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Introduction

The focus of *Third-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 third-grade math instruction, including

- addition and subtraction
- multiplication
- division
- graphing
- rounding
- congruency
- measurement
- fractions
- time
- angles
- perimeter, area, and volume

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.

Third-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

Third-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 solve basic subtraction problems, number lines for counting back are provided. Eventually, students are asked to compute subtraction facts without the support of a number line.

Third-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.

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
Identifying Attributes of a Figure	1
Patterning	1
Place Value	1
Even and Odd Numbers	1
Comparing Numbers	1
Pictographs	1
Addition	1
Subtraction	1
Story Problems	1
Congruency	2
Money Calculations	2
Money Equivalency	3
Doubling Numbers	3
Missing Elements in a Pattern	4
Lines of Symmetry	5
Identifying Shapes and Solids	6
Fact Families	6
Lines and Line Segments	8
Multiplication (up to multiples of 10)	10
Bar Graphs	10
Identifying Fractions	12
Rounding (to 10, 100)	12
Reading Time	13
Standard Measurement (weight, length, distance, volume)	15
Division (divisors of 0–10)	15
Time Calculations	17
Metric Measurement (weight, length, distance, volume)	22
Circle Graphs	23
Expanded Form	23
Angles	26
Perimeter/Area/Volume	29
Addition (three digits)	39
Subtraction (three digits)	43
Writing Numbers (one to four digits)	50
Division (with remainders)	53
Comparing Fractions	55
Multiplication (one digit times two digits)	61
Line Graphs	70
Addition (four digits)	75
Identifying Relationships between Plane Figures and Solid Figures	77
Using a Schedule	81
Sequencing Events	81
Subtraction (four digits)	87
Multiplication (one digit times two digits with regrouping)	88

Minute 1

Name _____

1. 2, 4, 6, 8, _____

2. There are _____ corners on the shape. 

3. Is 11 an <u>odd</u> or <u>even</u> number? _____

4. Circle the digit in the tens place: 264

5. There are 3 blue blocks and 5 red blocks.
How many blocks are there in all? _____ blocks

6. Milo has 7 pencils. He gives 2 to a friend.
How many pencils does Milo have left? _____ pencils

Use the pictograph to complete questions 7 and 8.

Favorite Sport

Baseball	
Soccer	
Swimming	

(Each symbol equals one child.)

7. How many children like swimming? _____ children

8. Which sport was most popular? _____

For questions 9 and 10, write *true* or *false*.

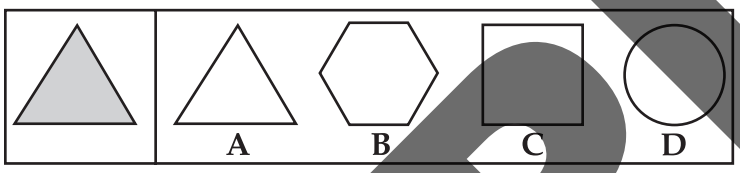
9. 7 is <u>after</u> 17 _____

10. 12 is <u>before</u> 11 _____

Minute 2

Name _____

1. Look at the shaded figure. Circle the figure that is the same shape and size:



2. 6 + 3 =

3. 0, 5, 10, 15, _____

4.  +  = _____

5. Circle each group. Write how many are in each group.

_____ in each group.

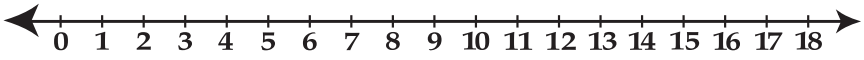
6. Circle the digit in the ones place: 365

For questions 7 and 8, circle the greater number.

7. 15 21

8. 45 39

Use the number line to complete questions 9 and 10.



9. 12 – 2 =

10. 12 – 6 =