

$\frac{2}{3}$

FULL-LENGTH

$\frac{2}{4}$

West Virginia

$7 \times 8 =$

$0,25$



Aligned to State Standards

WVGSA

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



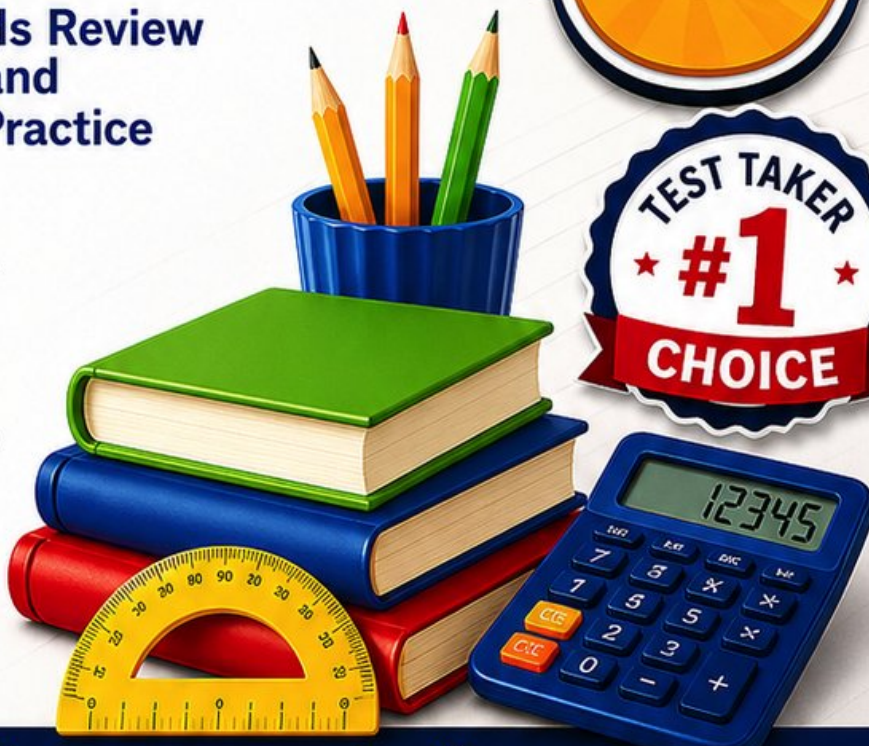
Covers All Grade 5 Math Topics
Numbers & Operations, Fractions,
Decimals, Geometry, Measurement,
Data & Problem Solving



Build Confidence
Strengthen Skills • Improve Accuracy
• Boost Test Readiness



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



WRITTEN FOR
GRADE 5 STUDENTS



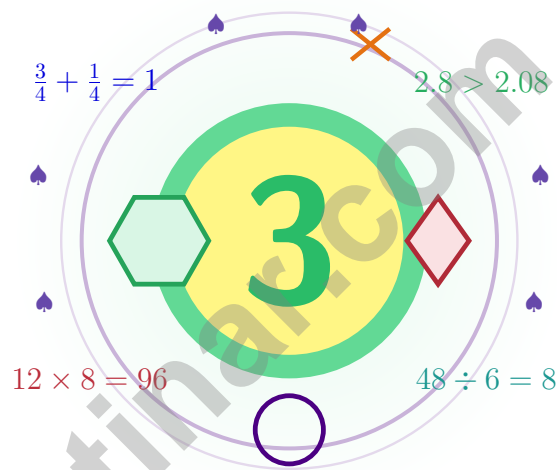
PERFECT FOR
TEST PREP & REVIEW



CLASSROOM, HOME,
OR SELF-STUDY USE

3 West Virginia WVGSA Grade 5 Math Practice Tests

Mountain-state math for thinkers who keep climbing



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

Jay Daie and Reza Nazari



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West Virginia, Step Inside Your Math Workshop

Mountain-state math for thinkers who keep climbing

For Every Curious Brain in West Virginia

Math is a lot like the Appalachian ridges – they rise one careful slope at a time, and so does your thinking.

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.

Notice

Notice the numbers, units, and any tricky words.

Sketch

Sketch a picture, table, or quick number line.

Confirm

Confirm your answer with an estimate or check.

A West Virginia promise to yourself: I will keep climbing my own ridges, one careful step at a time.

Three Tests, Three Lessons

A simple game plan that turns practice into real progress

Step 1: Plan

Plan a quiet hour for one full test.
Wake up the big Grade 5 ideas before the test starts so your brain is already warmed up.

Step 2: Practice

Take the test with steady focus.
Find a calm corner, settle in, and aim for careful, honest choices before quick ones.

Step 3: Inspect

Inspect every answer like a careful builder.
Circle missed questions, sort out what went sideways, and notice which skills are calling for more attention.

Step 4: Adjust

Adjust what needs adjusting and ride into the next test.
Read the explanation, fix the work, and carry that lesson forward into the next test.

Three Weeks, Three Tests, Three Wins

Week 1	Begin with Test 1 – a low-pressure read of your math.
Week 2	Run Test 2 with one new habit, like always checking labels.
Week 3	Finish Test 3 with calm, careful, confident effort.



Scan me

Three Tests, Up Close

What these practice tests help Grade 5 students build

These three practice tests prepare Grade 5 students in the Mountain State for the West Virginia WVGSA with the calm strength of a New River Gorge 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 WVGSA: 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

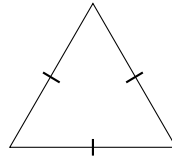
1 minute (min) = 60 seconds (sec) 1 week = 7 days

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

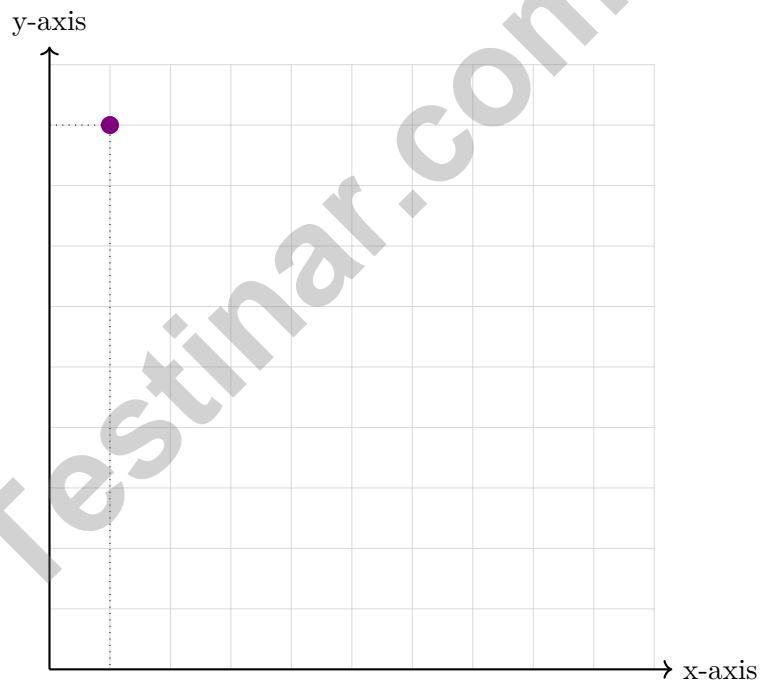
1 day = 24 hours (hr) 1 year = 52 weeks



- 1) The matching tick marks show all three sides are equal. Looking at the diagram, identify the triangle type based on both sides and angles.



- A. Scalene acute
- B. Isosceles acute
- C. Equilateral acute
- D. Right isosceles
- 2) Which ordered pair correctly names this point?



- A. (1, 9)
- B. (9, 1)
- C. (10, 9)
- D. (1, 1)



3) Find: $0.4 \div 10$.

Record your answer in the space provided.

4) Complete the long-division layout for $1,232 \div 16$:

Step	Work
1	$16 \times 7 = 112$; $123 - 112 = 11$
2	Bring down 2: 112
3	$16 \times 7 = 112$; $112 - 112 = 0$
Quotient	?

A. 77

B. 75

C. 73

D. 71



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1) A science class collected rain in a gauge. The gauge shows 425 milliliters. How many liters is this?

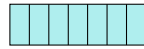
A. 0.425 L

C. 42.5 L

B. 4.25 L

D. 425 L

2) What is $\frac{1}{2} \div 7$?



$\frac{1}{2}$ split into 7

A. $\frac{1}{14}$

C. $\frac{1}{9}$

B. $\frac{7}{2}$

D. $\frac{2}{5}$

3) Which is longer: 5 feet or 60 inches?

A. 5 feet is longer

C. They are equal

B. 60 inches is longer

D. Cannot determine

4) Round 5.985 to the nearest hundredth.

Record your answer in the space provided.

5) If a rectangular prism has a bottom layer of 10 unit cubes and a height of 5 units, how many cubes fill it?

A. 50 unit cubes

C. 35 unit cubes

B. 15 unit cubes

D. 20 unit cubes



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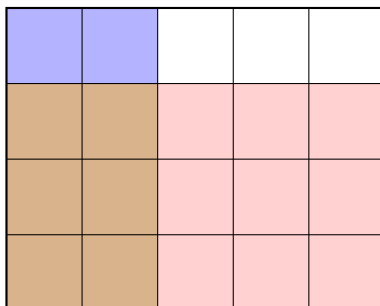
1 minute (min) = 60 seconds (sec) 1 week = 7 days

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- 1) A store has $\frac{2}{5}$ of its shelf space dedicated to pasta. Of that space, $\frac{3}{4}$ is stocked with spaghetti. What fraction of the total shelf is spaghetti?



- A. $\frac{6}{20}$ or $\frac{3}{10}$ C. $\frac{5}{9}$
 B. $\frac{1}{5}$ D. $\frac{2}{3}$
- 2) What is 2.13×10 ?
- A. 2.13 C. 21.3
 B. 213 D. 2130
- 3) Error analysis: Maria computed $\frac{3}{5} - \frac{1}{2}$ and got $\frac{2}{3}$. Is she correct?
- A. Yes C. No, answer is $\frac{4}{10}$
 B. No, answer is $\frac{1}{10}$ D. No, answer is $\frac{3}{10}$
- 4) A classroom has 4 boxes of clay. Each project uses one sixth box. Which division equation matches the situation?
- A. $\frac{1}{6} \div 4 = n$ C. $4 \times \frac{1}{6} = n$
 B. $4 \div \frac{1}{6} = n$ D. $4 + \frac{1}{6} = n$



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 C is correct.** (M.5.25) All three sides have tick marks (equal), and all angles are 60 degrees (acute), making it equilateral acute.
- Choice A is correct.** (M.5.23) The point is 1 unit right and 9 units up from the origin, so it is at (1, 9).
- The correct answer is 0.04.** (M.5.5) Move the decimal point one place left: $0.4 \rightarrow 0.04$.
- Choice A is correct.** (M.5.9) Quotient is 77 (first digit 7, second digit 7). Check: $16 \times 77 = 1,232$.
- Choice C is correct.** (M.5.24) The base connects (2, 1) and (8, 1), which are on the same horizontal line. The length is $8 - 2 = 6$ units.
- Choice A is correct.** (M.5.26) Figures with 4 equal sides include the rhombuses that are not squares and the squares: $4 + 3 = 7$.
- Choice D is correct.** (M.5.1) Work from the inside out: $3 \times 5 = 15$, then $25 - 15 = 10$, then $10 \times 2 = 20$, and finally $20 + 3 = 23$.
- Choice C is correct.** (M.5.16) $2\frac{1}{2} = \frac{5}{2}$ and $4\frac{1}{2} = \frac{9}{2}$. Multiply: $\frac{5}{2} \times \frac{9}{2} = \frac{45}{4} = 11\frac{1}{4}$ square feet.
- Choice C is correct.** (M.5.15) Since $\frac{5}{3} > 1$, multiplying by it makes the result greater than 12.
- Choice A is correct.** (M.5.16) $\frac{1}{4} \times \frac{2}{3} = \frac{2}{12}$. In the grid, 1 of the 4 rows overlaps with 2 of the 3 columns, so $1 \times 2 = 2$ cells are shaded.
- Choice D is correct.** (M.5.6) In 7.84, the 8 is in the tenths place (0.8) and the 4 is in the hundredths place (0.04).
- Choice D is correct.** (M.5.20) A cube with side length 4 cm has 4 layers of $4 \times 4 = 16$ cubic centimeters each. So $16 \times 4 = 64$ cubic centimeters.
- Choice D is correct.** (M.5.11) $4\frac{3}{8} - 1\frac{1}{8} = 3\frac{2}{8}$, and $\frac{2}{8}$ simplifies to $\frac{1}{4}$.
- Choice A is correct.** (M.5.24) The first coordinate, 5, matches the x-axis label: minutes. The second coordinate, 40, matches the y-axis label: gallons in the tank. So the point means gallons in the tank is 40 when minutes is 5.
- Choice C is correct.** (M.5.22) Multiply: $18.50 \times 20 = 370$ dollars per week.
- The correct answer is 2.5.** (M.5.24) For nonzero terms, $5 \div 2 = 2.5$, $10 \div 4 = 2.5$, and $15 \div 6 = 2.5$. Each A value is 2.5 times the matching B value.
- Choice C is correct.** (M.5.12) The denominator increased from 7 to 14 (multiply by 2). Multiply the numerator by 2: $5 \times 2 = 10$.
- Choice C is correct.** (M.5.20) Find each part first: Prism A is $6 \times 2 \times 6 = 72$ cubic feet, and Prism B is $3 \times 5 \times 2 = 30$ cubic feet. Because the parts do not overlap, add them: $72 + 30 = 102$ cubic feet.
- Choice B is correct.** (M.5.18) Convert 2.5 L to mL: $2.5 \times 1000 = 2500$ mL. The container holds exactly 2,500 mL.
- Choices A, B are correct.** (M.5.15) A and B are larger than $\frac{4}{5}$ because multiplying by factors greater than 1 enlarges the starting amount. C and D use factors less than 1, so those products are smaller.
- Choice B is correct.** (M.5.12) $\frac{6}{7} \approx 1$, $\frac{4}{9} \approx \frac{1}{2}$, and $\frac{1}{10} \approx 0$. So $\frac{6}{7} + \frac{4}{9} + \frac{1}{10} \approx 1 + \frac{1}{2} + 0 = 1\frac{1}{2}$.
- Choice B is correct.** (M.5.21) The base is $36 \times 12 = 432$ square inches. With a height of 48 inches, the volume is $432 \times 48 = 20,736$ cubic inches.
- The correct answer is 0.24.** (M.5.10) $4 \times 6 = 24$. Two decimal places total in factors, so 0.24.
- Choice D is correct.** (M.5.22) Use the rectangular-prism volume formula: $5 \times 5 \times 3 = 75$. So the volume is 75 cubic meters.
- Choice A is correct.** (M.5.1) The words “four groups of the quantity (6 + 2)” mean the grouped quantity is multiplied by 4. That is represented by $4 \times (6 + 2)$.
- Choice B is correct.** (M.5.21) Base area = $21 \times 8 = 168$ in². Height = $504 \div 168 = 3$ inches.
- Choice D is correct.** (M.5.5) $11 \times 100 = 1100$. Append two zeros to 11.
- Choice B is correct.** (M.5.11) LCM(3,4) = 12. $\frac{2}{3} = \frac{8}{12}$ and $\frac{3}{4} = \frac{9}{12}$. $\frac{8}{12} + \frac{9}{12} = \frac{17}{12} = 1\frac{5}{12}$.
- Choice A is correct.** (M.5.24) Rule 1: 1, 4, 7, 10, 13. Rule 2: 2, 6, 10, 14, 18. Fifth pair is (13, 18).
- Choice D is correct.** (M.5.10) Add: $2.75 + 1.38 = 4.13$ L (hundredths: $5 + 8 = 13$, regroup; tenths: $7 + 3 + 1 = 11$, regroup; ones: $2 + 1 + 1 = 4$).



Workshop Notes for an Inventor

Dear Math Inventor,

◇ 3 practice tests. 3 chances to invent new ways of thinking. You tried strategies, broke them, fixed them, and built them stronger. That's what inventors do. That's what you do. ◇

★ **What inventors know:** the first idea isn't always the best one. Sometimes you have to try, fail, learn, and try again. You've practiced that exact loop on every test. That practice is why your problem-solving brain is so flexible now. ★

Inventor's Workshop Inventory

- **Sketch Pad:** FULL of ideas! You can imagine multiple ways to solve.
- **Toolbox:** STOCKED! You have many strategies to draw on.
- **Workbench:** ORGANIZED! Your work is clear and step-by-step.
- **Invention Mindset:** STRONG! You're not afraid to try something new.

Inventor's tip: on test day, if your first idea doesn't work, switch tools. Try a different strategy. Inventors don't get stuck on one tool—they pick the right one for the job. Same on a math test.

If you want to share a proud moment or ask a question, please email me at jay@testinar.com. I'd love to hear from you!

Jay Daie

Your Math Inventor (Build Big Things)

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

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WHAT'S INSIDE:



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Realistic test format to build familiarity and confidence.



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.



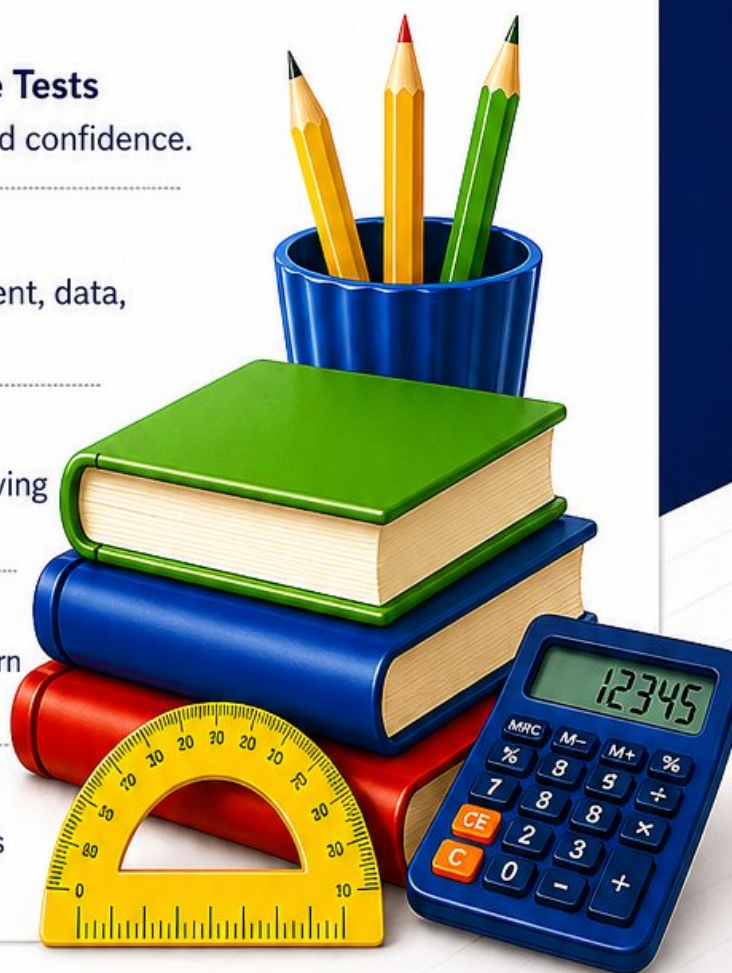
Detailed Answer Key

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!

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



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and practice materials!