

5

Alaska AK STAR

Standards-Aligned Review with
Mixed Practice and Answer Key



5 Alaska AK STAR Grade 4 Math Practice Tests

Standards-Aligned Review with Mixed Practice and Answer Key



Five 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.

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Welcome, Alaska Math Explorer!

Five steady rounds on the Last Frontier math route

This book gives you five 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.

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?

Five tests, 150 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 3–5	Skill-building rounds with fractions, measurement, area, data, and two-step problems.
Tests 3–5	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.



Scan me!
For more practice
& answers

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5) Mia plants flowers in 7 rows with 25 flowers in each row. How many flowers does she plant?

A. 140

C. 175

B. 210

D. 245

6) Ethan has 5 toy soldiers. Owen has 7 times as many. How many more soldiers does Owen have?

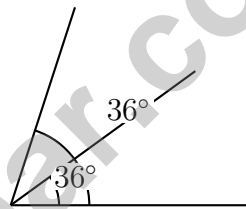
A. 12

C. 25

B. 35

D. 30

7) A ramp is built at an angle. Half of the ramp's total angle is 36° . What is the measure of the entire ramp's angle?



A. 36°

C. 18°

B. 72°

D. 90°

8) What is $4\frac{5}{6} - 2\frac{1}{6}$?

A. $2\frac{2}{6}$

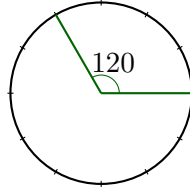
C. $2\frac{4}{6}$

B. $2\frac{3}{6}$

D. $3\frac{3}{6}$



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9)

An angle measures 120 degrees. How many one-degree angles make this angle?

- A. 60 one-degree angles C. 240 one-degree angles
 B. 120 one-degree angles D. 12 one-degree angles

10) A water bottle holds 750 milliliters. How much water is in 2 bottles?

- A. 375 mL C. 1,500 mL
 B. 750 mL D. 2,250 mL

11) Maya painted $\frac{6}{9}$ of her bedroom wall on Monday and $\frac{2}{9}$ on Tuesday. What fraction of the wall did she paint in total?12) Add: $\frac{1}{10} + \frac{45}{100}$.

- A. $\frac{46}{100}$ C. $\frac{55}{100}$
 B. $\frac{46}{110}$ D. $\frac{1}{145}$



1) An orchard has 16 rows of apple trees. Each row has 35 trees. How many apple trees are in the orchard?

A. 560

C. 540

B. 480

D. 420

2) Noah had $\frac{6}{12}$ of a pizza. He ate $\frac{2}{12}$. How much pizza is left?

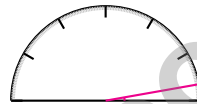
A. $\frac{8}{12}$

C. $\frac{1}{12}$

B. $\frac{4}{12}$

D. $\frac{12}{12}$

3)



Mia measures a very small angle. Which of these is most likely the degree measure?

A. 45 degrees

C. 10 degrees

B. 100 degrees

D. 175 degrees

4) Find $3 \times \frac{5}{6}$ as a mixed number.

5) Which number sentence does NOT represent a correct multiple?

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

C. $4 \times \frac{1}{6} = \frac{4}{12}$

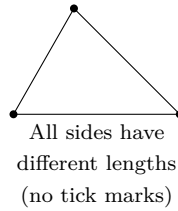
B. $3 \times \frac{1}{5} = \frac{3}{5}$

D. $5 \times \frac{1}{3} = \frac{5}{3}$



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- 1) Look at the triangle. All three sides have different lengths. What type is it?



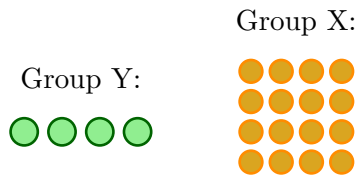
- A. Scalene triangle
- B. Isosceles triangle
- C. Equilateral triangle
- D. Acute triangle
- 2) Write $\frac{9}{12}$ as a sum of three equal fractions. What is each fraction?

- 3) A farmer has two fields. Field A is 0.83 km wide and Field B is 0.38 km wide. Which field is wider?



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4) Look at the two groups. How many times as many objects are in Group X as in Group Y?



- A. 2 times C. 8 times
 B. 6 times D. 4 times

5) Find the quotient: $3,192 \div 8$.

- A. 399 C. 379
 B. 389 D. 369



The number line shows 4 equal jumps of $\frac{1}{4}$. What multiplication is shown?

- A. $4 \times \frac{1}{4} = 1$ C. $4 \times 1 = 4$
 B. $4 \times \frac{1}{4} = \frac{1}{4}$ D. $\frac{4}{4} = 4$

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

- Choice D is correct.** (4.NBT.1) Read across the table: 8, 16, 24, 32, 40, 48, 56. The next one (64) is over 60, so we stop. Count: **7** multiples of 8 up to 60.
- Choice B is correct.** (4.NF.4) The pattern counts by eighths: $\frac{1}{8}, \frac{2}{8}, \frac{3}{8}, \dots$ So next is $4 \times \frac{1}{8} = \frac{4}{8}$.
- Choice B is correct.** (4.MD.8) The ray points to the 165° mark, which is 15° shy of the 180° straight angle. Since 165° is between 90° and 180° , it's obtuse. The answer is **165** degrees.
- Choice A is correct.** (4.G.3) The letter *S* curves one way at the top and the opposite way at the bottom, like a snake. No fold line can make the two halves match. The answer is letter **S**.
- Choice C is correct.** (4.NBT.5) Use place value: $7 \times (20 + 5) = 140 + 35 = \mathbf{175}$ flowers.
- Choice D is correct.** (4.OA.1) Step 1: find Owen's soldiers: $5 \times 7 = 35$. Step 2: "how many *more*" is a subtraction: $35 - 5 = 30$. Owen has **30** more soldiers than Ethan.
- Choice B is correct.** (4.MD.9) The diagram shows the ramp angle split into two equal parts. If half is 36° , multiply: $36^\circ \times 2 = \mathbf{72^\circ}$.
- Choice C is correct.** (4.NF.3) Subtract the wholes: $4 - 2 = 2$. Subtract the fractions: $\frac{5}{6} - \frac{1}{6} = \frac{4}{6}$. The difference is $\mathbf{2\frac{4}{6}}$.
- Choice B is correct.** (4.MD.7) Since the angle measures 120° , it is made of **120** one-degree angles.
- Choice C is correct.** (4.MD.2) Each bottle holds 750 mL. With 2 bottles, multiply: $750 \times 2 = 1,500$ mL. There are **1,500** milliliters of water.
- The correct answer is $\frac{8}{9}$.** (4.NF.3) Maya painted her bedroom wall over two days. Add the fractions with like denominators: $\frac{6}{9} + \frac{2}{9} = \frac{8}{9}$ of the wall was painted in total.
- Choice C is correct.** (4.NF.5) Convert $\frac{1}{10}$ to hundredths: $\frac{1}{10} = \frac{10}{100}$. Now add the two fractions with the same denominator: $\frac{10}{100} + \frac{45}{100} = \frac{55}{100}$.
- Choice D is correct.** (4.NBT.1) The 6 in the hundreds place is worth 600, and the 6 in the tens place is worth 60. Since $600 \div 60 = 10$, the hundreds place is 10 times greater. ✓
- Choice D is correct.** (4.OA.3) Watch out for extra information! The total of 32 students is not needed for this question—we only need the number of teams. There are 4 teams, and each team earns 5 points, so $4 \times 5 = \mathbf{20}$ bonus points in all. *Tip:* on tests, always ask "does this number help me?" before using it.
- Choice D is correct.** (4.NF.1) Which is NOT $\frac{1}{2}$? The first three all reduce to $\frac{1}{2}$: $\frac{3}{6} = \frac{4}{8} = \frac{5}{10} = \frac{1}{2}$. But $\frac{2}{5}$ is less than half.
- Choice B is correct.** (4.NF.5) Convert the fractions to decimals: $\frac{2}{10} = 0.2$ and $\frac{4}{10} = 0.4$. The decimal 0.3 fits between them.
- Choice B is correct.** (4.NF.3) The paper strip is divided into 3 equal parts, and all 3 are colored. So the whole strip is colored: $\frac{3}{3}$. As unit fractions: $\frac{1}{3} + \frac{1}{3} + \frac{1}{3}$.
- The correct answer is A, B.** (4.MD.7) An angle is made of a vertex (the meeting point) and two rays (the sides). A circle, arc, and line are not essential parts of an angle.
- Choice D is correct.** (4.OA.2) Marcus's 28 candles are 7 times Sylvio's amount. To find Sylvio's amount, divide: $28 \div 7 = 4$ candles.
- Choice B is correct.** (4.NF.4) Marcus reads $\frac{3}{12}$ of the book each day for 4 days. We multiply: $4 \times \frac{3}{12} = \frac{12}{12} = 1$ whole book.
- Choice B is correct.** (4.G.2) Triangle 2 shows a right angle marker in the form of a small square at one corner, which indicates a right triangle. Triangle 1 has no right angle marker. The answer is **B**.
- The correct answer is 60.** (4.MD.7) Divide 360 degrees by 6 equal sectors: $360^\circ \div 6 = \mathbf{60^\circ}$ per sector.
- Choice B is correct.** (4.NF.3) Same denominator, same rule: add the numerators ($4 + 5 = 9$), keep the denominator. Answer: $\frac{9}{10}$.
- The correct answer is 2,000.** (4.MD.1) Since 1 liter = 1,000 milliliters, multiply: $2 \times 1,000 = 2,000$ mL.
- Choice A is correct.** (4.NBT.4) Subtracting from 10,000 requires careful regrouping across all the zeros. The answer is **4,322**.



Ahoy, Math Sailor!

◇ You sailed through 5 full tests. Some waters were calm. Some waters were rough. You kept your boat steady the whole way. ◇

★ **Captain's truth:** good sailors stay calm. They use the wind. They check the map. You did all those things on every test. ★

Sailor's Skills

- **Steady Hand:** You stay calm even when problems are tricky.
- **Map Skills:** You read each problem carefully.
- **Brave Spirit:** You believe in yourself.
- **Safe Harbor:** You finish what you start.

Captain's tip: on test day, sail steady. Trust the map you built through 5 practice tests. You will reach safe harbor!

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

Jay Daie

Your Math Captain

5 PRACTICE TESTS. BUILD SKILLS. BOOST CONFIDENCE!

This **Grade 4 Math Practice Tests** book is designed to help students master essential math concepts, improve problem-solving skills, and build the confidence they need to excel.

With 5 full-length practice tests, a variety of question types, and detailed answer explanations, students get the practice they need to understand math, strengthen critical thinking, and perform their best on test day and beyond.

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- ✓ Independent Learning
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- ✓ Confidence Building

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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.



Master Key Concepts

Reinforce important skills aligned with grade-level standards.



Prepare for Success

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

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- ✓ Addition & Subtraction
- ✓ Multiplication & Division
- ✓ Fractions & Equivalent Fractions
- ✓ Decimals
- ✓ Geometry & Measurement
- ✓ Perimeter & Area
- ✓ Data, Graphs & Line Plots
- ✓ Patterns & Algebraic Thinking
- ✓ Word Problems
- ✓ And More!



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Mixed Question Types



Answer Key Included

A+