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## Math Mammoth Decimals 2

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# Introduction

*Math Mammoth Decimals 2* is a book about decimal place value and the four operations with decimals. It is most suitable for 5th and 6th grade.

The book starts with a short review of previously learned concepts (from Math Mammoth Decimals 1): place value with tenths and hundredths, and adding and subtracting decimals that have tenths and hundredths.

The rest of the book is spent learning the four operations of decimals with numbers that have up to three decimal digits, and especially concentrating on decimal multiplication and division. We start by learning place value, comparing, and rounding decimals (tenths, hundredths, and thousandths). After that follow addition and subtraction, and then various multiplication and division topics.

I've strived to emphasize mental calculations based on conceptual understanding of decimals, and for that end the text also often includes little tips or "tricks" that help with mental calculations. Along with all that, the book naturally has lessons on long multiplication and long division with decimals. Problems that show a little calculator picture are meant to be solved with the help of a calculator. Otherwise, a calculator should not be allowed.



The last lessons deal with problem solving, and as such could be included in some other course of study. They are included here since the problems involve the usage of decimal numbers, and also because the material for this book is taken from the 3rd chapter of Math Mammoth Grade 5-A Complete Worktext, which includes those problem solving lessons.

After this book, the student should understand how to perform all of the four operations with decimals. However, please note that this book does not practice these operations with decimals that have more than 3 decimal digits. Students in 6th grader or higher should also practice decimal arithmetic with such longer decimals. For fifth grade, I feel the coverage in this book is sufficient.

You can make additional supporting worksheets on this page:

[www.homeschoolmath.net/worksheets/grade\\_5.php](http://www.homeschoolmath.net/worksheets/grade_5.php)

Scroll down to the "Decimals" section.

I wish you success in your math teaching!

Maria Miller, the author

## Helpful Resources on the Internet

### Place Value Strategy

Place 3 or 4 digits given by the spinner to make the greatest number possible.

[www.decimalsquares.com/dsGames/games/placevalue.html](http://www.decimalsquares.com/dsGames/games/placevalue.html)

### Decimal Darts

Try to pop the balloons with darts by estimating at which height the balloons are.

[www.decimalsquares.com/dsGames/games/darts.html](http://www.decimalsquares.com/dsGames/games/darts.html)

### Estimate

Estimate to which decimal the arrow is pointing on the number line. The game has the words “Evaluation version” across the screen, but is still playable.

[www.interactiveresources.co.uk/mathspack1/estimate/estimate.html](http://www.interactiveresources.co.uk/mathspack1/estimate/estimate.html)

### Decimal Challenge

Guess the decimal number between 0 and 10. Each time feedback tells whether your guess was too high or too low.

[www.interactivestuff.org/sums4fun/decchall.html](http://www.interactivestuff.org/sums4fun/decchall.html)

### Beat the Clock

Type in a decimal shaded in the square in this timed game.

[www.decimalsquares.com/dsGames/games/beatclock.html](http://www.decimalsquares.com/dsGames/games/beatclock.html)

### Scales

Move the pointer to match the decimal number given to you. Refresh the page from your browser to get another problem to solve.

[www.interactivestuff.org/sums4fun/scales.html](http://www.interactivestuff.org/sums4fun/scales.html)

### Switch

Put the sequence of decimal numbers into ascending order by switching them around. Refresh the page from your browser to get another problem to solve.

[www.interactivestuff.org/sums4fun/switch.html](http://www.interactivestuff.org/sums4fun/switch.html)

### Smaller and Smaller Maze

Practice ordering decimal numbers and find your way through the maze.

[www.mathsyear2000.org/magnet/kaleidoscope/smaller/index.html](http://www.mathsyear2000.org/magnet/kaleidoscope/smaller/index.html)

### Decimal and Whole Number Jeopardy

Review place value and comparing and rounding numbers. Also, practice number patterns.

[www.quia.com/cb/8142.html](http://www.quia.com/cb/8142.html)

### Decimals in Space

An asteroids style game where you first answer a question about the smallest decimal, then get to shoot asteroids, earning points based on the numbers on them.

[themathgames.com/arithmetric-games/place-value/decimal-place-value-math-game.php](http://themathgames.com/arithmetric-games/place-value/decimal-place-value-math-game.php)

### Sock

Push the green blocks into the holes to make the target number.

[www.interactivestuff.org/sums4fun/sock.html](http://www.interactivestuff.org/sums4fun/sock.html)

**Decimal Squares BlackJack**

Take cards with decimals, trying to get as close to 2 as possible, but not go over.

[www.decimalsquares.com/dsGames/games/blackjack.html](http://www.decimalsquares.com/dsGames/games/blackjack.html)

**A Decimal Puzzle**

Make every circle add up to 3.

[nlvm.usu.edu/en/nav/frames\\_asid\\_187\\_g\\_2\\_t\\_1.html?open=instructions&from=category\\_g\\_2\\_t\\_1.html](http://nlvm.usu.edu/en/nav/frames_asid_187_g_2_t_1.html?open=instructions&from=category_g_2_t_1.html)

**FunBrain Decimal Power Football**

Simple games for addition, subtraction, multiplication, and division of decimals, including missing factor/divisor types. Solve a problem, and the football player moves on the field.

<http://www.funbrain.com/cgi-bin/getskill.cgi?A1=choices&A2=fb&A3=6&A4=0&A7=0>

**Exploring Division of Decimals**

Use a decimal square to explore the products of two numbers with one decimal digit. The product is shown as an area.

[www.hbschool.com/activity/elab2004/gr6/1.html](http://www.hbschool.com/activity/elab2004/gr6/1.html)

**Decimal Speedway**

Practice decimal multiplication in this fun car racing game.

[www.decimalsquares.com/dsGames/games/speedway.html](http://www.decimalsquares.com/dsGames/games/speedway.html)