
Contents

Introduction.....	4
Addition Review	7
More Addition Review	10
Addition Terminology and Practice	13
Ordinal Numbers and Roman Numerals	17
Add in Columns	20
Adding in Columns	22
Subtraction Review	23
More Subtraction Review	26
Subtraction Strategies and Terminology	29
Subtraction Terms	33
Mental Math Workout and Pascal's Triangle	35
Subtracting in Columns	38
Subtract in Columns	42
Addition / Subtraction Connection	45
Word Problems and Bar Models	48
Missing Addend Solved with Subtraction	51
Mileage Chart	54
Order of Operations	55
Order of Operations 2	57
Graphs	59
Bar Graphs	61
Line Graphs	64
Reviewing Money	67
Review	70
Review 2	72
Answers	73
More from Math Mammoth	87

Introduction

Math Mammoth Add & Subtract 4 covers the following addition and subtraction related topics which are approximately third and fourth grade level:

- Mental addition and subtraction strategies;
- Adding and subtracting in columns;
- Roman Numerals;
- The addition and subtraction connection, missing addend problems, and word problems with bar models;
- Order of operations;
- Graphs and money.

The lessons are taken from the first chapters of Math Mammoth Grade 3 and Grade 4 Complete Worktexts (Light Blue Series 3rd and 4th grade), and for this reason the sequence of lessons may not always be extremely smooth. In other words, you may find that the same topic is covered in two lessons; the reason being one lesson comes from the third grade complete worktext and the other from the fourth.

The first lessons cover the “technical aspects” of adding, such as mental math strategies, terminology, and adding in columns. These are repeated for subtraction. Children also get to see how the sum or difference changes if the numbers in the problems change and how that can be used to solve problems mentally.

The addition and subtraction connection is already a familiar topic, but the first lesson on this topic practices this with bigger numbers. In the next lessons, the student solves word problems with the help of bar models. Next, we solve simple missing addend equations using subtraction, such as $x + 20 = 60$. We use bar models to illustrate these and connect them with fact families. These lessons help students think algebraically.

We also practice subtracting in columns and borrowing. The lessons illustrate this process with the help of pictures that relate to the three different place values: hundreds, tens, and ones. The idea is that when you “borrow” a hundred, or a ten, you break it down into 10 smaller units (either tens or ones), and that enables you to subtract.

Students are also introduced to parentheses and the order of operations including building the mathematical expression (calculation) needed for certain real-life situations.

Students also get to practice their adding and subtracting skills when reading a mileage chart, bar graphs, line graphs, rounding, estimating, and money problems.

I wish you success in your math teaching!
Maria Miller, the author