9 Alaska AK STAR

GRADE 4 MATH

PRACTICE TESTS

Standards-Aligned Review with Mixed Practice and Answer Key

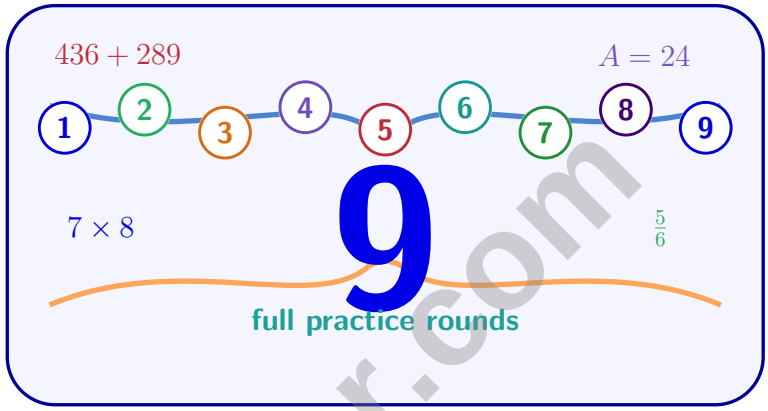
- **9 FULL-LENGTH** PRACTICE TESTS
- **STANDARDS-ALIGNED** REVIEW
- **MIXED PRACTICE** BUILD SKILLS & CONFIDENCE
- **ANSWER KEY** FOR ALL TESTS

PREPARE
PRACTICE
SUCCEED
PERFORM

PRACTICE TODAY.
SUCCEED TOMORROW.

9 Alaska AK STAR Grade 4 Math Practice Tests

Standards-Aligned Review with Mixed Practice and Answer Key



Nine complete 30-question Grade 4 practice rounds for AK STAR, built around glacier paths, northern lights, and careful tracker thinking, with answer keys and clear explanations for every item.

Jay Daie and Reza Nazari

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Welcome, Alaska Math Explorer!

Nine steady rounds on the Last Frontier math route

This book gives you nine full Grade 4 practice tests for AK STAR. Each round uses glacier paths, northern lights, and careful tracker thinking to keep practice memorable while you read carefully, choose a strategy, show work, and check the answer.

Alaska Practice Promise

I will slow down for the question, circle what matters, solve one step at a time, and use mistakes as clues for getting stronger.

How to Use This Book

A ten-session routine for Alaska AK STAR review

1. **Preview the skills.** Read the quick review pages before the first test.
2. **Take one test at a time.** Treat each round like a stop on the Last Frontier math route.
3. **Mark your confidence.** Put a small star beside problems you solved with a strong plan.
4. **Check, then retry.** For missed questions, try the problem again before reading the explanation.
5. **Track your next move.** Use the growth log to name one habit and one skill for the next test.

Good rhythm: Test one day, correct carefully the next day, then return for the next round when your corrections feel clear.

What Is Inside?

Nine tests, 270 questions, and a full AK STAR review path

Part	What You Will Practice
Tests 1–3	Warm-up rounds for reading carefully, choosing operations, and using models.
Tests 4–6	Skill-building rounds with fractions, measurement, area, data, and two-step problems.
Tests 7–9	Stamina rounds for mixed review, neat work, and flexible strategies.
Answer Pages	Compact keys and explanations that show why each answer works.

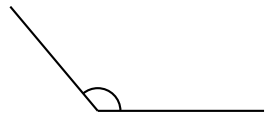
The tests are mixed on purpose. Real test readiness means recognizing the skill even when the next question changes topic.

Table of Contents

1) Which decimal has the same value as $\frac{7}{10}$?

☐ A. 0.07
☐ B. 0.70
☐ C. 7.0
☐ D. 0.017

2) Use a protractor to measure the angle below. Write the degree measure.



3) How many lines of symmetry does a regular quadrilateral (square) have?

☐ A. 2
☐ B. 3
☐ C. 4
☐ D. 6

4) A soccer field is 100 yards long. How many feet is this?

☐ A. 33
☐ B. 100
☐ C. 300
☐ D. 1,000

5) Carmen ate $\frac{3}{8}$ of a pizza. Her brother ate $\frac{2}{8}$ of the same pizza. What fraction of the pizza did they eat altogether?

☐ A. $\frac{1}{8}$
☐ B. $\frac{5}{8}$
☐ C. $\frac{6}{8}$
☐ D. $\frac{5}{16}$

6) Sofia has 7 stickers. Liam has 3 times as many. How many more stickers does Liam have than Sofia?

☐ A. 10
☐ B. 3
☐ C. 21
☐ D. 14

7) What is the missing addend: $2\frac{3}{5} + ? = 5\frac{2}{5}$

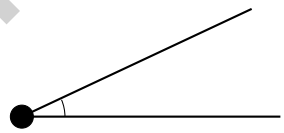
☐ A. $3\frac{1}{5}$
☐ B. $2\frac{3}{5}$
☐ C. 3
☐ D. $2\frac{4}{5}$

8) If a dot rotates $\frac{1}{8}$ of a full turn, how many degrees does it move?

☐ A. 30°
☐ B. 35°
☐ C. 45°
☐ D. 60°

9) Which number is divisible by 10?

☐ A. 45
☐ B. 68
☐ C. 70
☐ D. 82

10) 

The angle shown has a small opening. Which statement is true?

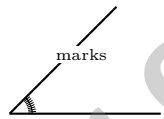
☐ A. It is a right angle
☐ B. It is a straight angle
☐ C. It is an acute angle
☐ D. It is an obtuse angle

11) The perimeter of a rectangle is 38 centimeters. The length is 11 centimeters. What is the width?

12) Ava has 5 necklaces. Each necklace has $\frac{2}{3}$ meter of beads. How many meters of beads does Ava have in total?

☐ A. $\frac{2}{15}$ meter
☐ B. $\frac{5}{3}$ meters
☐ C. $3\frac{1}{3}$ meters
☐ D. $\frac{2}{8}$ meter

13)



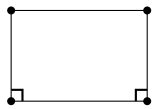
The angle opens from 0° to 45°. What is its measure?

☐ A. 45°
☐ B. 50°
☐ C. 46°
☐ D. 90°

14) Select the **TWO** correct answers. Which of these addition equations are solved correctly?

☐ A. $5{,}234 + 2{,}345 = 7{,}579$
☐ B. $6{,}789 + 2{,}456 = 4{,}333$
☐ C. $8{,}123 + 1{,}234 = 9{,}357$
☐ D. $9{,}000 + 3{,}456 = 5{,}544$
☐ E. $4{,}567 + 3{,}456 = 8{,}033$

1) Look at the figure. How many angles are marked as right angles?



Right angle markers

☐ A. One
☐ B. Two
☐ C. Three
☐ D. Four

2) Maya has 2 hours 30 minutes to complete a project. She works for 1 hour 45 minutes. How much time does she have left?

☐ A. 45 minutes
☐ B. 75 minutes
☐ C. 1 hour
☐ D. 1 hour 15 minutes

3) What is $6 \times \frac{1}{6}$?

4) Which number is less?

	Thousands	Hundreds	Tens	Ones
Number A	7	2	6	4
Number B	7	2	6	5

☐ A. They are equal
☐ B. Cannot determine
☐ C. 7,264
☐ D. 7,265

5) How many 90° angles can fit around a point without overlapping?

☐ A. 2
☐ B. 3
☐ C. 4
☐ D. 5

6)

$\frac{4}{6}$ sugar $\frac{2}{6}$ flour

A cake recipe uses $\frac{4}{6}$ cup of sugar and $\frac{2}{6}$ cup of flour. What is the total amount of sugar and flour combined?

☐ A. $\frac{6}{6}$
☐ B. $\frac{6}{12}$
☐ C. $\frac{2}{6}$
☐ D. $\frac{3}{6}$

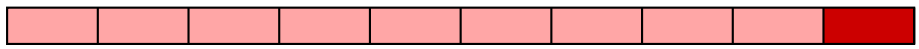
7) Round 33,666 to the nearest hundred.

☐ A. 33,600
☐ B. 34,000
☐ C. 33,670
☐ D. 33,700

8) What fraction is equivalent to $\frac{1}{2}$?

☐ A. $\frac{2}{5}$
☐ B. $\frac{3}{5}$
☐ C. $\frac{3}{6}$
☐ D. $\frac{2}{3}$

9) What is $\frac{9}{10} + \frac{1}{10}$?



$\frac{9}{10}$ (light red) + $\frac{1}{10}$(dark red) $\overset{?}{=}$

☐ A. $\frac{10}{10}$ or 1
☐ B. $\frac{10}{20}$
☐ C. $\frac{8}{10}$
☐ D. $\frac{1}{10}$

1) A full turn around a circle measures how many degrees?

☐ A. 90°
☐ B. 180°
☐ C. 270°
☐ D. 360°

2) Which decimal is the same as $\frac{40}{100}$?

☐ A. 0.04
☐ B. 0.40
☐ C. 0.004
☐ D. 4.0

3) A digit 2 in the thousands place has how many times the value of a digit 2 in the tens place?

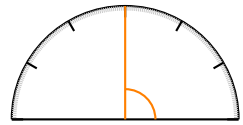
☐ A. 10
☐ B. 50
☐ C. 100
☐ D. 1,000

4) Which statement about the letter D is true?

☐ A. It has 1 line of symmetry
☐ B. It has 2 lines of symmetry
☐ C. It has no line of symmetry
☐ D. It has 4 lines of symmetry

5) Mia's bedroom window is a rectangle. The length is 4 feet and the width is 3 feet. What is the area of the window?

☐ A. 7 sq ft
☐ B. 12 sq ft
☐ C. 14 sq ft
☐ D. 21 sq ft

6) 

Sam uses a protractor to measure an angle. The angle lines up exactly with the 90-degree mark. What type of angle is this?

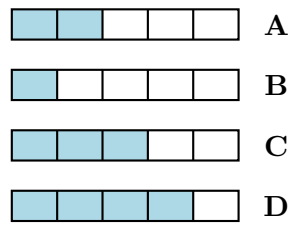
☐ A. Right angle
☐ B. Straight angle
☐ C. Obtuse angle
☐ D. Acute angle

7) Find $\frac{5}{7} + \frac{3}{7}$ as a mixed number.

8) Diego cut a submarine sandwich into 8 equal pieces and ate 4 pieces. Maya cut an identical sandwich into 4 equal pieces and ate 2 pieces. Did they eat equivalent amounts?

☐ A. Yes, both ate $\frac{1}{2}$
☐ B. Yes, both ate $\frac{1}{4}$
☐ C. No, Diego ate more
☐ D. No, Maya ate more

9) Which picture shows $\frac{2}{5}$ as two unit fractions of $\frac{1}{5}$?



☐ A. Picture A
☐ B. Picture B
☐ C. Picture C
☐ D. Picture D

Practice Test Answer Keys

How to use this section with a Grade 4 student:

1. check the answer first
2. mark questions to try again
3. rework the problem before reading the full explanation

A calm correction routine turns every missed item into useful practice.

Practice Test Answers and Explanations

Practice Test 1 Answers and Explanations

1) **Choice B is correct.** 4.NF.5 The fraction $\frac{7}{10}$ equals 7 tenths, which is 0.7 or 0.70.

2) **The correct answer is** 130. 4.MD.8 Place the protractor's center point at the vertex where the rays meet. Align one ray with the baseline at 0°. Read where the second ray crosses the scale. This angle measures 130°, which is between 90° and 180°, so it's obtuse. The answer is **130** degrees.

3) **Choice C is correct.** 4.G.3 A square is perfectly balanced four ways: two lines pass through the centers of opposite sides (up/down and left/right), and two lines pass through opposite corners (diagonals). The answer is **4** lines of symmetry.

4) **Choice C is correct.** 4.MD.1 Since 1 yard = 3 feet, multiply: $100 \times 3 = 300$ feet. The answer is **300** feet.

5) **Choice B is correct.** 4.NF.3 They both ate pieces from the same pizza! Add them with like denominators: $\frac{3}{8} + \frac{2}{8} = \frac{5}{8}$ of the pizza altogether.

6) **Choice D is correct.** 4.OA.1 Step 1: find Liam's stickers: $7 \times 3 = 21$. Step 2: "how many *more*" is a subtraction: $21 - 7 = 14$. So Liam has **14** more stickers than Sofia.

7) **Choice D is correct.** 4.NF.3 Subtract to find the missing addend: $5\frac{2}{5} - 2\frac{3}{5}$. Since $\frac{2}{5} < \frac{3}{5}$, regroup: $5\frac{2}{5} = 4\frac{7}{5}$. Subtract: $4\frac{7}{5} - 2\frac{3}{5} = \mathbf{2\frac{4}{5}}$.

8) **Choice C is correct.** 4.MD.7 One-eighth of the circle is $\frac{1}{8} \times 360° = \mathbf{45°}$.

9) **Choice C is correct.** 4.NBT.1 Divisibility rule for 10: the last digit must be exactly 0. Only 70 ends in 0, so $70 \div 10 = 7$.

10) **Choice C is correct.** 4.MD.7 The opening is smaller than a right angle, so this is an acute angle.

11) **The correct answer is** 8 **cm.** 4.MD.3 Using $P = 2\ell + 2w = 38$ with $\ell = 11$: $2(11) + 2w = 38$. Solve: $22 + 2w = 38$, so $2w = 16$, thus $w = 8$ cm.

12) **Choice C is correct.** 4.NF.4 We multiply the whole number by the fraction. Ava has 5 necklaces, each with $\frac{2}{3}$ meter of beads: $5 \times \frac{2}{3} = \frac{10}{3}$ meters, which is $3\frac{1}{3}$ meters.

13) **Choice A is correct.** 4.MD.7 Counting the one-degree angle marks from 0° to 45° gives us **45°**.

14) **The correct answer is A, C.** 4.NBT.4 A: $5{,}234 + 2{,}345 = 7{,}579$ ✓. B: $6{,}789 + 2{,}456 = 9{,}245$ (wrong). C: $8{,}123 + 1{,}234 = 9{,}357$ ✓. D: $9{,}000 + 3{,}456 = 12{,}456$ (wrong). E: $4{,}567 + 3{,}456 = 8{,}023$ (wrong). Correct answers: A and C.

15) **Choice D is correct.** 4.NBT.1 Check the differences: $18 - 12 = 6$, $24 - 18 = 6$. Each increases by 6 (multiples of 6). ✓

16) **Choice C is correct.** 4.NF.3 Ava gave away 4 pieces out of 6 equal pieces, which is $\frac{4}{6}$. As a sum of unit fractions: $\mathbf{\frac{4}{6}} = \underbrace{\frac{1}{6} + \frac{1}{6} + \frac{1}{6} + \frac{1}{6}}_{\mathbf{4}\text{ copies}}$.

17) **The correct answer is** 43,000. 4.NBT.3 We're rounding to the nearest thousand. Look at the hundreds digit: 5. Since $5 \geq 5$, round UP! The thousands digit changes to 3, giving us **43,000** people. ✓

18) **Choice B is correct.** 4.NF.5 We can convert $\frac{8}{10}$ to a fraction with denominator 100 by multiplying both parts by 10: $\frac{8}{10} = \frac{80}{100}$.

19) **Choice C is correct.** 4.NF.1 First, simplify: $\frac{2}{6} = \frac{1}{3}$ (divide both by 2). So $\frac{2}{6}$ lands exactly at $\frac{1}{3}$ on the number line.

20) **Choice D is correct.** 4.OA.3 Two steps! Step 1: find the total pages printed: $250 \times 3 = 750$ pages. Step 2: take away the removed pages: $750 - 105 = 645$ pages left.

21) **Choice B is correct.** 4.NF.4 Each piece is $\frac{1}{8}$ meter long. With 5 pieces, the total length is $5 \times \frac{1}{8} = \frac{5}{8}$ meter.

22) **Choice C is correct.** 4.OA.2 The bar model shows the park's bar is 3 equal pieces, each the size of the garden's 10 rose bushes. Multiply: $3 \times 10 = 30$ rose bushes.

23) **Choice A is correct.** 4.NF.3 A unit fraction has numerator 1. The farmer uses 4 plots, so we need four $\frac{1}{6}$ pieces: $\frac{1}{6} + \frac{1}{6} + \frac{1}{6} + \frac{1}{6}$ ✓.

24) **Choice B is correct.** 4.NF.4 Tommy eats $\frac{1}{4}$ pizza 6 times a week. Multiply: $6 \times \frac{1}{4} = \frac{6 \times 1}{4} = \frac{6}{4} = 1\frac{1}{2}$. The answer is $\mathbf{1\frac{1}{2}}$ of a pizza.

Hi, Curious Scientist!

◇ 9 tests. So many experiments! You tested ideas. You watched what worked. You learned a lot. That's how scientists work—and how you work! ◇

⋆ **Scientists know:** mistakes are facts, not failures. Every problem you missed taught you something. You used those facts to do better next time. ⋆

Lab Results

- **Hypothesis:** CONFIRMED! Practice makes you better.
- **Method:** STRONG! You try, watch, and adjust.
- **Data:** CAREFUL! You read and copy numbers right.
- **Conclusion:** READY! You can do this test.

Scientist tip: on test day, stay curious. Ask, "What is this asking?" Then experiment with your math tools. You will find the answer!

If you want to share something or ask a question, please email me at jay@testinar.com.

Jay Daie

Your Math Scientist

PRACTICE TODAY. ACHIEVE TOMORROW!

This Grade 4 Math Practice Tests book is designed to help students strengthen essential math skills, build confidence, and develop the problem-solving abilities needed for classroom success and test readiness.

With 9 full-length practice tests, students gain repeated exposure to important Grade 4 concepts while learning how to approach questions with accuracy, confidence, and strong mathematical thinking.

Whether used at home, in the classroom, or for independent review, this book provides meaningful practice that helps students grow stronger with every test.

PERFECT FOR:

- Classroom Practice
- Homework & Review
- Independent Learning
- Test Preparation
- Skill Reinforcement

CONFIDENCE IN MATH. SUCCESS FOR LIFE.

WHAT STUDENTS WILL GAIN

Stronger Math Skills
Build a solid foundation through targeted practice and review.

Better Problem Solving
Develop logical thinking and effective solution strategies.

Test Confidence
Become familiar with test-style questions and formats.

Track Progress
Measure growth across multiple practice tests.

Academic Success
Strengthen skills needed for future learning.

TOPICS COVERED

- Place Value & Number Sense
- Multi-Digit Addition & Subtraction
- Multiplication & Division
- Fractions & Equivalent Fractions
- Geometry & Shapes
- Measurement & Data
- Perimeter & Area
- Word Problems
- Patterns & Algebraic Thinking
- Graphs & Data Interpretation
- Mathematical Reasoning
- And More!

Visit testinar.com/math4 for additional Grade 4 math resources and practice materials.

MORE PRACTICE. GREATER RESULTS.

Give your child the tools needed to develop strong math skills, confidence, and a positive attitude toward learning.

A COMPLETE PRACTICE EXPERIENCE TO HELP STUDENTS THRIVE!

- Builds Confidence Through Practice
- Strengthens Critical Thinking & Problem Solving
- Encourages Independent Learning
- Prepares Students for Future Success