

**BERNARDS TOWNSHIP PUBLIC SCHOOLS
BASKING RIDGE, NEW JERSEY**

FRAMEWORK FOR COMPUTATIONAL FLUENCY

GRADE 4

Summer 2008

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In order to develop students' math skills, the mathematics curriculum should include a balance and connection between conceptual understanding and computational fluency. "Fluency refers to having efficient, accurate and generalizable methods (algorithms) for computing that are based on well-understood properties and number relationships" (Principles and Standards for School Mathematics, p.144). Developing a conceptual understanding of mathematical reasoning is essential. Students need to acquire computational fluency in order to be successful problem solvers.

Not all students develop automatic recall of basic facts at the same time. However, teachers should work with students so that each student acquires an understanding of several computational strategies and implements them appropriately with the goal of gaining automaticity with basic facts and computational algorithms. For example, a focus in the primary grades is to master computational fluency with addition and subtraction facts through twenty. Students should develop multiplication and division fact power between third and fourth grade.

Algorithms are important tools that help students become fluent and flexible in computing. In addition to the algorithm instruction provided in *Everyday Mathematics*, students should learn the appropriate "traditional" algorithm. In order to facilitate a smooth articulation of the teaching of the "traditional" algorithms, Grade 2 teachers are responsible for teaching the multi-digit addition algorithm with regrouping, Grade 3 teachers are responsible for teaching the multi-digit subtraction algorithm with regrouping, Grade 4 teachers are responsible for teaching the multi-digit multiplication algorithm, and Grade 5 teachers are responsible for teaching the long division algorithm. Sometimes students bring the "traditional" algorithms from home and introduce them

into the instructional setting at various other times during the course of the school year. Teachers should allow the students to utilize the “traditional” algorithm (even if the timing is not congruent with that listed above) as long as the student demonstrates an understanding of and competency with the algorithm itself. As always, teachers should encourage the students to practice a variety of appropriate computational algorithms as the use of various algorithms will increase the students’ computational fluency. On an individual student basis, teachers can also make suggestions for use of a particular algorithm for those students who appear to lack fluency with computational algorithms. The *Framework for Computational Fluency (FCF)* provides a variety of materials to use in addition to the materials already provided in *Everyday Mathematics*. Teachers should use the *FCF* book for developing and practicing computational fluency and basic facts prior to accessing other math resources. Teachers can utilize the *FCF* book in a variety of ways. The pages in the booklet are organized by grade level, however teachers are free to use pages from other units or grade levels to differentiate instruction in order to better meet the needs of the learners. The activities in the booklet can be used in place of or along with a Math Message or the Mental Math and Reflexes. They can be used as practice or as assessment, timed or not timed. Teachers are encouraged to present *FCF* worksheets via the Smartboard with students using slates and/or notebooks to record their work. For ease of implementation some of the pages are aligned with the lessons in *Everyday Mathematics*. Each grade level within the *FCF* has a sheet that aligns the *FCF* pages with the *Everyday Mathematics* lessons.

References

- Bell, J., et al. (2007). *Everyday mathematics the University of Chicago School of Mathematics project: Teacher's lesson guide*. Chicago, IL: McGraw Hill Wright Group.
- National Council of Teachers of Mathematics (NCTM) (2006). *Curriculum focal points for prekindergarten through grade 8 mathematics*. Retrieved July 8, 2008, from <http://www.nctm.org/focalpoints.aspx?linkidentifier=id&itemid=270>
- National Council of Teachers of Mathematics (NCTM) (2000). *Principles and standards for school mathematics*. Reston, VA: The National Council of Teachers of Mathematics, Inc.
- Primary mathematics textbook 1A/B*. (2007). Singapore: Marshall Cavendish Education.
- Primary mathematics textbook 2A/B*. (2007). Singapore: Marshall Cavendish Education.
- Primary mathematics textbook 3A/B*. (2007). Singapore: Marshall Cavendish Education.
- Primary mathematics textbook 4A/B*. (2007). Singapore: Marshall Cavendish Education.
- Primary mathematics textbook 5A/B*. (2007). Singapore: Marshall Cavendish Education.

Multiplication with Regrouping (use during unit 5)

Objectives: To guide students as they develop regrouping strategies for multiplying 2- and 3-digit numbers and to encourage using estimation to check if answers are reasonable.

Key Activities

Students solve 2-digit multiplication problems, record their work with paper and pencil, and share regrouping strategies. Students use ballpark estimates to check whether their answers are reasonable. Students practice using regrouping methods to multiply 2-, 3-, and 4-digit numbers.

Materials

- Class Data Pad
- Activity sheet

Key Concepts and Skills

- Share solution strategies for finding the product of 2-digit numbers using the traditional regrouping method
- Estimate products by changing the factors to “close but easier” numbers

Key Vocabulary

regrouping

Mental Math and Reflexes

Pose pairs of problems similar to the following:

$$30 * 40 = ?$$

$$? = 60 * 30$$

$$20 * 400 = ?$$

$$? = 50 + 300$$

$$100 + 40 = ?$$

Math Message

Solve. Be prepared to tell how you found your answer.

$$\begin{array}{r} 58 \\ * 24 \\ \hline \end{array}$$

I. Teaching the Lesson

➤ Math Message Follow-Up

Have students share and explain their answers. Explain to the class that they will use a new strategy to solve double-digit multiplication problems with regrouping. To support English language learners, discuss the meaning of regrouping.

➤ Discussing the Use of the Regrouping Strategy to Solve Multi-Digit Multiplication Problems

Review with the class the place value of each digit in a double-digit number. Discuss how $30 * 40$ is the same as $3 * 4$, just with the zeros put in to show that the numbers are in the tens place.

➤ Solving Multiplication Problems; Keeping a Paper-and-Pencil Record

Rewrite the Math Message on the board and model the Paper-and-Pencil record for Regrouping with Multiplication. Highlight the importance of lining up the tens and ones columns when using this strategy. Demonstrate multiplying the ones column of the bottom factor first and “carrying” a ten over to the tens column when necessary. Show the “carrying” of the ten by writing a small 3 directly over the tens column. Remind students that the small 3 is representative of 3 tens and should be added to the tens column product when finding the answer.

Write problems like the following on the board, some in a horizontal format and some in a vertical format. Explain to students that horizontal problems should be rewritten in the vertical format.

$$29 * 7 =$$

$$76 * 4 =$$

$$53 * 28 =$$

$$163 * 58 =$$

$$26 * 85 =$$

$$219 * 352 =$$

Have students work on the problems on their slates. Remind them to check whether each answer is reasonable by making a ballpark estimate.

➤ **Finding the Product of Two Multi-Digit Numbers**

Have partners work together to solve the multiplication problems

II. Ongoing Learning and Practice

Students should continue to practice these concepts using the worksheet below and the corresponding pages in the *Framework for Computational Fluency*.

III. Differentiation Options

Readiness: For students who need more practice, pull them aside in small groups. Start with problems with a 2-digit factor multiplied by a 1-digit factor.

Enrichment: For students who grasp the concept easily, challenge them to make a crossword puzzle where the clues are the problems and the answers in the puzzle are the products.

Name: _____ Date: _____

Multiplication with Regrouping

$27 * 34 = \underline{\hspace{2cm}}$

$325 * 9 = \underline{\hspace{2cm}}$

$532 * 8 = \underline{\hspace{2cm}}$

$3204 * 43 = \underline{\hspace{2cm}}$

Mr. Jarwoomie has 9 houses. Each house has 4 rooms. Each room has 4 electrical outlets and each outlet has 2 plugs. How many plugs are in all of Mr. Jarwoomie's houses? _____ Plugs

Mrs. Coldhands has 1986 pages in her stamp collection book. On each page there are 9 stamps. How many stamps does she have? _____ Stamps

Suggested Implementation Guide for Framework for Computational Fluency
 Teachers should feel free to implement pages at their own professional discretion.

Unit 1: Naming and Constructing Geometric Figures

Lesson	Title	Supplemental Materials
1.1	Introduction to Student Reference Book	
1.2	Points, Line Segments, Lines, and Rays	
1.3	Angles, Triangles, and Quadrangles	
1.4	Parallelograms	
1.5	Polygons	
1.6	Drawing a Circle with a Compass	
1.7	Circle Constructions	
1.8	Hexagon and triangle Constructions	

Unit 2: Using Numbers and Organizing Data

Lesson	Title	Supplemental Materials
2.1	A Visit to Washington D.C.	4-1 through 4-5
2.2	Many Names for Many Numbers	
2.3	Place Value in Whole Numbers	
2.4	Place Values with a Calculator	
2.5	Organizing and Displaying Data	
2.6	The Median	
2.7	Addition of Multi-Digit Numbers	4-6 through 4-9
2.8	Displaying Data with a Bar Graph	
2.9	Subtraction of Multi-Digit Numbers	4-10 through 4-13

Unit 3: Multiplication and Division; Number Sentences and Algebra

Lesson	Fractions	Supplemental Materials
3.1	“What’s My Rule?”	4-14 through 4-15
3.2	Multiplication Facts	
3.3	Multiplication Facts Practice	
3.4	More Multiplication Facts Practice	
3.5	Multiplication and Division	
3.6	World Tour: Flying to Africa	OMIT
3.7	Finding Air Distances	OMIT
3.8	A Guide for Solving Number Stories	
3.9	True or False Number Sentences	
3.10	Parentheses in Number Sentences	
3.11	Open Sentences	

Unit 4: Decimals and Their Uses

Lesson	Title	Supplemental Materials
4.1	Decimal Place Value	4-16 through 4-18
4.2	Review of Basic Decimal Concepts	
4.3	Comparing and Ordering Decimals	4-19
4.4	Estimating with Decimals	
4.5	Decimal Addition and Subtraction	4-20 through 4-30
4.6	Decimals and Money	
4.7	Thousandths	
4.8	Metric Units of Length	
4.9	Personal References for Metric Length	OMIT
4.10	Measuring in Millimeters	

Unit 5: Big Numbers, Estimation, and Computation

Lesson	Title	Supplemental Materials
5.1	Extended Multiplication Facts	4-31
5.2	<i>Multiplication Wrestling</i>	
5.3	Estimating Sums	
5.4	Estimating Products	4-32 through 4-34, 4-39
5.5	Partial Products Multiplication (part 1)	
5.6	Partial Products Multiplication (part 2)	
5.7	Lattice Multiplication	
5.8	Big Numbers	
5.9	Powers of Ten	
5.10	Rounding and Reporting Large Numbers	4-35 through 4-38
5.11	Comparing Data	OMIT

Unit 6: Division; Map Reference Frames; Measures of Angles

Lesson	Title	Supplemental Materials
6.1	Multiplication and Division Number Stories	
6.2	Strategies for Division	
6.3	The Partial-Quotients Division Algorithm (part 1)	
6.4	Expressing and Interpreting Remainders	
6.5	Rotations and Angles	
6.6	Using a Full Circle Protractor	
6.7	The Half Circle Protractor	
6.8	Rectangular Coordinate Grids for Maps	
6.9	Global Coordinate Grid System	OMIT
6.10	The Partial-Quotients Division Algorithm (part 2)	

Unit 7: Fractions and Their Uses; Chance and Probability

Lesson	Title	Supplemental Materials
7.1	Review of Basic Fraction Concepts	
7.2	Fractions of Sets	4-40 through 4-42, 4-52
7.3	Probabilities When Outcomes are Equally Likely	
7.4	Pattern Block Fractions	
7.5	Fraction Addition and Subtraction	4-43 through 4-47
7.6	Many Names for Fractions	
7.7	Equivalent Fractions	
7.8	Fractions and Decimals	
7.9	Comparing Fractions	
7.10	The ONE for Fractions	
7.11	Probability, Fractions, and Spinners	
7.12	A Cube-Drop Experiment	OMIT

Unit 8: Perimeter and Area

Lesson	Title	Supplemental Materials
8.1	Kitchen Layouts and Perimeter	
8.2	Scale Drawings	
8.3	Area	
8.4	What is the Area of My Skin	OMIT
8.5	Formula for the Area of a Rectangle	
8.6	Formula for the Area of a Parallelogram	
8.7	Formula for the Area of a Triangle	
8.8	Geographical Area Measurements	OMIT

Unit 9: Fractions, Decimals, and Percents

Lesson	Title	Supplemental Materials
9.1	Fractions, Decimals, and Percents	
9.2	Converting “Easy” Fractions to Decimals and Percents	
9.3	Using a Calculator to Convert Fractions to Decimals	
9.4	Using a Calculator to Rename Fractions as Percents	
9.5	Conversions among Fractions, Decimals, and Percents	4-46 through 4-51
9.6	Comparing the Results of a Survey	
9.7	Comparing Population Data	OMIT
9.8	Multiplication of Decimals	4-53 through 4-56
9.9	Division of Decimals	4-57 through 4-61

Unit 10: Decimals and Place Value

Lesson	Title	Supplemental Materials
10.1	Explorations with a Transparent Mirror	OPTIONAL
10.2	Finding Lines of Reflection	
10.3	Properties of Reflections	OPTIONAL
10.4	Line Symmetry	
10.5	Frieze Patterns	
10.6	Positive and Negative Numbers	OMIT

Unit 11: 3-D Shapes, Weight, Volume, and Capacity

Lesson	Title	Supplemental Materials
11.1	Weight	
11.2	Geometric Solids	
11.3	Constructing Geometric Solids	
11.4	A Volume Exploration	
11.5	A formula for the Volume of Rectangular Prisms	
11.6	Subtraction of Positive and Negative Numbers	OMIT
11.7	Capacity and Weight	

Unit 12: Rates

Lesson	Title	Supplemental Materials
12.1	Introducing Rates	
12.2	Solving Rate Problems	
12.3	Converting Between Rates	
12.4	Comparison Shopping: Part 1	
12.5	Comparison Shopping: Part 2	
12.6	World Tour and 50-Facts Test Wrap-Ups	OMIT

Computational Fluency

Name: _____ Date: _____ Time: _____

4 – 1

1. Write the numbers in figures.

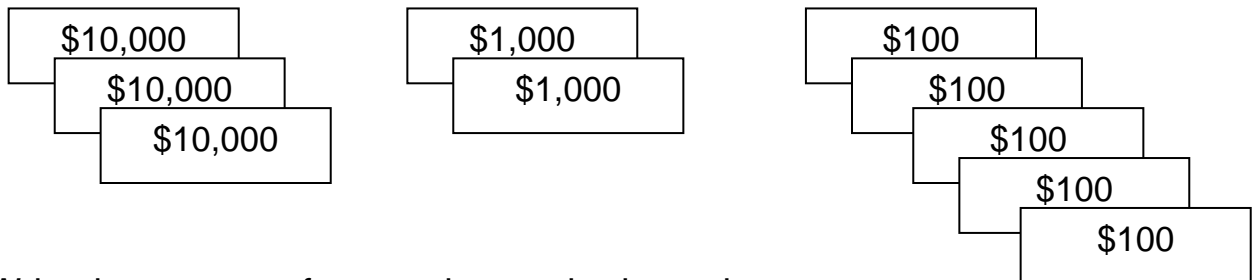
Ten thousands	Thousands	Hundreds	Tens	Ones
	<div style="display: flex; flex-wrap: wrap; justify-content: space-around;"> <div style="border: 1px solid black; border-radius: 50%; width: 30px; height: 30px; text-align: center; line-height: 30px;">1000</div> <div style="border: 1px solid black; border-radius: 50%; width: 30px; height: 30px; text-align: center; line-height: 30px;">1000</div> <div style="border: 1px solid black; border-radius: 50%; width: 30px; height: 30px; text-align: center; line-height: 30px;">1000</div> <div style="border: 1px solid black; border-radius: 50%; width: 30px; height: 30px; text-align: center; line-height: 30px;">1000</div> </div>		<div style="display: flex; flex-wrap: wrap; justify-content: space-around;"> <div style="border: 1px solid black; border-radius: 50%; width: 30px; height: 30px; text-align: center; line-height: 30px;">10</div> <div style="border: 1px solid black; border-radius: 50%; width: 30px; height: 30px; text-align: center; line-height: 30px;">10</div> <div style="border: 1px solid black; border-radius: 50%; width: 30px; height: 30px; text-align: center; line-height: 30px;">10</div> <div style="border: 1px solid black; border-radius: 50%; width: 30px; height: 30px; text-align: center; line-height: 30px;">10</div> <div style="border: 1px solid black; border-radius: 50%; width: 30px; height: 30px; text-align: center; line-height: 30px;">10</div> </div>	<div style="display: flex; flex-wrap: wrap; justify-content: space-around;"> <div style="border: 1px solid black; border-radius: 50%; width: 30px; height: 30px; text-align: center; line-height: 30px;">1</div> <div style="border: 1px solid black; border-radius: 50%; width: 30px; height: 30px; text-align: center; line-height: 30px;">1</div> <div style="border: 1px solid black; border-radius: 50%; width: 30px; height: 30px; text-align: center; line-height: 30px;">1</div> </div>

a) The number is _____.

Ten thousands	Thousands	Hundreds	Tens	Ones
<div style="display: flex; flex-wrap: wrap; justify-content: space-around;"> <div style="border: 1px solid black; border-radius: 50%; width: 30px; height: 30px; text-align: center; line-height: 30px;">10000</div> <div style="border: 1px solid black; border-radius: 50%; width: 30px; height: 30px; text-align: center; line-height: 30px;">10000</div> </div>	<div style="display: flex; flex-wrap: wrap; justify-content: space-around;"> <div style="border: 1px solid black; border-radius: 50%; width: 30px; height: 30px; text-align: center; line-height: 30px;">1000</div> <div style="border: 1px solid black; border-radius: 50%; width: 30px; height: 30px; text-align: center; line-height: 30px;">1000</div> <div style="border: 1px solid black; border-radius: 50%; width: 30px; height: 30px; text-align: center; line-height: 30px;">1000</div> </div>	<div style="display: flex; flex-wrap: wrap; justify-content: space-around;"> <div style="border: 1px solid black; border-radius: 50%; width: 30px; height: 30px; text-align: center; line-height: 30px;">100</div> <div style="border: 1px solid black; border-radius: 50%; width: 30px; height: 30px; text-align: center; line-height: 30px;">100</div> <div style="border: 1px solid black; border-radius: 50%; width: 30px; height: 30px; text-align: center; line-height: 30px;">100</div> <div style="border: 1px solid black; border-radius: 50%; width: 30px; height: 30px; text-align: center; line-height: 30px;">100</div> </div>		<div style="display: flex; flex-wrap: wrap; justify-content: space-around;"> <div style="border: 1px solid black; border-radius: 50%; width: 30px; height: 30px; text-align: center; line-height: 30px;">1</div> <div style="border: 1px solid black; border-radius: 50%; width: 30px; height: 30px; text-align: center; line-height: 30px;">1</div> <div style="border: 1px solid black; border-radius: 50%; width: 30px; height: 30px; text-align: center; line-height: 30px;">1</div> <div style="border: 1px solid black; border-radius: 50%; width: 30px; height: 30px; text-align: center; line-height: 30px;">1</div> <div style="border: 1px solid black; border-radius: 50%; width: 30px; height: 30px; text-align: center; line-height: 30px;">1</div> </div>

b) The number is _____.

2. Mr. Barn sold his car for this amount of money.



a) Write the amount of money in standard notation:

b) Write the amount of money in words:

Computational Fluency

Name: _____ Date: _____ Time: _____

4 – 1a

3. Write the following in standard notation.

- a) _____ Eight thousand, four hundred two dollars
- b) _____ Twelve thousand, seven hundred ninety-three dollars
- c) _____ Ninety thousand, five hundred eleven dollars
- d) _____ Eighty-eight thousand, eight dollars
- e) _____ Ninety-nine thousand, nine hundred ninety-nine dollars

4. Write the following in words.

a) \$2,070 _____

b) \$9,217 _____

c) \$47,030 _____

d) \$98,104 _____

e) \$40,600 _____

f) \$78,999 _____

Computational Fluency

Name: _____ Date: _____ Time: _____

4 – 2

1. Complete the number patterns.

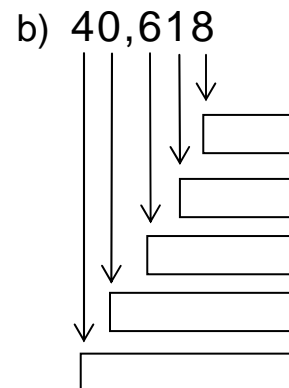
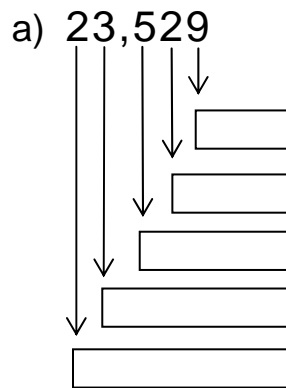
a) 6,000 ; 7,000 ; _____ ; 9,000 ; _____

b) 2,400 ; 4,400 ; _____ ; _____ ; 10,400

c) 4,065 ; 14,065 ; 24,065 ; _____ ; _____

d) 9,843 ; 9,943 ; _____ ; 10,143 ; _____

2. Write the values of the digits in each of the following numbers.



3. Fill in the blanks.

a) $5623 = 5,000 + 600 + 20 + \underline{\hspace{2cm}}$

b) $16,048 = 10,000 + \underline{\hspace{2cm}} + 40 + 8$

c) $40,180 = \underline{\hspace{2cm}} + 100 + 80$

d) $72,005 = 70,000 + \underline{\hspace{2cm}} + 5$

e) $63,100 = 63,000 + \underline{\hspace{2cm}}$

Computational Fluency

Name: _____ Date: _____ Time: _____

4 – 2a

4. Fill in the blanks.

a) $4,000 + 300 + 7 =$ _____

b) $50,000 + 6,000 + 400 =$ _____

c) $30,000 + 700 + 60 + 8 =$ _____

d) $90,000 + 90 =$ _____

5. Fill in the blanks.

a) _____ is 1000 more than 42,628.

b) 26,324 is 1000 more than _____.

c) _____ is 100 less than 90,000.

d) 86,000 is 100 less than _____.

e) 45,600 is _____ more than 45,500.

f) 38,400 is _____ less than 39,400.

g) $29,409 +$ _____ $= 30,409$

h) $24,830 -$ _____ $= 24,820$

i) 37,526 is _____ more than 37,000.

j) 37,526 is _____ more than 7,526.

Computational Fluency

Name: _____ Date: _____ Time: _____

4 – 3

Write the answers on the line.

1. Which one of the following numbers has the digit 4 in the hundreds place?

92,405 24,927 49,250 50,942 _____

2. In 25,364, the digit 5 is in the _____ place.

3. Write the next number in the following number pattern.

26,495 31,495 36,495 41,495 _____

4. Write the missing number in each of the following.

a) $56,180 = 50,000 + \underline{\hspace{2cm}} + 100 + 80$

b) $40,000 + 2,000 + 90 + 6 = \underline{\hspace{2cm}}$

c) _____ is 1000 more than 89,800.

d) _____ is 1000 less than 28,481.

5. Which one of the following is the greatest.

70,582 78,502 75,802 78,205 _____

6. Which one of the following is the smallest

3 0.3 0.03 30 _____

7. There were about 24,500 people at a football game. Which one of the following could be the actual number of people?

24,561 24,391 24,519 24,083 _____

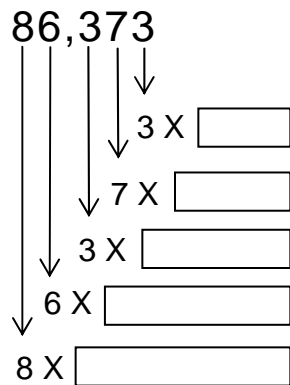
Computational Fluency

Name: _____ Date: _____ Time: _____
4 – 4

Write the answers on the line.

1. What is the greatest 5-digit number that can be formed using all of the digits 0, 2, 9, 5 and 7? _____

2. What does each of the digits in 86,373 stand for?



3. The value of the digit 6 in 68.64 is _____ .

4. In 19.49, which digit is in the hundredths place? _____

5. Write the missing number in each of the following number patterns

a) 50,230 ; _____ ; 46,230 ; 44,230

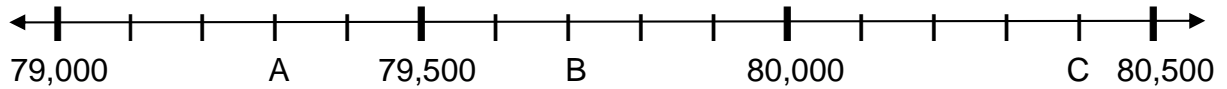
b) 53.54 ; 53.04 _____ ; 52.04

Computational Fluency

Name: _____ Date: _____ Time: _____
4 – 5

Write the answers on the line.

1. What number does each letter represent?



A : _____ B : _____ C : _____

2. Write the missing number in each of the following.

a) $36,795 = 30,000 + \underline{\hspace{2cm}} + 700 + 95$

b) $\underline{\hspace{2cm}}$ is 100 more than 29,912.

c) $\underline{\hspace{2cm}}$ is 10,000 less than 83,045.

3. When 57,329 is written 57,300, it is rounded off to the nearest

_____.

4. Round off \$15,247 to the nearest \$10. _____

5. Mrs. Cohen bought a shirt, which cost about \$33. Which one of the following could be the actual cost of the shirt?

\$33.10 \$33.95 \$33.50 \$32.40 _____

6. In 4.7**3**, the value of the digit 3 is _____.

7. In 84.92, which digit is in the **hundredths** place? _____

Computational Fluency

Name: _____ Date: _____ Time: _____

4 - 6

Add.

$$\begin{array}{r} 1. \quad 501 \\ + \quad 97 \\ \hline \end{array}$$

$$\begin{array}{r} 2. \quad 384 \\ + \quad 12 \\ \hline \end{array}$$

$$\begin{array}{r} 3. \quad 739 \\ + \quad 57 \\ \hline \end{array}$$

$$\begin{array}{r} 4. \quad 165 \\ + \quad 24 \\ \hline \end{array}$$

$$\begin{array}{r} 5. \quad 810 \\ + \quad 46 \\ \hline \end{array}$$

$$\begin{array}{r} 6. \quad 422 \\ + \quad 73 \\ \hline \end{array}$$

$$\begin{array}{r} 7. \quad 601 \\ + \quad 54 \\ \hline \end{array}$$

$$\begin{array}{r} 8. \quad 746 \\ + \quad 43 \\ \hline \end{array}$$

$$\begin{array}{r} 9. \quad 941 \\ + \quad 30 \\ \hline \end{array}$$

Computational Fluency

Name: _____ Date: _____ Time: _____

4 – 7

Add.

$$\begin{array}{r} 1. \quad 647 \\ + 201 \\ \hline \end{array}$$

$$\begin{array}{r} 2. \quad 436 \\ + 242 \\ \hline \end{array}$$

$$\begin{array}{r} 3. \quad 700 \\ + 268 \\ \hline \end{array}$$

$$\begin{array}{r} 4. \quad 540 \\ + 259 \\ \hline \end{array}$$

$$\begin{array}{r} 5. \quad 636 \\ + 142 \\ \hline \end{array}$$

$$\begin{array}{r} 6. \quad 233 \\ + 153 \\ \hline \end{array}$$

7. David has 410 blue marbles. He has 59 red marbles. How many marbles does he have altogether?
8. Lucy has 125 stickers. Her brother has 64 stickers more than her. How many stickers does her brother have?
9. After selling 242 baseball cards, Joe had 304 cards left. How many cards did he have at first?

Computational Fluency

Name: _____ Date: _____ Time: _____

4 – 8

Add.

$$\begin{array}{r} \text{A.} \quad 783 \\ + \quad 57 \\ \hline \end{array}$$

$$\begin{array}{r} \text{B.} \quad 287 \\ + \quad 39 \\ \hline \end{array}$$

$$\begin{array}{r} \text{C.} \quad 702 \\ + \quad 99 \\ \hline \end{array}$$

$$\begin{array}{r} \text{D.} \quad 476 \\ + \quad 77 \\ \hline \end{array}$$

$$\begin{array}{r} \text{E.} \quad 278 \\ + \quad 196 \\ \hline \end{array}$$

$$\begin{array}{r} \text{F.} \quad 661 \\ + \quad 279 \\ \hline \end{array}$$

$$\begin{array}{r} \text{G.} \quad 267 \\ + \quad 435 \\ \hline \end{array}$$

$$\begin{array}{r} \text{H.} \quad 595 \\ + \quad 266 \\ \hline \end{array}$$

$$\begin{array}{r} \text{I.} \quad 367 \\ + \quad 559 \\ \hline \end{array}$$

Computational Fluency

Name: _____ Date: _____ Time: _____

4 – 9

Add.

$$\begin{array}{r} 1. \quad 654 \\ + 347 \\ \hline \end{array}$$

$$\begin{array}{r} 2. \quad 586 \\ + 384 \\ \hline \end{array}$$

$$\begin{array}{r} 3. \quad 695 \\ + 169 \\ \hline \end{array}$$

$$\begin{array}{r} 4. \quad 475 \\ + 269 \\ \hline \end{array}$$

$$\begin{array}{r} 5. \quad 608 \\ + 192 \\ \hline \end{array}$$

$$\begin{array}{r} 6. \quad 637 \\ + 277 \\ \hline \end{array}$$

$$\begin{array}{r} 7. \quad 556 \\ + 284 \\ \hline \end{array}$$

$$\begin{array}{r} 8. \quad 289 \\ + 576 \\ \hline \end{array}$$

$$\begin{array}{r} 9. \quad 497 \\ + 314 \\ \hline \end{array}$$

Computational Fluency

Name: _____ Date: _____ Time: _____

4 – 10

Subtract.

A.
$$\begin{array}{r} 689 \\ - 68 \\ \hline \end{array}$$

B.
$$\begin{array}{r} 786 \\ - 85 \\ \hline \end{array}$$

C.
$$\begin{array}{r} 979 \\ - 61 \\ \hline \end{array}$$

D.
$$\begin{array}{r} 175 \\ - 35 \\ \hline \end{array}$$

E.
$$\begin{array}{r} 379 \\ - 47 \\ \hline \end{array}$$

F.
$$\begin{array}{r} 989 \\ - 50 \\ \hline \end{array}$$

G.
$$\begin{array}{r} 897 \\ - 53 \\ \hline \end{array}$$

H.
$$\begin{array}{r} 258 \\ - 14 \\ \hline \end{array}$$

I.
$$\begin{array}{r} 762 \\ - 31 \\ \hline \end{array}$$

Computational Fluency

Name: _____ Date: _____ Time: _____

4 – 11

Subtract.

$$\begin{array}{r} 1. \quad 447 \\ - 131 \\ \hline \end{array}$$

$$\begin{array}{r} 2. \quad 897 \\ - 240 \\ \hline \end{array}$$

$$\begin{array}{r} 3. \quad 763 \\ - 261 \\ \hline \end{array}$$

$$\begin{array}{r} 4. \quad 948 \\ - 226 \\ \hline \end{array}$$

$$\begin{array}{r} 5. \quad 596 \\ - 142 \\ \hline \end{array}$$

$$\begin{array}{r} 6. \quad 293 \\ - 153 \\ \hline \end{array}$$

7. A tailor bought 78 buttons. He used 43 of them. How many buttons did he have left?
8. Morgan saved \$276. She saved \$54 more than Mary. How much money did Mary save?
9. Kristin went shopping with \$245. She bought a watch and had \$102 left. How much did she pay for the watch?

Computational Fluency

Name: _____ Date: _____ Time: _____

4 – 12

Subtract.

$$\begin{array}{r} 1. \quad 52 \\ - 37 \\ \hline \end{array}$$

$$\begin{array}{r} 2. \quad 74 \\ - 36 \\ \hline \end{array}$$

$$\begin{array}{r} 3. \quad 83 \\ - 46 \\ \hline \end{array}$$

$$\begin{array}{r} 4. \quad 96 \\ - 57 \\ \hline \end{array}$$

$$\begin{array}{r} 5. \quad 62 \\ - 58 \\ \hline \end{array}$$

$$\begin{array}{r} 6. \quad 45 \\ - 39 \\ \hline \end{array}$$

$$\begin{array}{r} 7. \quad 50 \\ - 4 \\ \hline \end{array}$$

$$\begin{array}{r} 8. \quad 87 \\ - 59 \\ \hline \end{array}$$

$$\begin{array}{r} 9. \quad 90 \\ - 64 \\ \hline \end{array}$$

Computational Fluency

Name: _____ Date: _____ Time: _____

4 – 12a

Subtract.

A.
$$\begin{array}{r} 973 \\ - 238 \\ \hline \end{array}$$

B.
$$\begin{array}{r} 606 \\ - 263 \\ \hline \end{array}$$

E.
$$\begin{array}{r} 750 \\ - 724 \\ \hline \end{array}$$

L.
$$\begin{array}{r} 435 \\ - 72 \\ \hline \end{array}$$

M.
$$\begin{array}{r} 440 \\ - 107 \\ \hline \end{array}$$

N.
$$\begin{array}{r} 692 \\ - 576 \\ \hline \end{array}$$

R.
$$\begin{array}{r} 784 \\ - 39 \\ \hline \end{array}$$

U.
$$\begin{array}{r} 615 \\ - 75 \\ \hline \end{array}$$

What goes up when the rain comes down?

Write the letters in the boxes below to find out.

--	--

735 116

--	--	--	--	--	--	--	--

540 333 343 745 26 363 363 735

Computational Fluency

Name: _____ Date: _____ Time: _____

4 – 13

Subtract.

$$\begin{array}{r} 1. \quad 310 \\ - 289 \\ \hline \end{array}$$

$$\begin{array}{r} 2. \quad 525 \\ - 328 \\ \hline \end{array}$$

$$\begin{array}{r} 3. \quad 618 \\ - 459 \\ \hline \end{array}$$

$$\begin{array}{r} 4. \quad 632 \\ - 473 \\ \hline \end{array}$$

$$\begin{array}{r} 5. \quad 334 \\ - 139 \\ \hline \end{array}$$

$$\begin{array}{r} 6. \quad 453 \\ - 155 \\ \hline \end{array}$$

$$\begin{array}{r} 7. \quad 746 \\ - 669 \\ \hline \end{array}$$

$$\begin{array}{r} 8. \quad 937 \\ - 879 \\ \hline \end{array}$$

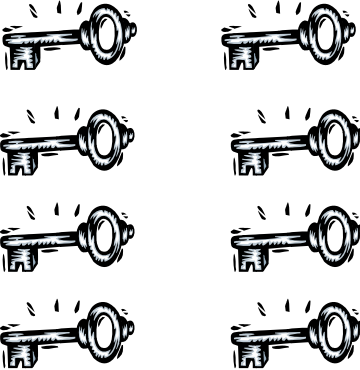
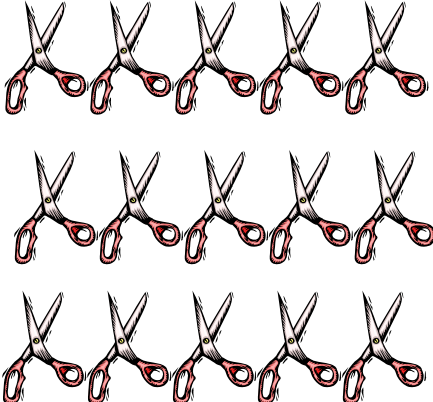
$$\begin{array}{r} 9. \quad 752 \\ - 278 \\ \hline \end{array}$$

Computational Fluency

Name: _____ Date: _____ Time: _____

4 – 14

1. Find the missing factors.

<p>a) </p> <p>4 x _____ = 8</p>	<p>b) </p> <p>_____ x 5 = 15</p>
<p>c) 7 x _____ = 56</p>	<p>d) 4 X _____ = 32</p>
<p>e) 5 x _____ = 45</p>	<p>f) 6 X _____ = 42</p>
<p>g) _____ x 6 = 54</p>	<p>h) _____ x 9 = 27</p>
<p>i) _____ x 7 = 70</p>	<p>j) _____ x 8 = 64</p>

2. Fill in the blanks.

a) $8 = 1 \times$ _____

$8 = 2 \times$ _____

The factors of 8 are _____, _____, _____, and _____.

b) $15 = 1 \times$ _____

$15 = 3 \times$ _____

The factors of 15 are _____, _____, _____, and _____.

Computational Fluency

Name: _____ Date: _____ Time: _____
4 – 15

1. Is 2 a factor of 35?

2. Is 3 a factor of 45?

3. Write yes or no.

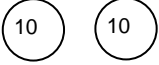
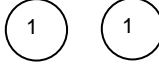
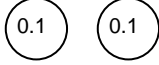

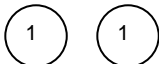
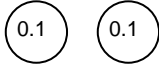

Number	Is 3 a factor of the number?	Is 4 a factor of the number?	Is 5 a factor of the number?
30			
36			
48			
60			
75			
84			

Computational Fluency

Name: _____ Date: _____ Time: _____
4 – 16

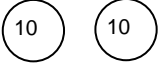
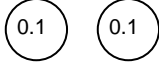
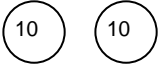


Write a decimal for each of the following.

1.

Tens	Ones	Tenths
		
		
		

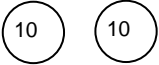
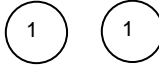
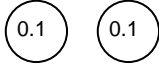

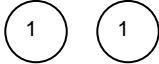
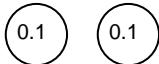
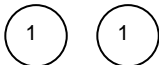

$$30 + 4 + 0.6 = \underline{\hspace{2cm}}$$

2.

Tens	Ones	Tenths
		
		
		

$$50 + 0.3 = \underline{\hspace{2cm}}$$

3.

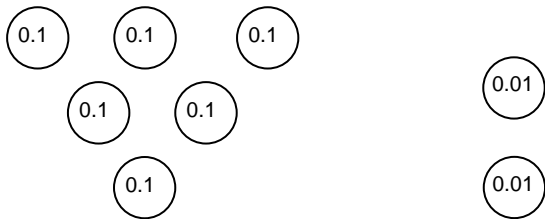
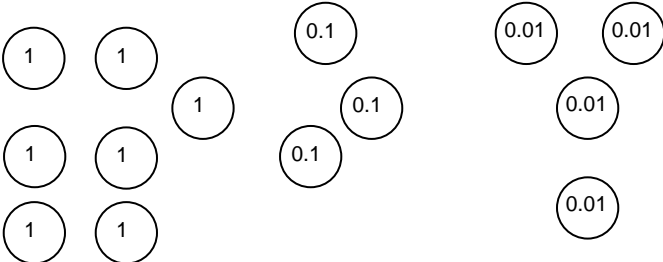

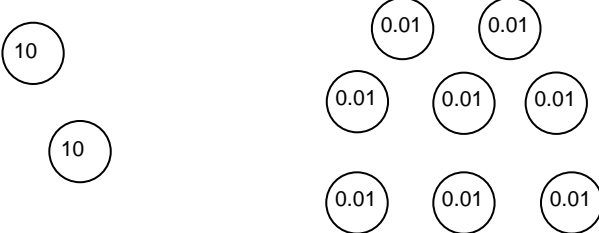
Tens	Ones	Tenths
		
		
		

$$40 + 6 + 0.5 = \underline{\hspace{2cm}}$$

Computational Fluency

Name: _____ Date: _____ Time: _____
4 – 17

Write the number represented by each of the following sets of number discs.

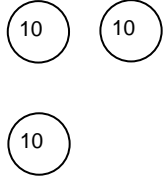
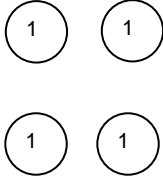
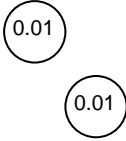
<p>a)</p>  <p>Five number discs labeled 0.1 and two number discs labeled 0.01.</p>	
<p>b)</p>  <p>Six number discs labeled 1, three number discs labeled 0.1, and three number discs labeled 0.01.</p>	
<p>c)</p>  <p>Five number discs labeled 1 and six number discs labeled 0.01.</p>	
<p>d)</p>  <p>Two number discs labeled 10 and nine number discs labeled 0.01.</p>	

Computational Fluency

Name: _____ Date: _____ Time: _____
4 – 18

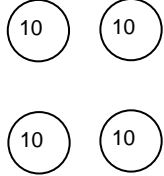
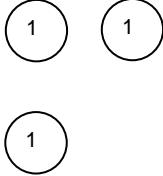

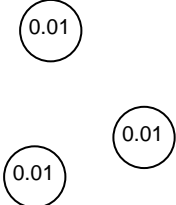
Write a decimal for each of the following.

1.

Tens	Ones	Tenths	Hundredths
			

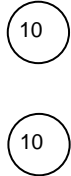
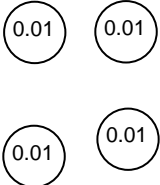
$$30 + 4 + 0.02 = \underline{\hspace{2cm}}$$

2.

Tens	Ones	Tenths	Hundredths
			

$$40 + 3 + 0.1 + 0.03 = \underline{\hspace{2cm}}$$

3.

Tens	Ones	Tenths	Hundredths
			

$$20 + 0.04 = \underline{\hspace{2cm}}$$

Computational Fluency

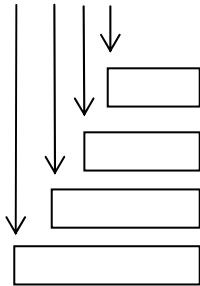
Name: _____ Date: _____ Time: _____
4-18a

4. Fill in the blanks.

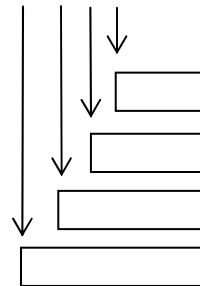
- a. In 71.06, the digit _____ is in the tenths place.
Its value is _____.
- b. In 103.4, the digit _____ is in the tens place.
Its value is _____.
- c. In 19.4, the digit 4 is in the _____ place.
Its value is _____.
- d) In 57.01, the digit 5 is in the _____ place.
Its value is _____.
- e) In 28.63, the digit 3 is in the _____ place.
Its value is _____.

5. Write the value of the digits in each of the following numbers.

a) 90.23



b) 87.41



Computational Fluency

Name: _____ Date: _____ Time: _____
4 – 19

1. Write > (is greater than), < (is less than) or = (is equal to) in each box.

a) $6.0 \square \frac{6}{10}$

b) $1 \square 0.1$

c) $2.0 \square 2$

d) $5 \square 3.8$

e) $8.26 \square 8.206$

f) $7.001 \square 7.1$

g) $9.245 \square 9.206$

h) $6.34 \square 6.304$

2. Circle the smallest number in each set.

a) 3.1, 0.1, 0.3, 1.3

b) 0.9, 1.9, 9, 9.1

c) 4.607, 4.7, 4.612

d) 9.1, 9.05, 9.5

3. Circle the greatest number in each set.

a) 4.2, 3.2, 1.2, 6.2

b) 2.1, 2.9, 2, 2.4

c) 24.68, 264.8, 64,82, 624.8

d) 0.042, 0.109, 1.1, 0.91

4. Complete the following number patterns.

a) 2.1, 2.3, 2.5, _____, _____, 3.1

b) 4.5, 5, 5.5, _____, _____, 7

c) 0.8, 0.9, _____, 1.1, _____, 1.3

d) 0.05, 0.1, 0.15, _____, 0.25, _____, 0.35

e) 0.02, 0.04, 0.06, _____, 0.1, _____, 0.14

d) 10, 9.95, 9.9, _____, 9.8, _____, 9.7

5. Arrange the number in increasing order. 40.62, 40.26, 42.06, 42.6

Computational Fluency

Name: _____ Date: _____ Time: _____

4 – 20

1. Fill in the blanks.

- a) _____ is 0.1 more than 46.05.
- b) _____ is 0.01 more than 29.2.
- c) _____ is 0.1 less than 60.08.
- d) _____ is 0.01 less than 42.5.
- e) 40 is _____ more than 39.9.
- f) 32.56 is _____ more than 32.55.
- g) 52.04 is _____ less than 52.14.
- h) 65 is _____ less than 65.01.

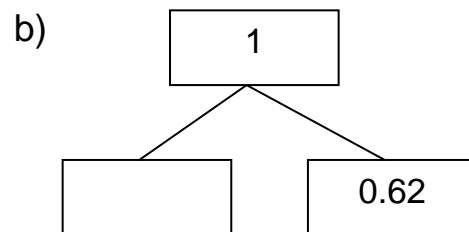
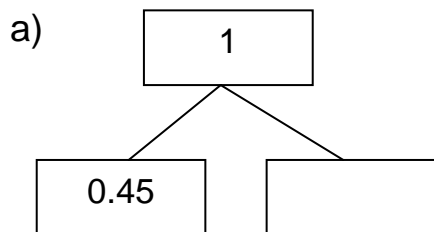
2. Add.

- a) $5.46 + 0.1 =$ _____
- b) $4.65 + 0.3 =$ _____
- c) $3.92 + 0.01 =$ _____
- d) $8.05 + 0.05 =$ _____

3. Subtract.

- a) $2.43 - 0.1 =$ _____
- b) $5.28 - 0.6 =$ _____
- c) $3.46 - 0.01 =$ _____
- d) $4.25 - 0.03 =$ _____

4. Write the missing number in each of the following.



Computational Fluency

Name: _____ Date: _____ Time: _____
4 – 21

Add.

a) $0.3 + 0.5 =$

b) $0.8 + 0.4 =$

c) $0.2 + 0.4 =$

d) $0.9 + 0.1 =$

e) $0.04 + 0.02 =$

f) $0.07 + 0.05 =$

g) $0.03 + 0.02 =$

h) $0.09 + 0.01 =$

i) $2.6 + 0.5 =$

j) $2.4 + 3 =$

k) $4.5 + 6 =$

l) $5.4 + 0.8 =$

m) $3.82 + 0.06 =$

n) $4.29 + 0.05 =$

o) $3.2 + 1.8 =$

p) $4.6 + 3.7 =$

q) $5.9 + 7.8 =$

r) $8.4 + 7.9 =$

Computational Fluency

Name: _____ Date: _____ Time: _____
4 – 22

Add.

a) $0.65 + 0.27 =$	b) $0.64 + 2.39 =$
c) $1.8 + 0.56 =$	d) $24.48 + 3.8 =$
e) $1.43 + 2.19 =$	f) $8.25 + 1.36 =$
g) $12.84 + 4.5 =$	h) $46.75 + 21.43 =$

Computational Fluency

Name: _____ Date: _____ Time: _____

4 – 23

Add.

$$\begin{array}{r} 1. \quad 14.74 \\ + 28.16 \\ \hline \end{array}$$

$$\begin{array}{r} 2. \quad 8.65 \\ + 11.86 \\ \hline \end{array}$$

$$\begin{array}{r} 3. \quad 41.8 \\ + 2.29 \\ \hline \end{array}$$

$$\begin{array}{r} 4. \quad 66.19 \\ + 23.81 \\ \hline \end{array}$$

$$\begin{array}{r} 5. \quad 5.06 \\ + 6.3 \\ \hline \end{array}$$

$$\begin{array}{r} 6. \quad 27.8 \\ + 39.1 \\ \hline \end{array}$$

$$\begin{array}{r} 7. \quad 21 \\ + 12.6 \\ \hline \end{array}$$

$$\begin{array}{r} 8. \quad 54.45 \\ + 8.55 \\ \hline \end{array}$$

$$\begin{array}{r} 9. \quad 24.81 \\ + 2.54 \\ \hline \end{array}$$

$$\begin{array}{r} 10. \quad 31.4 \\ + 57.35 \\ \hline \end{array}$$

$$\begin{array}{r} 11. \quad 60 \\ + 8.05 \\ \hline \end{array}$$

$$\begin{array}{r} 12. \quad 77.99 \\ + 4.01 \\ \hline \end{array}$$

Computational Fluency

Name: _____ Date: _____ Time: _____
4 – 24

Subtract.

a) $1 - 0.4 =$

b) $1.4 - 0.5 =$

c) $1.2 - 0.9 =$

d) $4.3 - 0.4 =$

e) $5.7 - 0.4 =$

f) $3.1 - 0.5 =$

g) $4.06 - 0.9 =$

h) $3 - 0.8 =$

i) $0.08 - 0.03 =$

j) $1 - 0.35 =$

k) $0.9 - 0.05 =$

l) $1 - 0.08 =$

m) $4.41 - 0.03 =$

n) $1.5 - 0.02 =$

Computational Fluency

Name: _____ Date: _____ Time: _____
4 – 25

Subtract.

a) $0.48 - 0.06 =$	b) $3.27 - 0.03 =$
c) $2.83 - 0.05 =$	d) $6.15 - 0.09 =$
e) $2.7 - 0.08 =$	f) $4.3 - 0.07 =$
g) $5.1 - 0.06 =$	h) $4 - 0.09 =$

Computational Fluency

Name: _____ Date: _____ Time: _____
4 - 26

Subtract.

a) $3.7 - 1.6 =$	b) $5.6 - 2.9 =$
c) $7.4 - 3.8 =$	d) $4.3 - 2.7 =$
e) $4 - 1.8 =$	f) $7 - 5.6 =$
g) $8 - 3.9 =$	h) $46 - 2.4 =$

Computational Fluency

Name: _____ Date: _____ Time: _____
4 – 27

Subtract.

a) $8.74 - 6.3 =$	b) $6.45 - 3.9 =$
c) $0.6 - 0.53 =$	d) $9.5 - 0.72 =$
e) $4.86 - 1.62 =$	f) $8.41 - 3.65 =$
g) $7 - 0.85 =$	h) $10 - 4.57 =$

Computational Fluency

Name: _____ Date: _____ Time: _____

4 – 28

Subtract.

$$\begin{array}{r} T \quad 4 . 9 1 \\ - \quad 2 . 5 6 \\ \hline \end{array}$$

$$\begin{array}{r} E \quad 8 \\ - \quad 4 . 9 2 \\ \hline \end{array}$$

$$\begin{array}{r} H \quad 0 . 9 \\ - \quad 0 . 4 7 \\ \hline \end{array}$$

$$\begin{array}{r} U \quad 1 2 . 0 5 \\ - \quad 7 . 4 \\ \hline \end{array}$$

$$\begin{array}{r} R \quad 9 . 4 \\ - \quad 4 . 7 3 \\ \hline \end{array}$$

$$\begin{array}{r} P \quad 1 . 3 8 \\ - \quad 0 . 6 \\ \hline \end{array}$$

$$\begin{array}{r} C \quad 1 6 . 4 2 \\ - \quad 9 . 1 8 \\ \hline \end{array}$$

$$\begin{array}{r} S \quad 3 \\ - \quad 1 . 6 3 \\ \hline \end{array}$$

$$\begin{array}{r} I \quad 1 1 . 7 6 \\ - \quad 4 . 3 8 \\ \hline \end{array}$$

$$\begin{array}{r} G \quad 1 0 . 0 6 \\ - \quad 5 . 9 \\ \hline \end{array}$$

$$\begin{array}{r} O \quad 1 5 \\ - \quad 6 . 0 4 \\ \hline \end{array}$$

$$\begin{array}{r} N \quad 1 0 . 6 \\ - \quad 3 . 8 2 \\ \hline \end{array}$$

What birds cannot fly? Write the letters which match the answer. You will find two of them.

0.78	3.08	6.78	4.16	4.65	7.38	6.78

8.96	1.37	2.35	4.67	7.38	7.24	0.43

Computational Fluency

Name: _____ Date: _____ Time: _____
4 – 29

Write the missing numbers.

1) $5.24 + 2 = \underline{\quad\quad}$ $- 0.01 = \underline{\quad\quad}$ $\rightarrow 5.24 + 1.99 = \underline{\quad\quad}$

2) $7.63 + 4 = \underline{\quad\quad}$ $- 0.05 = \underline{\quad\quad}$ $\rightarrow 7.63 + 3.95 = \underline{\quad\quad}$

3) $4.82 - 3 = \underline{\quad\quad}$ $+ 0.01 = \underline{\quad\quad}$ $\rightarrow 4.82 - 2.99 = \underline{\quad\quad}$

4) $6.05 - 2 = \underline{\quad\quad}$ $+ 0.02 = \underline{\quad\quad}$ $\rightarrow 6.05 - 1.98 = \underline{\quad\quad}$

Add.

5) $6.81 + 2.98 =$

6) $8.69 + 1.95 =$

Subtract.

7) $8.25 - 3.99 =$

8) $7.53 - 2.95 =$

Computational Fluency

Name: _____ Date: _____ Time: _____

4 – 30

Add or subtract.

1. Matt had a piece of string 5 yards long. After using a length of it, he had 2.35 yards of string left. How much string did he use?
2. A baby boy weighed 7.5 pounds at birth. After a month, he weighed 8 pounds. How much weight did he gain?
3. Mrs. Brown bought a shirt and a hat. The shirt cost \$38.90. The hat cost \$6.50. How much did she spend altogether?
4. Sam had \$13.50. She spent \$1.40 on bus-fare and \$2.50 on lunch. How much did she have left?

Computational Fluency

Name: _____ Date: _____ Time: _____

4 – 31

Add.

1) $7,000 + 9,000 =$

2) $23,000 + 14,000 =$

3) $18,000 + 6,000 =$

4) $46,000 + 24,000 =$

Subtract.

5) $13,000 - 4,000 =$

6) $46,000 - 12,000 =$

7) $32,000 - 8,000 =$

8) $40,000 - 16,000 =$

Multiply.

9) $3,000 \times 2 =$

10) $8,000 \times 6 =$

11) $14,000 \times 3 =$

12) $18,000 \times 5 =$

Divide.

13) $8,000 \div 4 =$

14) $72,000 \div 6 =$

15) $6,000 \div 2 =$

16) $15,000 \div 5 =$

Computational Fluency

Name: _____ Date: _____ Time: _____

4 – 32

Estimate and then multiply.

a) 1893×4



$2000 \times 4 =$

$$\begin{array}{r} 1893 \\ \times \quad 4 \\ \hline \end{array}$$

b) 4036×7



$\times 7 =$

$$\begin{array}{r} 4036 \\ \times \quad 7 \\ \hline \end{array}$$

c) 5987×8



$\times 8 =$

$$\begin{array}{r} 5987 \\ \times \quad 8 \\ \hline \end{array}$$

d) 8195×9



$\times 9 =$

$$\begin{array}{r} 8195 \\ \times \quad 9 \\ \hline \end{array}$$

Computational Fluency

Name: _____ Date: _____ Time: _____
4 – 33

Multiply and use the answers to complete the cross-number puzzle below.

ACROSS

B) $21 \times 13 =$	D) $17 \times 39 =$	F) $37 \times 24 =$	G) $82 \times 80 =$
---------------------	---------------------	---------------------	---------------------

DOWN

A) $28 \times 31 =$	B) $53 \times 45 =$	C) $59 \times 60 =$	E) $49 \times 14 =$
---------------------	---------------------	---------------------	---------------------

A		B		C
D	E			
F				
	G			

Computational Fluency

Name: _____ Date: _____ Time: _____

4 – 34

Multiply and use the answers to complete the cross-number puzzle.

ACROSS

A) $118 \times 23 =$	C) $249 \times 31 =$	D) $329 \times 18 =$
F) $167 \times 17 =$	H) $138 \times 11 =$	J) $239 \times 25 =$

DOWN

A) $895 \times 31 =$	B) $676 \times 62 =$	E) $346 \times 28 =$
F) $406 \times 53 =$	G) $119 \times 29 =$	I) $135 \times 65 =$

A			B
C			
D	E		
F		G	
H			I
J			

Computational Fluency

Name: _____ Date: _____ Time: _____

4 – 35

Round off each number to the nearest ten.

1. 47 \rightarrow _____
2. 83 \rightarrow _____
3. 164 \rightarrow _____
4. 297 \rightarrow _____
5. 1644 \rightarrow _____
6. 3447 \rightarrow _____

Round off each amount to the nearest \$10.

7. \$109 \rightarrow _____
8. \$284 \rightarrow _____
9. \$1258 \rightarrow _____
10. \$2043 \rightarrow _____

11. The table shows the number of telephones sold by an electronics company in the first six months of the year. Round off each number to the nearest ten.

Month	Number of Computers	Rounded off to the nearest ten
January	438	
February	272	
March	103	
April	598	
May	346	
June	269	

Computational Fluency

Name: _____ Date: _____ Time: _____

4 – 36

Round off each number to the nearest hundred.

1. 130 \rightarrow _____
2. 585 \rightarrow _____
3. 960 \rightarrow _____
4. 1370 \rightarrow _____
5. 1860 \rightarrow _____
6. 2885 \rightarrow _____

Round off each amount to the nearest \$100.

7. \$758 \rightarrow _____
8. \$3219 \rightarrow _____
9. \$2465 \rightarrow _____
10. \$6328 \rightarrow _____

11. The table shows the number of stamps collected by six boys. Round off each number to the nearest hundred.

Name	Number of Stamps	Rounded off to the nearest hundred
Ryan	705	
Matt	693	
Joe	1999	
Larry	5846	
Bob	1202	
Jimmy	2055	

Computational Fluency

Name: _____ Date: _____ Time: _____

4 – 37

Round off each number to the nearest hundred. Then estimate the value of each of the following.

$$\begin{array}{r} 1) \quad 319 \quad + \quad 589 \\ \quad \downarrow \quad \quad \downarrow \\ \quad 300 \quad + \quad 600 = \end{array}$$

$$\begin{array}{r} 2) \quad 782 \quad - \quad 589 \\ \quad \downarrow \quad \quad \downarrow \\ \quad \quad - \quad \quad = \end{array}$$

$$\begin{array}{r} 3) \quad 612 \quad + \quad 589 \\ \quad \downarrow \quad \quad \downarrow \\ \quad \quad + \quad \quad = \end{array}$$

$$\begin{array}{r} 4) \quad 892 \quad - \quad 328 \\ \quad \downarrow \quad \quad \downarrow \\ \quad \quad - \quad \quad = \end{array}$$

$$\begin{array}{r} 5) \quad 2304 \quad + \quad 996 \\ \quad \downarrow \quad \quad \downarrow \\ \quad \quad + \quad \quad = \end{array}$$

Computational Fluency

Name: _____ Date: _____ Time: _____

4 – 38

Round off each number to the nearest hundred. Then estimate the value of the following:

$$\begin{array}{r} 1) \quad 296 \quad + \quad 109 \quad + \quad 394 \\ \quad \downarrow \quad \quad \quad \downarrow \quad \quad \quad \downarrow \\ \quad 300 \quad + \quad 100 \quad + \quad 400 = \end{array}$$

$$\begin{array}{r} 2) \quad 704 \quad - \quad 196 \quad - \quad 312 \\ \quad \downarrow \quad \quad \quad \downarrow \quad \quad \quad \downarrow \\ \quad \quad \quad - \quad \quad \quad - \quad \quad \quad = \end{array}$$

$$\begin{array}{r} 3) \quad 499 \quad + \quad 301 \quad + \quad 294 \\ \quad \downarrow \quad \quad \quad \downarrow \quad \quad \quad \downarrow \\ \quad \quad \quad + \quad \quad \quad + \quad \quad \quad = \end{array}$$

$$\begin{array}{r} 4) \quad 1109 \quad - \quad 98 \quad - \quad 392 \\ \quad \downarrow \quad \quad \quad \downarrow \quad \quad \quad \downarrow \\ \quad \quad \quad - \quad \quad \quad - \quad \quad \quad = \end{array}$$

$$\begin{array}{r} 5) \quad 3012 \quad + \quad 996 \quad + \quad 402 \\ \quad \downarrow \quad \quad \quad \downarrow \quad \quad \quad \downarrow \\ \quad \quad \quad + \quad \quad \quad + \quad \quad \quad = \end{array}$$

Computational Fluency

Name: _____ Date: _____ Time: _____

4 – 39

1. A bottle contains red marbles and white marbles. The number of red marbles is 3 times the number of white marbles. If there are 1875 white marbles, how many red marbles are in the bottle?

2. The number of bagels a baker made is 4 times the number of rolls. If he made 4864 rolls, how many bagels did he make?

3. David bought 2 computers at \$1569 each. How much did he pay?

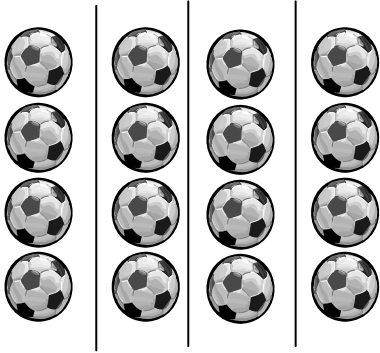
Computational Fluency

Name: _____ Date: _____ Time: _____

4 – 40

Find the value of each of the following:

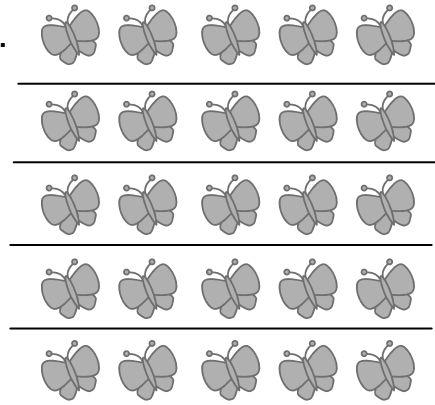
1.



$$\frac{1}{4} \text{ of } 16 =$$

$$\frac{3}{4} \text{ of } 16 =$$

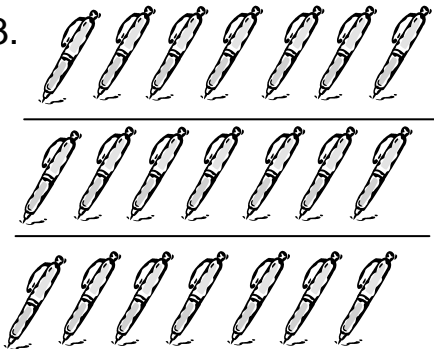
2.



$$\frac{1}{5} \text{ of } 25 =$$

$$\frac{3}{5} \text{ of } 25 =$$

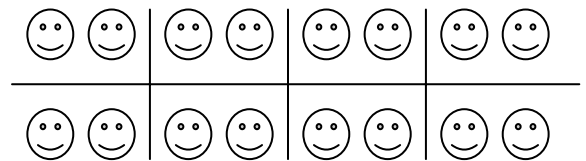
3.



$$\frac{1}{3} \text{ of } 21 =$$

$$\frac{2}{3} \text{ of } 21 =$$

4.



$$\frac{1}{8} \text{ of } 16 =$$

$$\frac{3}{8} \text{ of } 16 =$$

Computational Fluency

Name: _____ Date: _____ Time: _____

4 – 41

Find the value of each of the following.

a) $\frac{1}{2}$ of 8 =

b) $\frac{1}{3}$ of 15 =

c) $\frac{1}{4}$ of 20 =

d) $\frac{1}{6}$ of 18 =

e) $\frac{1}{5}$ of 80 =

f) $\frac{1}{6}$ of 96 =

g) $\frac{1}{8}$ of 120 =

h) $\frac{1}{10}$ of 150 =

Computational Fluency

Name: _____ Date: _____ Time: _____

4 – 42

1. There are 60 children on a bus. $\frac{2}{5}$ of them are boys. How many boys are on the bus?
2. Melony has \$25. She spent $\frac{1}{5}$ of it and saved the rest. How much did she save?
3. Michael bought 45 oranges. He used $\frac{3}{5}$ of them to make orange juice. How many oranges did he have left?
4. Julie had \$48. She spent $\frac{1}{4}$ of it on a calculator. She also bought a book for \$14. how much did she spend altogether?

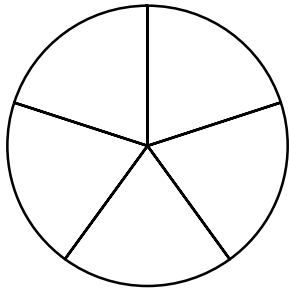
Computational Fluency

Name: _____ Date: _____ Time: _____

4 – 43

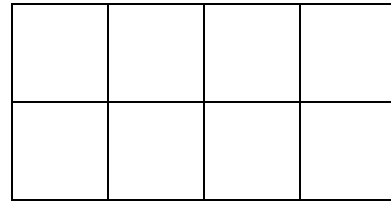
Color each figure to show the given fractions. Then add the fractions.

1. $\frac{2}{5}$ red $\frac{1}{5}$ yellow



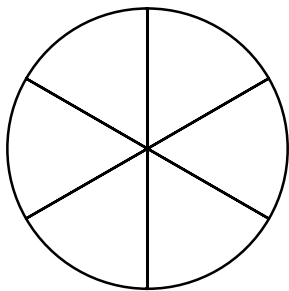
$$\frac{2}{5} + \frac{1}{5} =$$

2. $\frac{2}{8}$ blue $\frac{5}{8}$ green



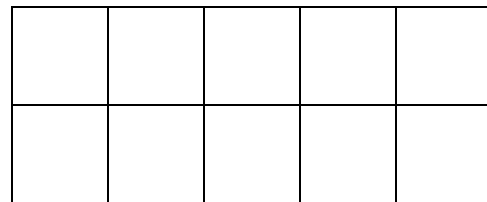
$$\frac{2}{8} + \frac{5}{8} =$$

3. $\frac{3}{6}$ red $\frac{2}{6}$ blue



$$\frac{3}{6} + \frac{2}{6} =$$

4. $\frac{4}{10}$ yellow $\frac{3}{10}$ red



$$\frac{4}{10} + \frac{3}{10} =$$

Computational Fluency

Name: _____ Date: _____ Time: _____

4 – 44

Add.

a) $\frac{1}{2} + \frac{1}{2} =$

b) $\frac{1}{4} + \frac{1}{4} =$

c) $\frac{1}{3} + \frac{1}{3} =$

d) $\frac{1}{5} + \frac{2}{5} =$

e) $\frac{3}{6} + \frac{2}{6} =$

f) $\frac{1}{7} + \frac{4}{7} =$

g) $\frac{5}{8} + \frac{1}{8} =$

h) $\frac{2}{9} + \frac{7}{9} =$

Computational Fluency

Name: _____ Date: _____ Time: _____

4 – 45

Add.

a) $\frac{1}{3} + \frac{1}{12} =$

b) $\frac{3}{8} + \frac{1}{2} =$

c) $\frac{2}{5} + \frac{1}{2} =$

d) $\frac{2}{5} + \frac{3}{10} =$

e) $\frac{1}{6} + \frac{2}{3} =$

f) $\frac{2}{9} + \frac{2}{3} =$

g) $\frac{3}{10} + \frac{1}{5} =$

h) $\frac{1}{12} + \frac{2}{3} =$

Computational Fluency

Name: _____ Date: _____ Time: _____

4 – 46

Subtract.

a) $\frac{4}{5} - \frac{1}{5} =$

b) $\frac{4}{6} - \frac{3}{6} =$

c) $\frac{5}{8} - \frac{2}{8} =$

d) $\frac{7}{10} - \frac{4}{10} =$

e) $\frac{3}{4} - \frac{2}{4} =$

f) $\frac{7}{8} - \frac{1}{8} =$

g) $\frac{11}{12} - \frac{5}{12} =$

h) $\frac{7}{12} - \frac{6}{12} =$

Computational Fluency

Name: _____ Date: _____ Time: _____

4 – 47

Subtract.

a) $\frac{3}{4} - \frac{1}{2} =$

b) $\frac{5}{6} - \frac{2}{3} =$

c) $\frac{2}{3} - \frac{1}{12} =$

d) $\frac{1}{2} - \frac{1}{6} =$

e) $\frac{3}{4} - \frac{5}{8} =$

f) $\frac{2}{3} - \frac{2}{9} =$

g) $\frac{3}{4} - \frac{1}{12} =$

h) $\frac{4}{5} - \frac{3}{10} =$

Computational Fluency

Name: _____ Date: _____ Time: _____

4 – 48

1. Complete the following table.

Decimal	0.1	0.2				0.6
Fraction			$\frac{3}{10}$	$\frac{4}{10}$	$\frac{5}{10}$	

Decimal	1.1	1.2			2.2	
Fraction			$1\frac{3}{10}$	$1\frac{4}{10}$		$3\frac{5}{10}$

2. Write each fraction as a decimal.

a) $\frac{4}{10} =$

b) $1\frac{4}{10} =$

c) $\frac{5}{10} =$

d) $3\frac{5}{10} =$

3. Write each decimal as a fraction in simplest form.

a) $0.3 =$

b) $2.3 =$

c) $0.6 =$

d) $3.6 =$

Computational Fluency

Name: _____ Date: _____ Time: _____

4 – 49

There are 12 pairs of equivalent numbers below. Circle each pair.

An example is shown.

2.1	1.2	$\frac{2}{10}$	$1\frac{5}{10}$	5
0.1	$2\frac{1}{10}$	$1\frac{2}{10}$	0.5	1.5
0.3	$\frac{9}{10}$	0.9	$\frac{5}{10}$	0.8
$1\frac{3}{10}$	4.1	$4\frac{1}{10}$	$2\frac{8}{10}$	$3\frac{7}{10}$
1.3	$\frac{4}{10}$	2.8	3.7	6
0.4	1.4	$1\frac{4}{10}$	$\frac{6}{10}$	0.6

Computational Fluency

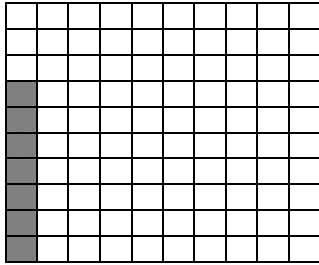
Name: _____ Date: _____ Time: _____

4 – 50

Write each fraction as a decimal.

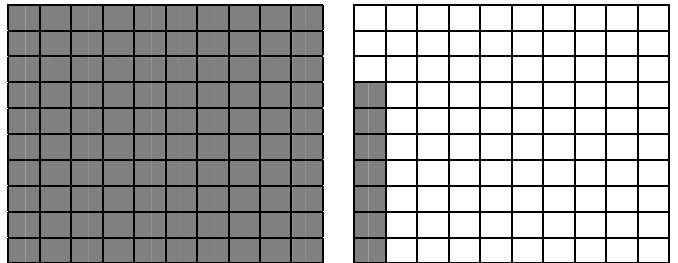
a) 7 hundredths

$$\frac{7}{100} =$$



b) 1 whole 7 hundredths

$$1\frac{7}{100} =$$



c) $\frac{58}{100} =$

d) $2\frac{58}{100} =$

e) $\frac{24}{100} =$

f) $1\frac{24}{100} =$

g) $\frac{65}{100} =$

h) $3\frac{65}{100} =$

i) $\frac{5}{100} =$

j) $1\frac{5}{100} =$

Computational Fluency

Name: _____ Date: _____ Time: _____

4 – 51

Write each decimal as a fraction in its simplest form.

1) $0.5 =$

2) $2.5 =$

3) $0.08 =$

4) $1.08 =$

5) $0.15 =$

6) $3.15 =$

7) $0.64 =$

8) $1.64 =$

Change the denominator to 10 or 100. Then write the fraction as a decimal.

9) $\frac{1}{2} = \frac{\quad}{10}$

10) $3\frac{1}{2} = 3\frac{\quad}{10}$

11) $\frac{3}{5} =$

12) $1\frac{3}{5} =$

13) $\frac{1}{4} =$

14) $21\frac{1}{4} =$

15) $\frac{4}{25} =$

16) $1\frac{4}{25} =$

Computational Fluency

Name: _____ Date: _____ Time: _____

4 – 52

Give each answer in its simplest form.

1. Express 20¢ as a fraction of \$1.
2. Express 80 cm as a fraction of 1 m.
3. Express 25 minutes as a fraction of 1 hour.
4. What fraction of one day is 8 hours?
5. What fraction of one 90-page book is 50 pages?
6. In a class of 40 children, 16 of them wear glasses. What fraction of the children wear glasses?
7. Cameron has 40 toy cars. 15 of them are battery operated. What fraction of the toy cars are battery operated?

Computational Fluency

Name: _____ Date: _____ Time: _____

4 – 53

Multiply.

1) $0.4 \times 2 =$

2) $0.6 \times 3 =$

3) $0.2 \times 7 =$

4) $0.9 \times 4 =$

5) $0.5 \times 6 =$

6) $0.7 \times 8 =$

7) $0.3 \times 9 =$

8) $0.8 \times 5 =$

9) $0.03 \times 2 =$

10) $0.07 \times 4 =$

11) $0.02 \times 9 =$

12) $0.05 \times 7 =$

13) $0.06 \times 5 =$

14) $0.09 \times 8 =$

15) $0.04 \times 3 =$

16) $0.08 \times 6 =$

Computational Fluency

Name: _____ Date: _____ Time: _____

4 – 54

Multiply.

1) $4.3 \times 2 =$

2) $6.4 \times 3 =$

3) $2.8 \times 6 =$

4) $4.7 \times 9 =$

5) $6.9 \times 4 =$

6) $7 \times 5.5 =$

7) $26.5 \times 5 =$

8) $8 \times 30.6 =$

Computational Fluency

Name: _____ Date: _____ Time: _____

4 – 55

Multiply.

1) $0.83 \times 2 =$

2) $0.12 \times 6 =$

3) $5.26 \times 3 =$

4) $6.75 \times 4 =$

5) $7.03 \times 6 =$

6) $7 \times 5.64 =$

7) $82.78 \times 7 =$

8) $9 \times 64.72 =$

Computational Fluency

Name: _____ Date: _____ Time: _____

4 – 56

Multiply.

L) $0.48 \times 2 =$	H) $20.3 \times 4 =$	E) $0.03 \times 7 =$	Y) $4.91 \times 3 =$
T) $6.45 \times 5 =$	E) $93.5 \times 6 =$	P) $80.7 \times 9 =$	E) $7.16 \times 9 =$
N) $12.15 \times 3 =$	D) $408.2 \times 8 =$	H) $14.47 \times 2 =$	E) $13.08 \times 6 =$

Write the letters which match the answers and you will find a message.

81.2	561	0.96	726.3

32.25	28.94	0.21

36.45	64.44	78.48	3265.6	14.73

Computational Fluency

Name: _____ Date: _____ Time: _____

4 – 57

Divide.

1) $0.8 \div 2 =$

2) $1.2 \div 4 =$

3) $0.9 \div 3 =$

4) $2.4 \div 6 =$

5) $2.8 \div 7 =$

6) $2.8 \div 7 =$

7) $3 \div 5 =$

8) $6.3 \div 9 =$

9) $0.12 \div 3 =$

10) $0.15 \div 3 =$

11) $0.08 \div 2 =$

12) $0.24 \div 4 =$

13) $0.3 \div 5 =$

14) $0.42 \div 7 =$

15) $0.54 \div 6 =$

16) $0.4 \div 8 =$

Computational Fluency

Name: _____ Date: _____ Time: _____

4 – 58

Divide.

1) $0.48 \div 2 =$

2) $0.63 \div 3 =$

3) $0.65 \div 5 =$

4) $0.95 \div 5 =$

5) $0.84 \div 3 =$

6) $0.68 \div 4 =$

7) $0.78 \div 6 =$

8) $0.96 \div 8 =$

Computational Fluency

Name: _____ Date: _____ Time: _____

4 – 59

Divide.

1) $8.26 \div 2 =$

2) $9.66 \div 3 =$

3) $7.35 \div 5 =$

4) $5.36 \div 2 =$

5) $68.25 \div 3 =$

6) $42.16 \div 8 =$

7) $80.56 \div 4 =$

8) $32.25 \div 5 =$

Computational Fluency

Name: _____ Date: _____ Time: _____

4 – 60

Divide.

1. $4 \overline{)4.20}$

2. $8 \overline{)9.20}$

3. $5 \overline{)7.75}$

4. $7 \overline{)9.45}$

5. $6 \overline{)6.90}$

6. $5 \overline{)5.45}$

7. $3 \overline{)7.65}$

8. $9 \overline{)15.75}$

Computational Fluency

Name: _____ Date: _____ Time: _____

4 – 61

Divide.

1. $7 \overline{)32.2}$

2. $3 \overline{)61}$

3. $3 \overline{)22.74}$

4. $5 \overline{)30.2}$

5. $6 \overline{)32.94}$

6. $9 \overline{)28.8}$

7. $4 \overline{)37}$

8. $8 \overline{)17.28}$

**Computational Fluency Answer Key
Grade 4**

<p><u>4-1</u> 1a. 4,053 1b. 23,405 2a. \$32,500.00 2b. Thirty-two thousand, five hundred dollars</p>	<p><u>4-1a</u> 3a. \$ 8,402.00 3b. \$12,793.00 3c. \$90,511.00 3d. \$88,008.00 3e. \$99,999.00 4a. Two thousand, seventy dollars 4b. Nine thousand, two hundred seventeen dollars 4c. Forty-seven thousand, thirty dollars 4d. Ninety-eight thousand, one hundred four dollars 4e. Forty thousand, six hundred dollars 4f. Seventy-eight thousand, nine hundred ninety-nine dollars.</p>	<p><u>4-2</u> 1a. 8,000; 10,000 b. 6,400; 8,400 c. 34,065; 44,065 d. 10,043; 10,243 2a. 9; 20; 500; 3,000; 20,000 2b. 8; 10; 600; 0; 40,000 3a. 3 b. 6,000 c. 40,000 d. 2,000 e. 100</p>
<p><u>4-2a</u> 4a. 4,307 b. 56,400 c. 30,768 d. 90,090 5a. 43,628 b. 25,324 c. 89,900 d. 86,100 e. 100 f. 1,000 g. 1,000 h. 10 i. 526 j. 30,000</p>	<p><u>4-3</u> 1. 92,405 2. thousands 3. 46,495 4a. 6,000 b. 42,096 c. 90,800 d. 27,481 5. 78,502 6. 0.03 7. 24,519</p>	<p><u>4-4</u> 1. 97,520 2. 1; 10; 100; 1,000; 10,000 3. six tenths 4. 9 5a. 48,230 b. 52.54</p>

Computational Fluency Answer Key
Grade 4

<p><u>4-5</u> 1a. 79,300 b. 79,700 c. 80,400 2a. 6,000 b. 30,012 c. 73,045 3. hundred 4. \$15,250.00 5. \$ 33.10 6. three hundredths 7. 2</p>	<p><u>4-6</u> 1. 598 2. 396 3. 796 4. 189 5. 856 6. 495 7. 655 8. 789 9. 971</p>	<p><u>4-7</u> 1. 848 2. 678 3. 968 4. 799 5. 778 6. 386 7. 469 marbles 8. 189 stickers 9. 546 cards</p>
<p><u>4-8</u> a. 840 b. 326 c. 801 d. 553 e. 474 f. 940 g. 702 h. 861 i. 926</p>	<p><u>4-9</u> 1. 1,001 2. 970 3. 864 4. 744 5. 800 6. 914 7. 840 8. 865 9. 811</p>	<p><u>4-10</u> a. 621 b. 701 c. 918 d. 140 e. 332 f. 939 g. 844 h. 244 i. 732</p>
<p><u>4-11</u> 1. 316 2. 657 3. 502 4. 722 5. 454 6. 140 7. 35 buttons 8. \$222.00 9. \$143.00</p>	<p><u>4-12</u> 1. 15 2. 38 3. 37 4. 39 5. 4 6. 6 7. 46 8. 28 9. 26</p>	<p><u>4-12a</u> a. 735 b. 343 c. 26 d. 363 e. 333 f. 116 g. 745 h. 540 AN UMBRELLA</p>

Computational Fluency Answer Key
Grade 4

<u>4-13</u> 1. 21 2. 197 3. 159 4. 159 5. 195 6. 298 7. 77 8. 58 9. 474	<u>4-14</u> a. 2 b. 3 c. 8 d. 8 e. 9 f. 7 g. 9 h. 3 i. 10 j. 8 2a. 8; 16; 1, 2, 8, 16 b. 15; 5; 1, 3, 5, 15	<u>4-15</u> 1. No 2. Yes 3. yes, no, yes yes, yes, no yes, yes, no yes, yes, yes yes, no, yes yes, yes, no
<u>4-16</u> 1. 34.6 2. 50.3 3. 46.5	<u>4-17</u> a. 0.62 b. 7.34 c. 5.06 d. 20.08	<u>4-18</u> 1. 34.02 2. 43.13 3. 20.04

Computational Fluency Answer Key
Grade 4

<u>4-18a</u> 4a. 0; 0 b. 0; 0 c. tenths; 4/10 d. tens; 50 e. hundredths; 3/100 5a. 3/100; 2/10; 0; 90 b. 1/100; 4/10; 7; 80	<u>4-19</u> 1a. > b. > c. = d. > e. > f. < g. > h. > 2a. 0.1 b. 0.9 c. 4.607 d. 9.05 3a. 6.2 b. 2.9 c. 624.8 d. 1.1 4a. 2.7; 29 b. 6.0; 6.5 c. 1.0; 1.2 d. 0.2; 0.3 e. 0.08; 0.12 f. 9.85; 9.75 5. 40.26, 40.62, 42.06, 42.6	<u>4-20</u> 1a. 46.15 b. 29.21 c. 59.98 d. 42.49 e. 0.1 f. 0.01 g. 0.1 h. 0.01 2a. 5.56 b. 4.95 c. 3.93 d. 8.1 3a. 2.33 b. 4.68 c. 3.45 d. 4.22 4a. 0.55 b. 0.38
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Computational Fluency Answer Key
Grade 4

<p><u>4-21</u></p> <ul style="list-style-type: none">a. 0.8b. 1.2c. 0.6d. 1.0e. 0.06f. 0.12g. 0.05h. 0.10i. 3.1j. 5.4k. 10.5l. 6.2m. 3.88n. 4.34o. 5.0p. 8.3q. 13.7r. 16.3	<p><u>4-22</u></p> <ul style="list-style-type: none">a. 0.92b. 3.03c. 2.36d. 28.28e. 3.62f. 9.61g. 17.34h. 68.18	<p><u>4-23</u></p> <ul style="list-style-type: none">1. 42.92. 20.513. 44.094. 905. 11.366. 66.97. 33.68. 639. 27.3510. 88.7511. 68.0512. 82
<p><u>4-24</u></p> <ul style="list-style-type: none">a. 0.6b. 0.9c. 0.3d. 3.9e. 5.3f. 2.6g. 3.16h. 2.2i. 0.05j. 0.65k. 0.85l. 0.92m. 4.38n. 1.48	<p><u>4-25</u></p> <ul style="list-style-type: none">a. 0.42b. 3.24c. 2.78d. 6.06e. 2.62f. 4.23g. 5.04h. 3.91	<p><u>4-26</u></p> <ul style="list-style-type: none">a. 2.1b. 2.7c. 3.6d. 1.6e. 2.2f. 1.4g. 4.1h. 43.6

Computational Fluency Answer Key
Grade 4

<u>4-27</u> a. 2.44 b. 2.55 c. 0.07 d. 8.78 e. 3.24 f. 4.76 g. 6.15 h. 5.43	<u>4-28</u> T. 2.35 E. 3.08 H. 0.43 U. 4.65 R. 4.67 P. 0.78 C. 7.24 S. 1.37 I. 7.38 G. 4.16 O. 8.96 N. 6.78 PENGUIN OSTRICH	<u>4-29</u> 1. 7.24; 7.23; 7.23 2. 11.63; 11.58; 11.58 3. 1.82; 1.83; 1.83 4. 4.05; 4.07; 4.07 5. 9.79 6. 10.64 7. 4.26 8. 4.58
<u>4-30</u> 1. 2.65 yds. 2. 0.5 lbs. 3. \$45.40 4. \$9.60	<u>4-31</u> 1. 16,000 2. 37,000 3. 24,000 4. 70,000 5. 9,000 6. 34,000 7. 24,000 8. 24,000 9. 6,000 10. 48,000 11. 42,000 12. 90,000 13. 2,000 14. 12,000 15. 3,000 16. 3,000	<u>4-32</u> a. 8,000; 7,572 b. 4,000; 28,000; 28,253 c. 6,000; 48,000; 47,896 d. 8,000; 72,000; 73,755

**Computational Fluency Answer Key
Grade 4**

<p><u>4-33</u> ACROSS: B. 273 D. 663 F. 888 G. 6560 DOWN: A. 868 B. 2385 C. 3540 E. 686</p>	<p><u>4-34</u> ACROSS: A. 2714 C. 7719 D. 5922 F. 2839 H. 1518 J. 5975 DOWN: A. 27745 B. 41912 E. 9688 F. 21518 G. 3451 I. 8775</p>	<p><u>4-35</u> 1. 50 2. 80 3. 160 4. 300 5. 1,640 6. 3,450 7. \$110 8. \$280 9. \$1,260 10. \$2,040 11. 440 270 100 600 350 270</p>
<p><u>4-36</u> 1. 100 2. 600 3. 1,000 4. 1,400 5. 1,900 6. 2,900 7. \$800 8. \$3,200 9. \$2,500 10. \$6,300 11. 700 700 2,000 5,800 1,200 2,100</p>	<p><u>4-37</u> 1. 900 2. $800 - 600 = 200$ 3. $600 + 600 = 1,200$ 4. $900 - 300 = 600$ 5. $2,300 + 1,000 = 3,300$</p>	<p><u>4-38</u> 1. 800 2. $700 - 200 - 300 = 200$ 3. $500 + 300 + 300 = 1,100$ 4. $1,100 - 100 - 400 = 600$ 5. $3,000 + 1,000 + 400 = 4,400$</p>
<p><u>4-39</u> 1. 5,625 red marbles 2. 19,456 bagels 3. \$3,138</p>	<p><u>4-40</u> 1. 4; 12 2. 5; 15 3. 7; 14 4. 2; 6</p>	<p><u>4-41</u> a. 4 b. 5 c. 5 d. 3 e. 16 f. 16 g. 15 h. 15</p>

**Computational Fluency Answer Key
Grade 4**

<p><u>4-42</u></p> <ol style="list-style-type: none"> 1. 24 boys 2. \$20.00 3. 27 oranges 4. \$26.00 	<p><u>4-43</u></p> <ol style="list-style-type: none"> 1. $\frac{3}{5}$ 2. $\frac{7}{8}$ 3. $\frac{5}{6}$ 4. $\frac{7}{10}$ 	<p><u>4-44</u></p> <ol style="list-style-type: none"> a. 1 or $\frac{2}{2}$ b. $\frac{2}{4}$ or $\frac{1}{2}$ c. $\frac{2}{3}$ d. $\frac{3}{5}$ e. $\frac{5}{6}$ f. $\frac{5}{7}$ g. $\frac{6}{8}$ or $\frac{3}{4}$ h. 1 or $\frac{9}{9}$
<p><u>4-45</u></p> <ol style="list-style-type: none"> a. $\frac{5}{12}$ b. $\frac{7}{8}$ c. $\frac{9}{10}$ d. $\frac{7}{10}$ e. $\frac{5}{6}$ f. $\frac{8}{9}$ g. $\frac{5}{10}$ or $\frac{1}{2}$ h. $\frac{9}{12}$ or $\frac{3}{4}$ 	<p><u>4-46</u></p> <ol style="list-style-type: none"> a. $\frac{3}{5}$ b. $\frac{1}{6}$ c. $\frac{3}{8}$ d. $\frac{3}{10}$ e. $\frac{1}{4}$ f. $\frac{6}{8}$ or $\frac{3}{4}$ g. $\frac{6}{12}$ or $\frac{1}{2}$ h. $\frac{1}{12}$ 	<p><u>4-47</u></p> <ol style="list-style-type: none"> a. $\frac{1}{4}$ b. $\frac{1}{6}$ c. $\frac{7}{12}$ d. $\frac{2}{6}$ or $\frac{1}{3}$ e. $\frac{1}{8}$ f. $\frac{4}{9}$ g. $\frac{8}{12}$ or $\frac{2}{3}$ h. $\frac{5}{10}$ or $\frac{1}{2}$
<p><u>4-48</u></p> <ol style="list-style-type: none"> 1. 0.3; 0.4; 0.5 $\frac{1}{10}$; $\frac{2}{10}$; $\frac{6}{10}$ 1.3; 1.4; 3.5 1 $\frac{1}{0}$; 1 $\frac{2}{10}$; 2 $\frac{2}{10}$ 2a. 0.4 b. 1.4 c. 0.5 d. 3.5 3a. $\frac{3}{10}$ b. 2 $\frac{3}{10}$ c. $\frac{6}{10}$ or $\frac{3}{5}$ d. 3 $\frac{3}{5}$ 	<p><u>4-49</u></p> <ol style="list-style-type: none"> 1. 2.1 and 2 $\frac{1}{10}$ 2. 1.2 and 1 $\frac{2}{10}$ 3. 1 $\frac{5}{10}$ and 1.5 4. $\frac{9}{10}$ and 0.9 5. 0.5 and $\frac{5}{10}$ 6. 1 $\frac{3}{10}$ and 1.3 7. 4.1 and 4 $\frac{1}{10}$ 8. 2 $\frac{8}{10}$ and 2.8 9. 3 $\frac{7}{10}$ and 3.7 10. $\frac{4}{10}$ and 0.4 11. 1.4 and 1 $\frac{4}{10}$ 12. $\frac{6}{10}$ and 0.6 	<p><u>4-50</u></p> <ol style="list-style-type: none"> a. 0.07 b. 1.07 c. 0.58 d. 2.58 e. 0.24 f. 1.24 g. 0.65 h. 3.65 i. 0.05 j. 1.05

**Computational Fluency Answer Key
Grade 4**

<u>4-51</u> 1. $\frac{1}{2}$ 2. $2\frac{1}{2}$ 3. $\frac{2}{25}$ 4. $1\frac{2}{25}$ 5. $\frac{3}{20}$ 6. $3\frac{3}{20}$ 7. $\frac{16}{25}$ 8. $1\frac{16}{25}$ 9. $\frac{5}{10}$ 10. $3\frac{5}{10}$ 11. $\frac{6}{10}$ 12. $1\frac{6}{10}$ 13. $\frac{25}{100}$ 14. $21\frac{25}{100}$ 15. $\frac{8}{100}$ 16. $1\frac{8}{100}$	<u>4-52</u> 1. $\frac{1}{5}$ 2. $\frac{4}{5}$ 3. $\frac{5}{12}$ 4. $\frac{1}{3}$ 5. $\frac{5}{9}$ 6. $\frac{1}{5}$ 7. $\frac{3}{8}$	<u>4-53</u> 1. 0.8 2. 1.8 3. 1.4 4. 3.6 5. 3.0 6. 5.6 7. 2.7 8. 4.0 9. 0.06 10. 0.28 11. 0.18 12. 0.35 13. 0.30 14. 0.72 15. 0.12 16. 0.48
<u>4-54</u> 1. 8.6 2. 19.2 3. 16.8 4. 42.3 5. 27.6 6. 38.5 7. 132.5 8. 244.8	<u>4-55</u> 1. 1.66 2. 0.72 3. 15.78 4. 27 5. 42.18 6. 39.48 7. 579.46 8. 582.48	<u>4-56</u> L. 0.96 H. 81.2 E. 0.21 Y. 14.73 T. 32.25 E. 561 P. 726.3 E. 64.44 N. 36.45 D. 3,265.6 H. 28.94 E. 78.48 HELP THE NEEDY

Computational Fluency Answer Key
Grade 4

<u>4-57</u> 1. 0.4 2. 0.3 3. 0.3 4. 0.4 5. 0.4 6. 0.4 7. 0.6 8. 0.7 9. 0.04 10. 0.05 11. 0.04 12. 0.06 13. 0.06 14. 0.06 15. 0.09 16. 0.05	<u>4-58</u> 1. 0.24 2. 0.21 3. 0.13 4. 0.19 5. 0.28 6. 0.17 7. 0.13 8. 0.12	<u>4-59</u> 1. 4.13 2. 3.22 3. 1.47 4. 2.68 5. 22.75 6. 5.27 7. 20.14 8. 6.45
<u>4-60</u> 1. 1.05 2. 1.15 3. 1.55 4. 1.35 5. 1.15 6. 1.09 7. 2.55 8. 1.75	<u>4-61</u> 1. 4.6 2. 15 3. 7.58 4. 6.04 5. 5.49 6. 3.2 7. 9.25 8. 2.16	

Computational Fluency

Name: _____ Date: _____ Time: _____

Mental Math

1. $1 \times 2 = \underline{\quad}$

2. $7 \times 2 = \underline{\quad}$

3. $2 \times 8 = \underline{\quad}$

4. $1 \times 3 = \underline{\quad}$

5. $8 \times 1 = \underline{\quad}$

6. $3 \times 2 = \underline{\quad}$

7. $9 \times 2 = \underline{\quad}$

8. $5 \times 2 = \underline{\quad}$

9. $2 \times 6 = \underline{\quad}$

10. $10 \times 2 = \underline{\quad}$

11. $1 \times 7 = \underline{\quad}$

12. $2 \times 9 = \underline{\quad}$

13. $4 \times 1 = \underline{\quad}$

14. $20 \times 2 = \underline{\quad}$

15. $8 \times 2 = \underline{\quad}$

16. $2 \times 7 = \underline{\quad}$

17. $2 \times 4 = \underline{\quad}$

18. $5 \times 1 = \underline{\quad}$

19. $6 \times 2 = \underline{\quad}$

20. $10 \times 1 = \underline{\quad}$

Computational Fluency

Name: _____ Date: _____ Time: _____

Mental Math

1. $3 \times 4 =$ _____

2. $2 \times 6 =$ _____

3. $5 \times 3 =$ _____

4. $3 \times 8 =$ _____

5. $2 \times 8 =$ _____

6. $6 \times 2 =$ _____

7. $2 \times 3 =$ _____

8. $6 \times 3 =$ _____

9. $4 \times 2 =$ _____

10. $7 \times 3 =$ _____

11. $3 \times 10 =$ _____

12. $2 \times 2 =$ _____

13. $5 \times 2 =$ _____

14. $3 \times 3 =$ _____

15. $7 \times 2 =$ _____

16. $2 \times 9 =$ _____

17. $2 \times 10 =$ _____

18. $9 \times 3 =$ _____

19. $20 \times 2 =$ _____

20. $3 \times 30 =$ _____

Computational Fluency

Name: _____ Date: _____ Time: _____

Mental Math

1. $20 \div 1 = \underline{\quad}$

2. $4 \div 2 = \underline{\quad}$

3. $20 \div 2 = \underline{\quad}$

4. $18 \div 2 = \underline{\quad}$

5. $6 \div 2 = \underline{\quad}$

6. $14 \div 1 = \underline{\quad}$

7. $10 \div 2 = \underline{\quad}$

8. $6 \div 2 = \underline{\quad}$

9. $14 \div 2 = \underline{\quad}$

10. $8 \div 1 = \underline{\quad}$

11. $8 \div 2 = \underline{\quad}$

12. $2 \div 2 = \underline{\quad}$

13. $16 \div 2 = \underline{\quad}$

14. $12 \div 2 = \underline{\quad}$

15. $9 \div 1 = \underline{\quad}$

16. $14 \div 2 = \underline{\quad}$

17. $18 \div 2 = \underline{\quad}$

18. $20 \div 2 = \underline{\quad}$

19. $11 \div 1 = \underline{\quad}$

20. $341 \div 1 = \underline{\quad}$

Computational Fluency

Name: _____ Date: _____ Time: _____

Mental Math

1. $9 \div 3 =$ _____

2. $6 \div 2 =$ _____

3. $30 \div 3 =$ _____

4. $3 \div 3 =$ _____

5. $24 \div 3 =$ _____

6. $4 \div 2 =$ _____

7. $14 \div 2 =$ _____

8. $27 \div 3 =$ _____

9. $9 \div 3 =$ _____

10. $15 \div 3 =$ _____

11. $16 \div 2 =$ _____

12. $10 \div 2 =$ _____

13. $30 \div 3 =$ _____

14. $21 \div 3 =$ _____

15. $18 \div 3 =$ _____

16. $18 \div 2 =$ _____

17. $8 \div 2 =$ _____

18. $15 \div 3 =$ _____

19. $6 \div 3 =$ _____

20. $20 \div 2 =$ _____

Computational Fluency

Name: _____ Date: _____ Time: _____

Mental Math

1. $6 \div 1 = \underline{\quad}$

2. $6 \times 2 = \underline{\quad}$

3. $27 \div 3 = \underline{\quad}$

4. $8 \times 2 = \underline{\quad}$

5. $3 \times 2 = \underline{\quad}$

6. $10 \times 3 = \underline{\quad}$

7. $18 \div 3 = \underline{\quad}$

8. $12 \div 3 = \underline{\quad}$

9. $5 \times 3 = \underline{\quad}$

10. $7 \times 3 = \underline{\quad}$

11. $12 \div 2 = \underline{\quad}$

12. $30 \div 3 = \underline{\quad}$

13. $6 \div 2 = \underline{\quad}$

14. $9 \times 2 = \underline{\quad}$

15. $3 \times 4 = \underline{\quad}$

16. $7 \times 2 = \underline{\quad}$

17. $15 \div 3 = \underline{\quad}$

18. $8 \div 2 = \underline{\quad}$

19. $5 \times 1 = \underline{\quad}$

20. $20 \div 2 = \underline{\quad}$

Computational Fluency

Name: _____ Date: _____ Time: _____

Mental Math

1. $7 \times 2 =$ _____

2. $12 \div 3 =$ _____

3. $16 \div 2 =$ _____

4. $15 \div 3 =$ _____

5. $7 \times 3 =$ _____

6. $24 \div 3 =$ _____

7. $10 \times 2 =$ _____

8. $4 \div 2 =$ _____

9. $9 \times 3 =$ _____

10. $18 \div 2 =$ _____

11. $3 \times 3 =$ _____

12. $21 \div 3 =$ _____

13. $2 \times 6 =$ _____

14. $18 \div 3 =$ _____

15. $4 \div 1 =$ _____

16. $4 \times 3 =$ _____

17. $2 \div 2 =$ _____

18. $30 \div 3 =$ _____

19. $3 \times 6 =$ _____

20. $8 \times 3 =$ _____

Computational Fluency

Name: _____ Date: _____ Time: _____

Mental Math

1. $\$8.30 - \$4 = \underline{\hspace{2cm}}$

2. $\$4.15 - \$2 = \underline{\hspace{2cm}}$

3. $\$9.66 - \$5 = \underline{\hspace{2cm}}$

4. $\$1 - 0.75 = \underline{\hspace{2cm}}$

5. $\$6 - 0.45 = \underline{\hspace{2cm}}$

6. $\$8 - 0.23 = \underline{\hspace{2cm}}$

7. $\$10 - 0.65 = \underline{\hspace{2cm}}$

8. $\$10 - \$3.10 = \underline{\hspace{2cm}}$

9. $\$4.70 - \$1.15 = \underline{\hspace{2cm}}$

10. $\$8.80 - \$4.25 = \underline{\hspace{2cm}}$

11. $\$8.88 - \$4.26 = \underline{\hspace{2cm}}$

12. $\$5.70 - \$2.25 = \underline{\hspace{2cm}}$

13. $\$5.90 - \$0.99 = \underline{\hspace{2cm}}$

14. $\$4.55 - \$0.95 = \underline{\hspace{2cm}}$

15. $\$3.21 - \$0.97 = \underline{\hspace{2cm}}$

16. $\$6.35 - \$4.96 = \underline{\hspace{2cm}}$

17. $\$7.05 - \$1.97 = \underline{\hspace{2cm}}$

18. $\$4.95 - \$2.96 = \underline{\hspace{2cm}}$

19. $\$5.98 - \$1.25 = \underline{\hspace{2cm}}$

20. $\$10 - \$4.15 = \underline{\hspace{2cm}}$

Computational Fluency

Name: _____ Date: _____ Time: _____

Mental Math

1. $\$0.65 + \underline{\hspace{2cm}} = \1

2. $\$0.75 + \underline{\hspace{2cm}} = \1

3. $\$3.75 + \underline{\hspace{2cm}} = \10

4. $\$8.15 + \underline{\hspace{2cm}} = \10

5. $\$0.41 + \underline{\hspace{2cm}} = \1

6. $\$5.08 + \underline{\hspace{2cm}} = \10

7. $\$5.30 + \$2 = \underline{\hspace{2cm}}$

8. $\$2.65 + \$6 = \underline{\hspace{2cm}}$

9. $\$6.35 + \$0.40 = \underline{\hspace{2cm}}$

10. $\$3.31 + \$0.52 = \underline{\hspace{2cm}}$

11. $\$2.65 + \$6.10 = \underline{\hspace{2cm}}$

12. $\$3.21 + \$1.17 = \underline{\hspace{2cm}}$

13. $\$6.35 + \$0.99 = \underline{\hspace{2cm}}$

14. $\$5.37 + \$0.95 = \underline{\hspace{2cm}}$

15. $\$2.15 + \$0.97 = \underline{\hspace{2cm}}$

16. $\$7.05 + \$1.97 = \underline{\hspace{2cm}}$

17. $\$3.25 + \$1.75 = \underline{\hspace{2cm}}$

18. $\$4.95 + \$2.96 = \underline{\hspace{2cm}}$

19. $\$5.98 + \$1.25 = \underline{\hspace{2cm}}$

20. $\$3.58 + \$4.15 = \underline{\hspace{2cm}}$

Computational Fluency

Name: _____ Date: _____ Time: _____

Mental Math

1. $8 \div 4 =$ _____

2. $12 \div 3 =$ _____

3. $20 \div 4 =$ _____

4. $24 \div 4 =$ _____

5. $36 \div 4 =$ _____

6. $28 \div 4 =$ _____

7. $21 \div 3 =$ _____

8. $15 \div 3 =$ _____

9. $8 \div 4 =$ _____

10. $32 \div 4 =$ _____

11. $32 \div 4 =$ _____

12. $18 \div 3 =$ _____

13. $30 \div 3 =$ _____

14. $40 \div 4 =$ _____

15. $12 \div 4 =$ _____

16. $20 \div 4 =$ _____

17. $40 \div 4 =$ _____

18. $16 \div 4 =$ _____

19. $4 \div 4 =$ _____

20. $24 \div 4 =$ _____

Computational Fluency

Name: _____ Date: _____ Time: _____

Mental Math

1. $32 \div 4 =$ _____

2. $45 \div 5 =$ _____

3. $36 \div 4 =$ _____

4. $25 \div 5 =$ _____

5. $5 \div 5 =$ _____

6. $15 \div 5 =$ _____

7. $35 \div 5 =$ _____

8. $10 \div 5 =$ _____

9. $20 \div 5 =$ _____

10. $45 \div 5 =$ _____

11. $30 \div 5 =$ _____

12. $20 \div 4 =$ _____

13. $45 \div 5 =$ _____

14. $35 \div 5 =$ _____