

4

North Dakota NDSA

Grade 3

MATH

PRACTICE TESTS

Standards-Aligned Practice



STANDARDS-ALIGNED

Practice to build skills and boost confidence



4 FULL-LENGTH TESTS

Realistic questions to prepare for test day



ANSWER KEYS & EXPLANATIONS

Detailed solutions to learn and improve



4 North Dakota NDSA Grade 3 Math Practice Tests

Standards-Aligned Review with Mixed Practice and Answer Key



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

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Welcome to the North Dakota Math Launch

Four missions, careful work, and a stronger Grade 3 thinker



Read the mission. Show the work. Check the answer. Launch again.

To the Grade 3 Mission Leader

This book is a four-mission practice launch for the North Dakota NDSA. Each test gives you a fresh chance to multiply, divide, read graphs, compare fractions, measure, find area, and explain math in a way someone else can follow.

North Dakota has prairie winds, river valleys, and open views where steady work stands out. Good math uses the same habit: pause, check the details, and move forward with a steady plan.

Notice

Find the numbers, units, and question before choosing a path.

Model

Draw an array, number line, table, or quick equation.

Verify

Ask whether your answer fits the story and the unit.

Launch promise: I will slow down at the important moments, show the work I can, and use every miss as a clue for the next mission.

How to Use This Book

A four-mission routine for steady Grade 3 growth

1. Warm Up the System

Read the review pages first. Remind your brain how equal groups, fractions, clocks, graphs, and area models work.

2. Fly One Mission

Take one complete 30-question test. Keep your work neat enough that you can check it later.

3. Review the Flight

Use the answer key, then pause. A wrong answer is useful when you can name what happened.

4. Repair and Relaunch

Rework a few missed questions before starting the next test. The repair step is where the score begins to move.

A Four-Session Plan

Session 1	Take Test 1 and mark the topics that need attention.
Session 2	Take Test 2 and focus on showing every step clearly.
Session 3	Take Test 3 and watch for units, labels, and two-step problems.
Session 4	Take Test 4 and finish with calm, careful checking.

Best mission habit: After checking answers, write one sentence: “Next time I will pay attention to _____.”



Test Overview

What each Grade 3 math mission asks you to do

Each practice test has 30 questions. Across four tests, you will practice the kind of Grade 3 math thinking used on the North Dakota NDSA: reading carefully, choosing a strategy, doing accurate computation, and explaining enough work to make your answer clear.

Multiple Choice

Look for the best answer. Estimate first when you can, cross out choices that do not fit, and reread the question before you choose.

Open Response

Write the answer and show the reason. A good Grade 3 response may use a drawing, equation, table, number line, or a few clear words.

Math Ideas Inside the Four Tests

- multiplication, division, arrays, missing factors, and two-step word problems
- place value, rounding, addition, subtraction, and multiplying by tens
- unit fractions, number lines, equivalent fractions, and comparing fractions
- time, mass, liquid volume, picture graphs, bar graphs, and line plots
- area, perimeter, unit squares, rectangles, and shape categories

What strong NDSA work looks like: the answer matches the question, the units make sense, and the work is clear enough to check.



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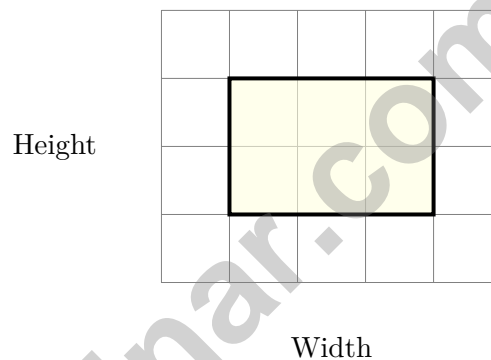
1) A zoo has about 475 animals. Round to the nearest 100 to estimate.

- A. 400 C. 480
 B. 470 D. 500

2) A pie is cut into 6 equal slices. Ava eats one slice. What fraction of the pie does Ava eat?

- A. $\frac{5}{6}$ C. $\frac{1}{6}$
 B. $\frac{6}{6}$ D. $\frac{1}{5}$

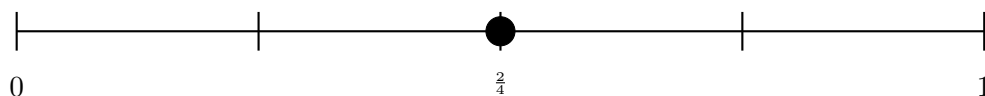
3) Look at this shape made of square units on a grid. Count the squares to find the area without multiplying.



Which square unit measurement is correct?

- A. 6 square units C. 8 square units
 B. 7 square units D. 9 square units

4) 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 $\frac{4}{4}$



5) A square has side length 6 inches. What is its area?

6) A farmer has 6 baskets. Each basket holds 7 apples. How many apples does the farmer have?

A. 36 apples

C. 42 apples

B. 40 apples

D. 48 apples

7) Sam colors $\frac{3}{6}$ of a shape. Write an equivalent fraction.

8) A number line from 0 to 1 is divided so there are exactly 4 equal parts. If you mark the first partition, what fraction do you mark?

A. $\frac{1}{4}$

C. $\frac{1}{5}$

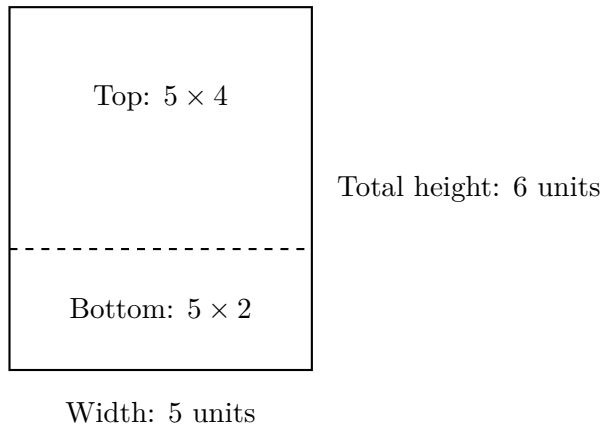
B. $\frac{1}{3}$

D. $\frac{4}{4}$



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- 9) A rectangle is split by a horizontal line into two parts:



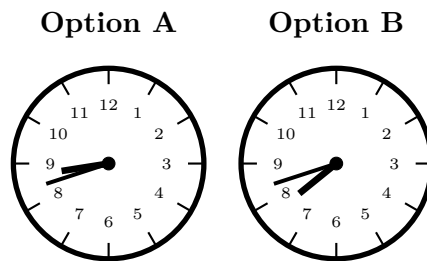
Which equation uses the distributive property to find the total area?

- A. $5 \times 2 = 10$ only
 C. $2 + 4 + 5 = 11$
- B. $5 \times (2+4) = (5 \times 2) + (5 \times 4) = 10 + 20 = 30$
 D. $6 \times 5 = 30$
- 10) A student starts eating lunch at 11 : 38 AM. Recess starts at 12 : 04 PM. How many minutes until recess?

- 11) Eli drinks juice from a bottle. The bottle contained 1 liter. After he drinks some, 300 mL remains. How much juice did he drink?
- A. 300 mL
 C. 700 mL
- B. 500 mL
 D. 1000 mL

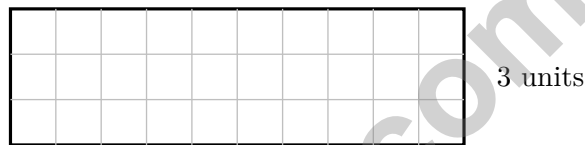


1) Which clock shows 8 : 42?



- A. Option A
- B. Option B

- C. Neither
- D. Both



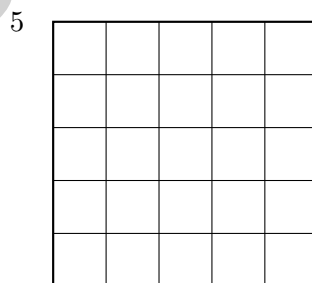
2)

10 units

Count the unit squares. What is the area of this rectangle?

- A. 13 sq units
- B. 30 sq units

- C. 25 sq units
- D. 40 sq units



3)

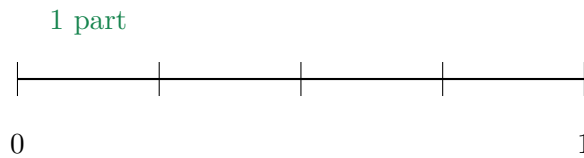
5

This square is tiled with unit squares. How many are there?

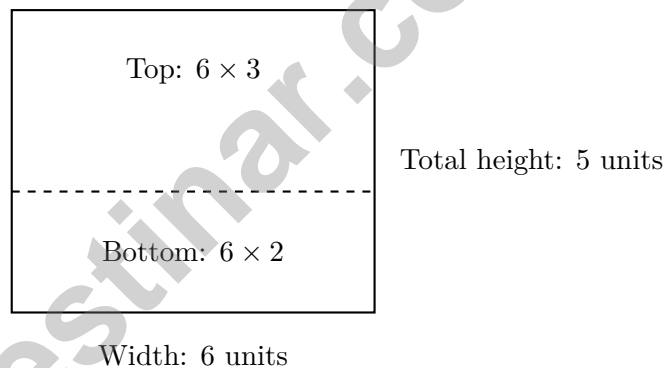
- A. 10
- B. 20

- C. 25
- D. 55

- 4) Count the equal parts on this number line. What unit fraction does it show?



- A. $\frac{1}{3}$
 C. $\frac{1}{5}$
 B. $\frac{1}{4}$
 D. $\frac{1}{6}$
- 5) Ben has 4 sticker sheets with 8 stickers on each sheet. How many stickers does Ben have?
- A. 24 stickers
 C. 32 stickers
 B. 28 stickers
 D. 36 stickers
- 6) A rectangle is tiled and labeled like this:



Which sum of the two smaller areas gives the total area?

- A. $6 \times (3 + 2) = 30$
 C. $6 + 5 = 11$
 B. $(6 \times 3) + (6 \times 2) = 18 + 12 = 30$
 D. $3 + 2 = 5$



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1) A line plot shows rock weights in ounces: $3, 3\frac{1}{2}, 4, 4\frac{1}{2}$. There are 4 X's at $3\frac{1}{2}$ ounces, 2 X's at 3 ounces, and 3 X's at 4 ounces. How many rocks weigh less than 4 ounces?

A. 4

C. 6

B. 5

D. 7

2) On a number line from 0 to 1 divided into 4 equal parts, what fraction is at the second tick mark from 0?

A. $\frac{1}{4}$

C. $\frac{3}{4}$

B. $\frac{2}{4}$

D. $\frac{4}{4}$

3) What number makes the equation true?

$$\square \times 6 = 48$$

A. 10

C. 7

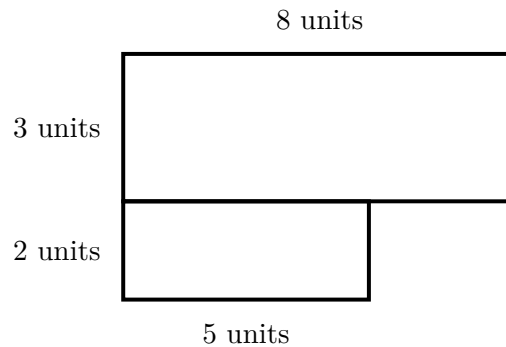
B. 9

D. 8

4) A circle is divided into 3 equal parts. Two parts are shaded. What fraction of the circle is NOT shaded?



- 5) An L-shaped terrace is divided by dashed lines. The top rectangle is 8 units by 3 units. The bottom rectangle is 5 units by 2 units. What is the total area?



- A. 24 sq units
 C. 34 sq units
 B. 10 sq units
 D. 240 sq units
- 6) A tiling splits a rectangle into $2 \times (9 + 1)$. What is the total area of both smaller rectangles?
- A. 11
 C. 20
 B. 18
 D. 10
- 7) Which comparison is true?
- A. $\frac{2}{8} < \frac{2}{6}$
 C. $\frac{2}{8} = \frac{2}{6}$
 B. $\frac{2}{8} > \frac{2}{6}$
 D. $\frac{2}{6} < \frac{2}{8}$
- 8) Eli marks $\frac{1}{6}$ on a number line from 0 to 1 divided into 6 equal parts. Then he marks $\frac{5}{6}$. Which point is closer to the right end of the line?
- A. $\frac{5}{6}$
 C. Neither is close to the end
 B. Both are equally close
 D. $\frac{1}{6}$



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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 D is correct.** **(3.NBT.A.1)** The tens digit is 7. Since $7 \geq 5$, round up: 475 rounds to 500.
- Choice C is correct.** **(3.NF.A.1)** The pie has 6 equal slices. Ava eats 1 slice, so she eats $\frac{1}{6}$ of the pie.
- Choice D is correct.** **(3.MD.C.5)** Count the rows: 3 rows. Count the columns: 3 columns. The area is 9 square units.
- Choice B is correct.** **(3.NF.A.2)** Both $\frac{2}{4}$ and $\frac{1}{2}$ name the same point, the middle of the number line from 0 to 1.
- The correct answer is 36 square inches.** **(3.MD.C.7)** A square has equal sides. Area = $6 \times 6 = 36$ square inches. You can also add: $6 + 6 + 6 + 6 + 6 + 6 = 36$ (six rows of six).
- Choice C is correct.** **(3.OA.C.7)** 6 baskets with 7 apples each: $6 \times 7 = 42$.
- The correct answer is $\frac{1}{2}$.** **(3.NF.A.3)** $\frac{3}{6}$ equals half of a whole, so the equivalent fraction is $\frac{1}{2}$.
- Choice A is correct.** **(3.NF.A.2a)** The first of four equal parts is $\frac{1}{4}$.
- Choice B is correct.** **(3.MD.C.7c)** Both smaller rectangles share width 5. Heights are 2 and 4, totaling 6. The distributive property gives $5 \times (2 + 4) = 30$.
- The correct answer is 26 minutes.** **(3.MD.A.1)** From 11 : 38 to 12 : 00 is 22 minutes. From 12 : 00 to 12 : 04 is 4 minutes. Total: $22 + 4 = 26$ minutes.
- Choice C is correct.** **(3.MD.A.2)** 1 L = 1000 mL. Subtract: $1000 - 300 = 700$ mL drunk.
- Choice A is correct.** **(3.NBT.A.2)** Ones: $0 - 7$ requires regrouping, so $10 - 7 = 3$. Tens: $1 - 8$ requires regrouping, so $11 - 8 = 3$. Hundreds: $5 - 3 = 2$. Answer: 233.
- Choice B is correct.** **(3.G.A.2)** Four shaded parts out of six equal parts is $\frac{4}{6}$.
- Choices B and C are correct.** **(3.OA.A.4)** Choice B is true because $48 \div 6 = 8$. Choice C is true because $7 \times 7 = 49$. Choice A is false ($6 \times 8 = 48$, not 42). Choice D is false ($54 \div 9 = 6$, not 5). Choice E is false ($4 \times 9 = 36$, not 35).
- Choice A is correct.** **(3.OA.B.6)** $36 \div 4 = 9$ is related to $4 \times 9 = 36$ through the inverse relationship.
- Choice A is correct.** **(3.MD.C.5a)** A 2×2 square uses 4 unit squares and has equal side lengths. Choices B and C also use 4 unit squares but are not squares with equal side lengths. Choice D uses 6 unit squares.
- Choice C is correct.** **(3.NBT.A.3)** 3 packages of 40 cars = $3 \times 40 = 120$ cars. Multiply $3 \times 4 = 12$, then add one zero.
- Choice C is correct.** **(3.OA.B.5)** An array for 4×3 has 4 columns and 3 rows. Option C shows the correct array.
- Choice C is correct.** **(3.MD.C.5b)** Count the rows: 4 rows with 5 unit squares in each row. Total: $5 + 5 + 5 + 5 = 20$ unit squares. Area is 20 square units.
- Choice D is correct.** **(3.OA.A.1)** 8 packs with 6 cards each means 8 groups of 6. So $8 \times 6 = 48$ cards.
- Choice C is correct.** **(3.NF.A.3b)** The denominator was multiplied by 2 (from 4 to 8). Multiply the numerator by 2: $3 \times 2 = 6$. So $\frac{3}{4} = \frac{6}{8}$.
- Choice C is correct.** **(3.NF.A.3d)** Same numerator (3), different denominators: fourths are bigger pieces than sixths (the bar is cut into fewer, larger pieces). Three fourths covers more area than three sixths.
- Choice A is correct.** **(3.MD.C.7d)** Top rectangle: $6 \times 2 = 12$ sq units. Bottom rectangle: $4 \times 3 = 12$ sq units. Total: $12 + 12 = 24$ sq units.
- Choice C is correct.** **(3.OA.D.8)** Step 1: Divide: $72 \div 8 = 9$ marbles per bag. Step 2: Remaining bags: $8 - 3 = 5$ bags; kept marbles: $5 \times 9 = 45$ marbles. (Choice A is step 1 only; choice B is incorrect calculation.)
- Choice B is correct.** **(3.MD.B.3)** $7 \times 5 = 35$ cupcakes.
- Choice B is correct.** **(3.NF.A.2b)** Counting from 0: each small tick mark is $\frac{1}{2}$. Point S is at the 5th tick (at position 2.5), so it is $5 \times \frac{1}{2} = \frac{5}{2}$.
- Choice D is correct.** **(3.OA.A.2)** $18 \div 6 = 3$. The total crayons are divided equally among the friends.
- Choice A is correct.** **(3.G.A.1)** A square is a special kind of rectangle that also has all sides equal. Every square has the properties of a rectangle (4 sides, 4 right angles), so every square is a rectangle.
- Choice D is correct.** **(3.OA.D.9)** From 6 to 12 is +6; from 12 to 18 is +6. The constant difference is 6.
- Choice B is correct.** **(3.MD.B.4)** At most $2\frac{1}{2}$ includes weights of 2, $2\frac{1}{4}$, and $2\frac{1}{2}$ ounces. The plot has $1 + 3 + 0 = 4$ X's at those values.



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A Quiet Word From Your Mentor

Hi, Thoughtful Student,

◇ I want to take a moment to tell you something true: you did excellent work. 4 practice tests is a real promise that you kept to yourself. That matters. ◇

★ **Mentors notice:** growth is quiet. It doesn't shout. But it shows up in how you handle a problem today vs how you did weeks ago. That growth is your real prize. ★

What I See in You

- **Hard Work:** You don't quit when problems are tough.
- **Curiosity:** You wonder why and how.
- **Kindness:** You are patient with yourself.
- **Brave Heart:** You try things that scare you.

Mentor's note: on test day, treat yourself like you would a friend. Be kind. Be patient. Be encouraging. The skills are inside you!

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

Jay Daie

Your Math Mentor

Build Skills. Achieve More.

This book gives **Grade 3** students the focused practice they need to master math concepts with confidence.

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- ✓ Perimeter, Area & Volume
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- ✓ And More!



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