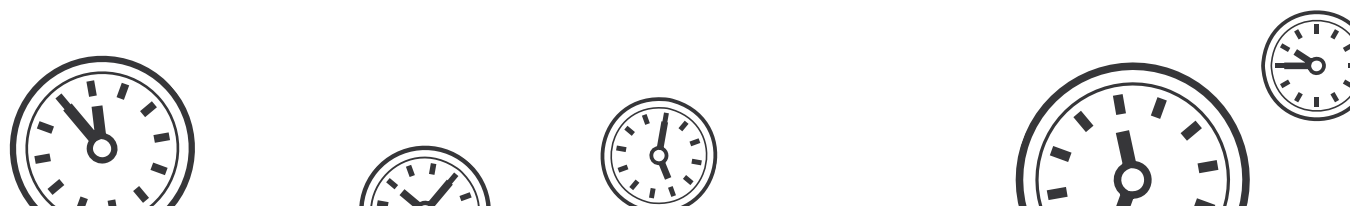




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Introduction



The focus of *Second-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 second-grade math instruction, including

- using a number line
- skip counting
- basic addition and subtraction
- story problems
- graphs
- writing numbers
- plane and space figures
- money
- measurement
- perimeter
- fractions

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.

Second-Grade Math Minutes features 100 “Minutes.” Each Minute consists of ten classroom-tested problems for students to try to complete in one minute. Because each Minute includes questions of varying degrees of difficulty, the amount of time students need to complete each Minute will vary at first. 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

Second-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 a word problem, an illustration is provided. Eventually, students are asked to solve word problems without the support of an illustration.

Second-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!



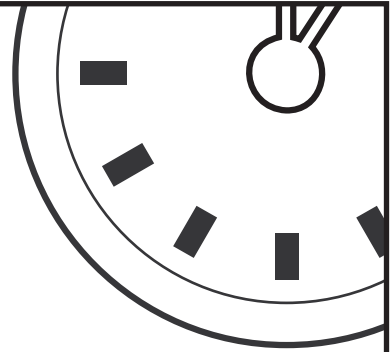
Minute Journal

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 |
|---|--|
| Basic Addition and Subtraction | 1 |
| Using a Number Line..... | 1 |
| Number Sense (counting)..... | 1 |
| Greater Than/Less Than/Equal To..... | 1 |
| Plane Shapes..... | 1 |
| Story Problems (addition and subtraction)..... | 1 |
| Place Value (tens and ones)..... | 2 |
| Pictographs..... | 3 |
| Number Words | 3 |
| Skip Counting | 3 |
| Identifying Missing Addends and Subtrahends..... | 3 |
| Money | 5 |
| Two-Digit Addition and Subtraction without Regrouping..... | 5 |
| Ordinals..... | 9 |
| Using Data from a Picture | 11 |
| Time | 11 |
| Adding Three Addends | 15 |
| Doubling Numbers..... | 21 |
| Even and Odd Numbers | 21 |
| Fact Families | 23 |
| Two-Digit Addition and Subtraction with Regrouping..... | 24 |
| Bar Graphs..... | 26 |
| Digital Clocks | 28 |
| Calendar | 29 |
| Identifying Missing Symbols of Operation (+, -, =)..... | 33 |
| Congruency..... | 38 |
| Counting (three-digit numbers)..... | 39 |
| Standard Measurement..... | 40 |
| Place Value (hundreds)..... | 42 |
| Addition and Subtraction of Three-Digit Numbers without Regrouping..... | 43 |
| Symmetry..... | 43 |
| Writing Numbers (three digits)..... | 44 |
| Counting on 10..... | 49 |
| Metric Measurement | 51 |
| Subtraction of Three-Digit Numbers with Regrouping | 53 |
| Solid Shapes..... | 53 |
| Addition of Three-Digit Numbers with Regrouping..... | 55 |
| Perimeter..... | 55 |
| Counting Money (over \$1.00)..... | 61 |
| Dozen/Half Dozen | 63 |
| Probability | 67 |
| Fractions..... | 70 |
| Multiplication Concepts..... | 84 |
| Counting on 100 | 88 |
| Temperature | 89 |
| Division Concepts..... | 97 |



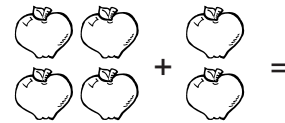
Minute 1

Name _____

1. Write the missing number. _____

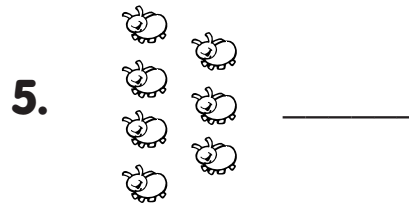
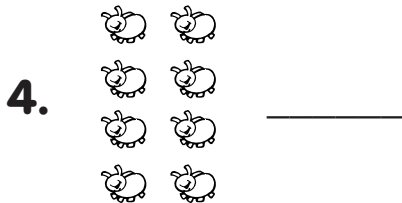


2. How many apples in all? _____ apples



3. Kevin's mom has 6 cookies. She gave 2 cookies to Kevin.
How many cookies are left? _____ cookies

For questions 4 and 5, count. Write the number.



6. Use <, >, or, =. 6 _____ 3

Use the number line to complete questions 7 and 8.

7. $6 + 2 =$ _____

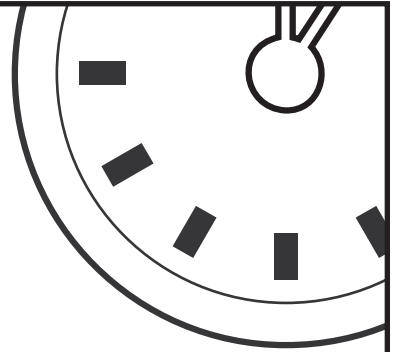
8. $10 - 7 =$ _____



For questions 9 and 10, circle the name of the shape.

9. triangle circle square

10. triangle circle square



Minute 2

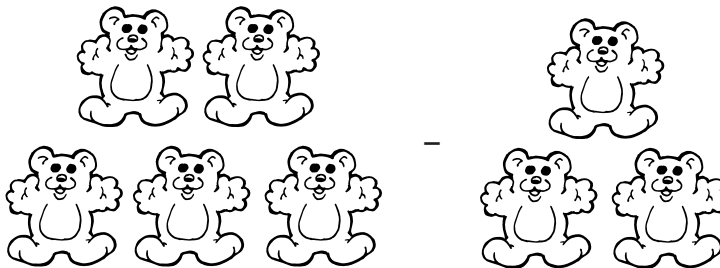
Name _____

For questions 1 and 2, use $<$, $>$, or $=$.

1. 4 _____ 7

2. 12 _____ 8

3. How many teddy bears are left? _____ teddy bears

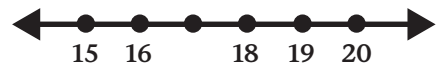


4. Laurel has 2 dolls. Rosa has 3 dolls. How many dolls do they have in all? _____ dolls

For questions 5–7, circle the digit in the ones place.

5. 19 6. 92 7. 27

8. Write the missing number. _____



9. $5 + 4 =$ _____

10. $9 - 4 =$ _____