

10

West Virginia WVGSA

GRADE
6
MATH

PRACTICE TESTS

Standards-Aligned Review
Mixed Practice & Answer Key



10 PRINTED TESTS

Realistic practice to build confidence and mastery



2 ONLINE TESTS

Extra practice for continued success



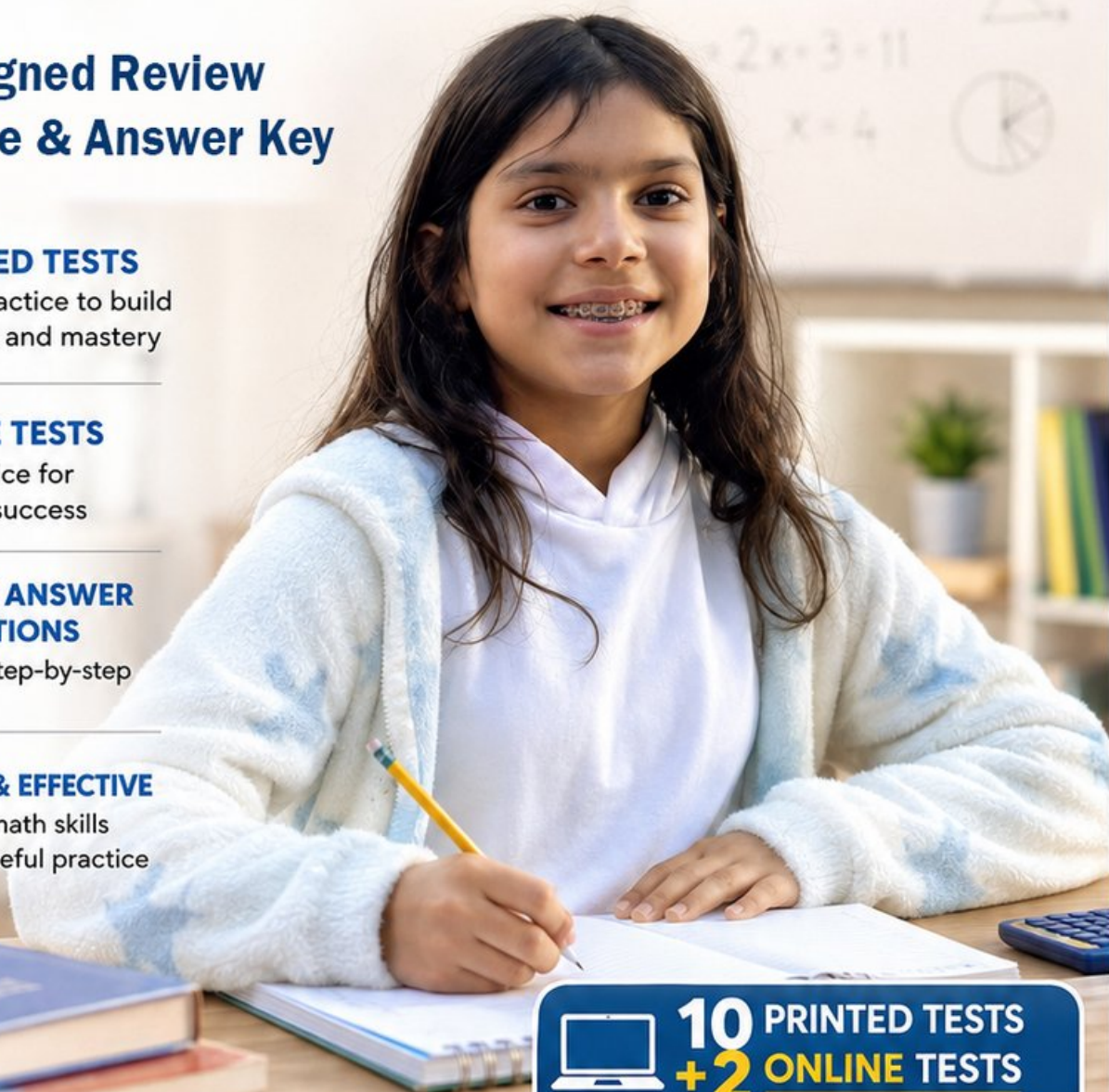
DETAILED ANSWER EXPLANATIONS

Learn with step-by-step solutions



FOCUSED & EFFECTIVE

Target key math skills with purposeful practice



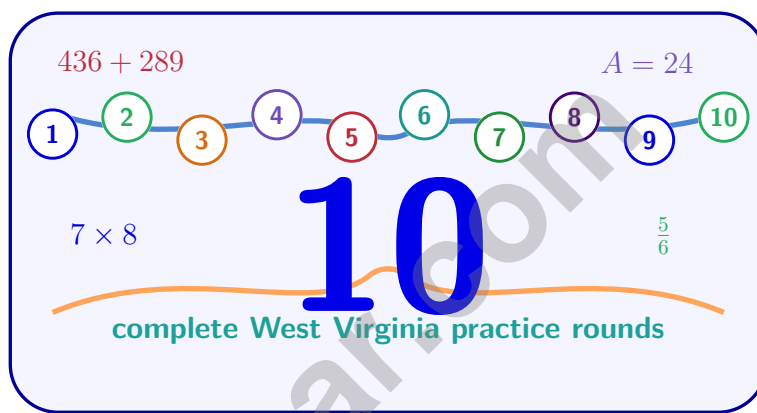
10 PRINTED TESTS
+ 2 ONLINE TESTS

Use these two additional online practice tests for extra review after the printed tests in this book.

PRACTICE • REVIEW • SUCCEED

10 West Virginia WVGSA Grade 6 Math Practice Tests

*Standards-Aligned Resilient Mountain Reasoning for West Virginia General Summative
Assessment*



Ten complete 40-question Grade 6 practice rounds for WVGSA, with ratios, rational numbers, expressions, equations, geometry, statistics, answer keys, and clear explanations for every item.

Jay Daie and Reza Nazari



Copyright ©

Testinar Inc



Published by Testinar Inc

Testinar.com

All rights reserved. No part of this publication may be reproduced, distributed, or transmitted in any form or by any means, including photocopying, recording, or other electronic or mechanical methods, without the prior written permission of the author, except in the case of brief quotations embodied in critical reviews and certain other noncommercial uses permitted by copyright law, including Section 107 or 108 of the 1976 United States Copyright Act.

This publication is independently produced and has no official connection to any state, district, or national testing program.

Test names and organizational names used herein are the property of their respective trademark holders.



Copyright ©

Welcome, West Virginia Math Explorer!

Ten steady rounds on a Mountain State review climb

This book gives you ten full Grade 6 practice tests for WVGSA. Each round uses ridge roads, river bends, and determined math practice as a fresh mental backdrop while you read closely, choose a smart strategy, show your work, and check whether your answer makes sense.

Your West Virginia Practice Promise

If the first step is hard, write one useful fact and continue. I will slow down for the question, circle what matters, solve one step at a time, and use mistakes as clues for getting stronger.

Read

Plan

Check

How to Use This Book

A ten-session routine for resilient mountain reasoning

1. **Preview the skills.** Read the quick review pages before the first test.
2. **Take one test at a time.** Work in a quiet place and answer all 40 questions.
3. **Mark your confidence.** Put a small star beside problems you solved with a strong plan.
4. **Check, then retry.** For missed questions, try the problem again before reading the explanation.
5. **Track your next move.** Use the growth log to name one habit and one skill for the next test.

West Virginia review rhythm: Test one day, correct carefully the next day, then return for the next round when your corrections feel clear.



What Is Inside?

Ten WVGSA tests, 400 questions, and a full review path

Part	What You Will Practice
Tests 1–3	Warm-up rounds for ratios, rational numbers, operations, and careful reading.
Tests 4–6	Skill-building rounds with expressions, equations, geometry, data, and problem models.
Tests 7–9	Stamina rounds for mixed review, neat work, and flexible strategy choices.
Test 10	Final West Virginia round to show growth across the whole book.
Answer Pages	Compact keys and explanations that show why each answer works.

The tests are mixed on purpose. Resilient mountain reasoning means recognizing the skill even when the next question changes topic.



Scan me!
For more practice
& answers

Table of Contents

★ Practice Test 1	_____	14
★ Practice Test 2	_____	29
★ Practice Test 3	_____	46
★ Practice Test 4	_____	62
★ Practice Test 5	_____	75
★ Practice Test 6	_____	90
★ Practice Test 7	_____	106
★ Practice Test 8	_____	122
★ Practice Test 9	_____	139
★ Practice Test 10	_____	155
Practice Test Answer Keys	_____	169
Practice Test Answers and Explanations	_____	175

9) A school's enrollment is divided between elementary and middle school in a ratio of 7 : 5. If the middle school has 250 students, how many students are in elementary school?

- A. 1000 students C. 500 students
 B. 175 students D. 350 students

10) In a garden, the ratio of roses to tulips is 5 : 8. If there are 40 roses, how many tulips are there?

- A. 45 C. 64
 B. 50 D. 72

11)

Gallons	2	4	6
Miles	48	96	144

Based on the table, what is the rate in miles per gallon?

- A. 20 miles per gallon C. 48 miles per gallon
 B. 96 miles per gallon D. 24 miles per gallon

12) A net of a rectangular prism shows dimensions labeled. The prism has length 9 cm, width 4 cm, and height 6 cm. Calculate the surface area (in cm^2).



1) What is the GCF of 16 and 40?

A. 2

C. 16

B. 4

D. 8

2) A plant grows 3 cm per week. If w is the number of weeks and h is the height in centimeters, write the equation.

A. $h = 3w + 3$

C. $w = 3h$

B. $h = 3w$

D. $h = w + 3$

3) A cube has edge length 5 cm. One face is painted red. How many edges of the cube are adjacent to the red face?

A. 2

C. 6

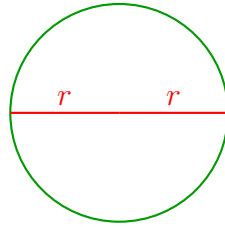
B. 4

D. 8

4) Solve for x : $5x = 30$.



Scan me!
For more practice
& answers



If $r = 15$ ft, $A = ?$

5)

A circle has a radius of 15 feet. Using $\pi \approx 3.14$, what is the approximate area?

- A. 47.1 ft² C. 235.5 ft²
 B. 94.2 ft² D. 706.5 ft²

6) A student asks: “How tall are the students in my class?”

Identify the population being sampled.

- A. The height measurement in inches C. All students in the school
 B. The students in the class who are D. The students in the class
 measured

7) What is the mode of: 1, 2, 2, 3, 3, 3, 4?

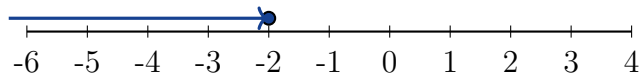
- A. 3 C. 1
 B. 2 D. 4

8) Find the mean of 3, 7, 8.

- A. 5 C. 7
 B. 6 D. 18



1) On which number line are all solutions to $x \leq -2$ correctly shown?



- A. Closed circle at -2 , arrow left C. Open circle at -2 , arrow left
 B. Closed circle at -2 , arrow right D. Open circle at -2 , arrow right
- 2) A recipe uses 0.4 cups of flour. What percent of 1 cup is this?

- A. 4% C. 40%
 B. 14% D. 400%
- 3) A car travels at a constant speed. After 3 hours, the car has traveled 165 miles. At this rate, how many miles will the car travel in 8 hours?

- 4) A student's grade increased from 82 to 90. What is the percent increase, rounded to the nearest whole number?
- A. 10% C. 8%
 B. 9.8% D. 12%



Scan me!
For more practice
& answers

5) If $\frac{2}{3} = \frac{8}{x}$, what is x ?

A. 10

C. 14

B. 16

D. 12

6) A recipe calls for 3 cups of milk. A student incorrectly divided by 8 instead of multiplying. What error did the student make?

A. The student was converting to fluid ounces correctly

C. The conversion factor is wrong

B. The student should multiply: $3 \times 8 = 24$ fluid ounces

D. Dividing is the correct operation

7) A teacher wants to divide 24 students into equal groups with no students left over. Which group size is NOT possible?

A. 3 students per group

C. 6 students per group

B. 8 students per group

D. 5 students per group

8) The factor tree below shows the GCF of two numbers. Use it to write the factored form of the sum.

$$\text{GCF} = 2 \times 3$$

$$2 \quad 3$$

$$\text{First number} = 2 \times 3 \times 5 = 30 \quad \text{Second number} = 3 \times 3 \times 4 = 24$$

A. $6(5 + 4)$

C. $5(6 + 24)$

B. $6(5 \times 4)$

D. $(5 + 4)(2 + 3)$



West Virginia WVGSA Practice Test Answer Keys

How to use this section with a Grade 6 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.

Testinar.com



Scan me!
For more practice
& answers

Practice Test Answers and Explanations

Practice Test 1 Answers and Explanations

- Choice B is correct.** (M.6.3) Total score is the sum: $-4 + 2 = -2$ (2 under par).
- Choice C is correct.** (M.6.23) Multiply: $2.5 \times 6 = 15$ feet.
- Choice C is correct.** (M.6.26) The table shows 4 : 6 and 8 : 12. Student 1 says the ratio is 2 : 3 (the simplified form). Student 2 says 4 : 6 (one row from the table). Both are correct because 4 : 6 simplifies to 2 : 3; they describe the same proportional relationship.
- Choice A is correct.** (M.6.28) Speed = $\frac{\text{distance}}{\text{time}} = \frac{120 \text{ km}}{2 \text{ h}} = 60 \text{ km/h}$. The line passes through the origin, confirming a proportional relationship.
- Choice B is correct.** (M.6.28) Total: $\$500 + \$250 + \$150 + \$100 = \$1000$.
- Choice C is correct.** (M.6.29) On a number line, -6 is to the left of -3 , so -6 is less than -3 . The farther left a number is, the smaller it is.
- Choice B is correct.** (M.6.3) Complement probability = $1 - 0.75 = 0.25$ or 25%.
- Choice C is correct.** (M.6.28) $\frac{2}{5} = 40\%$. So $0.40 \times 480 = 192$ matinee tickets.
- Choice D is correct.** (M.6.11) Middle school is the 5-part amount, and it equals 250. Each part is $250 \div 5 = 50$, so elementary school has $7 \times 50 = 350$ students.
- Choice C is correct.** (M.6.17) Roses are the 5-part amount. Since $40 \div 5 = 8$, each part is worth 8 flowers, and tulips are 8 parts: $8 \times 8 = 64$.
- Choice D is correct.** (M.6.11) Divide miles by gallons: $48 \div 2 = 24$ miles per gallon.
- The correct answer is 228.** (M.6.11) $SA = 2(9)(4) + 2(9)(6) + 2(4)(6) = 72 + 108 + 48 = 228 \text{ cm}^2$.
- Choice B is correct.** (M.6.19) $360 \div 8 = 45$ widgets per hour.
- Choice C is correct.** (M.6.28) The ratios are: $\frac{65}{1} = 65$, $\frac{75}{2} = 37.5$, $\frac{85}{3} \approx 28.3$. The ratios are different, so this is not a proportional relationship. The line does not pass through the origin $(0, 0)$, which is required for proportionality.
- Choice B is correct.** (M.6.6) Since the total is 100, the percent equals the number: 23 out of 100 = 23%.
- Choice D is correct.** (M.6.25) 150% of 3 = $1.50 \times 3 = 4.5$ cups.
- Choice D is correct.** (M.6.6) Unit rate: $1.50 \div 1 = 1.50$ dollars per pound. Verify: $3 \div 2 = 1.50$ and $4.50 \div 3 = 1.50$.
- Choice B is correct.** (M.6.6) The pattern shows 12 inches = 1 foot. For 60 inches: $60 \div 12 = 5$ feet.
- The correct answer is $201\frac{1}{7}$.** (M.6.20) Radius $r = \frac{16}{2} = 8$ in. Area = $\pi r^2 \approx \frac{22}{7} \times 8^2 = \frac{22}{7} \times 64 = \frac{1408}{7} \approx 201\frac{1}{7}$ or approximately 201 in².
- Choice B is correct.** (M.6.14) $\$3.20 - \$2.80 = \$0.40$ per gallon.
- The correct answer is A and C are the true statements..** (M.6.16) A is true: the formula $A = \frac{1}{2}bh$ applies to right, acute, and obtuse triangles. C is true: area is directly proportional to height when the base is fixed, so doubling the height doubles the area. B is false: in an obtuse triangle the height falls outside the triangle, so the height is not always a side. D is false: any side can serve as the base. E is false: the area of a triangle is exactly *half* the area of a rectangle with the same base and height, not greater.
- Choice C is correct.** (M.6.19) Change $3\frac{1}{2}$ to $\frac{7}{2}$, then divide by multiplying by $\frac{4}{3}$: $\frac{7}{2} \times \frac{4}{3} = \frac{28}{6}$, which simplifies to $\frac{14}{3}$ or $4\frac{2}{3}$ lengths along the trail.
- Choice C is correct.** (M.6.20) $8,456 \div 56 = 151$ with no remainder. Check: $56 \times 151 = 8,456$.
- Choice A is correct.** (M.6.21) Roughly, $8 \times 4 = 32$ since 7.9 is near 8 and 4.2 is near 4. That ballpark is what estimation is for—save the exact digits for when you need them.
- Choice D is correct.** (M.6.24) This is an LCM problem. Multiples of 8: 8, 16, 24, ... Multiples of 12: 12, 24, ... Both buses are at the station together at 24 minutes.
- Choice B is correct.** (M.6.3) Absolute value measures distance from zero. Distance is always positive or zero, so $|-8| = 8$.
- Choice D is correct.** (M.6.26) Numbers are equally far from zero if their absolute values are equal. $|-2| = |2| = 2$. The shown points -3 and 1 are not equally distant.



Scan me!
For more practice
& answers

Hi, Math Champion!

◇ You trained hard! 10 full practice tests is real practice. Your math game is way better now than when you started. ◇

★ **Coach's truth:** kids who practice get better. You practiced. You got better. That's how it works!
★

Your Game Stats

- **Energy:** HIGH! You can finish a long test.
- **Smart Plays:** You know lots of strategies.
- **Calm Head:** You stay cool with hard problems.
- **Game-Day Ready:** You feel strong and prepared.

Coach's tip: the night before the test, get good sleep. Eat a good breakfast. Bring a sharp pencil. Trust your training!

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

Jay Daie

Your Math Coach

PRACTICE MORE. ACHIEVE MORE. SUCCEED!

This **Grade 6 Math Practice Tests** book is designed to help students build strong math skills, deepen their understanding of key concepts, and gain the confidence they need to succeed on any test.

With 10 full-length printed tests and 2 online tests, students get the review, practice, and realistic test experience they need to improve accuracy, strengthen problem-solving abilities, and reach their full potential.

Perfect for classroom use, homework, test preparation, and extra practice at home.

PERFECT FOR:

- ✓ Classroom Practice
- ✓ Homework & Review
- ✓ Independent Learning
- ✓ Test Preparation
- ✓ Skill Reinforcement
- ✓ Building Confidence

★ **CONFIDENCE TODAY.
SUCCESS TOMORROW!**

WHAT STUDENTS WILL GAIN



Stronger Math Skills

Build a solid foundation through targeted practice and review.



Better Problem Solving

Develop logical thinking and effective solution strategies.



Deepen Understanding

Reinforce key math concepts aligned with standards.



Test Confidence

Get familiar with test formats and improve accuracy.



Achieve Success

Build confidence and perform your best on test day.

TOPICS COVERED

- ✓ Ratios & Rates
- ✓ The Number System
- ✓ Expressions & Equations
- ✓ Geometry
- ✓ Fractions & Decimals
- ✓ Percents
- ✓ Statistics & Probability
- ✓ Data Analysis
- ✓ Measurement & Conversions
- ✓ And More!



2 ONLINE TESTS

Extra online practice to reinforce learning and build confidence.

MORE PRACTICE. GREATER RESULTS.

Give your child the tools needed to develop strong math skills, confidence, and a positive attitude toward learning.



10 PRINTED
PRACTICE TESTS



2 ONLINE
PRACTICE TESTS



DETAILED ANSWER
EXPLANATIONS