of-War	Activity 27	Deciding Out Loud	27
	5	Activity 28	Multiplication 1	28
Activity 6	Addition 3	Activity 29	Using Multiplication to Find Area	29
	6	Activity 30	Growing Volume	30
Activity 7	Estimating Addition 1	Activity 31	Bringing Down the Zero	31
	7	Activity 32	Estimating Answers	32
Activity 8	Estimating Addition 2	Activity 33	Multiplication 2	33
	8	Activity 34	Write First	34
Activity 9	Adding Out Loud	Activity 35	Keyword Scramble	35
	9			
Activity 10	Perimeter Practice			
	10			
Activity 11	Vending Machine Math			
	11			
Activity 12	Breaking the Code			
	12			
Activity 13	Solving One-Step Equations Using Addition			
	13			
Activity 14	Subtraction 1			
	14			
Activity 15	Number Code			
	15			
Activity 16	Subtraction 2			
	16			
Activity 17	Estimating Subtraction			
	17			

Table of Contents, *continued*

Activity 36	Solving One-Step Equations Using Multiplication 36	Activity 54	Scale Drawings 54
Activity 37	Divisibility Rules 37	Activity 55	Unit Analysis 55
Activity 38	Number Code 38	Activity 56	A Grading Dilemma 56
Activity 39	Find the Quotient 1 39	Activity 57	Solving One-Step Equations Using the Reciprocal 57
Activity 40	Find the Quotient 2 40	Activity 58	Fraction Rap 58
Activity 41	Estimating Quotients 41	Activity 59	Fraction Puzzle 59
Activity 42	Think About It: Estimating 42	Activity 60	Comparing Decimals 60
Activity 43	Shorthand Division 43	Activity 61	Decimals 1 61
Activity 44	Multiplication and Division Puzzle 44	Activity 62	Decimals 2 62
Activity 45	Solving One-Step Equations Using Division .. 45	Activity 63	Draw It 63
Unit 3: Fractions and Decimals			
Activity 46	Reducing Fractions 46	Activity 64	Find the Missing Piece 64
Activity 47	Find the Better Buy 47	Activity 65	Fractions and Equivalent Decimals 65
Activity 48	Comparing Fractions 48	Activity 66	Decimal Puzzle 66
Activity 49	Fractions 1 49	Activity 67	Unlimited Options? 67
Activity 50	Finding the GCF 50	Activity 68	What to Do with That Decimal? 68
Activity 51	Fractions 2 51	Unit 4: Percents, Powers, and Roots	
Activity 52	To Borrow or Not to Borrow? 52	Activity 69	Writing About History 69
Activity 53	Fractions 3 53	Activity 70	Percents 70
		Activity 71	Percent Increase or Decrease? 71

Table of Contents, *continued*

Activity 72	Activity 83
Pie Charts 72	Multiplying Negative Numbers 83
Activity 73	Activity 84
Percent Decimal Chart 73	Scientific Notation 84
Activity 74	Activity 85
Commission 74	Powers and Roots 85
Activity 75	Activity 86
A Quick Way to Tip 75	What Went Wrong? 86
Activity 76	Activity 87
Sales Tax 76	Matching the Steps 87
Activity 77	Activity 88
Simple Interest 77	Write to Remember 88
Activity 78	Activity 89
Percent Puzzle 78	Using Factor Trees to Find Square Roots 89
Activity 79	Activity 90
Unscramble the Letters 79	Defend Your Choice! 90
Activity 80	Activity 91
Solving Percent Problems Using Proportions . 80	Powers and Roots Puzzle 91
Activity 81	Activity 92
Solving Percent Problems Using Mathematical Sentences 81	Pythagorean Theorem 92
Activity 82	
Zero Power 82	

NAME: _____



UNIT 2 • ACTIVITY 24

Multiplication Bingo

Your class has decided to play a game of multiplication bingo. Your teacher will roll the two dice and will multiply the two numbers together. Your teacher will continue to do this until someone has bingo. You are allowed to fill out the spaces of your bingo card with the numbers 1 to 36. Numbers can be repeated on your card up to five times.

1. On a separate sheet, create a chart showing all of the possible products of the two dice.
2. Would any numbers in the range you're allowed to use be more useful on a bingo card than others? Explain.

3. Are any numbers between 1 and 36 impossible to get? Explain.

4. How would you fill out your card?

		Free Space		



**UNIT 2 • ACTIVITY 25****Partner Facts**

Choose a partner for the following activity. Plan to help each other learn multiplication facts!

First, as a team, write down every multiplication fact from 0 to 12. This means you need to write down $0 \times 0 = 0$, $0 \times 1 = 0$, through $12 \times 0 = 0$. Then write down $12 \times 1 = 12$ through $12 \times 12 = 144$. Write each fact on a separate slip of paper. Place all the slips face down.

Next, you will take turns quizzing each other using these slips of paper.

Decide who will go first. The other partner will then choose a slip of paper and quiz the first player. For instance, you may pick up the slip of paper that reads: $6 \times 7 = 42$. You would say: "Six times seven equals . . ." and wait for your partner to answer. If your partner answers correctly, choose another slip of paper and read the problem. Continue for 2 minutes or until your partner has given three incorrect responses. If your partner answers incorrectly, write the complete corrected multiplication fact below.

Once 2 minutes is up (or three wrong answers have been given), change roles. The quizzer will now give answers. Whoever answers more problems correctly during his or her turn wins the round.

After each round, discuss your wrong answers and review the correct multiplication facts you wrote below. Try to help each other improve. Continue to play until your teacher ends the game.

Correct multiplication fact 1: _____

Correct multiplication fact 2: _____

Correct multiplication fact 3: _____



NAME: _____



UNIT 2 • ACTIVITY 26

Multiplication Chart

Complete the multiplication chart by filling in the missing values.

×	1	2	3	4	5	6	7	8	9	10	11	12	13
1	1	2	3	4	5	6	7	8	9	10	11	12	13
2	2		6		10	12			18		22		
3				12	15					30			
4		8				24					44		52
5		10			25			40		50			
6	6		18		30		42					72	
7			21				49				77		91
8	8			32		48			72				
9			27							90		108	
10	10				50			80			110		
11	11		33				77						143
12				48			84			120			
13		26			65				117				169

1. Are there any patterns that you found? _____

2. What do you notice about the middle diagonal starting at the top left corner? _____
