

3

Alaska

AK STAR

GRADE 4

MATH

PRACTICE TESTS

Standards-Aligned Review with
Mixed Practice and Answer Key



5 FULL-LENGTH
PRACTICE TESTS



STANDARDS-ALIGNED
REVIEW



MIXED PRACTICE
QUESTIONS



ANSWER KEY
INCLUDED

$$a^2 + b^2 = c^2$$

$$\frac{3}{4}$$



%



3 Alaska AK STAR Grade 4 Math Practice Tests

Standards-Aligned Practice for Stronger Math Skills and Test Readiness



Three 30-question trail tests packed with Grade 4 review, Alaska AK STAR strategy tips, answer keys, and step-by-step explanations that turn every miss into the next move.

Jay Daie and Reza Nazari



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Welcome, Alaska Math Explorer!

Three steady rounds on the Last Frontier math route

This book gives you three full Grade 3 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.

Read

Plan

Check

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?

Three tests, 90 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 1–3	Skill-building rounds with fractions, measurement, area, data, and two-step problems.
Tests 1–3	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.



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- 1) A table is 2 meters long. Convert this to centimeters.

- 2) What is 4×328 ?

A. 1200

C. 1312

B. 1400

D. 1496

- 3) What is 45,782 rounded to the nearest thousand?

A. 45,000

C. 46,000

B. 45,800

D. 50,000

- 4) Diego needs to divide 1,625 into 5 equal groups. What is the result?

A. 315

C. 335

B. 305

D. 325

- 5) A sewing project requires $5\frac{2}{8}$ yards of fabric. The first part uses $3\frac{1}{8}$ yards. How much fabric is left for the remaining parts?

A. $2\frac{1}{8}$

C. $8\frac{3}{8}$

B. $2\frac{3}{8}$

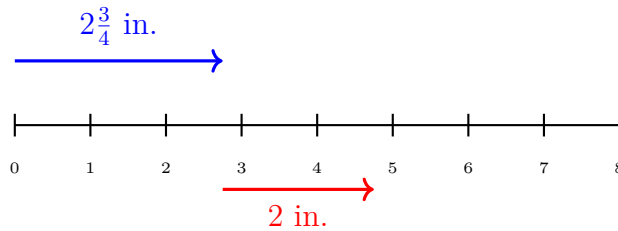
D. $2\frac{2}{8}$



- 6) A triangle has three equal sides. What type of triangle is it?
- A. Scalene triangle C. Right triangle
 B. Equilateral triangle D. Obtuse triangle
- 7) Look at the pattern: 30, 25, 20, 15, 10, ... What is the rule?
- A. Add 5 C. Subtract 10
 B. Divide by 2 D. Subtract 5
- 8) A soccer team won some games. Another team won 4 times as many games, and that team won 32 games. How many games did the first team win?
- A. 4 C. 28
 B. 36 D. 8
- 9) Which decimal is NOT between 0.4 and 0.5?
- A. 0.42 C. 0.55
 B. 0.48 D. 0.49
- 10) A full turn around a point equals 360 degrees. How many one-degree angles make a full turn?
- A. 180 one-degree angles C. 360 one-degree angles
 B. 90 one-degree angles D. 720 one-degree angles



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11)

A board has two sections. The blue section is $2\frac{3}{4}$ inches and the red section is 2 inches. What is the total length?

- | | |
|---|---|
| <input type="checkbox"/> A. $4\frac{1}{4}$ inches | <input type="checkbox"/> C. $4\frac{3}{4}$ inches |
| <input type="checkbox"/> B. $4\frac{2}{4}$ inches | <input type="checkbox"/> D. 5 inches |

12) What is the sum: $\frac{1}{8} + \frac{1}{8} + \frac{1}{8} + \frac{1}{8} + \frac{1}{8}$?

- | | |
|--|---|
| <input type="checkbox"/> A. $\frac{5}{8}$ | <input type="checkbox"/> C. $\frac{1}{8}$ |
| <input type="checkbox"/> B. $\frac{5}{40}$ | <input type="checkbox"/> D. $\frac{1}{5}$ |

13) One basket holds 5 apples. Another basket holds 6 times as many apples. What is the total number of apples in both baskets?

14) Diego collected ant speeds (in eighths of an inch per second). His data: $\frac{1}{8}, \frac{2}{8}, \frac{2}{8}, \frac{1}{8}, \frac{3}{8}, \frac{2}{8}, \frac{1}{8}$. On the line plot, how many X marks are at $\frac{1}{8}$?

- | | |
|-------------------------------|-------------------------------|
| <input type="checkbox"/> A. 2 | <input type="checkbox"/> C. 4 |
| <input type="checkbox"/> B. 3 | <input type="checkbox"/> D. 5 |

1) Which statement is true when rounding to the nearest hundred?

- A. 6,293 rounds to 6,300 C. 6,249 rounds to 6,250
 B. 6,234 rounds to 6,300 D. 6,251 rounds to 6,200

2) A rope measures 1,200 centimeters. How many meters is this?

- A. 12 C. 1,200
 B. 120 D. 120,000

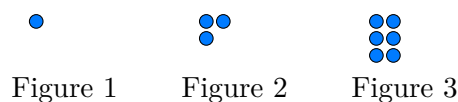
3) What is $3,675 \div 9$ (with remainder)?

- A. 408 r3 C. 409 r4
 B. 407 r2 D. 408 r6

4) Which number correctly matches all three forms?

- A. Standard: 142,805; Word: "One hundred forty-two thousand, eight hundred five"; Expanded: $100,000 + 40,000 + 2,000 + 800 + 5$
 B. Standard: 142,805; Word: "Fourteen thousand, two hundred five"; Expanded: $100,000 + 40,000 + 2,000 + 800 + 5$
 C. Standard: 124,805; Word: "One hundred forty-two thousand, eight hundred five"; Expanded: $100,000 + 20,000 + 4,000 + 800 + 5$
 D. Standard: 142,850; Word: "One hundred forty-two thousand, eight hundred fifty"; Expanded: $100,000 + 40,000 + 2,000 + 800 + 5$

5) A pattern of circles grows as shown:



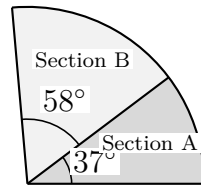
How many circles are in Figure 4?

- A. 9 C. 12
 B. 16 D. 10



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- 1) A bakery cuts a pizza into sections. Section A is 37° and Section B is 58° . If these two sections are combined, what angle do they form?



- A. 95°
 C. 21°
 B. 58°
 D. 135°
- 2) Look at the bar diagram. What is the total of both bars?



- A. 7
 C. 20
 B. 10
 D. 12
- 3) What is $2,184 \div 7$?
- A. 312
 C. 319
 B. 302
 D. 322



4) Three friends share a sub sandwich. Friend A eats $\frac{4}{10}$, Friend B eats $\frac{3}{10}$, and Friend C eats the rest. What fraction did Friend C eat?

A. $\frac{3}{10}$

B. $\frac{7}{10}$

C. $\frac{1}{10}$

D. $\frac{2}{10}$

5) Complete the sequence using the pattern shown in the table:

Term	1	2	3	4
Value	9	12	15	?

A. 16

B. 17

C. 18

D. 20

6) Which number rounds to 80,000 when rounded to the nearest ten thousand?

A. 79,999

B. 85,000

C. 85,001

D. 74,999

7) Write 0.7 as an equivalent decimal in hundredths.

8) Write a fraction that is equivalent to $\frac{1}{4}$.



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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.

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Practice Test Answers and Explanations

Practice Test 1 Answers and Explanations

- The correct answer is 200.** (4.MD.1) Since 1 meter = 100 centimeters, multiply: $2 \times 100 = 200$ cm.
- Choice C is correct.** (4.NBT.5) Decompose 328: $4 \times (300 + 20 + 8) = 1200 + 80 + 32 = 1312$.
- Choice C is correct.** (4.NBT.3) We're rounding to the nearest thousand. Look at the hundreds digit: 7. Since $7 \geq 5$, we round UP! Change the thousands digit from 5 to 6, and the answer is **46,000**. ✓
- Choice D is correct.** (4.NBT.6) Use long division: $16 \div 5 = 3$ r1, bring down the 2 to get $12 \div 5 = 2$ r2, bring down the 5 to get $25 \div 5 = 5$. The result is **325**.
- Choice A is correct.** (4.NF.3) The sewing project needs fabric, but the first part uses some. Subtract what the first part uses: $5\frac{2}{8} - 3\frac{1}{8} = 2\frac{1}{8}$ yards of fabric left.
- Choice B is correct.** (4.G.2) A triangle with three equal sides is called an equilateral triangle. The three equal angles in an equilateral triangle each measure 60 degrees, making them all acute. The answer is **B**.
- Choice D is correct.** (4.NBT.1) Check the differences: $30 - 25 = 5$, $25 - 20 = 5$. Each term is 5 less. The rule is "subtract 5". ✓
- Choice D is correct.** (4.OA.2) Working backwards. The other team won 32 games, which is 4 times the first team's wins, so $4 \times ? = 32$. Divide to find the first team: $32 \div 4 = 8$ games.
- Choice C is correct.** (4.NF.5) To be between 0.4 and 0.5, a decimal must have tenths = 4. But 0.55 has tenths = 5, so it's not in the range.
- Choice C is correct.** (4.MD.7) A full turn all the way around a point is 360° , made of **360** one-degree angles.
- Choice C is correct.** (4.NF.3) Add the wholes: $2 + 2 = 4$. Add the fractions: $\frac{3}{4} + 0 = \frac{3}{4}$. The total length is **$4\frac{3}{4}$** inches.
- Choice A is correct.** (4.NF.3) We have 5 copies of the unit fraction $\frac{1}{8}$. When we add them, the denominator stays 8, and we count the unit fractions: 5 of them. So $\frac{1}{8} + \frac{1}{8} + \frac{1}{8} + \frac{1}{8} + \frac{1}{8} = \frac{5}{8}$.
- The correct answer is 35.** (4.OA.1) Two steps. Step 1: the second basket has $5 \times 6 = 30$ apples. Step 2: add the first basket for the total: $5 + 30 = 35$ apples.
- Choice B is correct.** (4.MD.5) Count how many times $\frac{1}{8}$ appears in our data: it shows up **3** times.
- Choice D is correct.** (4.NF.4) Mia makes 3 sandwiches, each using $\frac{1}{4}$ loaf. Multiply: $3 \times \frac{1}{4} = \frac{3 \times 1}{4} = \frac{3}{4}$ loaf. The answer is $\frac{3}{4}$ loaf.
- Choice D is correct.** (4.NBT.1) The thousands place has the greatest value among all places. The 2 in the thousands place (2,000) is much larger than 200, 20, or 2. Answer: the **2** in the thousands place. ✓
- Choice C is correct.** (4.MD.7) Two-thirds of the circle is $\frac{2}{3} \times 360^\circ = 240^\circ$.
- The correct answer is B, C.** (4.NF.5) Option B: $0.6 = \frac{6}{10}$ (six tenths). Option C: $0.6 = 0.60$ (trailing zeros don't matter). The other options use wrong denominators or different values.
- The correct answer is 3.** (4.NF.4) The denominator 10 tells us the unit fraction is $\frac{1}{10}$. The numerator 3 tells us how many of these unit fractions we have. So there are **3** tenths in $\frac{3}{10}$.
- Choice A is correct.** (4.NF.3) Two angles together make $\frac{10}{12}$ of a straight angle. One is $\frac{4}{12}$. The other: $10 - 4 = 6$ twelfths, or $\frac{6}{12}$.
- Choice D is correct.** (4.OA.3) Two steps! Step 1: total money raised: 8 boxes \times \$9 = \$72. Step 2: split equally among 3 projects: $\$72 \div 3 = \24 per project.
- Choice D is correct.** (4.NBT.1) Test the small primes: 23 is odd; digit sum $2 + 3 = 5$ (not $\div 3$); doesn't end in 0 or 5; $7 \times 3 = 21$, $7 \times 4 = 28$, no 7. So 23 has only factors 1 and itself—**prime**.
- Choice C is correct.** (4.NF.1) Bars A and B show the same shaded length: $\frac{1}{2} = \frac{2}{4}$ (multiply numerator and denominator by 2). Bar C shows $\frac{2}{6}$, which is smaller—not equivalent.
- Choice B is correct.** (4.MD.3) Perimeter is the distance around the rectangle. Use the formula $P = 2l + 2w = 2(12) + 2(7) = 24 + 14 = 38$ m.



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Trail Guide's Final Note

Hi, Brave Trail-Walker!

◇ You walked all 3 miles of the practice trail. Smooth paths, steep climbs, narrow passes. Every step taught you something. ◇

★ **Trail guides know:** the most important thing is to keep moving. Slow steps still get you there. You have a steady stride now. ★

Trail Survey

- **Route Knowledge:** You know lots of problem types.
- **Steady Pace:** You don't rush. You don't stop.
- **Pack Loaded:** You have all the math tools you need.
- **Confidence:** You trust your training.

Guide's tip: on test day, stay on the trail you've walked before. Use the strategies you've practiced. Trust the route. The summit is one steady walk away!

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

Jay Daie

Your Math Trail Guide

PRACTICE TODAY. SUCCEED TOMORROW!

This **Grade 4 Math Practice Tests** book is designed to help students build strong math skills, master key concepts, and gain the confidence they need to excel on any test.

With 3 full-length practice tests, a variety of question types, and detailed answer explanations, students get the review and practice they need to strengthen problem-solving skills and achieve their best.

Perfect for classroom use, homework, test preparation, and extra practice at home.

PERFECT FOR:

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

★ CONFIDENCE TODAY.
SUCCESS TOMORROW!

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.



Prepare for Success

Build the confidence needed to do your best on test day.

TOPICS COVERED

- ✓ Place Value & Number Sense
- ✓ Addition & Subtraction
- ✓ Multiplication & Division
- ✓ Fractions & Decimals
- ✓ Measurement & Data
- ✓ Geometry & Shapes
- ✓ Perimeter & Area
- ✓ Word Problems
- ✓ Patterns & Algebraic Thinking
- ✓ And More!



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