



Basic  
Math  
Warm-Ups

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## INTRODUCTION

*Basic Math Warm-Ups: Fractions, Decimals, and Percents* is designed to provide quick practice and review opportunities for students with learning differences. Each of the 180 warm-up activities has clear and simple directions. The practice activities are written at a low reading level, making them appropriate for students in upper elementary school, middle school, and high school.

Each reproducible page covers only one skill so that students who are already struggling will not be overwhelmed. At least two activity sheets are provided to address each skill. When completing an activity, students will apply basic concepts to solve, complete, or reproduce simple math problems.

It is suggested that students keep all their completed activities in a folder labeled “Fractions, Decimals, and Percents Warm-Ups.” This will allow students to easily refer to the activities when working on future warm-ups and when completing other supplemental activities. These warm-ups are designed to supplement your existing curriculum. They can also be used as pre- and post-assessments to check for students’ skill mastery.



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The six books in the *Basic Math Warm-Ups* series cover basic mathematics skills in number concepts; number operations; measurement; tables, graphs, and charts; rounding, reasonableness, and estimation; and fractions, decimals, and percents, as identified by the National Council of Teachers of Mathematics (NCTM). These warm-ups support the *Basic Math Practice* series and can be used independently or in conjunction with those binders. Each warm-up book provides 180 warm-ups—one for each day of the school year—that cover all of the objectives for each skill. The open-ended and multiple choice questions use varied approaches to address different modalities so that students’ different learning styles are addressed.

*Basic Math Warm-Ups: Fractions, Decimals, and Percents* provides repeated daily practice in the basic foundation of math concepts development, which will also improve students’ confidence in their mathematical skills. These warm-ups can be used at any time for a variety of purposes. Use them as warm-ups, mini-lessons, review activities, “tickets out” to allow students to leave the classroom, or quick homework assignments. For your convenience, an answer key is provided for all of the warm-up activities.

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## THE BASIC MATH WARM-UPS SERIES

There are six books in the *Basic Math Warm-Ups* series. Each book includes 180 pages of practice activities.



## FRACTIONS, DECIMALS, AND PERCENTS

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## TWO SECTIONS

This book is divided into two sections. The first section contains 180 activities covering fractions, decimals, and percents through a variety of formats. The second section is the answer key, which includes solutions for all of the activities.

**FRACTIONS**

Directions: Look at each fraction. Then, circle the numerator.

1)  $\frac{4}{9}$

2)  $\frac{2}{3}$

3)  $\frac{1}{7}$

4)  $\frac{3}{8}$

5)  $\frac{6}{11}$

**FRACTIONS, DECIMALS, AND PERCENTS**

1

**ANSWER KEY**

**Page 1**  
1) 4 2) 2 3) 1 4) 3 5) 6

**Page 2**  
1) 4 2) 9 3) 5 4) 10 5) 7

**Page 3**  
1)  $\frac{1}{3}$  2)  $\frac{1}{2}$

**Page 4**  
1)  $\frac{10}{6}$  2)  $\frac{3}{4}$

**Page 5**  
1)  $\frac{1}{10}$  2)  $\frac{1}{4}$

**Page 6**  
1)  $\frac{3}{3}$   $\frac{10}{10}$   $\frac{1}{1}$   $\frac{4}{4}$   $\frac{8}{8}$   $\frac{8}{8}$   $\frac{8}{8}$   $\frac{8}{8}$   $\frac{8}{8}$   $\frac{10}{10}$   $\frac{10}{10}$

**Page 7**  
1)  $\frac{1}{10}$   $\frac{5}{10}$  2)  $\frac{3}{4}$   $\frac{1}{2}$

**Page 8**  
1)  $\frac{3}{10}$   $\frac{3}{10}$  2)  $\frac{1}{10}$   $\frac{2}{10}$

**Page 9**  
1)  $\frac{1}{5}$   $\frac{4}{5}$   $\frac{1}{5}$  2)  $\frac{1}{5}$   $\frac{1}{5}$   $\frac{1}{5}$   $\frac{1}{5}$

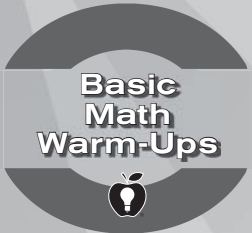
**Page 10**  
1)  $\frac{1}{4}$   $\frac{3}{4}$   $\frac{4}{4}$  2)  $\frac{1}{8}$   $\frac{3}{8}$   $\frac{2}{8}$

**Page 11**  
1)  $\frac{1}{5}$  2)  $\frac{1}{5}$

**Page 12**  
1)  $\frac{4}{8}$  2)  $\frac{10}{10}$  3)  $\frac{9}{10}$

**FRACTIONS, DECIMALS, AND PERCENTS**

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## OBJECTIVES

After students complete the activities in *Basic Math Warm-Ups: Fractions, Decimals, and Percents*, they will be able to do the following:

- identify the numerator and the denominator of a fraction
- write fractions for pictorial representations
- write fractions equivalent to 1
- identify simple, mixed, and improper fractions
- add and subtract simple, mixed, and improper fractions
- convert mixed and improper fractions
- identify and write equivalent fractions
- compare fractions
- identify prime numbers
- factor numbers using prime factorization
- find the greatest common factor for two or more fractions
- reduce sums, differences, products, and quotients to lowest terms
- find the least common denominator for two or more fractions
- identify the reciprocals for fractions
- multiply and divide simple, mixed, and improper fractions
- identify place values of hundreds, tens, ones, tenths, hundredths, and thousandths
- identify money amounts in decimal form
- determine whether a money amount is greater than or less than another money amount

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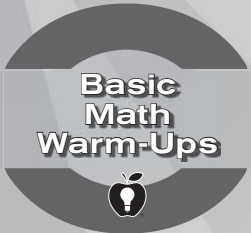
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**OBJECTIVES** (*cont. from page VIII*)

- determine whether a decimal number is greater than or less than another decimal number
- sequence decimal numbers from least to greatest
- identify a range for given decimal numbers and determine whether decimal numbers exist in a given range
- round decimal numbers to the ones, tenths, and hundredths places
- round money amounts to the hundredths place
- add, subtract, multiply, and divide decimal numbers
- add, subtract, multiply, and divide money amounts
- understand the relationship between the fraction and the decimal
- convert decimals to fractions and fractions to decimals
- compare percents
- identify common percents such as 10%, 25%, 50%, 75%, and 100%
- use graphics to write parts per 100 as percents
- add and subtract percents to equal 100%
- use models to review different representations of fractions, decimals, and percents
- convert percents to fractions and decimals
- convert fractions and decimals to percents
- solve equations to find the parts of the whole
- solve equations to find the whole
- solve equations to find the percent

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Research has shown that segmentation, or “breaking down a task,” is an effective method to use when teaching students with learning differences. Students with special needs cannot process large amounts of information at one time. However, according to Gersten, presenting small segments of information and then immediately applying that information has been proven to be a successful teaching method (1999). The activities in the *Basic Math Warm-Ups* series do just that. They present small, sequenced bits of instruction with ample opportunities for practice. These pages are excellent supplements for any mathematics program designed to help students sharpen their mathematics skills.

*Basic Math Warm-Ups: Fractions, Decimals, and Percents* includes multiple activities that reinforce fractions, decimals, and percents in ways that make them relevant and meaningful. As Jones, Wilson, and Bhojwani note, “Practice activities are essential components of mathematics instructional programs. Students with LD will generally need more practice and practice that is better designed than students without LD, if they are to achieve adequate levels of fluency and retention” (1997). The warm-up activities included in the series have simple directions, low readability to minimize frustrations due to reading difficulties, and few problems per activity to review and reinforce understanding of the skills.

## ***FRACTIONS, DECIMALS, AND PERCENTS***



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The Principles and Standards for School Mathematics by the NCTM state that “students need to learn a new set of mathematics basics that enable them to understand how mathematical ideas interconnect and build on one another to produce a coherent whole” (2003). These warm-up activities do this by addressing fractions, decimals, and percents through a variety of formats so that individual learning styles are addressed. The skills build on one another and reinforce previously learned skills. *Basic Math Warm-Ups: Fractions, Decimals, and Percents* meets both state and national standards (including the National Council of Teachers of Mathematics Standards 2000 Project) regarding numbers, operations, problem solving, communication, and connections.

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Gersten, R. (May 1999). “Teaching Expressive Writing to Students with Learning Disabilities.” Keys to Successful Learning Summit, Washington, D.C.

Jones, E. D., Wilson, R. & Bhojwani, S. (March/April 1997). “Mathematics Instruction for Secondary Students with Learning Disabilities.” *Journal of Learning Disabilities*, 30(2), 151–163.

National Council of Teachers of Mathematics. (2003). “Realizing the Vision.” *Principles and Standards for School Mathematics*. [Electronic version] Retrieved on June 23, 2004, from <http://standards.nctm.org/document/chapter8/index.htm>