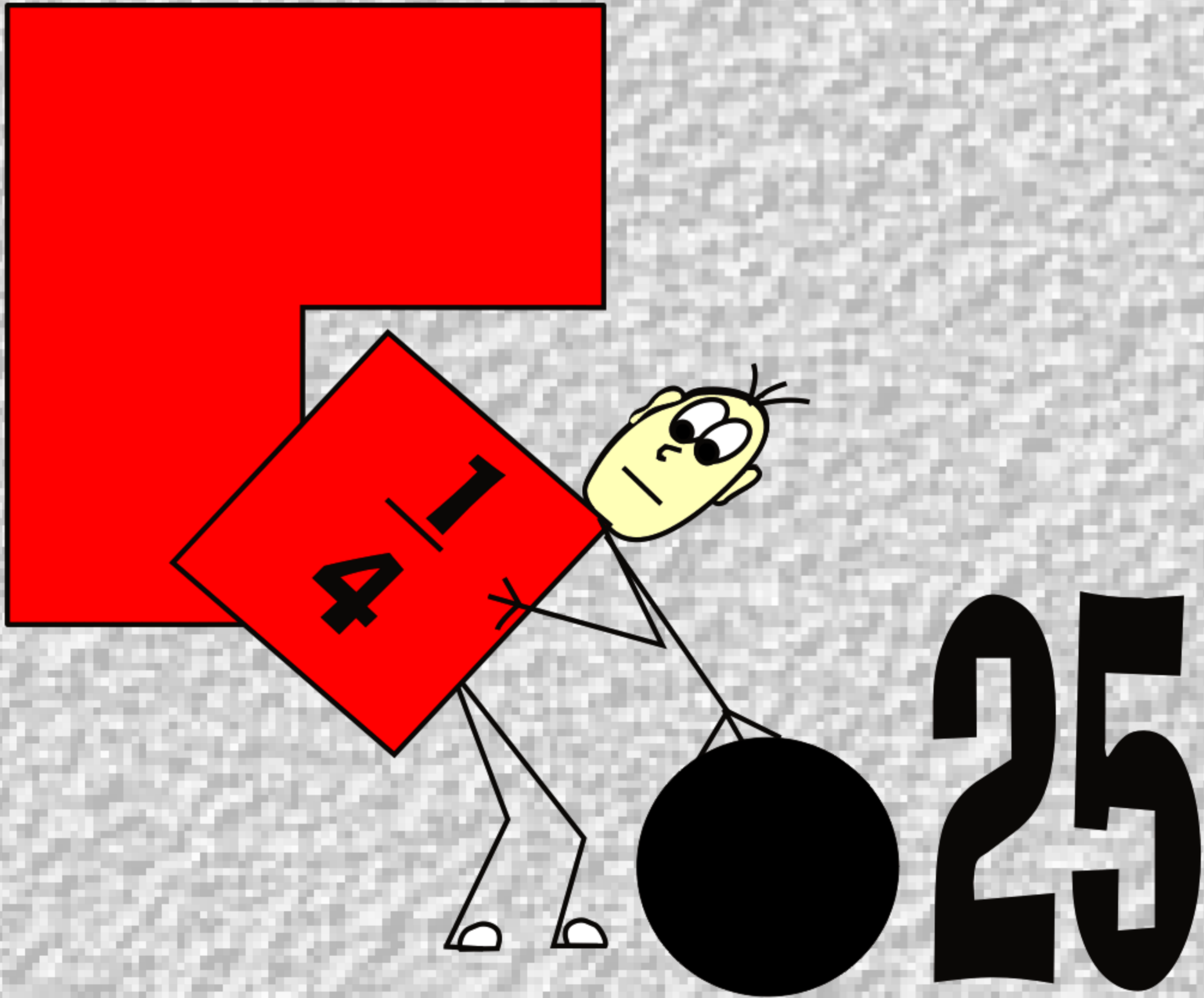


Fractions & Decimals

From the *Just Turn & Share*™ Centers Series

Kathryn Robinson



Real-World Mathematics

www.writemath.com

Grades 3 - 5



WriteMath Enterprises
2303 Marseille Ct. Suite 104
Valrico, Fl. 33594-7248
813 685 0392

Just Turn & Share™
Math Centers Series



I

Fractions & Decimals

Volume 4

(Grades 3 – 5)

Real-World
Mathematics
that
students
understand

Kathryn Robinson



WriteMath Enterprises
Valrico, Florida

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2303 Marseille Ct., Valrico, FL 33594

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4

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- I dedicate this series to my husband, Steve Robinson, for advising, supporting, guiding, and editing years of work and making my dreams possible.
- I would also like to dedicate this series to my brother-in-law, Michael Ghormley, for his expert mathematical advice, patience, and willingness to answer my constant questions over a period of several years.

This book is published by WriteMath Enterprises.

ISBN 0-9703216-8-6

Graphics from: Corel Draw 8 (Corel Corporation) and Microsoft Publisher

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Introduction

Fractions & Decimals is a great center in the ‘Just Turn & Share’ Series. This series gives students **daily** practice in 16 math areas or a math topic of your preference. After gradually working in a center-based atmosphere, students can tackle all 16 centers in half an hour. This program can be used in conjunction with any regular math series. Some students have difficulty attaining proficiency in specific math areas due to the limited practice provided by a textbook. ‘Just Turn & Share’ math centers provide real-world practice with mathematical concepts.

The series is designed for center-based review of concepts or as whole-group overhead instruction. These lessons are designed to provide practice for 30 weeks of the school year. The program contains three-week sets worth of practice in each concept. Each concept is covered for three weeks before a new concept is introduced to the students. During each three-week period, only the numbers change - not the concepts. The first week is designed as a review of the concept, the second provides further practice, and the third is set apart for mastery of the concept. As your students become more proficient in one particular concept, you might choose to eliminate the third week set to move to a new concept. The third week then serves as a review during the last ten weeks of the year or intensive practice prior to standardized testing.

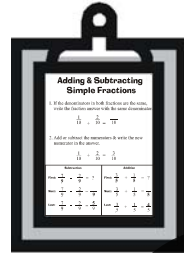
The new concept for the week is listed in the *Table of Contents*. At the onset of a new concept, we recommend that teachers conduct a mini-lesson before releasing students to work the centers. Each center contains concept-information sheets with student-directions about how to perform individual concepts. These information sheets have a third-grade readability level. I recommend that the information sheets remain at the centers as long as possible to accommodate new students entering the class throughout the year. Many weeks in the series contain reference sheets that contain data that students will need to perform certain operations. Both the information sheets and reference sheets are located at the beginning of each week.

This center contains:

1. An information sheet designed to remain at the center.
It relates pertinent information about fraction and decimal concepts.
2. Thirty charts that list mathematical information to complete the activities.

Suggestion:

Each center sheet should be placed in a plastic protective cover.



Each center is designed for grades 3 through 5 as follows:

- (*) **Grade 3** students calculate the single asterisk activities
- (**) **Grade 4** students calculate the double asterisk activities
- (***) **Grade 5** students calculate the triple asterisk activities

If you are using more than five centers in the classroom, I recommend using the answer sheet to help students keep track of the completed centers. Accompanying each complete set is a set of corrected answer sheets that help students self-correct their responses. Students self-correct their answer sheets three out of the four days. Self-correction prevents embarrassment and allows students time to practice each concept before an assessment. I place a sign-up sheet in the classroom to allow students to sign up for assistance in their less proficient areas. I assist those that have signed up for help during the next day's *Center Time*. The fourth day of each week is teacher-corrected and entered in a grade book. If you have any questions please feel free to e-mail us on our website:

www.writemath.com.

I know that you will have as much fun employing this program as I have had designing it. Remember the program is as simple as *turning each page and sharing* the activities with your class. So go ahead just...

Turn & Share

with your students.

Just Turn & Share Answer Sheets

Front

Back

1. Each sheet is divided into sections according to the names of the centers.
(*e.g. Time*)
2. Students write the letter for the problem in the smaller box.

A	3:00	B	4:00
C	1 hour	D	News

3. Students write the answer in the larger box.
4. Students check the sheet to determine whether or not they have completed all of the centers.

Graphics from: *Corel Draw 8* (Corel Corporation) & Microsoft *Publisher*

Name:		Date:		Day #1	Day #2	Day #3	Day #4
Time:		Estimation:		Calendar:			
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				
Number Sense:		Grid:		Temperature:			
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<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				
Place Value:		Volume:		Weight/Mass:			
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<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				
Algebra:							
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Graph:							
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<input type="checkbox"/>							

SAMPLE

Linear Measure:		Fractions/Decimals:	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Geometry:			
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Money:			
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Thinking:			
<i>range:</i>	<i>median:</i>	<i>mean/average:</i>	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	<i>mode:</i>		
	<input type="checkbox"/>		

SAMPLE

Contents

Introduction	III
Answer Sheet	VI
Contents.....	VIII
Fraction Information	2
Adding & Subtracting Simple Fractions Information.....	3
Equivalent Fractions Information	4
<i>Week 1:</i> Fraction of a Whole Group.....	5
Equivalent Fractions	
Adding Fractions with Like Denominators	
Factors	
<i>Week 2:</i> Fraction of a Whole Group.....	9
Equivalent Fractions	
Adding Fractions with Like Denominators	
Factors	
<i>Week 3:</i> Fraction of a Whole Group.....	13
Equivalent Fractions	
Adding Fractions with Like Denominators	
Factors	
Decimal Information	17
Percentages Information	18
Greatest Common Factor Information	19
<i>Week 4:</i> Tenths.....	20
Fractions/Decimals/Percentages	
Subtracting Fractions with Like Denominators	
Equivalent Fractions	
Greatest Common Factor	

<i>Week 5:</i> Tenths	24
Fractions/Decimals/Percentages	
Subtracting Fractions with Like Denominators	
Equivalent Fractions	
Greatest Common Factor	
<i>Week 6:</i> Tenths	28
Fractions/Decimals/Percentages	
Subtracting Fractions with Like Denominators	
Equivalent Fractions	
Greatest Common Factor	
Changing a Fraction to a Decimal Information	32
<i>Week 7:</i> Hundredths	33
Fractions/Decimals/Percentages	
Adding & Subtracting Fractions with Like Denominators	
Changing Fractions to Decimals	
Equivalent Fractions	
Greatest Common Factor for Two Numbers	
<i>Week 8:</i> Hundredths	37
Fractions/Decimals/Percentages	
Adding & Subtracting Fractions with Like Denominators	
Changing Fractions to Decimals	
Equivalent Fractions	
Greatest Common Factor for Three Numbers	
<i>Week 9:</i> Hundredths	41
Fractions/Decimals/Percentages	
Adding & Subtracting Fractions with Like Denominators	
Changing Fractions to Decimals	
Equivalent Fractions	
Greatest Common Factor for Three Numbers	
Simplifying Fractions Information.....	45
Fraction of a Number Information	46

<i>Week 10:</i> Mixed Numbers.....	47
Fractions/Decimals/Percentages	
Ordering Decimals	
Fraction of a Whole Number	
<i>Week 11:</i> Mixed Numbers.....	51
Fractions/Decimals/Percentages	
Simplifying Fractions	
Ordering Decimals	
Fraction of a Whole Number	
<i>Week 12:</i> Mixed Numbers.....	55
Fractions/Decimals/Percentages	
Simplifying Fractions	
Ordering Decimals	
Fraction of a Whole Number	
Adding & Subtraction Mixed Numbers Information.....	59
Comparing Fractions Information.....	60
<i>Week 13:</i> Tenths.....	61
Fractions/Decimals/Percentages	
Adding Mixed Numbers	
Comparing Fractions	
Fraction of a Whole Number	
<i>Week 14:</i> Tenths.....	65
Fractions/Decimals/Percentages	
Subtracting Mixed Numbers	
Comparing Fractions	
Fraction of a Whole Number	
<i>Week 15:</i> Tenths.....	69
Fractions/Decimals/Percentages	
Adding & Subtracting Mixed Numbers	
Comparing Fractions	
Fraction of a Whole Number	
Multiples Information	73

Week 16: Mixed Numbers.....74
 Adding & Subtracting Mixed Numbers
 Least Common Multiples
 ‘n’
 Fraction of a Whole Number

Week 17: Mixed Numbers78
 Adding & Subtracting Mixed Numbers
 Least Common Multiples
 ‘n’
 Fraction of a Whole Number

Week 18: Mixed Numbers.....82
 Adding & Subtracting Mixed Numbers
 Least Common Multiples
 ‘n’
 Fraction of a Whole Number

Changing Mixed Numbers to an Improper Fraction Information86

Week 19: Mixed Numbers.....87
 Adding & Subtracting Mixed Numbers
 Least Common Multiples
 Improper Fractions
 Ordering Fractions, Percentages, and Decimals
 Fraction of a Whole Number

Week 20: Mixed Numbers.....91
 Adding & Subtracting Mixed Numbers
 Least Common Multiples
 Improper Fractions
 Ordering Fractions, Percentages, and Decimals
 Fraction of a Whole Number

Week 21: Mixed Numbers.....95
 Adding & Subtracting Mixed Numbers
 Least Common Multiples
 Improper Fractions
 Ordering Fractions, Percentages, and Decimals
 Fraction of a Whole Number

Changing an Improper Fraction to a Mixed Number Information99

Adding & Subtracting Fractions with Unlike Denominators Information	100
<i>Week 22:</i> Fraction, Decimal, & Percentage	101
Adding & Subtracting Mixed Numbers	
Adding & Subtracting Fractions with Unlike Denominators	
Improper Fractions	
Ordering Fractions, Percentages, and Decimals	
Fraction of a Whole Number	
<i>Week 23:</i> Fraction, Decimal, & Percentage	105
Adding & Subtracting Double-Digit Mixed Numbers	
Adding & Subtracting Fractions with Unlike Denominators	
Improper Fractions	
Ordering Fractions, Percentages, and Decimals	
Fraction of a Whole Number	
<i>Week 24:</i> Fraction, Decimal, & Percentage	109
Adding & Subtracting Double-Digit Mixed Numbers	
Adding & Subtracting Fractions with Unlike Denominators	
Improper Fractions	
Ordering Fractions, Percentages, and Decimals	
Fraction of a Whole Number	
Multiplying Fractions.....	113
Multiplying Mixed Numbers	114
<i>Week 25:</i> Fraction, Decimal, & Percentage	115
Multiplying Fractions	
Comparing Fractions	
Improper Fractions & Mixed Numbers	
Ordering Fractions, Percentages, and Decimals	
Multiplying Mixed Numbers	
<i>Week 26:</i> Fraction, Decimal, & Percentage	119
Multiplying Fractions	
Comparing Fractions	
Improper Fractions & Mixed Numbers	
Ordering Fractions, Percentages, and Decimals	
Multiplying Mixed Numbers	

Week 27: Fraction, Decimal, & Percentage123
 Multiplying Fractions
 Comparing Fractions
 Improper Fractions & Mixed Numbers
 Ordering Fractions, Percentages, and Decimals
 Multiplying Mixed Numbers

Dividing Fractions.....127

Dividing Mixed Numbers129

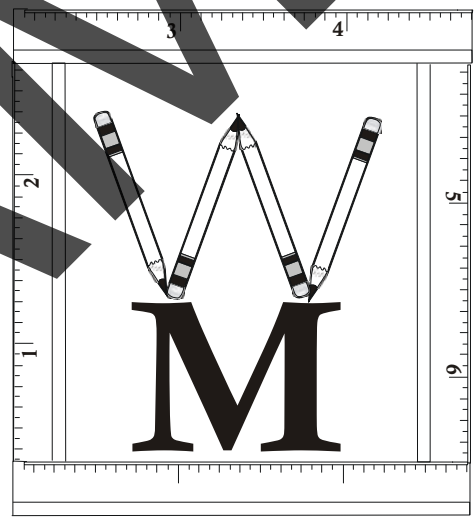
Week 28: Fraction, Decimal, & Percentage129

Week 29: Fraction, Decimal, & Percentage133

Week 30: Fraction, Decimal, & Percentage.....137

Answer Sheet141

SAMPLE



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Centers in the 'Just Turn & Share' Math Center Series:

1. Algebra
2. Calendar
3. Estimation
4. Fractions & Decimals
5. Geometry
6. Graph
7. Grid
8. Linear Measure
9. Money
10. Number Sense
11. Place Value
12. Temperature
13. Thinking: Range, Median, Mode, Mean
14. Time
15. Volume
16. Weight & Mass

For more information:

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website: www.writemath.com



Fractions

Fractions are written with one number (numerator) over the other number (denominator).

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

The numerator (top number) tells you how many parts out of the group we are talking about.

The denominator (bottom number) tells you how many parts are in the whole group.

$\frac{2}{3}$ ← Two parts of a group of three.

$\frac{2}{3}$ ← There are three parts altogether.

e.g.: If Dan eats **6** out of **10** pieces of pie, it is written:

Fraction: $\frac{6}{10}$

Adding & Subtracting Simple Fractions

1. If the denominators in both fractions are the same, write the fraction answer with the same denominator.

$$\frac{1}{10} + \frac{2}{10} = \frac{\quad}{10}$$

2. Add or subtract the numerators & write the new numerator in the answer.

$$\frac{1}{10} + \frac{2}{10} = \frac{3}{10}$$

Subtraction		Addition	
First:	$\frac{7}{9} - \frac{2}{9} = ?$	First:	$\frac{3}{5} + \frac{1}{5} = ?$
Next:	$\frac{7}{9} - \frac{2}{9} = \frac{\quad}{9}$	Next:	$\frac{3}{5} + \frac{1}{5} = \frac{\quad}{5}$
Last:	$\frac{7}{9} - \frac{2}{9} = \frac{5}{9}$	Last:	$\frac{3}{5} + \frac{1}{5} = \frac{4}{5}$

Equivalent Fractions

Equivalent fractions are two different fractions of a whole object with unlike denominators that represent the same portion of a whole object.

How can I use equivalent fractions?

Suppose that your brother wants to eat $\frac{1}{2}$ of a pizza and the pizza is cut into 12 slices. You can figure out how many pieces to give him by computing the number of twelfths it will take to equal to $\frac{1}{2}$ of the pizza.

- Find the equivalent fraction:

$$\frac{1}{2} = \frac{?}{12}$$

- Decide what number the denominator of one fraction was **multiplied** or **divided** by to equal the other denominator.

$$\frac{1}{2} \times \frac{6}{6} = \frac{?}{12}$$

- Multiply or divide the numerator by the same number.

$$\frac{1}{2} \times \frac{6}{6} = \frac{6}{12}$$

You have not changed the value of the fraction because you are dividing by 1.

$$\frac{6}{6} = 1$$

Solution: $\frac{1}{2} = \frac{6}{12}$

Equivalent Fractions:

① $\frac{1}{2} = \frac{?}{12}$

② $\frac{1}{2} \times 6 = \frac{?}{12}$

③ $\frac{1 \times 6}{2 \times 6} = \frac{6}{12}$

④ $\frac{1}{2} = \frac{6}{12}$

① $\frac{12}{15} = \frac{?}{5}$

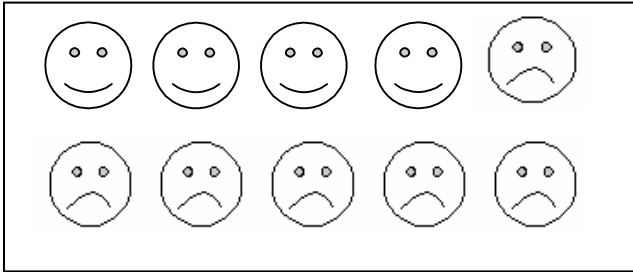
② $\frac{12}{15} \div 3 = \frac{?}{5}$

③ $\frac{12 \div 3}{15 \div 3} = \frac{4}{5}$

④ $\frac{12}{15} = \frac{4}{5}$

Fractions/Decimals

(DAY #1)



A. What fraction of the happy faces are smiling? e.g.: $\frac{?}{?}$

i. 10

B. What fraction of the happy faces are frowning?

*** Read the information on Equivalent Fractions.

C. Give the equivalent fraction for problem “A” in fifths.

*** Read the information on Adding & Subtracting Fractions.

D. Compute: $\frac{1}{10} + \frac{4}{10} = \frac{?}{10}$

A factor is a number that is multiplied:				
3	x	4	=	12
↑		↑		↑
factor		factor		product

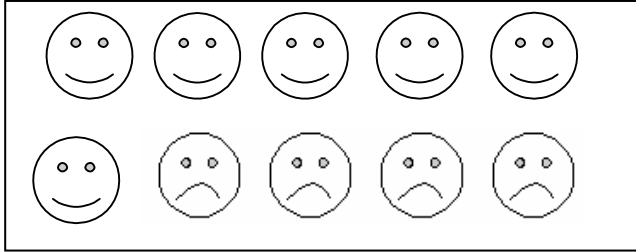
E. What are two factors for 6?

$$\underline{\quad} \times \underline{\quad} = 6$$

- * A & D
- ** B, D, & E
- *** C, D, & E

Fractions/Decimals

(DAY #2)



A. What fraction of the happy faces are smiling? e.g.: $\frac{?}{10}$

B. What fraction of the happy faces are frowning?

*** Read the information on Equivalent Fractions.

C. Give the equivalent fraction for problem “A” in fifths.

*** Read the information on Adding & Subtracting Fractions.

D. Compute: $\frac{2}{10} + \frac{4}{10} = \frac{?}{10}$

A **factor** is a number that is multiplied:

3	x	4	=	12
↑		↑		↑
factor		factor		product

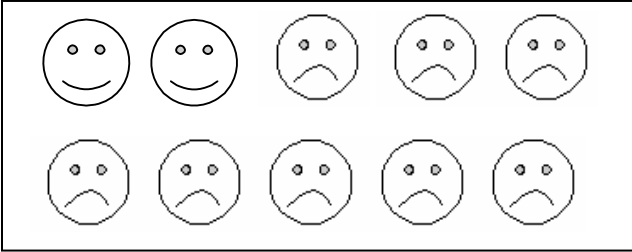
E. What are two factors for 8?

$\underline{\quad} \times \underline{\quad} = 8$

- * B & D
- ** A, D, & E
- *** C, D, & E

Fractions/Decimals

(DAY #3)



A. What fraction of the happy faces are smiling? e.g.: $\frac{?}{10}$

B. What fraction of the happy faces are frowning?

*** Read the information on Equivalent Fractions.

C. Give the equivalent fraction for problem “A” in fifths.

*** Read the information on Adding & Subtracting Fractions.

D. Compute: $\frac{2}{10} + \frac{5}{10} = \frac{?}{10}$

A **factor** is a number that is multiplied:

3	x	4	=	12
↑		↑		↑
factor		factor		product

E. What are two factors for 10?

$$\underline{\quad} \times \underline{\quad} = 10$$

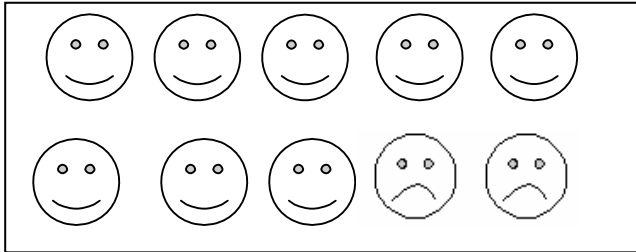
* A & D

** B, D, & E

*** C, D, & E

Fractions/Decimals

(DAY #4)



A. What fraction of the happy faces are smiling? e.g.: $\frac{?}{10}$

B. What fraction of the happy faces are frowning?

*** Read the information on Equivalent Fractions.

C. Give the equivalent fraction for problem “A” in fifths.

*** Read the information on Adding & Subtracting Fractions.

D. Compute: $\frac{4}{10} + \frac{5}{10} = \frac{?}{10}$

A factor is a number that is multiplied:				
3	x	4	=	12
↑		↑		↑
factor		factor		product

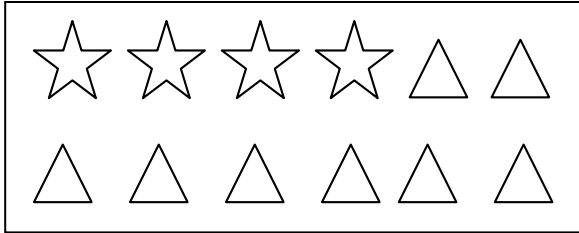
E. What are two factors for 12?

$$\underline{\quad} \times \underline{\quad} = 12$$

- * B & D
- ** A, D, & E
- *** C, D, & E

Fractions/Decimals

(DAY #1)



A. What fraction of the shapes are stars? e.g.: $\frac{?}{12}$

B. What fraction of the shapes are triangles?

*** Read the information on Equivalent Fractions.

C. Give the equivalent fraction for problem “A” in sixths.

*** Read the information on Adding & Subtracting Fractions.

D. Compute: $\frac{3}{12} + \frac{4}{12} = \frac{?}{12}$

A factor is a number that is multiplied:				
3	x	4	=	12
↑		↑		↑
factor		factor		product

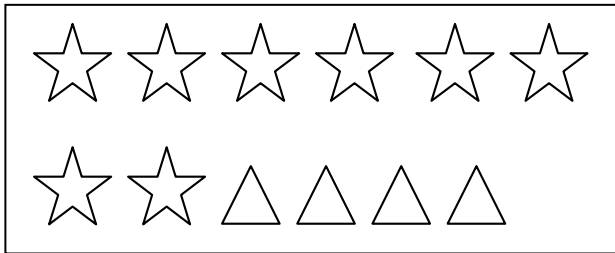
E. What are two factors for 15?

$$\underline{\quad} \times \underline{\quad} = 15$$

- * A & D
- ** B, D, & E
- *** C, D, & E

Fractions/Decimals

(DAY #2)



A. What fraction of the shapes are stars? e.g.: $\frac{?}{12}$

B. What fraction of the shapes are triangles?

*** Read the information on Equivalent Fractions.

C. Give the equivalent fraction for problem “A” in thirds.

*** Read the information on Adding & Subtracting Fractions.

D. Compute: $\frac{2}{12} + \frac{5}{12} = \frac{?}{12}$

A factor is a number that is multiplied:			
3	x	4	= 12
↑		↑	↑
factor		factor	product

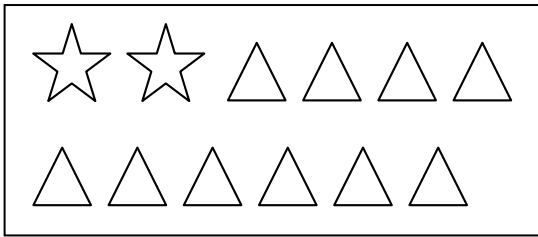
E. What are two factors for 16?

$$\underline{\quad} \times \underline{\quad} = 16$$

- * B & D
- ** A, D, & E
- *** C, D, & E

Fractions/Decimals

(DAY #3)



A. What fraction of the shapes are stars? e.g.: $\frac{?}{12}$

B. What fraction of the shapes are triangles?

*** Read the information on Equivalent Fractions.

C. Give the equivalent fraction for problem “A” in twenty-fourths.

*** Read the information on Adding & Subtracting Fractions.

D. Compute: $\frac{7}{12} + \frac{2}{12} = \frac{?}{12}$

A factor is a number that is multiplied:			
3	x	4	= 12
↑		↑	↑
factor		factor	product

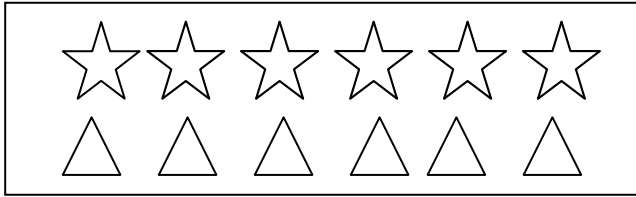
E. What are two factors for 18?

$$\underline{\quad} \times \underline{\quad} = 18$$

- * A & D
- ** B, D, & E
- *** C, D, & E

Fractions/Decimals

(DAY #4)



A. What fraction of the shapes are stars? e.g.: $\frac{2}{12}$

B. What fraction of the shapes are triangles?

*** Read the information on Equivalent Fractions.

C. Give the equivalent fraction for problem “A” in halves.

*** Read the information on Adding & Subtracting Fractions.

D. Compute: $\frac{4}{12} + \frac{5}{12} = \frac{?}{12}$

A **factor** is a number that is multiplied:

3	x	4	=	12
↑		↑		↑
factor		factor		product

E. What are two factors for 20?

$$\underline{\quad} \times \underline{\quad} = 20$$

- * B & D
- ** A, D, & E
- *** C, D, & E