

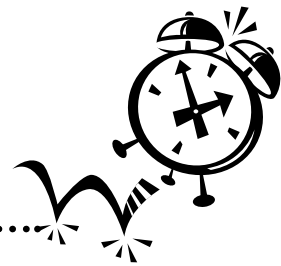
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INTRODUCTION



The focus of *Fourth-Grade Math Minutes* is math fluency—teaching students to solve problems effortlessly and rapidly. The problems in this book provide students with practice in key areas of fourth-grade math instruction, including

- fractions
- time
- angles
- story problems
- graphs
- long division
- plane and space figures
- multiplication
- standard and metric measurement
- perimeter, area, and volume
- addition and subtraction of decimals

Use this comprehensive resource to improve your students' overall math fluency, which will promote greater self-confidence in their math skills as well as provide the everyday practice necessary to succeed in a testing situation.

Fourth-Grade Math Minutes features 100 “Minutes.” Each Minute consists of ten classroom-tested problems for students to complete in one minute. Each Minute includes questions of varying degrees of difficulty, integrating problem-solving and basic math skills. This unique format offers students an ongoing opportunity to improve their own fluency in a manageable, nonthreatening format. The quick, one-minute format combined with instant feedback makes this a challenging and motivational assignment students will look forward to each day. Students become active learners as they discover mathematical relationships and apply acquired understanding to the solution of realistic problems in each Minute.



HOW TO USE THIS BOOK



Fourth-Grade Math Minutes is designed to be implemented in numerical order. Students who need the most support will find the order of skills as introduced most helpful in building and retaining confidence and success. For example, the first time that students are asked to compute the area of a shape, a possible answer is provided, and students must decide if the answer is true or false. Eventually, students are asked to compute the area without the support of a possible answer.

Fourth-Grade Math Minutes can be used in a variety of ways. Use one Minute a day for warm-up activities, bell-work, review, assessment, or a homework assignment. Keep in mind that students will get the most benefit from their daily Minute if they receive immediate feedback. If you assign the Minute as homework, correct it in class at the beginning of the day.

If you use the Minutes as a timed activity, place the paper facedown on the students' desks, or display it as a transparency. Use a clock or kitchen timer to measure one minute. Encourage students to concentrate on completing each problem successfully and not to dwell on problems they cannot complete. At the end of the minute, have students stop working. Then, read the answers from the answer key (pages 108–112), or display them on a transparency. Have students correct their own work and record their score on the Minute Journal reproducible (page 6). Then, have the class go over each problem together to discuss the solution(s). Spend more time on problems that were clearly challenging for most of the class. Tell students that difficult problems will appear on future Minutes and they will have other opportunities for success.



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Teach students strategies for improving their scores, especially if you time their work on each Minute. Tell students to

- leave more time-consuming problems for last
- come back to problems they are unsure of after they have completed all other problems
- make educated guesses when they encounter problems they are unfamiliar with
- rewrite word problems as number problems
- use mental math wherever possible

Students will learn to apply these strategies to other timed-test situations.

The Minutes are designed to improve math fluency and should not be included as part of a student's overall math grade. However, the Minutes provide an excellent opportunity for you to see which skills the class as a whole needs to practice or review. This knowledge will help you plan the content of future math lessons. A class that consistently has difficulty with reading graphs, for example, may make excellent use of your lesson in that area, especially if they know they will have other opportunities to achieve success in this area on future Minutes. Have students file their Math Journal and Minutes for that week in a location accessible to you both. Class discussions of the problems will help you identify which math skills to review. However, you may find it useful to review the Minutes on a weekly basis before sending them home with students at the end of the week.

While you will not include student Minute scores in your formal grading, you may wish to recognize improvements by awarding additional privileges or offering a reward if the entire class scores above a certain level for a week or more. Showing students that you recognize their efforts provides additional motivation to succeed!



MINUTE JOURNAL



NAME _____

MINUTE	DATE	SCORE	MINUTE	DATE	SCORE	MINUTE	DATE	SCORE	MINUTE	DATE	SCORE
1			26			51			76		
2			27			52			77		
3			28			53			78		
4			29			54			79		
5			30			55			80		
6			31			56			81		
7			32			57			82		
8			33			58			83		
9			34			59			84		
10			35			60			85		
11			36			61			86		
12			37			62			87		
13			38			63			88		
14			39			64			89		
15			40			65			90		
16			41			66			91		
17			42			67			92		
18			43			68			93		
19			44			69			94		
20			45			70			95		
21			46			71			96		
22			47			72			97		
23			48			73			98		
24			49			74			99		
25			50			75			100		

SCOPE AND SEQUENCE



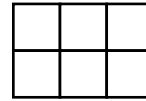
SKILL	MINUTE IN WHICH SKILL FIRST APPEARS
Congruency	1
Perimeter/Area/Volume	1
Expanded Form	1
Place Value	1
Addition	1
Story Problems	1
Subtraction	1
Money Calculations	1
Multiplication (up to multiples of 12)	1
Division (basic facts)	1
Patterning	2
Lines of Symmetry	2
Multiplication (one digit times two or more digits)	3
Greater Than/Less Than/Equal To	3
Fractions (calculation, equivalency, lowest terms)	4
Identifying Attributes of a Figure	6
Circle Graphs	6
Identifying and Comparing Fractions	7
Finding the Mean/Mode/Range	7
Money Equivalency	8
Time Equivalency	8
Even and Odd Numbers	9
Missing Elements in a Pattern	10
Rounding	10
Time Calculations	11
Angles	11
Standard Measurement (weight, length, distance, volume)	13
Metric Measurement (weight, length, distance, volume)	14
Identifying Angles	22
Decimals	24
Bar Graphs	26
Identifying Geometric Figures	32
Circles (radius, diameter)	38
Line Graphs	46
Ordered Pairs	51
Relating Fractions to Decimals	57
Relating Mixed Fractions to Decimals	60
Identifying Triangles	62
Improper Fraction to Mixed Number	70
Temperature (Fahrenheit and Celsius)	73



MINUTE 1

NAME _____

1. The area of the shape is 6 square units.
Circle: True or False

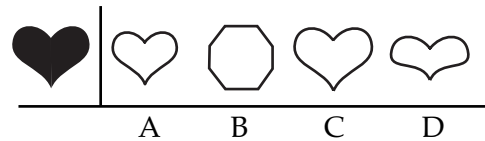


2. Jenna wants to purchase a pad of drawing paper for \$5.00, a charcoal pencil for \$0.75, and an eraser for \$1.25. How much money does she need altogether to buy the supplies? _____

3.
$$\begin{array}{r} 45 \\ + 4 \\ \hline \end{array}$$

4. Complete the fact family.
 $5 \times 7 = 35$
 $7 \times 5 = \underline{\hspace{2cm}}$
 $35 \div 7 = \underline{\hspace{2cm}}$
 $35 \div 5 = \underline{\hspace{2cm}}$

5. Circle the figure that matches the shaded figure:



6. The difference of 8 and 5 is _____.
7. The expanded form of 654 is $600 + 50 + \underline{\hspace{2cm}}$.
8. The sum of 8 and 5 is _____.

For questions 9 and 10, circle the digit in the tens place.

9. 456
10. 925



MINUTE 2

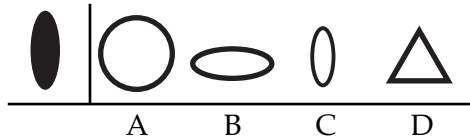
NAME _____

1. $15 - 8 =$

2. 4, 8, 12, 16, 20, _____, _____, _____

3.
$$\begin{array}{r} 33 \\ + 5 \\ \hline \end{array}$$

4. Circle the figure that is congruent to the shaded figure:



5.
$$\begin{array}{r} 33 \\ - 5 \\ \hline \end{array}$$

6. Complete the fact family.
 $6 \times 7 = 42$
 $7 \times 6 =$ _____
 $42 \div 7 =$ _____
 $42 \div 6 =$ _____

7.
$$\begin{array}{r} 12 \\ \times 6 \\ \hline \end{array}$$

In questions 8–10, does the figure have a line of symmetry?
Write *yes* or *no*. If yes, draw a line of symmetry.

