

Contents



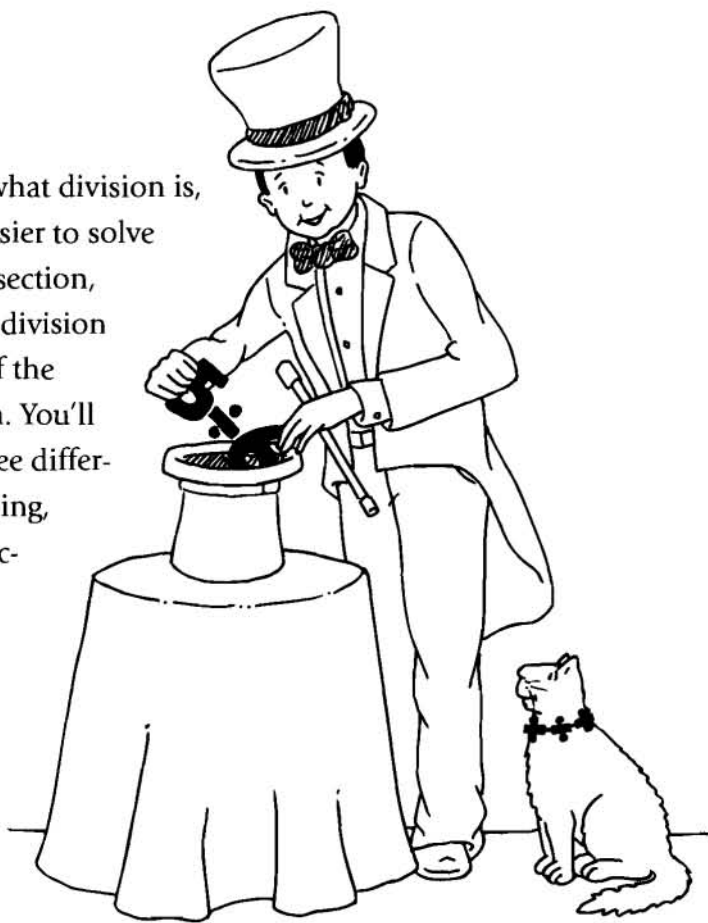
I. The Magic of Division	1
1 Anatomy of a Division Problem	3
2 Division as Grouping	7
3 Division as Repeated Subtraction	3
4 Division as the Opposite of Multiplication	12
II. Understanding Division Facts	15
5 Fun One!	17
6 It's All in the Eyes	20
7 Division Circles	22
8 Number Line Fours	25
9 Nickel Mania	29
10 Subtracting Sixes	32
11 Calculating Sevens	34
12 Opposite Eights	37
13 Nine and Easy Nines	40
14 Erasing Zeros	43
15 Dividing by Zero	46
III. Division Practice Games	49
16 Division Tic-Tac-Toe	51
17 Split Second	53
18 Division Search	54
19 Off to the Races	57
20 Division Memory	59
21 Three-in-a-Row Bingo	61

22	Egg Carton Division	64
23	Answer Up!	65
24	Mystery Number	67
25	Division Scabble	70
26	Divisor Here!	72
IV. Becoming Dazzling at Division		73
27	Flip-Flop	75
28	Whoops! Something's Left?	78
29	Up and Down	82
30	Solving Long Division Problems	86
31	Three-Minute Long Division	93
32	Checking Division Problems	96
33	Check It Out!	98
34	Ten-Second Guess Division	100
35	Daring Divisibility	102
36	Prime!	106
37	Prime Mania	108
38	Back and Forth	110
39	Shout It Out!	113
40	Word Problems	115
Division Master Certificate		117
Index		119

~~~~~ | ~~~~~

# THE MAGIC OF DIVISION

**O**nce you understand what division is, you'll find it much easier to solve division problems. In this section, you'll learn how to write a division problem, and the names of the parts of a division problem. You'll also look at division in three different ways: division as grouping, division as repeated subtraction, and division as the opposite of multiplication. All of these exercises will help you understand division and prepare you for learning division facts.



# Anatomy of a Division Problem

**W**hat is division? How do you write a division problem? How do you read one? What are you actually doing when you divide one number by another? Once you can answer these questions, you are well on your way to discovering the magic of division.

There are four basic operations in mathematics: addition, subtraction, multiplication, and division. Division is usually taught last since it is the hardest to master, but learning to divide is just as important as learning to add, subtract, or multiply.

Each of the four basic operations can be expressed as a symbol. The plus sign (+) tells you to add two numbers together. The minus sign (-) tells you to subtract one number from another. The multiplication sign (x) tells you to multiply one number by another. The division sign ( $\div$ ) tells you to divide one number by another. The problems  $6 + 4$ ,  $6 - 4$ ,  $6 \times 4$ , and  $6 \div 4$  are different problems that have different answers.

There are other ways to indicate division besides using the division sign. Sometimes a division problem is written in the form  $8 \overline{)6,424}$ . This problem is read as six thousand, four hundred twenty-four divided by eight. The problem  $2 \overline{)222}$  is two hundred twenty-two divided by two. And  $10 \overline{)5}$  is five divided by ten.

