

Pennsylvania Grade 2 Math Step by Step

A Beginner-Friendly Guide with Worked Examples and Practice

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YOUR GRADE 2 STEP-BY-STEP GUIDE

Step-by-Step Math

Read • Model • Solve • Check • Explain

This guide helps Grade 2 students see how a math problem works, one small move at a time. Each topic starts with the main idea, shows a worked example, then gives practice so students can try the same kind of thinking right away.

Use this book when a skill feels new, after a quiz, or any time a student needs more support reading, modeling, solving, and explaining the math.

Clear Ideas

Each lesson focuses on one Grade 2 skill at a time.

Visual Models

Number lines, blocks, arrays, clocks, coins, graphs, and shapes show the thinking.

Worked Steps

Examples break the solution into small steps students can follow.

Answer Help

Explanations teach how each answer was found, not just what it is.

How to Use This Step-by-Step Book

A problem-solving routine for reading, modeling, solving, and explaining.

1. Read the problem like a detective

Ask, "What do I know? What do I need to find?" Underline numbers, units, and action words before you calculate.

2. Choose a model that matches the story

Use a drawing, number line, ten-frame, array, clock, coin group, graph, or shape when it helps you see the math.

3. Write the math before solving

Turn the story into numbers, symbols, or a sentence frame. This keeps the work connected to the question.

4. Solve one step at a time

Follow the worked example slowly. For two-step problems, finish the first question before you start the second.

5. Check and explain the answer

Look back at the question, include the unit, and tell why your answer makes sense. Use the answer explanations to learn from mistakes.

For Students

Try the first problem with the example open. Then cover the steps and try the next one on your own.






For Grown-Ups

Ask, "What was the first step?" and "How did you check?" Praise clear reasoning even when an answer needs fixing.

Take Your Learning Online with ViewMath Academy!

For Students, Parents & Teachers

ViewMath Academy is the **free online companion** for this book. Use it to practice each Grade 2 skill, review lessons, and keep track of progress.

-  **Topic Quizzes** — Check each skill right after you study it.
-  **Friendly Lessons** — Revisit counting, place value, addition, time, money, data, shapes, and more.
-  **Progress Tracking** — See which topics feel strong and which ones need another try.
-  **Extra Practice** — Get more questions when a topic needs more time.
-  **Practice Tests** — Build confidence before quizzes, class tests, or state practice.



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CHAPTER

1

Counting, Place Value & Comparing

★ What's Inside ★

1.1 Skip-Count by 10s	2
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★ 1.1 Skip-Count by 10s ★

Read together. We can count fast by jumping. Each jump is the same size.

Skip-count by 10 from 230

- 1 Look at the start number. Say 230.
- 2 Jump 10 more. Say 240.
- 3 Keep jumping by 10. Say the next number out loud.
- 4 Write each number you say.

Try It Together

> Fill in the blank.

-
1. 110, 120, 130, _____, 150
 2. 405, 410, 415, _____, 425

> Write the next three numbers.

-
3. 60, 70, 80, _____
 4. 250, 350, 450, _____
 5. 815, 816, 817, _____
 6. 600, 700, 800, _____



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Check it. Circle the count by 10s.

A. 200, 205, 210

B. 200, 210, 220

C. 200, 300, 400

PREVIEW



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CHAPTER

2

Word Problems & Equal Groups

★ What's Inside ★

2.1 One-Step Word Problems	5
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★ 2.1 One-Step Word Problems ★

Read together. A word problem tells a math story. Read it. Find the question. Then solve.

 Solve: Sam has 14 stickers. He gets 8 more. How many now?

- 1 Look for the question: how many now.
- 2 Choose the action. He gets more, so add.
- 3 Write: $14 + 8 = 22$. Sam has 22 stickers.

Try It Together

> Solve.

1. Mia had 25 marbles. She gave 9 away. How many are left?

Show your thinking

2. A bus had 18 kids. 12 more got on. How many kids now?



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Show your thinking

➤ Solve.

3. There are 32 books on a shelf. 14 are read. How many are not read?
4. Lily picks 13 apples. Her friend picks 16 apples. How many in all?
5. A pond had 27 ducks. 8 flew away. How many stayed?
6. There are 15 red and 22 blue balloons. How many balloons?

Check it. Tia has 40 cents. She spends 15 cents. How much is left?



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Check Your Answers!

Try each problem first, then look here to check your work.
It is OK to make mistakes — that is how we learn.

Chapter 1 Section 1.1

1 140

2 420

3 90, 100, 110

4 550, 650, 750

5 818, 819, 820

6 900, 1,000

Explanations

1 Look at the pattern: each number is 10 more than the one before. Add 10 to 130, and you land on 140.

2 This pattern counts by 5s. Start at 415 and count 5 more numbers: 416, 417, 418, 419, 420.

3 Each number goes up by 10. After 80, add 10 to get 90, then add 10 again for 100 and 110.

4 The hundreds digit grows by 1 each time, so the pattern is counting by 100. After 450 come 550, 650, and 750.

5 The numbers are counting by 1s. Keep saying the next number after 817: 818, then 819, then 820.

6 This pattern counts by 100s. Add 100 to 800 to get 900, and add 100 more to reach 1,000.

Chapter 2 Section 2.1

1 16 marbles

2 30 kids

3 18 books

4 29 apples

5 19 ducks

6 37 balloons

Explanations

1 Mia starts with 25 marbles and gives 9 away, so the number gets smaller. Subtract the marbles she gave away: $25 - 9 = 16$.

2 The bus already had 18 kids, and 12 more got on. Since the group grows, add the old group and the new group: $18 + 12 = 30$.

3 There are 32 books altogether, but 14 are already read. Subtract the read books to find the unread books: $32 - 14 = 18$.

4 Lily's apples and her friend's apples are being put together into one total. To find how many in all, add: $13 + 16 = 29$.

5 The pond had 27 ducks, and 8 left when they flew away. To find how many stayed, subtract the ducks that left: $27 - 8 = 19$.



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- 6 The red balloons and blue balloons make one whole group of balloons. Add the two color groups together to find the total: $15 + 22 = 37$.



Great job checking your work!

Keep practicing and you'll be a math star!

PREVIEW



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