

9

West Virginia WVGSA

GRADE

6

MATH

PRACTICE TESTS

Standards-Aligned Review
Mixed Practice & Answer Key



9 PRINTED TESTS

Realistic practice to build confidence and mastery



DETAILED ANSWER EXPLANATIONS

Learn with step-by-step solutions



FOCUSED & EFFECTIVE

Target key math skills with purposeful practice



BUILD CONFIDENCE

Strengthen problem solving and test-taking skills



9 PRINTED TESTS
+2 ONLINE TESTS

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

PRACTICE TODAY.
SUCCEED TOMORROW.



PRACTICE



REVIEW



SUCCEED

9 West Virginia WVGSA Grade 6 Math Practice Tests

Standards-Aligned Mountain-State Stamina for West Virginia General Summative Assessment

$436 + 289$ $A = 24$

1 2 3 4 5 6 7 8 9

7×8 $\frac{5}{6}$

9

complete West Virginia practice rounds

Nine complete 40-question Grade 6 practice rounds for WVGSA, built for mountain-state stamina 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!

Nine focused rounds using mountain-state stamina

This book gives you nine full Grade 6 practice tests for WVGSA. Each round uses ridge roads, river valleys, and determined problem solving 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

Climb the problem one step at a time: read, model, solve, and check.

Read

Plan

Check

How to Use This Book

A nine-session routine for mountain-state stamina

1. **Preview the skills.** Scan the quick review pages before beginning the first round.
2. **Mark confidence.** Put a small star beside problems where your plan felt strong.
3. **Work in order.** Take one 40-question test at a time in a quiet place.
4. **Plan the next round.** Use the growth log to choose one habit and one skill to practice.
5. **Correct actively.** Retry missed items before reading the full explanation.

West Virginia review rhythm: Use each test as a climb, then review the steepest parts before the next round.



What Is Inside?

Nine WVGSA tests, 360 questions, and a full review path

Part	What You Will Practice
Tests 1–3	Foundation 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	Final stamina rounds for mixed review, neat work, and flexible strategy choices.
Answer Pages	Compact keys and explanations that show why each answer works.

The tests are mixed on purpose. Mountain-state stamina means recognizing the skill even when the next question changes topic, changes format, or asks for an explanation.



Scan me!
For more practice
& answers

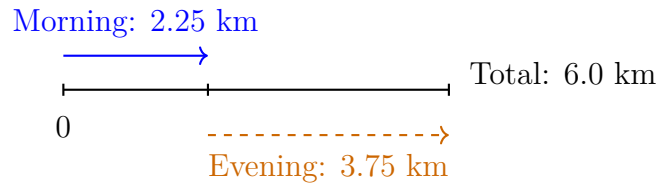
Table of Contents

★ Practice Test 1	_____	14
★ Practice Test 2	_____	29
★ Practice Test 3	_____	44
★ Practice Test 4	_____	60
★ Practice Test 5	_____	75
★ Practice Test 6	_____	90
★ Practice Test 7	_____	108
★ Practice Test 8	_____	123
★ Practice Test 9	_____	139
Practice Test Answer Keys	_____	154
Practice Test Answers and Explanations	_____	160

- 1) Evaluate: $(8 + 2) \times (2^2 - 1)$
- A. 20 C. 10
 B. 30 D. 36
- 2) Which pair of numbers are opposites on a number line (equal distance from 0 but opposite sides)?
- A. -3 and 3 C. -1 and 0
 B. -2 and 4 D. 2 and 2.5
- 3) A student mistakenly plotted $(4, -3)$ in Quadrant III. What is the correct quadrant for this point?
- A. Quadrant I C. Quadrant III
 B. Quadrant II D. Quadrant IV
- 4) A stock portfolio shows: Investment A gained \$75, Investment B lost \$120, Investment C gained \$45. What is the total gain or loss?
- A. \$240 loss C. \$240 gain
 B. \$0 (break-even) D. \$120 loss
- 5) Which division problem has a quotient of exactly 125?
- A. $2,500 \div 25$ C. $3,600 \div 30$
 B. $3,000 \div 24$ D. $2,750 \div 25$

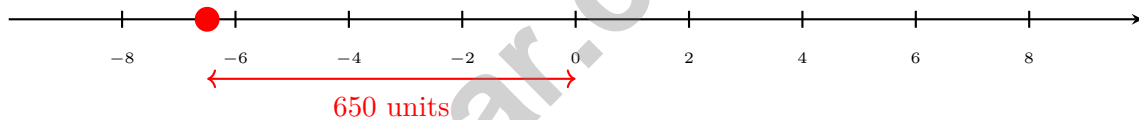


- 6) A jogger runs 2.25 km in the morning and 3.75 km in the evening. What is the total distance?



- A. 6.0 km C. 6.5 km
 B. 5.75 km D. 5.0 km
- 7) What is the GCF of 18, 27, and 45?

- A. 3 C. 6
 B. 9 D. 18



- 8) A submarine is 650 feet below sea level. Which expression represents this depth using absolute value?

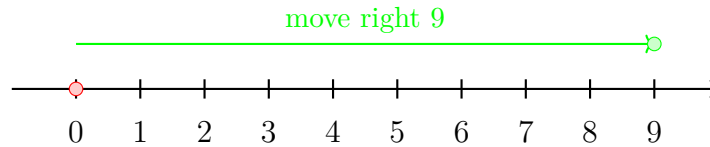
- A. $|-650|$ C. -650
 B. $|650|$ D. 650
- 9) A thermometer shows three temperatures: $-5^{\circ}F$, $-8^{\circ}F$, and $2^{\circ}F$. Order them from coldest to warmest.

- A. $-5, -8, 2$ C. $-8, -5, 2$
 B. $2, -5, -8$ D. $-8, 2, -5$



Scan me!
For more practice
& answers

10) What is $0 - (-9)$?



- A. -9 C. 9
 B. 0 D. 18

11) What is $(-9) \times 2$?

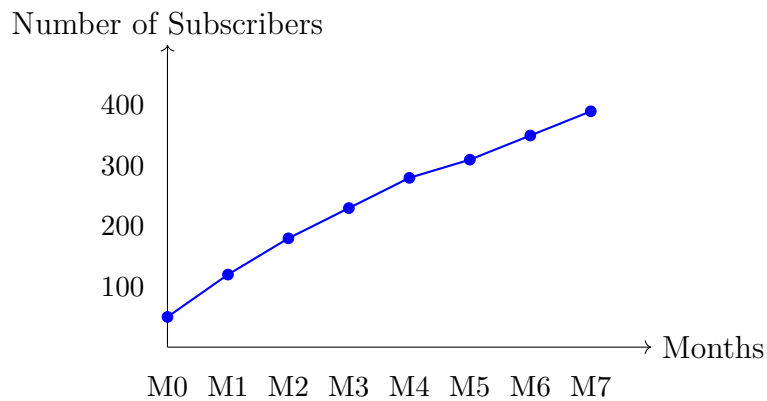
- A. -18 C. -7
 B. 18 D. 7

12) In the expression $v + 15$, the variable v represents the cost of a video game before tax. What does $v + 15$ represent?

- A. The cost of the game before tax D. The difference between game and tax
 B. The tax on the game
 C. The cost of the game plus \$15

13) A juice bottle contains 2.5 liters. How many milliliters of juice are in the bottle?





1)

This line graph tracks a website's subscriber growth over 7 months. During which month did the subscriber count grow the LEAST?

- A. Between months 0 and 1 C. Between months 5 and 6
 B. Between months 4 and 5 D. Between months 6 and 7

2) A bookstore sells 5 books for \$45. What is the unit rate in dollars per book?

3) Which expression is NOT equivalent to $24 + 36$?

- A. $6(4 + 6)$ C. $4(6 + 9)$
 B. $12(2 + 3)$ D. $3(7 + 12)$



4) An elevator is at floor 0. It goes up 6 floors, then down 10 floors. At which floor is the elevator now?

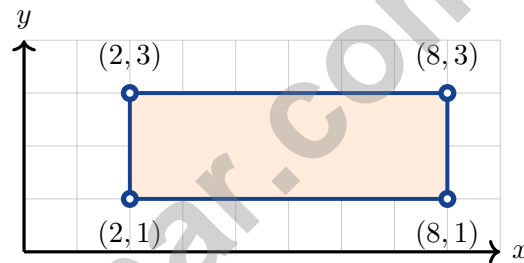
A. Floor 6

C. Floor 4

B. Floor -4

D. Floor 16

5) A recipe uses 8 cups of sugar to make 32 servings. How much sugar per serving?



6)

What is the height (vertical length) of the rectangle with vertices at $(2, 1)$, $(8, 1)$, $(8, 3)$, and $(2, 3)$?

A. 2 units

C. 6 units

B. 4 units

D. 8 units

7) An orchard has 3,920 apples to pack into crates of 20 apples each. How many crates are needed?

A. 196

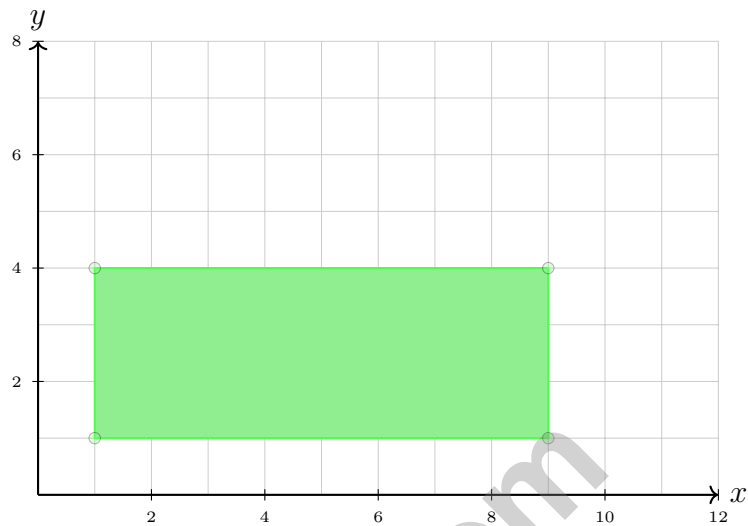
C. 204

B. 200

D. 210



Scan me!
For more practice
& answers



1)

A garden plot is rectangular with vertices at $(1, 1)$, $(9, 1)$, $(9, 4)$, and $(1, 4)$. What is the area of the garden?

- A. 18 square units C. 24 square units
 B. 21 square units D. 27 square units

2) A double-bar graph compares the number of books read by boys and girls over 3 months. In January, boys read 24 books and girls read 18. In February, boys read 30 and girls read 28. In March, boys read 26 and girls read 32. In which month did girls read more books than boys?

- A. January C. February
 B. None D. March

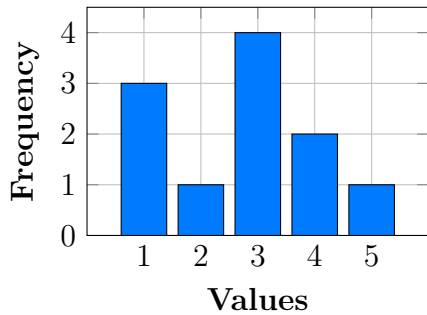


Scan me!
For more practice
& answers

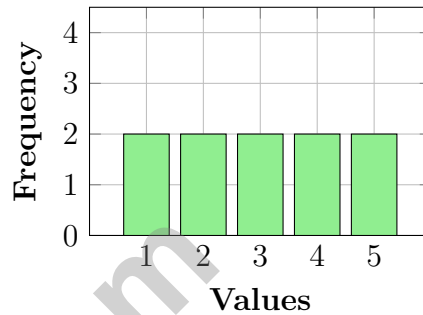
3) A circle has a radius of 8 meters. What is the approximate area using $\pi \approx \frac{22}{7}$?

- A. 176 m² C. 352 m²
 B. 201 m² D. 1408 m²

4) Which histogram shows a UNIFORM distribution?



A (Skewed)



B (Uniform)

- A. Plot A (has peaks) C. Neither is uniform
 B. Cannot compare histograms this way D. Plot B (equal frequencies)

5) Four friends spent \$12, \$15, \$18, and \$19 on groceries. What is the mean amount spent per friend?

- A. \$15 C. \$16.50
 B. \$16 D. \$17

6) A bag contains 6 white socks and 4 black socks. If one sock is drawn randomly, what is the probability of drawing a black sock expressed as a decimal?

- A. 0.4 C. 0.25
 B. 0.6 D. 0.75

West Virginia WVGSA Practice Test Answer Keys

How to use this West Virginia WVGSA answer section with a Grade 6 student:

1. check the answer first, then write one quick reason the choice is correct
2. mark questions to try again, especially the skills that feel connected to mountain-state stamina
3. rework the problem before reading the full explanation, using this reminder:
Climb the problem one step at a time: read, model, solve, and check.

A calm West Virginia correction routine turns every missed item into useful practice. Use each test as a climb, then review the steepest parts before the next round.



West Virginia Practice Test Answers and Explanations

Review the nine printed WVGSA tests with determined, steady, and ready for the next ridge habits.

Practice Test 1 Answers and Explanations

- 1) **Choice B is correct.** (M.6.12) Parentheses first: $8 + 2 = 10$. Exponent: $2^2 = 4$. Subtract in parentheses: $4 - 1 = 3$. Finally multiply: $10 \times 3 = 30$.
- 2) **Choice A is correct.** (M.6.28) Opposites are the same distance from zero on opposite sides. Both -3 and 3 are distance 3 from the origin.
- 3) **Choice D is correct.** (M.6.11) The point $(4, -3)$ has a positive x -coordinate and negative y -coordinate, placing it in Quadrant IV (lower right). The student likely confused the quadrants.
- 4) **Choice B is correct.** (M.6.11) Total: $75 + (-120) + 45 = 75 - 120 + 45 = 120 - 120 = \0 (no gain or loss overall).
- 5) **Choice B is correct.** (M.6.5, M.6.6) Check each one: $2,500 \div 25 = 100$, $3,000 \div 24 = 125 \checkmark$, $3,600 \div 30 = 120$, and $2,750 \div 25 = 110$. The match is choice B because $24 \times 125 = 3,000$.
- 6) **Choice A is correct.** (M.6.6) Add: $2.25 + 3.75 = 6.0$ km.
- 7) **Choice B is correct.** (M.6.7) Factors of 18: 1, 2, 3, 6, 9, 18. Factors of 27: 1, 3, 9, 27. Factors of 45: 1, 3, 5, 9, 15, 45. Common to all three: 1, 3, 9. GCF is 9.
- 8) **Choice A is correct.** (M.6.28) Below sea level is represented by a negative number: -650 . The absolute value $|-650| = 650$ represents the magnitude of the depth.
- 9) **Choice C is correct.** (M.6.10) From coldest to warmest: $-8 < -5 < 2$.
- 10) **Choice C is correct.** (M.6.6) Subtracting a negative is the same as adding its opposite: $0 - (-9) = 0 + 9 = 9$.
- 11) **Choice A is correct.** (M.6.6) Negative times positive is negative: $(-9) \times 2 = -18$.
- 12) **Choice C is correct.** (M.6.17) $v + 15$ means add \$15 to the original price v .
- 13) **The correct answer is 2,500.** (M.6.3) Multiply by the conversion factor: $2.5 \text{ liters} \times 1000 \text{ mL/liter} = 2500 \text{ mL}$.
- 14) **The correct answer is 1300.** (M.6.6) Net worth = Assets - Debts = $\$1500 - \$200 = \$1300$.
- 15) **Choice C is correct.** (M.6.20) If 8 gallons cover 160 miles, then 320 miles (twice as far) requires $2 \times 8 = 16$ gallons.
- 16) **Choice B is correct.** (M.6.21) Area of a trapezoid = $\frac{1}{2}(b_1 + b_2) \times h = \frac{1}{2}(7 + 9) \times 4 = \frac{1}{2} \times 16 \times 4 = 32 \text{ m}^2$.
- 17) **Choice D is correct.** (M.6.22) $28 = 3.5 \times 2 \times h = 7 \times h$, so $h = 4$ ft.
- 18) **Choice D is correct.** (M.6.23) Length = $6 - 1 = 5$ units; width = $4 - 1 = 3$ units. Area = $5 \times 3 = 15$ square units.
- 19) **Choice C is correct.** (M.6.26) Distances from the mean (14): $|10 - 14| = 4$, $|12 - 14| = 2$, $|14 - 14| = 0$, $|16 - 14| = 2$, $|18 - 14| = 4$. MAD = $\frac{4+2+0+2+4}{5} = \frac{12}{5} = 2.4$.
- 20) **Choice D is correct.** (M.6.28) The mode is the value with the highest frequency. The frequency 7 for 1.5 inches is the largest, so 1.5 inches is the mode.
- 21) **The correct answer is Equivalent-fraction divide and reciprocal multiply.** (M.6.4) B uses a common denominator so you are dividing same-size chunks: $\frac{15}{18} \div \frac{6}{18} = \frac{15}{6} = \frac{5}{2}$. C keeps $\frac{5}{6}$ and multiplies by the reciprocal of $\frac{1}{3}$, which is $\frac{3}{1}$ —that is $\frac{5}{6} \times \frac{3}{1}$, also simplifying to $\frac{5}{2}$. A never flips $\frac{1}{3}$, D mixes random numbers together, and E flips $\frac{5}{6}$ instead of flipping the divisor.
- 22) **Choice D is correct.** (M.6.3) Multiply: $5 \text{ inches} \times 25 \text{ miles/inch} = 125 \text{ miles}$.
- 23) **Choice C is correct.** (M.6.7) Find GCF(12, 18). Factors of 12: 1, 2, 3, 4, 6, 12. Factors of 18: 1, 2, 3, 6, 9, 18. GCF is 6. She can make 6 piles with 2 red shirts and 3 blue shirts each.
- 24) **Choice D is correct.** (M.6.8) Distance from zero determines how close a number is. $|-1| = 1$, which is the smallest distance among the choices. Numbers closer to zero have smaller absolute values.
- 25) **Choice D is correct.** (M.6.11) Horizontal side: $|6 - 0| = 6$ units. Vertical side: $|5 - 2| = 3$ units. The longer side is 6 units.



Hi, Math Athlete!

◇ 9 practice tests done! That's serious training. Your math muscles are strong. You are in great shape for the big test. ◇

★ **Trainers know:** muscle memory is real. The more you practice, the more your brain knows what to do without thinking. You built that muscle memory! ★

Athlete Performance

- **Endurance:** TOP! You can finish a long test.
- **Strength:** STRONG! You handle hard problems.
- **Speed:** JUST RIGHT! You don't rush.
- **Recovery:** GOOD! You bounce back from tough questions.

Trainer tip: on test day, drink water, breathe deeply, and warm up with the easier questions first. Your training will carry you the rest of the way!

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

Jay Daie

Your Math Trainer

PRACTICE MORE. ACHIEVE MORE.

This **Grade 6 Math Practice Tests** book is designed to help students strengthen their math skills, master important concepts, and build the confidence they need to excel on any test.

With 9 full-length printed tests and 2 online tests, students get the review, practice, and realistic test experience they need to improve accuracy, develop 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

★ PRACTICE TODAY.
SUCCEED 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.



Deeper 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.



9 PRINTED
PRACTICE TESTS



2 ONLINE
PRACTICE TESTS



DETAILED ANSWER
EXPLANATIONS