

$\frac{2}{3}$

FULL-LENGTH

$\frac{2}{4}$

0,25

Maine

$7 \times 8 =$



★★★★★
Aligned to State Standards

7×8

Through Year Assessment

$56 \div 7$

MATH

Grade

5

$(a+b)^2$

PRACTICE TESTS

Complete State Standards Review with Answer Key and Essential Math Skills Practice



3 Full-Length Practice Tests
Aligned to State Standards



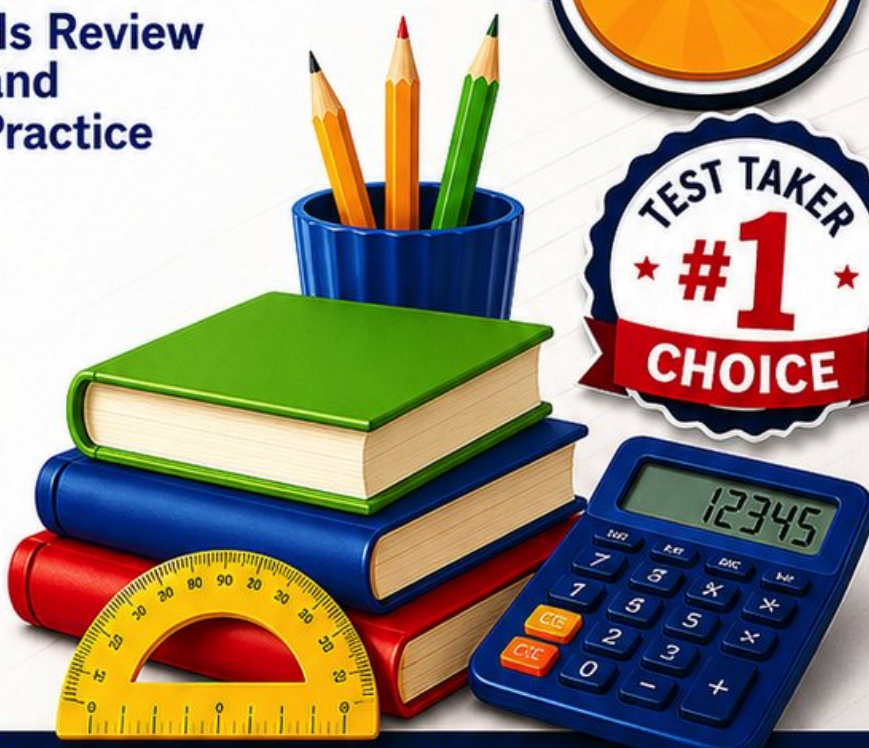
Covers All Grade 5 Math Topics
Numbers & Operations, Fractions,
Decimals, Geometry, Measurement,
Data & Problem Solving



Build Confidence
Strengthen Skills • Improve Accuracy
• Boost Test Readiness



Detailed Answer Key
Step-by-Step Explanations
for All Questions



WRITTEN FOR
GRADE 5 STUDENTS



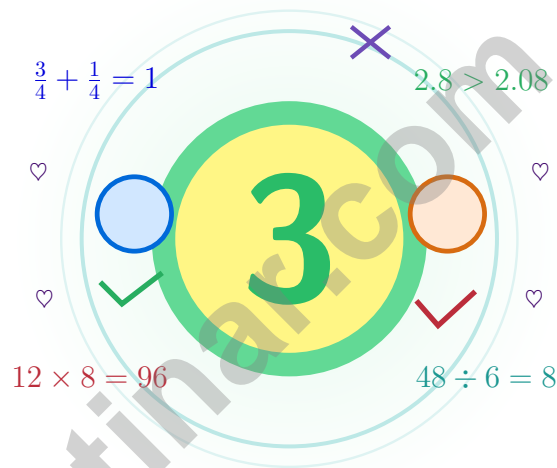
PERFECT FOR
TEST PREP & REVIEW



CLASSROOM, HOME,
OR SELF-STUDY USE

3 Maine Through Year Assessment Grade 5 Math Practice Tests

Pine-tree calm for steady-minded mathematicians



Three full tests, a friendly quick review, smart strategy pages, and student-tested support that help Grade 5 mathematicians from The Pine Tree State walk in ready to think.

Jay Daie and Reza Nazari



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Maine Mathematicians, Step Up

Pine-tree calm for steady-minded mathematicians

To Every Math Brain in Maine

Math is a lot like the rocky Maine coast – it looks tough at first, but careful steps and patient eyes reveal a steady path.

Some questions will feel easy from the very first read. Others will ask you to pause, sketch, estimate, or try again. That is not a problem. That is practice doing exactly what it should do. Every honest attempt grows your math brain a little stronger.

Watch

Watch what the problem actually wants from you.

Choose

Choose the operation, model, or table that fits.

Polish

Check labels, units, and the final word of the question.

A Maine promise to yourself: I will move through problems the way a Mainer crosses tide pools: slowly, carefully, with eyes on every detail.

Use This Book Like a Coach

A simple game plan that turns practice into real progress

Step 1: Open

Open the quick review and warm up your math brain.

Wake up the big Grade 5 ideas before the test starts so your brain is already warmed up.

Step 2: Test

Take a full practice test like the real day.

Find a calm corner, settle in, and aim for careful, honest choices before quick ones.

Step 3: Reflect

Notice what felt strong and what felt shaky.

Circle missed questions, sort out what went sideways, and notice which skills are calling for more attention.

Step 4: Sharpen

Practice the shaky skills, then try the next test.

Read the explanation, fix the work, and carry that lesson forward into the next test.

Your 3-Week Sharpening Plan

Week 1	Take Test 1 and write down one thing you noticed about your work.
Week 2	Take Test 2 and aim to fix one habit you noticed last week.
Week 3	Take Test 3 and celebrate the habits you carried through.



Scan me

Test-Style Practice

What these practice tests help Grade 5 students build

These three practice tests prepare Grade 5 students in the Pine Tree State for the Through Year Assessment with the patient rhythm of a coastal morning. The goal is bigger than getting answers right. Students are practicing how to read with care, choose a strategy, solve step by step, and explain their reasoning clearly – the same way mathematicians do every single day.

Selected-Response Questions

Students solve the problem and choose the best answer. Estimating first, ruling out weak choices, and checking for reasonableness can save both time and points.

Constructed-Response Questions

Students show their steps, explain a method, or back up an answer with clear math. Clean reasoning matters because it shows how the answer was actually found.

Grade 5 Ideas That Show Up Again and Again

- place value, comparing numbers, and rounding
- multi-digit addition, subtraction, multiplication, and division
- fractions, mixed numbers, and decimals
- perimeter, area, volume, and measurement conversions
- line plots, tables, numerical patterns, and coordinate points
- geometry and multi-step real-world problems

What strong work looks like on the TYA: the math is correct, the steps are readable, the labels and units match the problem, and the final answer truly answers the question being asked.



Table of Contents

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Grade 5 Mathematics Reference Materials

PERIMETER AND AREA

Perimeter of Rectangle $P = 2l + 2w$ or $P = 2(l + w)$

Area of Rectangle $A = l \times w$

Area of Triangle $A = \frac{1}{2} \times b \times h$

Volume of Rectangular Prism $V = l \times w \times h$

LENGTH

Customary

1 foot (ft) = 12 inches (in.)

1 yard (yd) = 3 feet (ft)

1 yard (yd) = 36 inches (in.)

Metric

1 meter (m) = 100 centimeters (cm)

1 centimeter (cm) = 10 millimeters (mm)

1 kilometer (km) = 1,000 meters (m)

CAPACITY

Customary

1 cup (c) = 8 fluid ounces (fl oz)

1 pint (pt) = 2 cups (c)

1 quart (qt) = 2 pints (pt)

1 gallon (gal) = 4 quarts (qt)

Metric

1 liter (L) = 1,000 milliliters (mL)

WEIGHT AND MASS

Customary

1 pound (lb) = 16 ounces (oz)

Metric

1 kilogram (kg) = 1,000 grams (g)

1 gram (g) = 1,000 milligrams (mg)

TIME

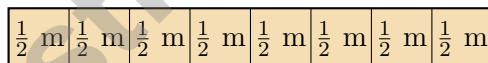
1 minute (min) = 60 seconds (sec) 1 week = 7 days

1 hour (hr) = 60 minutes (min) 1 year = 12 months

1 day = 24 hours (hr) 1 year = 52 weeks



- 1) Which statement correctly describes how to find the LCD of two fractions?
- A. Always multiply the numerators D. Find the smallest number divisible by both denominators
- B. Divide both denominators by 2
- C. Add the two denominators
- 2) A gift box measuring 11 cm long, 7 cm wide, and 4 cm tall has what volume?
- A. 220 cm³ C. 288 cm³
- B. 260 cm³ D. 308 cm³
- 3) Pattern A is 2, 4, 6, 8, 10. Pattern B is 6, 12, 18, 24, 30. Which statement explains the relationship between matching terms?
- A. Each Pattern B term is 2 more than the matching Pattern A term. C. Each Pattern B term is 6 less than the matching Pattern A term.
- B. Each Pattern B term is the same as the matching Pattern A term. D. Each Pattern B term is 3 times the matching Pattern A term.
- 4) A tailor has 4 meters of fabric. Each costume needs $\frac{1}{2}$ meter. How many costumes can be made?



4 meters

- A. 8 C. 6
- B. 2 D. 4
- 5) A cube has side length 7 cm. What is its volume?

Record your answer in the space provided.



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TIME

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1) Simplify: $4 \times \frac{5}{12}$

- A. $\frac{5}{3}$
- B. $\frac{20}{15}$

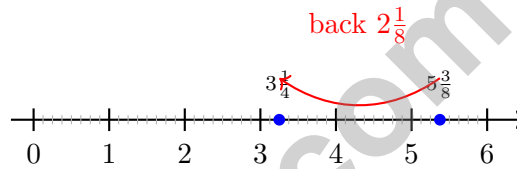
- C. $\frac{5}{12}$
- D. $1\frac{1}{3}$

2) Compare: 7×8 $7 \times 7 + 7$

- A. $>$
- B. $<$

- C. $=$
- D. Cannot tell

3) Use a number line to find $5\frac{3}{8} - 2\frac{1}{8}$.



- A. $3\frac{1}{8}$
- B. $3\frac{1}{4}$

- C. $3\frac{3}{8}$
- D. $4\frac{1}{8}$

4) The output is 4 more than the input. What is the 5th ordered pair if the inputs start at 1?

- A. (4, 8)
- B. (5, 9)

- C. (6, 10)
- D. (5, 1)

5) Which statement correctly describes a triangle?

- A. An equilateral triangle has one angle of 90 degrees
- B. An obtuse triangle has no angle greater than 90 degrees

- C. An isosceles triangle has no equal sides
- D. A scalene triangle has all sides different



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1 day = 24 hours (hr) 1 year = 52 weeks



Practice Test Answer Keys

How to use this section:

1. check your answer
2. circle missed questions
3. rework them before reading the explanation

Good correction habits build strong scores.

Testinar.com



Practice Test Answers and Explanations

Practice Test 1 Answers and Explanations

- 1) **Choice D is correct.** **(5.NF.A.2)** The LCD is the least common multiple (LCM) of the denominators—the smallest number that both divide into evenly.
- 2) **Choice D is correct.** **(5.MD.C.5)** Multiply the three dimensions: $11 \times 7 \times 4 = 308 \text{ cm}^3$.
- 3) **Choice D is correct.** **(5.OA.B.3)** Compare matching terms: $6 = 3 \times 2$, $12 = 3 \times 4$, $18 = 3 \times 6$, $24 = 3 \times 8$, and $30 = 3 \times 10$.
- 4) **Choice A is correct.** **(5.NF.B.3)** $4 \div \frac{1}{2} = 4 \times 2 = 8$. She can make 8 costumes.
- 5) **The correct answer is 343 cm³.** **(5.MD.C.5b)** A cube has the same side length in every direction. So the volume is $7 \times 7 \times 7 = 343 \text{ cm}^3$.
- 6) **Choice B is correct.** **(5.MD.A.1)** Total grams: $150 \times 80 = 12000 \text{ g}$. Convert: $12000 \div 1000 = 12 \text{ kg}$.
- 7) **Choice C is correct.** **(5.G.A.1)** A point inside the first quadrant has a positive x-coordinate and a positive y-coordinate. Both (2, 3) and (2, 8) have two positive coordinates.
- 8) **Choice A is correct.** **(5.MD.A.1)** Add the four yields: $200 + 250 + 225 + 275 = 950$ pounds. Keeping the same unit makes the total easy to compare.
- 9) **Choice B is correct.** **(5.NF.A.1)** Add: $4\frac{1}{10} + 2\frac{9}{10} = 6\frac{10}{10} = 7$.
- 10) **Choice B is correct.** **(5.NF.B.4b)** The blue region is 2 out of 4 columns. The red region is 1 out of 3 rows. The overlap shows $\frac{2}{4} \times \frac{1}{3} = \frac{2}{12}$.
- 11) **Choice C is correct.** **(5.MD.C.4)** The base has $4 \times 2 = 8$ cubes. Since $32 \div 8 = 4$, the box must be 4 units tall.
- 12) **The correct answer is 0.42.** **(5.NBT.A.2)** Divide by 10 by moving the decimal point one place left: $4.2 \rightarrow 0.42$.
- 13) **Choice B is correct.** **(5.NF.A.2)** Find common denominator: $\frac{1}{3} = \frac{4}{12}$ and $\frac{1}{4} = \frac{3}{12}$. So $\frac{4}{12} + \frac{3}{12} = \frac{7}{12}$ mile.
- 14) **Choice D is correct.** **(5.NBT.B.7)** $8.4 \div 6 = 1.4$, which is between 1 and 2.
- 15) **Choice D is correct.** **(5.NBT.A.2)** 60×500 is 6×5 with three factor zeros, making 30,000 with 4 zeros. $3,000 \times 10$ also makes 30,000, so it has the same number of zeros.
- 16) **Choice B is correct.** **(5.OA.A.2)** “The sum of 12 and 8” means group 12 + 8. “Half of” that sum means divide the grouped total by 2.
- 17) **Choice D is correct.** **(5.G.B.3)** Shape D has two pairs of parallel sides, so it is a parallelogram. It does not have four right angles, so it is not a rectangle.
- 18) **The correct answer is 1000.** **(5.NBT.A.2)** 10^3 is a 1 followed by 3 zeros: 1,000.
- 19) **Choice B is correct.** **(5.MD.C.5b)** Original: $V = 8 \times 5 \times 3 = 120 \text{ in}^3$. New height = 6 in. New volume = $8 \times 5 \times 6 = 240 \text{ in}^3$.
- 20) **Choice C is correct.** **(5.NF.B.6)** $\frac{2}{3} \times 60 = \frac{2 \times 60}{3} = \frac{120}{3} = 40$ pages.
- 21) **Choices A, B are correct.** **(5.MD.B.2)** The value $\frac{1}{2}$ appears two times, more than any other value. There are four measurements total, so C and D do not fit the data.
- 22) **Choice B is correct.** **(5.NBT.B.7)** Hundredths: $5 + 9 = 14$, so write 4 and regroup 1 tenth. Tenths: $4 + 3 + 1 = 8$. Ones: $3 + 1 = 4$. The sum is 4.84.
- 23) **Choice C is correct.** **(5.G.B.4)** A rhombus has four equal sides. If it is not a square, it does not have four right angles.
- 24) **Choice B is correct.** **(5.G.A.2)** Point K is 4 units to the right and 1 unit up from the origin, so its coordinates are (4, 1).
- 25) **Choice D is correct.** **(5.NBT.B.7)** Line up decimal points and subtract place by place. $9.50 - 4.07 = 5.43$ gallons. This confirms the answer.
- 26) **Choice B is correct.** **(5.G.A.2)** The x-coordinate (6) is pounds of apples, and the y-coordinate (12) is the total price in dollars. So 6 pounds cost \$12.
- 27) **Choice A is correct.** **(5.G.A.2)** The second coordinate is always 2 more than the first. Each coordinate increases by 1, so the next point is (3, 5).
- 28) **Choice B is correct.** **(5.NBT.B.5)** Sum the partial products: $400 + 140 + 100 + 35 = 675$.



Personal Trainer Wrap-Up

Math Athlete, Listen Up!

◇ 3 practice tests done. That's serious training. Your math muscles are strong, your endurance is high, and your reflexes (recognizing problem types) are quick. You're in great shape for the big test. ◇

★ **Trainer's wisdom:** muscle memory is real, even in math. The more you do something, the more your brain knows how to do it without thinking. You've built that muscle memory over 3 tests. Now it's automatic. ★

Athlete's Performance Card

- **Endurance:** TOP-TIER! You can finish a long test without burnout.
- **Strength:** STRONG! You handle multi-step problems with power.
- **Speed:** SHARP! You move efficiently from question to question.
- **Recovery:** GREAT! You bounce back fast from tough questions.

Trainer's tip: on test day, hydrate, breathe deeply, and warm up with the easier questions first. Build your rhythm. Your training will carry you the rest of the way.

If you'd like to share your experience or have questions, please email me at reza@testinar.com. I'd love to hear from you!

Reza Nazari & Jay Daie

Your Math Trainer (You're In Great Shape)

Build Skills. Boost Confidence. Excel on the Grade 5 Math Test.

Help your child succeed with confidence! This book includes **3 full-length Grade 5 Math practice tests** aligned to state standards. With a focus on essential skills, problem solving, and test readiness, it's the perfect resource for classroom, home, or on-the-go practice.



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