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# 10 West Virginia WVGSA



GRADE 3

MATH

PRACTICE TESTS

- ✓ Complete Standards Review
- ✓ Skill Practice
- ✓ Word Problems and Answer Key

$2 \times 7 + 4$



★ ★ ★  
PREPARE  
PRACTICE  
SUCCEED!  
★ ★ ★



Aligned to  
Grade 3 Math  
Standards



Build Confidence  
and Master  
Math Skills



Test-Taking  
Practice for  
Success



Answer Key  
for Easy  
Review

# 10 West Virginia WVGSA Grade 3 Math Practice Tests

*Standards-Aligned Review with Mixed Practice and Answer Key*



Ten complete 30-question Grade 3 practice rounds for WVGSA, built around mountain roads, river bends, and strong perseverance, with answer keys and clear explanations for every item.

**Jay Daie and Reza Nazari**



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# Welcome, West Virginia Math Explorer!

Ten steady rounds on the Mountain State math route

This book gives you ten full Grade 3 practice tests for WVGSA. Each round uses mountain roads, river bends, and strong perseverance to keep practice memorable while you read carefully, choose a strategy, show work, and check the answer.

## West Virginia Practice Promise

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 West Virginia WVGSA review

1. **Preview the skills.** Read the quick review pages before the first test.
2. **Take one test at a time.** Treat each round like a stop on the Mountain State math route.
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.

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



## What Is Inside?

Ten tests, 300 questions, and a full WVGSA review path

Part	What You Will Practice
Tests 1–3	Warm-up rounds for reading carefully, choosing operations, and using models.
Tests 4–6	Skill-building rounds with fractions, measurement, area, data, and two-step problems.
Tests 7–9	Stamina rounds for mixed review, neat work, and flexible strategies.
Test 10	Final round to show growth across the whole West Virginia book.
Answer Pages	Compact keys and explanations that show why each answer works.

The tests are mixed on purpose. Real test readiness means recognizing the skill even when the next question changes topic.



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& answers

# Table of Contents

★ Practice Test 1	_____	14
★ Practice Test 2	_____	26
★ Practice Test 3	_____	39
★ Practice Test 4	_____	51
★ Practice Test 5	_____	63
★ Practice Test 6	_____	75
★ Practice Test 7	_____	87
★ Practice Test 8	_____	100
★ Practice Test 9	_____	112
★ Practice Test 10	_____	124
<b>Practice Test Answer Keys</b>	_____	<b>136</b>
<b>Practice Test Answers and Explanations</b>	_____	<b>142</b>

1) A square rug has side length 5 meters. What is its area?

A. 10 sq m

C. 25 sq m

B. 20 sq m

D. 30 sq m

2) Which number rounds to 70 when rounded to the nearest 10?

A. 64

C. 75

B. 76

D. 67

3) A toy costs \$5. Two toys cost \$10. Three toys cost \$15. Four toys cost \$20.  
How much do 5 toys cost?

A. \$24

C. \$26

B. \$30

D. \$25

4) A bar graph shows hours practiced. Piano: 6 units (scale: 2 hours per unit). Guitar: 4 units (scale: 2 hours per unit). How many more hours was piano practiced?

A. 2

C. 8

B. 4

D. 12

5) Which strategy uses 10 groups of 4 and subtracts 1 group of 4 to find  $9 \times 4$ ?

A.  $9 \times 4 = (5 \times 4) + (4 \times 4) = 20 + 16 = 36$

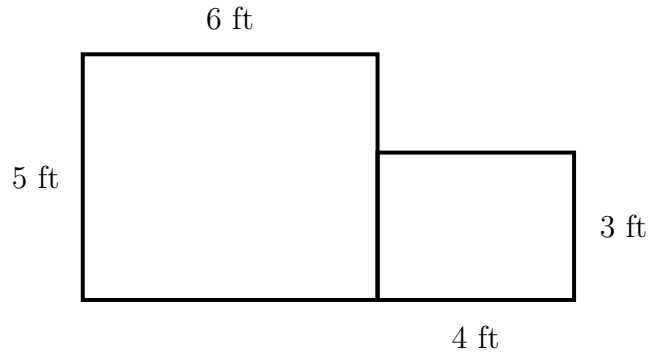
C.  $9 \times 4 = 9 \times (2 \times 2) = 9 \times 4 = 36$

B.  $9 \times 4 = (8 \times 4) + (1 \times 4) = 32 + 4 = 36$

D.  $9 \times 4 = (10 \times 4) - (1 \times 4) = 40 - 4 = 36$



- 6) An L-shaped field is split by dashed lines. Left part: 6 ft by 5 ft. Right part: 4 ft by 3 ft. What is the total area?



- A. 30 sq ft                       C. 42 sq ft  
 B. 12 sq ft                       D. 180 sq ft
- 7) Which multiplication fact helps you solve  $10 \div 2 = ?$
- A.  $2 \times 5 = 10$                        C.  $10 \times 2 = 20$   
 B.  $2 \times 10 = 20$                        D.  $5 \times 5 = 25$
- 8) If a rectangle has a length of 7 units and a width of 5 units, what is the area in square units?

- 9) Which statement is true?
- A. If  $8 \times 2 = 16$ , then  $16 \div 2 = 8$  and  $16 \div 8 = 2$                        C. If  $8 \times 2 = 16$ , then division is not related  
 B. If  $8 \times 2 = 16$ , then  $16 \div 2 = 2$  only                       D. If  $8 \times 2 = 16$ , then  $16 \div 2 = 16$

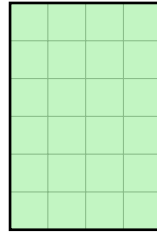


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- 10) Ben bought 3 packs of erasers. Each pack has 8 erasers. How many erasers did Ben buy?
- A.  $8 \times 3 = 24$                        C.  $3 \times 3 = 9$   
 B.  $3 + 8 = 11$                        D.  $8 + 8 = 16$
- 11) A unit square measures 1 centimeter by 1 centimeter. How many unit squares are needed to cover a 5 cm by 4 cm rectangle?
- A. 9 unit squares                       C. 20 unit squares  
 B. 18 unit squares                       D. 25 unit squares
- 12) A rectangular garden can be tiled into two smaller rectangles, each with width 3. One rectangle is 3 by 10 and the other is 3 by 6. What is the total area?
- A.  $3 \times (10 + 6) = 3 \times 16 = 48$                        C.  $(10 + 6) = 16$   
 B.  $3 + 10 + 6 = 19$                        D.  $3 \times 10 \times 3 \times 6 = 5400$
- 13) A toy store has 60 action figures. They pack them into boxes of 6 figures each and sell 5 boxes. Which statements are TRUE about the remaining figures? (Select the TWO that are true.)
- A. There are 10 boxes total.  
 B. There are 35 figures sold.  
 C. There are 30 figures remaining.  
 D. Each box has 5 figures.  
 E. There are 5 figures remaining.
- 14) What is  $9 \times 40$ ? Show how you decompose the 40 and use place value to find your answer.



- 1) This grid shows a rectangle made of unit squares.



What is the area in square units?

- A. 10 sq units                       C. 24 sq units  
 B. 18 sq units                       D. 28 sq units
- 2) Maria draws a rectangle on a grid. The rectangle is 5 units long and 3 units wide. She counts 12 unit squares instead of 15. What did Maria do wrong?
- A. She counted the perimeter instead of area       C. She multiplied 4 and 3 instead of 5 and 3  
 B. She counted only the edges, not the whole inside       D. She added instead of multiplied
- 3) How many halves make one whole?



- 4) Eli cut a sandwich into 2 equal pieces and ate 1 piece. Noah cut his sandwich into 4 equal pieces and ate 2 pieces. Did they eat the same amount?
- A. Yes, they ate the same amount       C. No, Noah ate more  
 B. No, Eli ate more                       D. Cannot be determined



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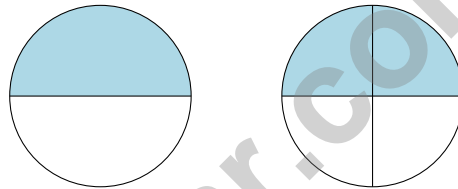
5) A rectangular bookcase has a width of 7 inches and a height of 8 inches. What is the area of the bookcase?

- A. 30 sq in                       C. 15 sq in  
 B. 56 sq in                       D. 112 sq in

6) A square is 5 unit squares long on each side. How many unit squares cover it?

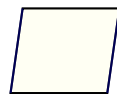
- A. 20 unit squares               C. 12 unit squares  
 B. 10 unit squares               D. 25 unit squares

7) Look at the two circles. Circle A shows  $\frac{1}{2}$  shaded. Circle B shows  $\frac{2}{4}$  shaded. Both circles are the same size. What can you say about these fractions?



Circle A:  $\frac{1}{2}$  shaded    Circle B:  $\frac{2}{4}$  shaded

- A. They are not related               C.  $\frac{1}{2} > \frac{2}{4}$   
 B.  $\frac{1}{2} < \frac{2}{4}$                                D.  $\frac{1}{2} = \frac{2}{4}$



Opposite sides

Parallelogram

8)

In a parallelogram, are the opposite sides equal in length?

- A. No, they are never equal               C. Only the top and bottom are equal  
 B. Yes, opposite sides are equal               D. Opposite sides are perpendicular



1) Which equation is true?

A.  $3 \times 6 = 19$

C.  $8 \times 5 = 42$

B.  $9 \times 3 = 28$

D.  $5 \times 6 = 30$

2) Find  $27 \div 3$ . (Hint: Think of a multiplication fact:  $\square \times 3 = 27$ )

3) Eli divides a cake into 6 equal pieces. What fraction is one piece?

A.  $\frac{1}{6}$

C.  $\frac{5}{6}$

B.  $\frac{6}{1}$

D.  $\frac{1}{5}$

4) Find  $16 \div 2$ .

5)  $902 - 418 = ?$

A. 484

C. 584

B. 494

D. 394



- 6) Ravi has 4 bags with 5 toys each and loses 8 toys. How many toys are left?

- 7) A rectangle is split horizontally:



What is the correct distributive statement?

- A.  $4 \times (4 + 3) = (4 \times 4) + (4 \times 3) = 16 + 12 = 28$ 
 C.  $4 \times 7 = 28$
- B.  $4 + 3 = 7$  units
  D.  $(4 + 4) + (4 + 3) = 15$
- 8) A coffee maker brews 6 cups of coffee. Each cup holds 200 mL. How many milliliters of coffee does the maker brew?

- A. 200 mL
  C. 1000 mL
- B. 600 mL
  D. 1200 mL



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## Practice Test Answer Keys

**How to use this section with a Grade 3 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.**

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## Practice Test Answers and Explanations

### Practice Test 1 Answers and Explanations

- 1) **Choice C is correct.** (M.3.24) A square with side 5 has area  $5 \times 5 = 25$  square meters.
- 2) **Choice D is correct.** (M.3.12) Numbers from 65 to 74 round to 70. The number 67 has ones digit  $7 \geq 5$ , so it rounds up to 70.
- 3) **Choice D is correct.** (M.3.9) The cost goes up by \$5 each time. Five toys cost  $5 \times 5 = \$25$ .
- 4) **Choice B is correct.** (M.3.20) Piano:  $6 \times 2 = 12$ . Guitar:  $4 \times 2 = 8$ . More:  $12 - 8 = 4$ .
- 5) **Choice D is correct.** (M.3.5) Since 9 groups of 4 is one group of 4 less than 10 groups of 4,  $9 \times 4 = 10 \times 4 - 1 \times 4 = 40 - 4 = 36$ .
- 6) **Choice C is correct.** (M.3.22) Left:  $6 \times 5 = 30$  sq ft. Right:  $4 \times 3 = 12$  sq ft. Total:  $30 + 12 = 42$  sq ft.
- 7) **Choice A is correct.** (M.3.2) Division and multiplication are inverse operations. Since  $2 \times 5 = 10$ , then  $10 \div 2 = 5$ .
- 8) **The correct answer is 35 square units.** (M.3.22) Multiply length by width:  $7 \times 5 = 35$  square units.
- 9) **Choice A is correct.** (M.3.6) From any multiplication fact, you always get two division facts. Both factors work as quotients when dividing the product.
- 10) **Choice A is correct.** (M.3.1) Three packs with eight erasers each is 3 groups of 8, which equals  $3 \times 8 = 24$  or  $8 \times 3 = 24$ . Option B is the addition misconception. Option C uses only one factor. Option D is incomplete (only two groups).
- 11) **Choice C is correct.** (M.3.23) A 5 cm  $\times$  4 cm rectangle is covered by  $5 \times 4 = 20$  unit squares of 1 cm each.
- 12) **Choice A is correct.** (M.3.16) Both rectangles have width 3. Total length is  $10 + 6 = 16$ . Combined area is  $(3 \times 10) + (3 \times 6) = 30 + 18 = 48$ .
- 13) **Choices A and C are correct.** (M.3.8) Step 1: Total boxes:  $60 \div 6 = 10$  boxes, so A is true. Step 2: Figures sold:  $5 \times 6 = 30$  figures, so B is false. The remaining figures are  $60 - 30 = 30$ , so C is true. D is false because each box has 6 figures, and E is false because 30 figures remain.
- 14) **The correct answer is 360.** (M.3.14) Students should show that they break 40 into  $4 \times 10$ , multiply  $9 \times 4 = 36$  first, then multiply by 10 to get 360. Decomposition and place-value strategy are key.
- 15) **Choice B is correct.** (M.3.17) The denominator was multiplied by 2 (from 3 to 6). Multiply the numerator by 2:  $2 \times 2 = 4$ . So  $\frac{2}{3} = \frac{4}{6}$ .
- 16) **Choice B is correct.** (M.3.17) Same numerator, different denominators. One third has bigger pieces than one sixth. Ava has a larger piece.
- 17) **Choice C is correct.** (M.3.25) Square tiling:  $5 \times 5 = 25$  square units.
- 18) **Choice B is correct.** (M.3.21) At  $8\frac{1}{2}$  there are no X's, so it appears least often.
- 19) **Choice B is correct.** (M.3.16)  $\frac{3}{6} = \frac{1}{2}$  because both represent one-half.
- 20) **Choice D is correct.** (M.3.27) Eight equal slices mean each slice is  $\frac{1}{8}$  of the whole circle.
- 21) **Choice A is correct.** (M.3.17)  $\frac{1}{3}$  and  $\frac{2}{6}$  represent the same amount.
- 22) **Choice A is correct.** (M.3.19) 250 mL is the smallest amount.
- 23) **Choice C is correct.** (M.3.22) Count the rows: 2 rows. Count across: 11 unit squares per row. Total:  $11 + 11 = 22$  square units.
- 24) **Choice A is correct.** (M.3.25) Area = length  $\times$  width =  $6 \times 4 = 24$  square inches.
- 25) **Choice A is correct.** (M.3.7)  $4 \times 7 = 28$ . Count by 7s four times: 7, 14, 21, 28.
- 26) **Choice A is correct.** (M.3.23)  $5 \times 7 = 35$  sq cm. The other choices do not equal 35.
- 27) **Choice A is correct.** (M.3.13) Ones:  $7 + 6 = 13$  (write 3, carry 1). Tens:  $6 + 1 + 1 = 8$ . Hundreds:  $5 + 2 = 7$ . Answer: 783.
- 28) **The correct answer is 3.** (M.3.15) The denominator 3 tells us there are 3 equal parts total.
- 29) **Choice D is correct.** (M.3.3) Area =  $7 \times 5 = 35$  ft<sup>2</sup>.
- 30) **Choice B is correct.** (M.3.15) The rectangle has 3 equal parts, and 1 part is shaded. The unit fraction is  $\frac{1}{3}$  (one-third).



From Your Math Family

Hi, Math Family Member,

◇ Welcome to a special note from your math family. You finished 10 full practice tests, and that hard work matters more than any score. We see you. We are proud of you. ◇

★ **Our math family knows:** math is a journey. You have taken many steps already. The test is just one stop. Every skill you built is yours forever. ★

**What Your Math Family Sees**

- **Hard Work:** You keep showing up.
- **Real Growth:** You can do problems today you couldn't before.
- **Brave Heart:** You face hard problems with brave thinking.
- **Bright Future:** Your math journey is just beginning.

**Family tip:** on test day, picture us standing behind you, smiling and rooting for you. You are not alone. Your math family is with you!

If you want to share something or ask a question, please email me at [jay@testinar.com](mailto:jay@testinar.com).

**Jay Daie**

Your Math Family

# PRACTICE TODAY. SUCCEED TOMORROW!

Give your child the advantage they need in **Grade 3 Math** with 10 full-length practice tests that build skills, boost confidence, and improve results. Designed to mirror real test formats, this book helps students master essential math concepts and feel ready for any challenge.



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