

$\frac{2}{3}$

FULL-LENGTH

$\frac{2}{4}$

New York

$7 \times 8 =$

$0,25$



Aligned to State Standards

NYSTP

7×8

MATH

$56 \div 7$

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



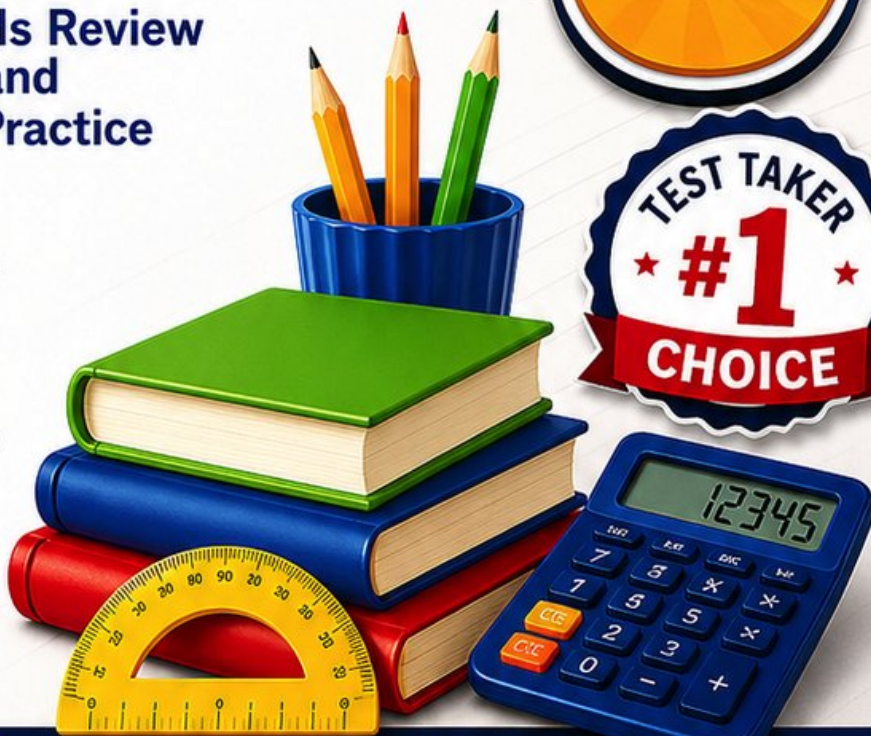
Covers All Grade 5 Math Topics
Numbers & Operations, Fractions,
Decimals, Geometry, Measurement,
Data & Problem Solving



Build Confidence
Strengthen Skills • Improve Accuracy
• Boost Test Readiness



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



WRITTEN FOR
GRADE 5 STUDENTS



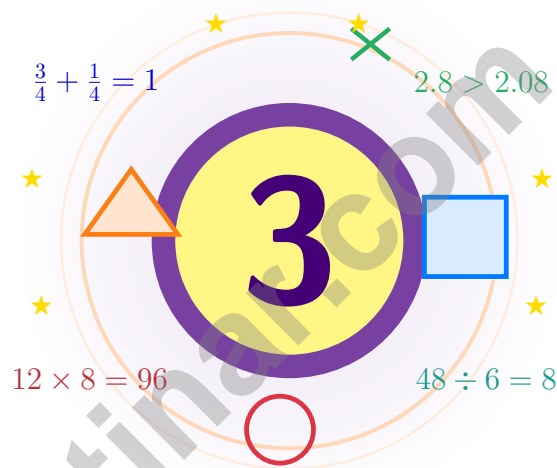
PERFECT FOR
TEST PREP & REVIEW



CLASSROOM, HOME,
OR SELF-STUDY USE

3 New York NYSTP Grade 5 Math Practice Tests

Empire-State math for thinkers who climb careful



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

Jay Daie and Reza Nazari



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Welcome Aboard, New York Math Crew

Empire-State math for thinkers who climb careful

Just for New York Grade 5 Thinkers

Math is a lot like a New York skyline – it grows tall because every floor was framed with care.

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.

See

See the question fully
before you start the
math.

Plan

Pick a strategy that fits
the numbers in front of
you.

Build

Build the answer step
by step, no shortcuts.

A New York promise to yourself: I will frame each step the way a New York builder frames a tower – straight, square, and ready to hold.

Your Step-by-Step Plan

A simple game plan that turns practice into real progress

Step 1: Set

Set the table – pencil ready, distractions gone.

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

Step 2: Solve

Take one whole test in one quiet sitting.

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

Step 3: Look Back

Walk through your answers without rushing.

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

Step 4: Climb

Pick one or two skills to sharpen before next time.

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

A Three-Week Climb

Week 1	Test 1 sets your baseline. Notice what feels easy and what wobbles.
Week 2	Test 2 is for repair. Slow down on the topics that tripped you up.
Week 3	Test 3 is for proof. Show how steady your thinking has become.



Scan me

Practice Test Preview

What these practice tests help Grade 5 students build

These three practice tests prepare Grade 5 students in the Empire State for the New York NYSTP with the steady focus of a builder reading blueprints. 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 NYSTP: 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

★ Practice Test 1	_____	18
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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

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- 1) A composite bookcase base is made from two non-overlapping rectangular prisms. Prism A is 4 centimeters long, 2 centimeters wide, and 5 centimeters tall. Prism B is 3 centimeters long, 3 centimeters wide, and 3 centimeters tall. What is the total volume?

- A. 67 cubic centimeters
 B. 40 cubic centimeters
- C. 27 cubic centimeters
 D. 75 cubic centimeters

- 2) Point P is at (3, 2) on a coordinate plane. If point P is moved 2 units right and 3 units up, what are the new coordinates of P'?

- A. $P'(5, 5)$
 B. $P'(1, 5)$
- C. $P'(5, 2)$
 D. $P'(3, 5)$

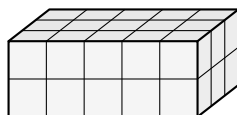
- 3) Find $\frac{10^5}{10^2}$.

Record your answer in the space provided.

- 4) What is 3.5×10 ?

- A. 0.35
 B. 3.50
- C. 35
 D. 350

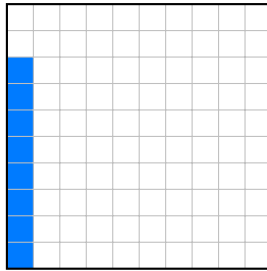
- 5) A box contains 2 layers of unit cubes. Each layer has 15 unit cubes. What is the total volume?



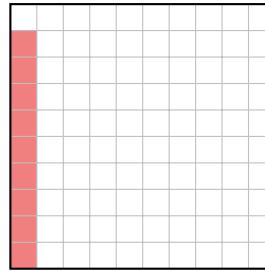
- A. 15 unit cubes
 B. 17 unit cubes
- C. 30 unit cubes
 D. 32 unit cubes



6) Hundredths grids: Grid 1 shows 8 shaded; Grid 2 shows 9 shaded. What is $0.08 + 0.09$?



Grid 1: 0.08



Grid 2: 0.09

- | | |
|----------------------------------|----------------------------------|
| <input type="checkbox"/> A. 0.17 | <input type="checkbox"/> C. 0.19 |
| <input type="checkbox"/> B. 0.18 | <input type="checkbox"/> D. 0.27 |

7) A cube has side length 4 in. Find its volume.

Record your answer in the space provided.

8) A library graph records visits. The x-axis shows visits, and the y-axis shows books borrowed. What does the point (3, 21) mean?

- | | |
|-------------------------------------------------------------------|-------------------------------------------------------------------|
| <input type="checkbox"/> A. visits is 21 when books borrowed is 3 | <input type="checkbox"/> C. books borrowed is 3 when visits is 21 |
| <input type="checkbox"/> B. visits and books borrowed are both 24 | <input type="checkbox"/> D. books borrowed is 21 when visits is 3 |

9) What is a common denominator for $\frac{1}{3}$ and $\frac{1}{4}$?

- | | |
|--------------------------------|-------------------------------|
| <input type="checkbox"/> A. 7 | <input type="checkbox"/> C. 8 |
| <input type="checkbox"/> B. 12 | <input type="checkbox"/> D. 6 |



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1) $5.09 \times 10 = ?$

 A. 50.9 B. 5.09 C. 509 D. 0.509

2) What is the place-value chart showing for 3.456?

Ones	Tenths	Hundredths	Thousandths
3	4	5	6

When 3.456 is rounded to the nearest hundredth, which digit changes because the thousandths digit is 6?

 A. The ones digit, 3 B. The tenths digit, 4 C. The thousandths digit, 6 D. The hundredths digit, 5

3) Four runners competed. Order their times from fastest to slowest:

Runner	Time (s)
A	9.307
B	9.37
C	9.703
D	9.73

 A. A, B, C, D B. A, C, B, D C. C, D, A, B D. D, C, B, A

Grade 5 Mathematics Reference Materials

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TIME

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



1) A storage container needs 35 unit cubes to fill it. Its base is 5 by 7. What is its height?

- A. 1 unit C. 5 units
 B. 2 units D. 7 units

2) What is $5.00 - 2.37$?

- A. 2.63 C. 2.73
 B. 3.37 D. 2.58

3) Subtract: $4\frac{1}{6} - 2\frac{5}{6}$.

- A. $2\frac{4}{6}$ C. $2\frac{2}{6}$
 B. $1\frac{1}{6}$ D. $1\frac{2}{6}$

4) A quadrilateral has four equal sides and four right angles. What is its most specific name?

Record your answer in the space provided.

5) Which triangle has one right angle and all three sides different?

- A. Right isosceles C. Acute isosceles
 B. Obtuse isosceles D. Right scalene



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

- Choice A is correct.** **(5.MD.5c)** Find each part first: Prism A is $4 \times 2 \times 5 = 40$ cubic centimeters, and Prism B is $3 \times 3 \times 3 = 27$ cubic centimeters. Because the parts do not overlap, add them: $40 + 27 = 67$ cubic centimeters.
- Choice A is correct.** **(5.G.2)** Start with $P(3, 2)$. Moving 2 units right adds 2 to the x-coordinate, and moving 3 units up adds 3 to the y-coordinate, giving $P'(5, 5)$.
- The correct answer is 1000.** **(5.NBT.2)** $\frac{100,000}{100} = 1,000$, which is 10^3 .
- Choice C is correct.** **(5.NBT.2)** Multiplying by 10 makes the number 10 times as large, so each digit moves one place to the left in the place-value chart. The decimal point appears one place to the right, giving 35.
- Choice C is correct.** **(5.MD.4)** Each layer contains 15 unit cubes. Two identical layers make $15 \times 2 = 30$ unit cubes in all.
- Choice A is correct.** **(5.NBT.7)** Combine grids: $8 + 9 = 17$ shaded squares, which is 0.17 (regroup to 0 ones + 1 tenth + 7 hundredths).
- The correct answer is 64 in^3 .** **(5.MD.5a)** For a cube, multiply the side length by itself three times: $4 \times 4 \times 4 = 64 \text{ in}^3$.
- Choice D is correct.** **(5.G.2)** The first coordinate, 3, matches the x-axis label: visits. The second coordinate, 21, matches the y-axis label: books borrowed. So the point means books borrowed is 21 when visits is 3.
- Choice B is correct.** **(5.NF.2)** Multiples of 3: 3, 6, 9, 12, ... Multiples of 4: 4, 8, 12, ... The least common multiple is 12, which is a common denominator.
- Choice C is correct.** **(5.OA.2)** The expression $(12 \times 10) - 12$ means 10 groups of 12 with 1 group of 12 removed, leaving 9 groups of 12. That equals 12×9 .
- Choice A is correct.** **(5.MD.5)** Prism A has base area $10 \times 8 = 80$ square centimeters, and $240 \div 80 = 3$, so its height is 3 cm. Prism B has base area $12 \times 10 = 120$ square centimeters, and $240 \div 120 = 2$, so its height is 2 cm. Prism A has the greater height.
- Choice A is correct.** **(5.G.4)** The top and bottom sides are parallel, but the left and right sides are not parallel. So the figure has exactly one pair of parallel sides.
- Choice C is correct.** **(5.NF.5b)** $6 \times \frac{3}{2} = 9$. Since $\frac{3}{2} > 1$, the product is farther from zero than the starting value.
- Choice D is correct.** **(5.OA.1)** A, B, and C all have a value of 18. Choice D is $2 \times 2 \times 2 - 2 = 16 - 2 = 14$, so it is not equal to the others.
- Choice C is correct.** **(5.NBT.2)** Each division by 10 reduces the result by a factor of 10. $5,000 \div 1,000 = 5$.
- Choice C is correct.** **(5.NF.4)** Three jumps of $\frac{1}{3}$ land at $\frac{3}{3} = 1$.
- Choice A is correct.** **(5.NF.7a)** $\frac{1}{12} \div 2 = \frac{1}{12} \times \frac{1}{2} = \frac{1}{24}$.
- Choice C is correct.** **(5.NF.6)** $\frac{3}{5} \times 25 = \frac{3 \times 25}{5} = \frac{75}{5} = 15$, so 15 students brought lunch from home.
- Choice B is correct.** **(5.NF.7c)** Each whole contains 5 pieces of size $\frac{1}{5}$. With 3 wholes, there are $3 \times 5 = 15$ pieces.
- The correct answer is (6, 3).** **(5.G.2)** Start with (0, 0). Then match the next terms from each pattern: (2, 1), (4, 2), and (6, 3). Accept equivalent spacing or comma formatting.
- Choices A, B are correct.** **(5.MD.2)** The two eighths and one fourth add to $\frac{1}{2}$ lb. Splitting $\frac{1}{2}$ lb equally between 2 groups gives $\frac{1}{4}$ lb each.
- The correct answer is 3.** **(5.MD.1)** $36 \div 12 = 3$ feet. Since 12 inches make 1 foot, 36 inches makes 3 full feet.
- Choice B is correct.** **(5.G.2)** Doubling means multiplying by 2. If the input is 5, then the output is $2 \times 5 = 10$.
- Choice D is correct.** **(5.MD.2)** There are 2 strings that are $1\frac{1}{4}$ feet long, so the total is $1\frac{1}{4} + 1\frac{1}{4} = 2\frac{1}{2}$ feet.
- Choice C is correct.** **(5.MD.5a)** Volume = $19 \times 13 \times 7 = 247 \times 7 = 1729 \text{ cm}^3$.
- Choice B is correct.** **(5.NBT.2)** The nonzero parts make $3 \times 3 = 9$. The two factor zeros make the product 900, so it has 2 zeros.
- Choice A is correct.** **(5.NBT.2)** 36×100 means 36 groups of 100, which is 3600. The student wrote 360, so only one zero was placed on the right instead of two.
- Choice D is correct.** **(5.NF.5b)** $\frac{4}{4} = 1$, so $15 \times \frac{4}{4} = 15 \times 1 = 15$. Pair A differs by 2, and Pair C differs by 3.



Personal Trainer Wrap-Up

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- **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.

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Covers All Essential Math Topics

Fractions, decimals, geometry, measurement, data, number operations, and more.



Build Strong Math Skills

Strengthen understanding and problem-solving through varied question types.



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Step-by-step explanations to help your child learn from mistakes and improve.



Track Progress & Improve

Use score trackers to identify strengths and focus on areas that need more practice.



The Smarter Way to Prepare!

Consistent practice builds stronger skills, sharper thinking, and test-day success.

- ✓ Reinforce classroom learning
- ✓ Improve accuracy and speed
- ✓ Reduce test anxiety
- ✓ Achieve your best score!



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and practice materials!