

5

Alaska

AK STAR

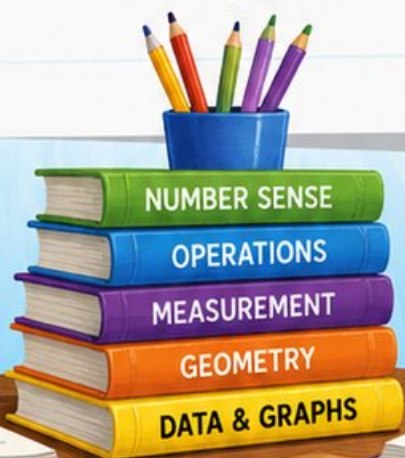
GRADE 3

MATH

PRACTICE TESTS

Standards-Aligned Practice with
Review, Answer Keys, and Explanations

$24 \div 3 = 8$



5 FULL-LENGTH
PRACTICE TESTS



STANDARDS-
ALIGNED
PRACTICE



DETAILED
ANSWER KEYS



CLEAR
EXPLANATIONS
TO HELP YOU SUCCEED

5 Alaska AK STAR Grade 3 Math Practice Tests

Standards-Aligned Review with Mixed Practice and Answer Key



Five focused 30-question checkpoints for Grade 3 math: facts, fractions, measurement, data, area, shapes, answer keys, and clear explanations for every item.

Jay Daie and Reza Nazari



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Welcome to the Five Checkpoint Quest

Five tests, five fresh starts, and one stronger Grade 3 thinker



Read. Model. Solve. Check. Grow.

To the Grade 3 Math Explorer

This book gives you five practice checkpoints for the Alaska AK STAR. Each checkpoint is a full 30-question test, so you can practice stamina, accuracy, and the habit of showing what you know.

Alaska has glacier paths, northern lights, salmon streams, and wide spaces where careful steps matter. Strong math uses the same kind of careful planning: look at the path, choose a tool, and check your work before moving ahead.

Notice

Circle key words, units, and numbers before you start.

Build

Use arrays, number lines, equations, tables, or sketches.

Verify

Ask, "Does this answer fit the question?"

Five-checkpoint promise: I will try each test with patience, mark my mistakes honestly, and use every correction to make the next checkpoint stronger.

How to Use This Book

A five-step routine for steady Grade 3 growth

Use one checkpoint at a time. A good pace is one test, one careful review, and one short skill tune-up before the next test.

1. **Preview the tools.** Skim the reference page and remember where multiplication, fractions, measurement, and shapes appear.
2. **Take one full test.** Work neatly. If a problem feels stuck, mark it and keep moving.
3. **Check the answer key.** Notice the question type: multiple choice, select all, or open-ended.
4. **Study explanations.** Pick two missed questions and redo them without looking.
5. **Choose the next focus.** Write one habit to carry into the next checkpoint.

Best review habit: Do not just ask, “What was the answer?” Ask, “What clue did I miss, and what tool should I try next time?”



What Is Inside?

Five complete practice tests with review support

Part	What You Do	Why It Helps
Practice Tests 1–5	Solve five different 30-question tests.	Build stamina and see many Grade 3 skills mixed together.
Answer Keys	Check each answer in compact boxes.	Find mistakes quickly without losing your place.
Explanations	Read the reason behind each answer.	Turn missed items into a clear next step.
Standards Reference	See how Alaska Grade 3 standards connect to practice.	Understand the skills behind the questions.

Each test has 26 multiple-choice questions, 1 select-all question, and 3 open-ended questions. That mix gives students practice with quick choices, careful reasoning, and short written answers.



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& answers

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1) Which number sentence shows the commutative property of multiplication?

A. $(2 \times 3) \times 2 = 2 \times (3 \times 2)$

C. $2 \times 5 = 10$

B. $5 \times 4 = 20$

D. $5 \times 4 = 4 \times 5$

2) Round 756 to the nearest 100.

A. 700

C. 756

B. 750

D. 800

3) Mia draws a number line from 0 to 1 with 4 equal parts. She skip-counts by fourths:

$\frac{1}{4}, \frac{2}{4}, \frac{3}{4}, \frac{4}{4}$. Compare $\frac{2}{4}$ and $\frac{3}{4}$. How many fourths apart are they?

 A. 1 fourth C. 3 fourths B. 2 fourths D. 4 fourths

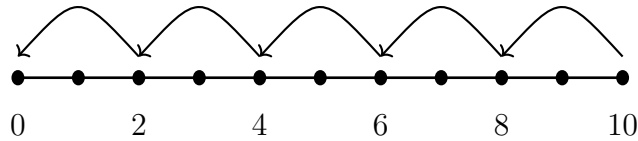
4) A point is marked on a number line from 0 to 1 with 2 equal parts. The point is at $\frac{1}{2}$. Which statement is true?

 A. It is closer to 0 than 1 C. It is halfway between 0 and 1 B. It is closer to 1 than 0 D. It is at 0

9) Which strategy correctly finds the product 8×6 ?

- A. Think of $8 + 6 = 14$
 C. Subtract 8 from 100
 B. Add $8 + 8 + 6$
 D. Count by 6s eight times

10) Which number sentence is shown by the repeated subtraction on the number line?



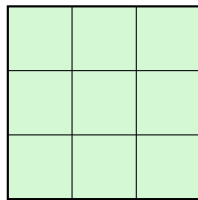
- A. $10 \div 2 = 5$
 C. $10 - 2 = 8$
 B. $10 \div 5 = 2$
 D. $2 \times 5 = 10$

11) The circles below are completely shaded. How many wholes do they show?



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

12)



Count the unit squares in this grid. How many unit squares cover this shape?

- A. 6 unit squares
 C. 9 unit squares
 B. 8 unit squares
 D. 12 unit squares



1) Which expression uses the associative property to regroup $4 \times (3 \times 2)$ without changing the order of the factors?

A. $4 + (3 \times 2)$

C. $(4 \times 2) \times 3$

B. $(4 \times 3) + 2$

D. $(4 \times 3) \times 2$

2) A room is 7 feet long and 4 feet wide. Explain how you would count the unit squares in this rectangle. Would you count by rows or by columns? Show your work.



3) Is every square also a rectangle?

 A. Yes, because a square has 4 sides and 4 right angles C. No, because a square has more sides B. No, because a square has equal sides D. Yes, only if it is very large

4) A picture graph shows cookies eaten. Each star is 4 cookies. Zoe ate 6 stars and Jake ate 4 stars. How many fewer cookies did Jake eat?

A. 2

C. 12

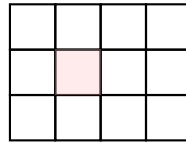
B. 8

D. 24

5) Lily marks $\frac{1}{3}$ on one number line. Her brother marks $\frac{2}{6}$ on another number line. Are their marks at the same position?

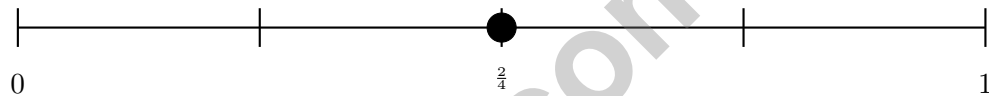
 A. No, $\frac{1}{3}$ is further left. C. Yes, both marks are at the same place. B. No, $\frac{2}{6}$ is further left. D. The number lines are different.

- 6) Look at this shape made of unit squares. One square is shaded pink to help you see it:



How many distinct unit squares cover the shape?

- A. 11 unit squares C. 13 unit squares
 B. 12 unit squares D. 24 unit squares
- 7) On a number line from 0 to 1 with 4 equal parts, which pair names the same point?



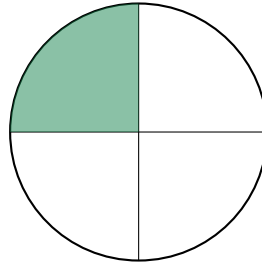
- A. $\frac{2}{4}$ and $\frac{3}{4}$ C. $\frac{2}{4}$ and $\frac{2}{2}$
 B. $\frac{2}{4}$ and $\frac{1}{2}$ D. $\frac{2}{4}$ and $\frac{4}{4}$
- 8) Which number sentence matches “How many 5-packs of pencils are in 25 pencils?”
- A. $25 + 5$ C. 5×25
 B. $5 - 25$ D. $25 \div 5$
- 9) Ben divides 35 trading cards equally among 5 friends. How many cards does each friend get?

- A. 30 C. 6
 B. 8 D. 7

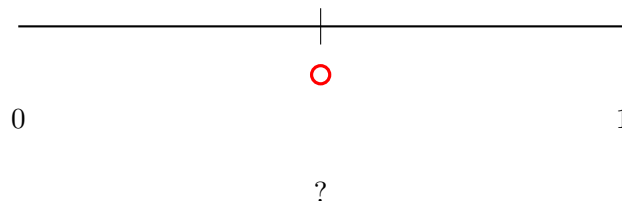


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- 1) A pizza circle is divided into equal parts. Mia takes 1 part and it is $\frac{1}{4}$ of the pizza. How many equal parts is the pizza divided into?



- A. 2 parts C. 4 parts
 B. 3 parts D. 6 parts
- 2) Ava ate $\frac{1}{2}$ of a pizza. Ben ate $\frac{4}{8}$ of a pizza. Did they eat the same amount?
- A. Yes, they ate the same amount C. No, Ben ate more
 B. No, Ava ate more D. Cannot be determined
- 3) A bar graph shows the scale as 5 items per unit. If a bar is 4 units tall, it represents how many items?
- A. 4 items C. 20 items
 B. 9 items D. 25 items
- 4) Identify the fraction at the marked point on this number line from 0 to 1 divided into 2 equal parts.

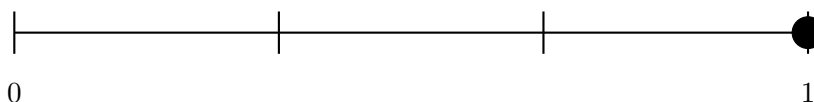


- A. $\frac{1}{2}$ C. $\frac{1}{4}$
 B. $\frac{1}{3}$ D. $\frac{2}{3}$



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& answers

5) What fraction is at the third (last) tick mark on a 3-part number line from 0 to 1?



- A. $\frac{1}{3}$
 B. $\frac{2}{3}$

- C. $\frac{3}{3}$
 D. $\frac{3}{1}$

6) Which grouping makes a factor of 10 first when finding $(2 \times 5) \times 3$?

- A. $(2 \times 5) \times 3$ because $2 \times 5 = 10$

- C. $(2 + 5) \times 3$ because $2 + 5 = 7$

- B. $2 \times (5 \times 3)$ because $5 \times 3 = 15$

- D. Neither grouping works

7) A rectangular garden has a length of 8 m and a width of 6 m. What is the area?

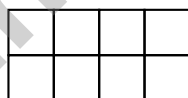
- A. 28 m^2

- C. 14 m^2

- B. 42 m^2

- D. 48 m^2

8) Here is a shape made of unit squares arranged in a grid. The shape has 8 unit squares. What is the area?



- A. 4 sq units

- C. 12 sq units

- B. 8 sq units

- D. 16 sq units

9) Ava has a rectangular piece of paper. The length is 7 inches and the width is 2 inches. What is the area?

- A. 9 sq in

- C. 12 sq in

- B. 14 sq in

- D. 18 sq in



Practice Test Answer Keys

How to use this section with a Grade 3 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.** **(3.OA.B.5)** Commutative property means we can switch the order of the factors. Both sides have the same factors in a different order.
- Choice D is correct.** **(3.NBT.A.1)** The tens digit is 5. Since $5 \geq 5$, round up: 756 rounds to 800.
- Choice A is correct.** **(3.NF.A.2b)** The distance from $\frac{2}{4}$ to $\frac{3}{4}$ is $\frac{3}{4} - \frac{2}{4} = \frac{1}{4}$, or 1 fourth.
- Choice C is correct.** **(3.NF.A.2)** $\frac{1}{2}$ divides the distance into two equal parts, so it is exactly in the middle.
- Choice B is correct.** **(3.MD.A.1)** The minute hand points to 52 (just before the 11), and the hour hand is between 4 and 5. The time is 4 : 52.
- Choice A is correct.** **(3.OA.D.9)** $8 \rightarrow 16$ is +8; $16 \rightarrow 24$ is +8; $24 \rightarrow 32$ is +8. The row for 8 shows multiples of 8: $8 \times 1 = 8$, $8 \times 2 = 16$, $8 \times 3 = 24$, etc.
- Choice D is correct.** **(3.MD.C.5b)** $9 \times 4 = 36$ unit squares.
- Choice D is correct.** **(3.NBT.A.3)** 7 packs of 10 pencils = $7 \times 10 = 70$ pencils.
- Choice D is correct.** **(3.OA.C.7)** 8×6 means 8 groups of 6. Skip-counting: 6, 12, 18, 24, 30, 36, 42, 48. The product is 48.
- Choice A is correct.** **(3.OA.A.2)** The number line shows 5 jumps of -2 from 10 to 0. This represents $10 \div 2 = 5$ (there are 5 groups of 2 in 10).
- Choice C is correct.** **(3.NF.A.3c)** Three complete circles = 3 wholes = $\frac{3}{1}$.
- Choice C is correct.** **(3.MD.C.5a)** A 3×3 square contains $3 \times 3 = 9$ unit squares.
- Choice C is correct.** **(3.MD.C.7d)** Upper part: $6 \times 3 = 18$ sq units. Lower part: $4 \times 2 = 8$ sq units. Total: $18 + 8 = 26$ sq units.
- Choice B is correct.** **(3.MD.C.5)** Rectangle: $3 \times 7 = 21$ square units. Square: $5 \times 5 = 25$ square units. The square covers more space.
- Choices B and E are correct.** **(3.MD.C.7a)** Compute each product: A is 30, B is 32, C is 33, D is 28, and E is 32. Rectangles B and E both have area 32 square units.
- Choice D is correct.** **(3.OA.A.1)** The addition $9 + 9 + 9 + 9$ has four 9's, so it equals $4 \times 9 = 36$.
- Choice A is correct.** **(3.NF.A.3d)** One half and two fourths cover equal areas in the bars. They are equivalent fractions.
- Choice A is correct.** **(3.MD.C.7b)** Area = length \times width = $8 \times 6 = 48$ square feet.
- Choice D is correct.** **(3.OA.B.6)** The bar is divided into 6 equal parts with a total of 48. Each part is $48 \div 6 = 8$. You can check: $8 \times 6 = 48$.
- The correct answer is 32 square units.** **(3.MD.C.7c)** $5 + 3 = 8$, and $4 \times 8 = 32$ square units.
- Choice C is correct.** **(3.NF.A.2a)** Each step is one eighth. Five steps from 0 land at $\frac{5}{8}$.
- The correct answer is 14.** **(3.OA.D.8)** $80 \div 5 = 16$, and $16 - 2 = 14$.
- Choice A is correct.** **(3.OA.A.4)** If $72 \div 8 = 9$, then 8×9 must equal 72.
- Choice B is correct.** **(3.MD.C.7)** Area = length \times width. So $20 = 5 \times$ width. Width = $20 \div 5 = 4$ feet.
- The correct answer is 30 apples.** **(3.MD.B.3)** Basket A: $2 \times 5 = 10$ apples. Basket B: $4 \times 5 = 20$ apples. Total: $10 + 20 = 30$ apples.
- Choice C is correct.** **(3.MD.B.4)** Add all X's: $2 + 3 + 2 + 1 = 8$ pencils total.
- Choice C is correct.** **(3.NF.A.1)** The denominator equals the total number of equal parts. A rectangle with 4 equal parts has a denominator of 4, so one part is $\frac{1}{4}$.
- Choice C is correct.** **(3.NF.A.3b)** The denominator was multiplied by 3 (from 2 to 6). Multiply the numerator by 3: $1 \times 3 = 3$. So $\frac{1}{2} = \frac{3}{6}$.
- Choice B is correct.** **(3.MD.A.2)** 3 L = 3000 mL. Subtract: $3000 - 1500 = 1500$ mL.
- Choice A is correct.** **(3.NBT.A.2)** Ones: $0 - 5$ requires regrouping, so $10 - 5 = 5$. Tens: $4 - 2 = 2$. Hundreds: $7 - 3 = 4$. Answer: 425.



Hi, Strong Climber!

◇ You climbed all 5 tests. One step at a time. That takes patience and grit. The view from the top is amazing because you earned it! ◇

★ **Mountain guides say:** steady steps win the climb. You climbed steady. You stayed strong. ★

Climber's Skills

- **Strong Steps:** You move forward, problem by problem.
- **Steady Pace:** You don't rush. You don't stop.
- **Map Skills:** You read questions carefully.
- **Top of the Mountain:** You can finish a long test.

Guide's tip: on test day, take small breaths between problems. One foot, then the next. You'll reach the top!

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

Jay Daie

Your Math Trail Guide

Build Skills. Boost Confidence.

Excel in Grade 3 Math!

This book provides 5 full-length Grade 3 math practice tests that follow standards and help students achieve real results.



5 Full-Length Practice Tests

Realistic tests to build stamina and familiarity.



Standards-Aligned Practice

Questions match Grade 3 math standards and key skills.



Answer Keys & Explanations

Detailed answers that show steps and clear reasoning.



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Strengthen concepts in numbers, operations, fractions, geometry, measurement, and more.

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- ✓ Geometry
- ✓ Perimeter, Area & Volume
- ✓ Time & Money
- ✓ Data & Graphs
- ✓ Word Problems
- ✓ And More!



Visit testinar.com/math3 for more Grade 3 math resources and practice materials!



$$\begin{array}{r} 7 \times 8 \\ = 56 \end{array}$$

$$\begin{array}{r} 36 \\ \div 4 = 9 \end{array}$$

$$\begin{array}{r} 452 \\ - 178 \\ \hline = 274 \end{array}$$



Everything Your Child Needs to Succeed in Grade 3 Math!



Perfect For:



Classroom Learning



Homework Support



Test Preparation



Extra Practice & Review