

# 6 Alaska AK STAR

## GRADE 4 MATH PRACTICE TESTS

Standards-Aligned Review with  
Mixed Practice and Answer Key



**MASTER KEY MATH CONCEPTS**  
**BUILD CONFIDENCE FOR TEST DAY**

**INCLUDES COMPREHENSIVE ANSWER KEY**  
**ALIGNED STATE STANDARDS**

# 6 Alaska AK STAR Grade 4 Math Practice Tests

*Standards-Aligned Review with Mixed Practice and Answer Key*



Six 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**



# Copyright ©

## Testinar Inc



Published by Testinar Inc

[Testinar.com](http://Testinar.com)

All rights reserved. No part of this publication may be reproduced, distributed, or transmitted in any form or by any means, including photocopying, recording, or other electronic or mechanical methods, without the prior written permission of the author, except in the case of brief quotations embodied in critical reviews and certain other noncommercial uses permitted by copyright law, including Section 107 or 108 of the 1976 United States Copyright Act.

This publication is independently produced and has no official connection to any state, district, or national testing program.

Test names and organizational names used herein are the property of their respective trademark holders.



*Copyright ©*

# Welcome, Alaska Math Explorer!

Six steady rounds on the Last Frontier math route

This book gives you six 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?

Six tests, 180 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 4–6	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

# Table of Contents

★ Practice Test 1	_____	14
★ Practice Test 2	_____	25
★ Practice Test 3	_____	36
★ Practice Test 4	_____	47
★ Practice Test 5	_____	59
★ Practice Test 6	_____	70
<b>Practice Test Answer Keys</b>	_____	<b>81</b>
<b>Practice Test Answers and Explanations</b>	_____	<b>85</b>

1) Which is NOT a valid decomposition of  $\frac{12}{10}$ ?

A.  $\frac{10}{10} + \frac{2}{10}$

B.  $\frac{5}{10} + \frac{5}{10} + \frac{2}{10}$

C.  $\frac{8}{10} + \frac{3}{10}$

D.  $\frac{6}{10} + \frac{6}{10}$

2) How many numbers from 20 to 30 are divisible by 2?

A. 4

B. 5

C. 6

D. 7

3) Kai is at a lemonade stand. Pitcher A holds 0.75 liters. Pitcher B holds 0.57 liters. Which pitcher holds more lemonade?

A. Pitcher A (0.75 L)

B. Pitcher B (0.57 L)

C. Both hold the same amount

D. Pitcher B holds twice as much

4) An array has 27 rows and 14 columns. How many items are in the array?

A. 378

B. 348

C. 324

D. 405

5) A number is written as 6 thousands, 7 hundreds, 3 tens, and 1 one. What is the value of the hundreds?

A. 7

B. 70

C. 700

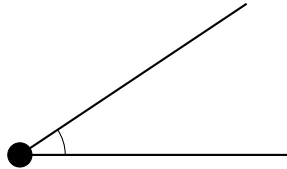
D. 7,000





10) How many degrees larger is  $145^\circ$  than  $55^\circ$ ?

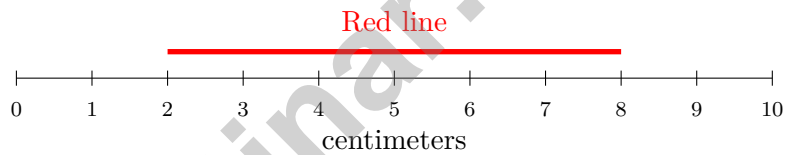
11)



Comparing this angle to a right angle, this angle is:

- |   |  |
|---|--|
| <input type="checkbox"/> A. larger        | <input type="checkbox"/> C. smaller          |
| <input type="checkbox"/> B. the same size | <input type="checkbox"/> D. a straight angle |

12)



Based on the ruler, what is the length of the red line in millimeters?

- |                                   |                                    |
|-----------------------------------|------------------------------------|
| <input type="checkbox"/> A. 60 mm | <input type="checkbox"/> C. 100 mm |
| <input type="checkbox"/> B. 80 mm | <input type="checkbox"/> D. 120 mm |

13) Point  $T$  is between points  $R$  and  $S$ . If  $RT = 5$  and  $TS = 7$ , what is  $RS$ ?

1) What is the mistake in this subtraction?

$$\begin{array}{r} 5,003 \\ -1,245 \\ \hline 4,758 \end{array}$$

- A. The student did not regroup correctly.  
 B. The student added instead of subtracted.  
 C. The answer is correct; there is no mistake.  
 D. The student forgot to carry.

2) A quadrilateral has two pairs of opposite sides that are equal and parallel. Is this figure a rectangle?

- A. Yes, always  
 B. No, never  
 C. Only if it has right angles  
 D. Only if all four sides are equal

3)



What is the measure of angle  $\gamma$ ?

- A.  $45^\circ$   
 B.  $60^\circ$   
 C.  $90^\circ$   
 D.  $135^\circ$

4) A baker had  $3\frac{3}{5}$  cups of sugar. She used  $2\frac{1}{5}$  cups for a cake. How much sugar is left?

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



5) An input-output pattern is shown:

Input	6	7	8	9
Output	12	14	16	?

What is the output when the input is 9?

- A. 17                                       C. 19  
 B. 20                                       D. 18
- 6) Round 34,750 to the nearest thousand.

### Liquid Containers

250 mL

Container A

$\frac{1}{2}$  L

Container B

200 mL

Container C

7)

If you pour all three containers together, how many milliliters of liquid do you have in total?

- A. 450 mL                                       C. 750 mL  
 B. 650 mL                                       D. 950 mL



Scan me!  
For more practice  
& answers

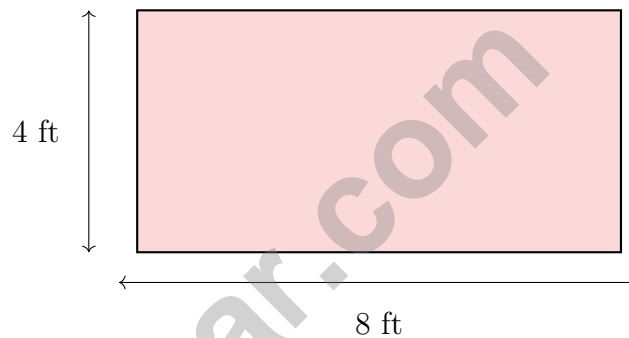


6) An angle is divided into 27 one-degree angles. What is the measure of the angle?

- A.  $27^\circ$                        C.  $54^\circ$   
 B.  $13.5^\circ$                        D.  $270^\circ$

7) Sam measured ribbon lengths in fourths of a meter. She got:  $\frac{2}{4}$ ,  $\frac{3}{4}$ ,  $\frac{2}{4}$ ,  $\frac{4}{4}$ ,  $\frac{3}{4}$ ,  $\frac{3}{4}$ . When plotted, which measurement has the most X marks?

- A.  $\frac{2}{4}$  m                       C.  $\frac{4}{4}$  m  
 B.  $\frac{3}{4}$  m                       D. 1 m



8)

A farmer wants to put a fence around this rectangular field. How many feet of fencing does he need?

- A. 32 ft                       C. 48 ft  
 B. 12 ft                       D. 24 ft

9) A pizza is cut into 8 equal slices. Each slice represents an angle of  $45^\circ$ . What is the total angle if you combine 3 slices?

- A.  $45^\circ$                        C.  $135^\circ$   
 B.  $90^\circ$                        D.  $180^\circ$



Scan me!  
For more practice  
& answers

## 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.**

Testinar.com



Scan me!  
For more practice  
& answers

## Practice Test Answers and Explanations

### Practice Test 1 Answers and Explanations

- Choice C is correct.** (4.NF.3) Option C:  $8 + 3 = 11$ , not 12. So  $\frac{8}{10} + \frac{3}{10} = \frac{11}{10} \neq \frac{12}{10}$ . C is the wrong one ✓.
- Choice C is correct.** (4.NBT.1) List the even numbers from 20 through 30: 20, 22, 24, 26, 28, 30. Count them: 6 numbers. (Even numbers are exactly the ones divisible by 2.)
- Choice A is correct.** (4.NF.5) Compare the tenths place:  $7 > 5$ , so  $0.75 > 0.57$ . Pitcher A holds more lemonade.
- Choice A is correct.** (4.NBT.5) Break 14 into parts:  $27 \times (10 + 4) = 270 + 108 = 378$  items.
- Choice C is correct.** (4.NBT.1) “7 hundreds” means  $7 \times 100 = 700$ . The full number 6,731 confirms this. ✓
- Choice A is correct.** (4.NF.3) Since  $\frac{1}{3} < \frac{2}{3}$ , regroup:  $2\frac{1}{3} = 1\frac{4}{3}$ . Subtract the wholes:  $1 - 1 = 0$ . Subtract the fractions:  $\frac{4}{3} - \frac{2}{3} = \frac{2}{3}$ .
- Choice A is correct.** (4.MD.7) The measure of an angle equals the number of one-degree angles it turns through, so 40 one-degree angles equal  $40^\circ$ .
- Choice A is correct.** (4.NF.3) Lily took 4 slices out of 9 equal slices, which is  $\frac{4}{9}$ . Breaking it into unit fractions:  $\frac{4}{9} = \frac{1}{9} + \frac{1}{9} + \frac{1}{9} + \frac{1}{9}$ —four unit fractions of ninths.
- Choice B is correct.** (4.NF.3) The path started at  $\frac{10}{12}$  meter. Rain washed away  $\frac{4}{12}$  meter. What’s left:  $10 - 4 = 6$  twelfths, or  $\frac{6}{12}$  meter.
- The correct answer is 90.** (4.MD.8) Subtract the smaller angle from the larger:  $145^\circ - 55^\circ = 90^\circ$ . So the  $145^\circ$  angle is  $90^\circ$  larger (exactly one right angle larger!). The answer is 90 degrees.
- Choice C is correct.** (4.MD.7) This angle has a smaller opening than a right angle, making it acute.
- Choice A is correct.** (4.MD.1) The red line spans from 2 cm to 8 cm. The length is  $8 - 2 = 6$  cm. Convert to millimeters:  $6 \times 10 = 60$  mm. The answer is 60 mm.
- The correct answer is 12.** (4.G.1) Since  $T$  is between  $R$  and  $S$ , add the pieces:  $RS = RT + TS = 5 + 7 = 12$ .
- Choice B is correct.** (4.NF.4) Emma has 3 stickers, and each weighs  $\frac{1}{5}$  ounce. We multiply:  $3 \times \frac{1}{5} = \frac{3}{5}$  ounce.
- Choice C is correct.** (4.NF.4) Sam made an error. The correct multiplication is  $2 \times \frac{3}{5} = \frac{2 \times 3}{5} = \frac{6}{5} = 1\frac{1}{5}$ . The answer is  $1\frac{1}{5}$ .
- Choice A is correct.** (4.NF.5) The number line counts by tenths: 0.2 is the very first mark to the right of 0, so it’s at position A.
- Choice A is correct.** (4.MD.2) There are 256 grams of seeds for 8 packets. Divide equally:  $256 \div 8 = 32$  grams. Each packet has 32 grams of seeds.
- The correct answer is A, D.** (4.MD.5) Statement A is true: the total X marks is  $1 + 2 + 3 + 1 = 7$ . Statement D is true: the mode is  $\frac{4}{8}$  with 3 X marks (the most). The range is  $\frac{5}{8} - \frac{1}{8} = \frac{4}{8}$ , so B and C are false. There are only 3 X marks at  $\frac{4}{8}$ , not 6, so E is false.
- Choice A is correct.** (4.NBT.4) Subtracting from 6,001 requires regrouping across the two middle zeros. Ones:  $1 < 5$ , borrow from the tens—but the tens and hundreds are both 0, so borrow chains all the way to the thousands ( $6 \rightarrow 5$ ). The two 0s become 9s; the ones becomes 11. Now:  $11 - 5 = 6$ ,  $9 - 4 = 5$ ,  $9 - 3 = 6$ ,  $5 - 2 = 3$ . Result: **3,656**. ✓
- The correct answer is  $\frac{8}{10}$ .** (4.NF.4) Eight parts of  $\frac{1}{10}$ :  $8 \times \frac{1}{10} = \frac{8}{10}$ .
- Choice B is correct.** (4.G.2) A trapezoid is defined by having exactly one pair of parallel sides. Since parallelograms, rectangles, and rhombuses each have two pairs of parallel sides, they cannot be trapezoids. The answer is B.
- Choice D is correct.** (4.NBT.2) The first three digits (hundred-thousands, ten-thousands, thousands) match. Hundreds:  $3 < 4$ , so Chart 1 is less ✓
- Choice D is correct.** (4.OA.1) Step 1: find the ducks:  $7 \times 5 = 35$ . Step 2: “how many more” is a subtraction:  $35 - 7 = 28$ . The farmer has 28 more ducks than chickens.
- Choice D is correct.** (4.NBT.1) Double each term: 2, 4, 8, 16, 32, 64, **128**. The 7th term is 128.
- Choice C is correct.** (4.NF.5) The dot is at the third mark out of 10 equal marks, so it shows  $\frac{3}{10}$ .
- Choice D is correct.** (4.NF.1) Check D: Cross-multiply  $\frac{2}{5}$  and  $\frac{4}{12}$ :  $2 \times 12 = 24$  and  $5 \times 4 = 20$ . They’re not equal, so D is false. A, B, and C are all true equivalent fractions.



Scan me!  
For more practice  
& answers

Star Player Pep Talk

---

## Hi, Star Player!

◇ 6 practice tests. Every one of them was a chance to grow. You took every chance. That's why you're a math star today! ◇

★ **Star players know:** confidence comes from practice. You can't fake it. You build it. You built yours over 6 tests. It's real now! ★

### Star Player Stats

- **Practice:** OFF THE CHARTS!
- **Skills:** BROAD! You can do many problem types.
- **Toughness:** HIGH! You don't quit on hard problems.
- **Game Plan:** READY! You know your strategies.

**Star tip:** on test day, take it one play at a time. One problem. Then the next. You will earn your stars!

If you want to share something or ask a question, please email me at [jay@testinar.com](mailto:jay@testinar.com).

**Jay Daie**

Your Math Coach

# PRACTICE TODAY, SUCCEED TOMORROW!

This **Grade 4 Math Practice Tests** book is the perfect tool to help students strengthen their math skills, master important concepts, and build confidence for test success.

With 6 full-length practice tests, a variety of question types, and detailed answer explanations, students get the review and practice they need to improve accuracy, develop critical thinking, and achieve their best.

Ideal 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 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.



### 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.

## TOPICS COVERED

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



Visit [testinar.com/math4](https://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.

**BUILT FOR LEARNING.  
DESIGNED FOR SUCCESS.**



Builds Confidence Through Practice



Strengthens Critical Thinking & Problem Solving



Encourages Independent Learning



Prepares Students for Test Day Success