

9

Alaska AK STAR

GRADE 3 MATH PRACTICE TESTS

COMPLETE STANDARDS REVIEW WITH SKILL PRACTICE,
WORD PROBLEMS, AND ANSWER KEY



10

FOR THE COMPREHENSIVE ASSESSMENT PROGRAM

9 Alaska AK STAR Grade 3 Math Practice Tests

Standards-Aligned Review with Mixed Practice and Answer Key



Nine complete 30-question Grade 3 practice rounds with operations, fractions, measurement, data, area, shapes, answer keys, and clear explanations for every item.

Jay Daie and Reza Nazari



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Alaska, Start Your Nine-Round Math Mission

A careful Grade 3 quest from first try to confident finish

This book gives you nine chances to practice like a thoughtful Alaska AK STAR test taker. Each round mixes numbers, shapes, fractions, data, measurement, and word problems so your brain learns to switch skills calmly.

Alaska has glacier trails, salmon streams, mountain weather, northern lights, and careful travel maps, where careful steps matter. Strong math follows that same idea: estimate what the question asks, choose a useful tool, show the work, and prove before moving on.

Your Alaska Math Promise

I will slow down enough to understand the question. I will show the work that helps me think. I will use mistakes as practice fuel, then try again with a sharper plan.

Nine rounds is not about rushing. It is about building a math habit that stays strong.

How to Use This Book

A nine-session routine for clear Alaska review

1. **Warm up first.** Read the quick review pages and remind yourself of the big ideas.
2. **Take one test at a time.** Work without rushing. Circle words, sketch models, and label units.
3. **Check the answer key.** Mark correct answers, then star questions that need another look.
4. **Read explanations after trying again.** The explanation works best after your brain has wrestled with the problem.
5. **Use the growth log.** Track the score, one strong habit, and one skill to practice next.

Good rhythm: Test one day, review the next day, then take the next test when your corrections feel clear. In Alaska, that steady routine turns nine tests into one organized prep plan.



What Is Inside the Nine Tests?

Mixed Grade 3 practice with AK STAR support

Part	What You Practice
Nine full tests	30 mixed Grade 3 questions in each round
Question styles	Multiple choice, select-all, and open-ended work spaces
Math topics	Operations, patterns, rounding, fractions, measurement, data, area, perimeter, and shapes
Answer support	Compact answer keys plus explanations for every item
Standards help	A Alaska standards reference and standard-code boxes in explanations

Why mixed practice helps: Real tests do not announce the next skill. These nine rounds help students recognize the math move they need, even when the topic changes from question to question.



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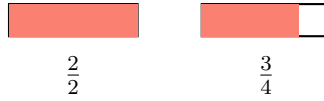
5) What is $635 - 241$?

A. 394

C. 384

B. 404

D. 464



6)

Order these fractions from smallest to largest: $\frac{3}{4}$, $\frac{2}{2}$, $\frac{3}{8}$.

A. $\frac{2}{2}$, $\frac{3}{4}$, $\frac{3}{8}$

C. $\frac{3}{4}$, $\frac{3}{8}$, $\frac{2}{2}$

B. $\frac{3}{8}$, $\frac{3}{4}$, $\frac{2}{2}$

D. $\frac{3}{8}$, $\frac{2}{2}$, $\frac{3}{4}$

7) Which missing divisor makes this division sentence true?

$$18 \div _ = 3$$

A. 5

C. 21

B. 15

D. 6

8) Ms. Chen's class has 4 rows of desks with 6 desks in each row. Then she brings in 8 more desks for group work. How many desks are there altogether?

Item	Count
Desks per row	6
Number of rows	4
Additional desks	8

A. 24

C. 30

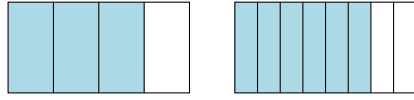
B. 28

D. 32



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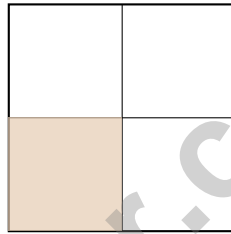
9) Look at the two rectangles. Do they show equivalent fractions?



Rectangle 1: $\frac{3}{4}$ Rectangle 2: $\frac{6}{8}$

- A. Yes, they are equivalent C. It is unclear
 B. No, they are not equivalent D. No, Rectangle 1 is larger

10) A square chocolate bar is divided equally into 4 parts. Ben eats $\frac{1}{4}$ of the bar. How many parts does Ben eat?



- A. 1 part C. 3 parts
 B. 2 parts D. 4 parts

11) What fraction is equivalent to both $\frac{2}{4}$ and $\frac{3}{6}$?



6) Which shows why 4×20 equals 80?

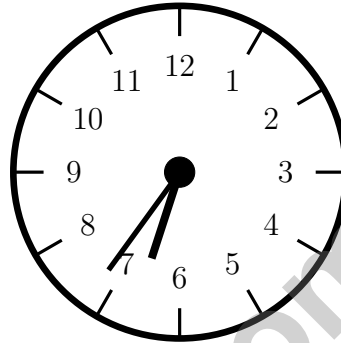
A. $(4 + 2) \times 10 = 60$

B. $4 + 2 + 10 = 16$

C. $4 \times (2 + 10) = 48$

D. $(4 \times 2) \times 10 = 8 \times 10 = 80$

7) Look at the clock. What time is shown?



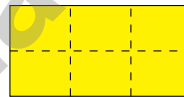
A. 6 : 32

B. 6 : 36

C. 4 : 30

D. 10 : 32

8)



This rectangle is divided into equal parts. How many parts are there?

A. 8 parts

B. 4 parts

C. 5 parts

D. 6 parts

9) What is 145 rounded to the nearest 100?

A. 100

B. 140

C. 150

D. 200



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1) Which list shows skip counting by 4s?

A. 2, 4, 6, 8, 10

C. 3, 6, 9, 12, 15

B. 5, 10, 15, 20, 25

D. 4, 8, 12, 16, 20

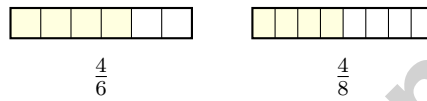
2) Ava has 15 stickers. She puts them equally into 5 envelopes. How many stickers does each envelope have?

A. 10

C. 20

B. 2

D. 3



3)

Compare $\frac{4}{6}$ and $\frac{4}{8}$. Which is true?

A. $\frac{4}{6} > \frac{4}{8}$ (same numerator, $6 > 8$)

D. $\frac{4}{8} > \frac{4}{6}$ (more pieces means more amount)

B. $\frac{4}{6} < \frac{4}{8}$ ($8 > 6$)

C. $\frac{4}{6} = \frac{4}{8}$



Opposite sides

4)

Parallelogram

In a parallelogram, are the opposite sides equal in length?

A. No, they are never equal

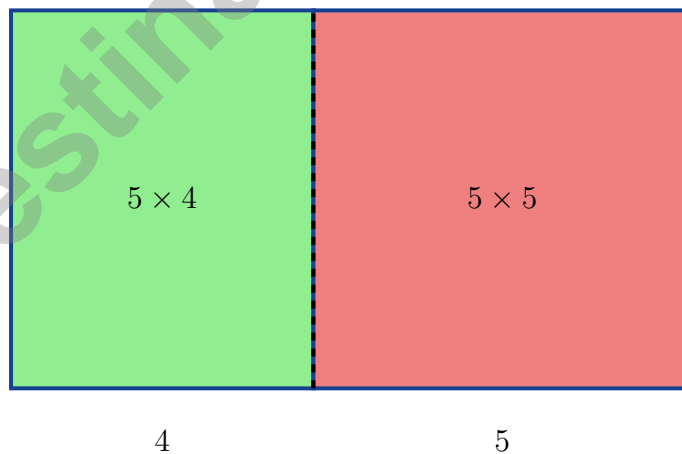
C. Only the top and bottom are equal

B. Yes, opposite sides are equal

D. Opposite sides are perpendicular



- 5) Noah thinks of a number. He multiplies it by 5. The result is 45. Which equation shows what Noah did?
- A. $\square \times 5 = 45$ C. $5 + \square = 45$
 B. $45 \div 5 = \square$ D. $\square - 5 = 45$
- 6) A bar graph shows games played. Soccer bar is 3 units, basketball bar is 4 units, tag bar is 2 units. Each unit is 5 games. How many total games were played?
- A. 45 C. 55
 B. 50 D. 60
- 7) A T-shaped living area has parts with areas 12 sq units, 9 sq units, and 9 sq units. What is the total area?
- A. 30 sq units C. 36 sq units
 B. 21 sq units D. 108 sq units
- 8) Look at this area model split into two parts.



What is the total area?

- A. 20 C. 50
 B. 25 D. 45



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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 A is correct.** **(3.NBT.1)** Numbers from 65 to 74 round to 70. Among choices, A (65) is odd and rounds to 70. B (68) is even. C (72) is even. D (74) is even.
- Choice D is correct.** **(3.OA.4)** Use the inverse: $8 \times 3 = 24$, so $24 \div 3 = 8$.
- Choice B is correct.** **(3.NF.1)** The denominator tells how many equal parts the whole is divided into. One-third ($\frac{1}{3}$) means 3 equal parts.
- Choice A is correct.** **(3.NF.2)** Point X is at $\frac{1}{4}$, while Point Y is at $\frac{1}{8}$. Since $\frac{1}{4} = \frac{2}{8}$, Point X is farther from 0.
- Choice A is correct.** **(3.NBT.2)** Ones: $5 - 1 = 4$. Tens: $3 - 4$ requires regrouping, so $13 - 4 = 9$. Hundreds: $5 - 2 = 3$. Answer: 394.
- Choice B is correct.** **(3.NF.3)** $\frac{3}{8} < \frac{3}{4}$ because eighths are smaller parts than fourths. Also, $\frac{2}{2} = 1$, so the order is $\frac{3}{8}, \frac{3}{4}, \frac{2}{2}$.
- Choice D is correct.** **(3.OA.2)** If $18 \div ? = 3$, then $? = 6$ because $6 \times 3 = 18$. Check: $18 \div 6 = 3$ is correct.
- Choice D is correct.** **(3.OA.8)** Step 1: Desks in rows: $4 \times 6 = 24$ desks. Step 2: Add more: $24 + 8 = 32$ desks total.
- Choice A is correct.** **(3.NF.3)** Both rectangles show the same shaded area. $\frac{3}{4} = \frac{6}{8}$ because $\frac{3 \times 2}{4 \times 2} = \frac{6}{8}$.
- Choice A is correct.** **(3.G.2)** $\frac{1}{4}$ of a bar divided into 4 equal parts is 1 part.
- The correct answer is $\frac{1}{2}$.** **(3.NF.2)** $\frac{2}{4} = \frac{3}{6} = \frac{1}{2}$.
- Choice B is correct.** **(3.G.1)** A rectangle has two pairs of opposite equal sides: one pair of long sides and one pair of short sides.
- Choice D is correct.** **(3.OA.1)** The array shows 3 columns and 4 rows, so $3 \times 4 = 12$ or $4 \times 3 = 12$.
- Choice B is correct.** **(3.OA.7)** A fact family uses the same three numbers in multiplication and division. Only choice B has a true related fact: $4 \times 6 = 24$ and $24 \div 4 = 6$.
- Choice D is correct.** **(3.OA.9)** List B increases by 1, then 2, then 3, then 4 (no constant rule). The others are skip-count patterns.
- Choices A and C are correct.** **(3.G.2)** When numerator = denominator, the fraction always equals 1 whole. (B) $\frac{3}{1} = 3$, not 1. (D) and (E) are less than 1.
- Choice A is correct.** **(3.NF.2)** Point F at 4 on a halves-divided line is the 8th half-mark: $\frac{8}{2} = 4$.
- Choice A is correct.** **(3.NF.3)** $\frac{2}{8}$ and $\frac{1}{4}$ both equal one-quarter of a whole.
- Choice C is correct.** **(3.NBT.3)** 5×10 means 5 groups of 10, which is the same as adding 10 five times: $10 + 10 + 10 + 10 + 10 = 50$. This shows that multiplication is repeated addition.
- Choice A is correct.** **(3.MD.9)** The distributive property breaks 5 into $2 + 3$ and multiplies 7 by each part.
- Choice D is correct.** **(3.MD.1)** $7 : 33 + 3$ hours = $10 : 33$. Then $10 : 33 + 17$ min = $10 : 50$ AM.
- Choice C is correct.** **(3.MD.9)** Area = $6 \times 3 = 18$ square units. The dots show that all squares are included.
- The correct answer is 1500 mL.** **(3.MD.2)** $5 \text{ L} = 5000 \text{ mL}$. Total used: $2000 + 1500 = 3500 \text{ mL}$. Remaining: $5000 - 3500 = 1500 \text{ mL}$.
- Choice C is correct.** **(3.OA.1)** Area = length \times width = $4 \times 6 = 24$ square inches.
- Choice B is correct.** **(3.MD.5)** Both $50\frac{1}{2}$ and 52 pages have only 1 X each, but $50\frac{1}{2}$ is one of the least common. The next most common is 50 pages with 2 X's, and 51 pages appears most often with 4 X's.
- Choice A is correct.** **(3.MD.8)** $4 \times 4 = 16$ sq in. The other choices do not equal 16.
- Choice A is correct.** **(3.MD.4)** Ava: $5 \times 2 = 10$. Noah: $3 \times 2 = 6$. Difference: $10 - 6 = 4$.
- The correct answer is 39 square meters.** **(3.MD.7)** First rectangle: $6 \times 4 = 24$ sq m. Second rectangle: $5 \times 3 = 15$ sq m. Total: $24 + 15 = 39$ sq m.
- Choice A is correct.** **(3.NF.1)** The first tick is at one of four equal parts, which is $\frac{1}{4}$.
- Choice D is correct.** **(3.OA.6)** The unknown factor in $\square \times 3 = 18$ is 6. This is exactly the same as $18 \div 3 = 6$. Multiplication and division are inverse operations.



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Inventor's Workshop Note

Hi, Math Inventor!

◇ 9 practice tests. 9 chances to invent new ways to think. You tried things. You changed them. You made your math brain stronger! ◇

★ **Inventors know:** the first try isn't always the best try. Sometimes you fix it. Sometimes you start over. You did all of that! ★

Inventor's Workshop

- **Sketch Pad:** Full of ideas!
- **Toolbox:** Lots of math strategies.
- **Workbench:** Neat and organized.
- **Brave Mind:** You try new things.

Inventor tip: on test day, if your first try doesn't work, switch tools. Inventors don't get stuck on one tool. Pick the right one for the job!

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

Jay Daie

Your Math Inventor

STRONG TODAY. SUCCESS TOMORROW.

Give your child the tools they need to excel in **Grade 3 Math!** This book includes **9 complete practice tests** that follow grade-level standards and help students build confidence, sharpen skills, and achieve success.

9
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