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# Math Mammoth Division 2

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# Introduction

*Math Mammoth Division 2* is a continuation from the Math Mammoth Division 1 book. It includes lessons on division, long division, remainder, part problems, average, and problem solving. The book is most suitable for fourth grade, when children are first introduced to long division.

We start out by reviewing basic division by single-digit numbers. Then students study some basic division topics such as division terms, division by 1 and 0, and dividing by whole tens and hundreds.

The lesson *Finding Parts with Division* is very important. It shows an important relationship between fractions and division. For example, we can find  $\frac{3}{4}$  of a number by first finding  $\frac{1}{4}$  (divide by 4), then multiplying that result by 3.

The lesson on remainder is just before the first lesson on long division, because that is where the student needs to understand this concept very well.

Long division is taught in several small steps over many lessons. We start with the situation where each of the thousands, hundreds, tens, and ones can be divided evenly by the divisor. Then is introduced the remainder in the ones. Next comes the situation where we have a remainder in the tens. Finally, when we have a remainder in the hundreds, and so on.

All along the long division lessons, the process is explained so that the student can understand what it is based on. After the many lessons that practice and explain long division, we see a comparison between repeated subtraction and long division. The purpose of this lesson is to shed light in the basic idea of long division, and not to practice a new calculation method.

After long division is mastered, we study the concept of average. Next comes *Long Division with Remainder*, which also contains a section on packing problems

The next two lessons contain plenty of part-related problems to solve. These problems deal with fractional parts of a sum total, and include both dividing and multiplying. I have included many diagrams and pictorial representations of these problems to help the student. Encourage him to draw one for those problems that don't have any.

The last two topics in this section are divisibility and a two-digit divisor in long division. These topics are introductory only, as children will continue studying them in the fifth grade.

*Answers are in the end of the book.*

*I wish you success in your math teaching!*

*Maria Miller, the author*