

# 6

# Missouri MAP

## GRADE 5 MATH

### PRACTICE TESTS

Complete Standards-Based Practice  
— for Grade 5 Math Success —



$$A = \frac{1}{2}bh$$



$$5^2 = 25$$



**6 FULL-LENGTH  
PRACTICE TESTS**

Realistic style questions



**STANDARDS-BASED  
PRACTICE**

Covers all Grade 5  
Math standards



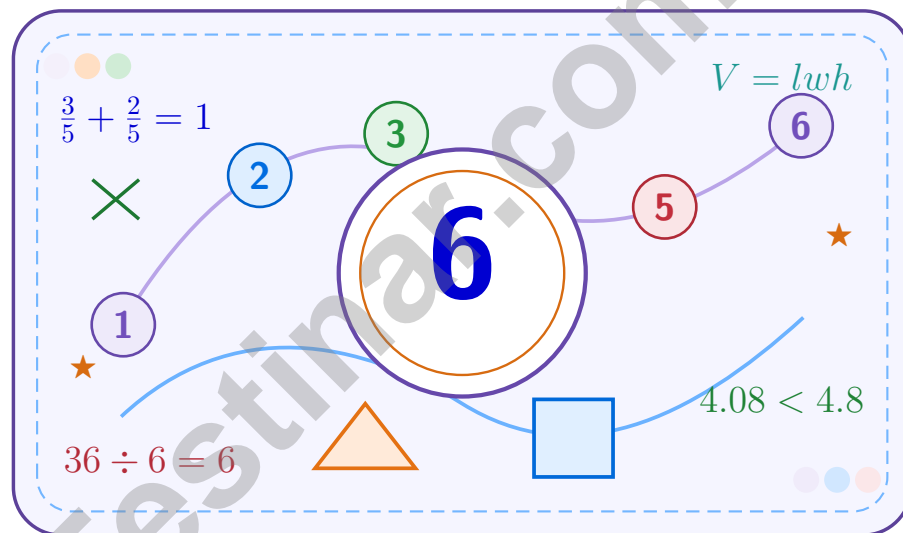
**BUILD CONFIDENCE.  
IMPROVE SCORES.**

Target weak areas and  
achieve success

★ STRONG PRACTICE. BRIGHT FUTURE. ★

# 6 Missouri MAP Grade 5 Math Practice Tests

*A six-step confidence climb with clear review, smart strategy, and practice that gets stronger every round*



Six full tests, a focused skill booster, and student-friendly support from start to finish for Grade 5 mathematicians who want to climb higher.

**Jay Daie and Reza Nazari**



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# Welcome to the Confidence Climb

This book is here to help you practice with purpose and rise step by step

## To the Grade 5 Mathematician

This practice book is a place to think, try, fix, and grow. You do not have to be perfect on the first question or the first test. What matters most is careful effort, clear work, and learning from each round of practice.

Use these six tests like stepping-stones. Take one test at a time, check your answers honestly, and notice which skills need more attention. Small improvements add up fast.

### Try

Give each problem your best thinking.

### Check

Study mistakes and learn what happened.

### Rise

Bring that lesson into the next round.

**A strong habit for every page:** read carefully, estimate when it helps, show your steps, and keep going even when a question feels tricky. That is how steady math confidence is built.

# How to Use This Book

A simple practice routine that turns six tests into steady growth

## Step 1: Warm Up

**Start with the quick review.**  
Spend a few minutes refreshing the ideas before you start a test.

## Step 2: Take the Test

**Take one full practice test.**  
Work in a quiet space and let accuracy matter more than speed.

## Step 3: Study the Pattern

**Check your work honestly.**  
Circle missed questions and notice patterns in the mistakes.

## Step 4: Learn, Then Retry

**Read the explanation and try again.**  
Learning happens after the test too. Fixing mistakes is one of the smartest parts of practice.

## A Six-Week Climb Map

Week	Mission Focus
<b>Week 1</b>	Take Test 1 and review any place-value or operation slips.
<b>Week 2</b>	Take Test 2 and focus on showing neat, easy-to-read work.
<b>Week 3</b>	Take Test 3 and give extra time to fractions or decimals if needed.
<b>Week 4</b>	Take Test 4 and slow down on word problems and units.
<b>Week 5</b>	Take Test 5 and compare your score and habits with earlier rounds.
<b>Week 6</b>	Take Test 6 and finish with calm, careful, confident work that uses everything you practiced before.



Scan me

# Test Overview

## What this practice book helps students do

These practice tests are designed to help Grade 5 students get comfortable with the kind of thinking used on the Missouri MAP. The goal is bigger than only getting answers right. Students are practicing how to read closely, choose a strategy, solve carefully, and explain their work when needed.

### Selected-Response Questions

Students solve the problem and choose the best answer. Estimating first and crossing out weak choices can save time and points.

### Constructed-Response Questions

Students show their thinking, steps, models, or explanations. Even when unsure, writing what they know can help organize the problem.

### Grade 5 Skills You Will Practice Often

- place value, comparing numbers, and rounding
- multi-digit addition, subtraction, multiplication, and division
- fractions, decimals, and mixed numbers
- perimeter, area, volume, and measurement conversions
- coordinate points, patterns, graphs, and tables
- geometry and multi-step word problems

**What strong work looks like:** the answer is correct, the steps are clear, the labels or units are included, and the final result makes sense.



# Table of Contents

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Grade 5 Mathematics

1

Questions: 40 Duration: No time limit

Calculator Policy: Calculators are not allowed



## 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)

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### TIME

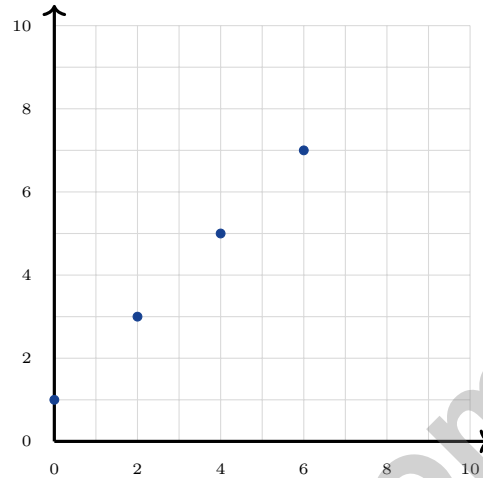
1 minute (min) = 60 seconds (sec)    1 week = 7 days

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



- 1) A graph shows: (0, 1), (2, 3), (4, 5), (6, 7). Which rule describes the relationship between the first and second coordinates?



- A. The second coordinate equals the first coordinate
- B. The second coordinate is 1 less than the first coordinate
- C. The second coordinate is double the first coordinate, then 1 more
- D. The second coordinate is 1 more than the first coordinate
- 2) An ice cream shop sells popsicles. There are 47 boxes with 12 popsicles in each box. How many popsicles are there?
- A. 556
- B. 564
- C. 570
- D. 582
- 3) A recipe calls for  $\frac{1}{8}$  cup of sugar. The recipe is divided into 3 equal portions. How much sugar is needed for each portion?
- A.  $\frac{1}{11}$  cup
- B.  $\frac{3}{8}$  cup
- C.  $\frac{1}{5}$  cup
- D.  $\frac{1}{24}$  cup



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1) Find the missing multiplier:  $? \times 400 = 360,000$

A. 900

C. 9,000

B. 90

D. 9

2) Compare without computing:  $(45 - 15) + 8$    $(45 - 15) - 8$

A.  $>$

C.  $=$

B.  $<$

D. Cannot tell

3) A rectangular prism has volume  $300 \text{ cm}^3$ , length 15 cm, and width 5 cm. Find the height.

A. 2 cm

C. 4 cm

B. 3 cm

D. 5 cm

4) How many  $\frac{1}{6}$  slices fit in 2 wholes?



Whole 1    Whole 2

A. 6

C. 10

B. 8

D. 12

5) Find the volume:  $L = 10 \text{ in}$ ,  $W = 5 \text{ in}$ ,  $H = 2 \text{ in}$ . Include cubic inches in your answer.

*Record your answer in the space provided.*



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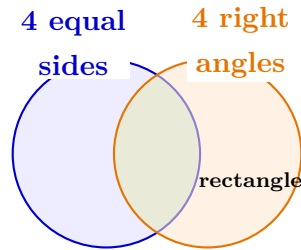
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- 1) A Venn diagram has circles for “4 equal sides” and “4 right angles.” A rectangle that is not a square belongs where?



- A. In “4 right angles” only
- B. In “4 equal sides” only
- C. In the intersection
- D. Outside both circles
- 2) Which operation changes 2.5 to 250?
- A.  $\times 10$
- B.  $\times 100$
- C.  $\div 10$
- D.  $\div 100$
- 3) A composite museum stand is made from two non-overlapping rectangular prisms. Prism A is 7 meters long, 4 meters wide, and 6 meters tall. Prism B is 6 meters long, 2 meters wide, and 2 meters tall. What is the total volume?
- A. 168 cubic meters
- B. 24 cubic meters
- C. 220 cubic meters
- D. 192 cubic meters
- 4) A shipping container is 15 feet long, 10 feet wide, and 8 feet tall. How much space is inside?
- A.  $800 \text{ ft}^3$
- B.  $1000 \text{ ft}^3$
- C.  $1200 \text{ ft}^3$
- D.  $1400 \text{ ft}^3$
- 5) How many grams are in 3.2 kilograms?
- A. 320 g
- B. 3,200 g
- C. 32,000 g
- D. 320,000 g



## 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  $A = \frac{1}{2} \times b \times h$

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



1) What is  $198 \times 7$ ?

A. 1,374

B. 1,380

C. 1,386

D. 1,400

2) What is  $11 \times \frac{1}{2}$ ?

A.  $\frac{1}{2}$

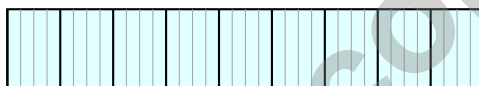
B.  $\frac{1}{22}$

C.  $\frac{11}{1}$

D.  $\frac{11}{2}$  or  $5\frac{1}{2}$

3) A swimming pool has 9 gallons of water for testing. Each sample bottle holds  $\frac{1}{4}$  gallon. How many sample bottles can be filled?

9 gallons



each gallon is divided into fourths

A. 30 bottles

B. 36 bottles

C. 48 bottles

D. 84 bottles

4) An error: A student added  $\frac{1}{4} + \frac{2}{3}$  and got  $\frac{3}{7}$ . What was the mistake?

A. Added the numerators and denominators instead of using a common denominator

B. Subtracted instead of added

C. Did not simplify correctly

D. Multiplied by the same number twice

5) A fabric store recorded sales: Monday \$12.34, Tuesday \$15.67, Wednesday \$18.92. What is the 3-day total?

A. \$46.83

B. \$47.93

C. \$47.03

D. \$46.93



## 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.**

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## Practice Test Answers and Explanations

### Practice Test 1 Answers and Explanations

- 1) **Choice D is correct.** **(5.GM.C.7)** For each point, the second coordinate is 1 more than the first:  $0+1=1$ ,  $2+1=3$ ,  $4+1=5$ ,  $6+1=7$ .
- 2) **Choice B is correct.** **(5.NBT.A.8)** Multiply:  $47 \times 12 = 47 \times (10 + 2) = (47 \times 10) + (47 \times 2) = 470 + 94 = 564$  popsicles.
- 3) **Choice D is correct.** **(5.NF.B.8)**  $\frac{1}{8} \div 3 = \frac{1}{8} \times \frac{1}{3} = \frac{1}{24}$ .
- 4) **Choice B is correct.** **(5.NBT.A.6)** Add:  $2.15 + 3.46 = 5.61$  m (hundredths:  $5 + 6 = 11$ , regroup; tenths:  $1 + 4 + 1 = 6$ ; ones:  $2 + 3 = 5$ ).
- 5) **Choice A is correct.** **(5.NF.B.6)** Rearrange:  $? = 1\frac{1}{4} - \frac{3}{8} = \frac{5}{4} - \frac{3}{8} = \frac{10}{8} - \frac{3}{8} = \frac{7}{8}$ .
- 6) **Choice B is correct.** **(5.NF.B.7)**  $10 \times \frac{6}{5} = 12$  units. Since  $\frac{6}{5} > 1$ , the scaled length is larger than 10 units.
- 7) **The correct answer is 56.** **(5.NBT.A.4)**  $10^2 = 100$ . Dividing by 100 removes two zeros (or moves decimal two places left):  $5,600 \rightarrow 56$ .
- 8) **Choice A is correct.** **(5.GM.C.7)** The x-coordinate (2) represents time in hours. So the car traveled 80 miles in 2 hours.
- 9) **Choice A is correct.** **(5.GM.A.2)** Figures with 4 equal sides include the rhombuses that are not squares and the squares:  $4 + 3 = 7$ .
- 10) **Choice C is correct.** **(5.NBT.A.4)**  $12.5 \div 100 = 0.125$  and  $125 \div 1000 = 0.125$ . Both quotients are equal.
- 11) **Choice A is correct.** **(5.GM.A.1)** A pentagon is a polygon with 5 straight sides and 5 vertices. A quadrilateral has 4 sides, and a rectangle is a type of quadrilateral.
- 12) **Choice C is correct.** **(5.GM.B.5)** Volume =  $11 \times 9 \times 7 = 693$  cubic meters.
- 13) **Choice A is correct.** **(5.GM.B.5)** One box has volume  $6 \times 4 \times 3 = 72$  cubic inches. There are 3 boxes, so  $72 \times 3 = 216$  cubic inches.
- 14) **Choice B is correct.** **(5.RA.B.3)** Expression A is the amount (12 + 8). Expression B is 4 copies of that same amount, so B is 4 times as much as A.
- 15) **The correct answer is  $3\frac{5}{8}$ .** **(5.NF.B.6)**  $1 + 2 = 3$ .  $\frac{3}{8} + \frac{2}{8} = \frac{5}{8}$ . Total:  $3\frac{5}{8}$ .
- 16) **Choice C is correct.** **(5.RA.A.1)** Differences: 1, 2, 3, 4, so next difference is 5:  $11 + 5 = 16$ .
- 17) **The correct answer is 12.** **(5.NF.B.6)** Find  $\frac{2}{5}$  of 30 by multiplying. One fifth of 30 is 6, and two fifths is  $2 \times 6 = 12$ .
- 18) **Choice A is correct.** **(5.NBT.A.4)** A power of 10 tells how many factors of 10 to use. In order: 100, 300, 2000, 10000. This confirms the answer.
- 19) **Choices A, B are correct.** **(5.NF.B.8)** We are counting one-third scoops in 2 cups. A gives the division equation, and B is the related multiplication equation.
- 20) **Choice A is correct.** **(5.RA.B.3)** Do the grouped and multiplication parts first:  $9 \times 2 = 18$ ,  $10 - 3 = 7$ , and  $7 \times 3 = 21$ . Then  $18 + 21 = 39$ .
- 21) **Choice A is correct.** **(5.GM.D.8)** Since 1 pound = 16 ounces, multiply 7 by 16:  $7 \times 16 = 112$  ounces.
- 22) **Choice B is correct.** **(5.GM.B.4)** A prism with height 1 has one layer. The layer is  $5 \times 3 = 15$  cubes, so the box contains 15 unit cubes.
- 23) **Choice A is correct.** **(5.NF.B.7)** Two jumps of  $\frac{3}{4}$  each:  $2 \times \frac{3}{4} = \frac{6}{4} = 1\frac{1}{2}$  (simplified).
- 24) **Choice A is correct.** **(5.NF.B.4)**  $14\frac{1}{7} \approx 14$  and  $8\frac{4}{5} \approx 9$ . So  $14\frac{1}{7} - 8\frac{4}{5} \approx 14 - 9 = 5$ .
- 25) **Choice C is correct.** **(5.NF.B.6)** The denominator increased from 9 to 27 (multiply by 3). Multiply the numerator by 3:  $4 \times 3 = 12$ .
- 26) **Choice C is correct.** **(5.NF.A.3)** Subtract child revenue from adult revenue for each month and compare the decimal differences: January =  $4.0 - 2.5 = 1.5$ ; February =  $3.5 - 2.0 = 1.5$ ; March =  $4.8 - 3.0 = 1.8$ ; April =  $5.0 - 4.2 = 0.8$ . The greatest difference is 1.8 million in March.
- 27) **The correct answer is  $\frac{1}{16}$ .** **(5.NF.B.8)** Half of one eighth is one sixteenth, so each piece is  $\frac{1}{16}$  of the whole.
- 28) **Choice A is correct.** **(5.GM.C.7)** Point A is 2 units right along the x-axis and 6 units up along the y-axis, so the coordinates are (2, 6).
- 29) **Choice C is correct.** **(5.NBT.A.7)**  $6.3 \div 3 = 2.1$ . Think of  $63 \div 3 = 21$ , then place decimal one place from right: 2.1.



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**Research Conclusion Report**

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## Greetings, Research Fellow!

★ Research breakthrough achieved! You've completed six comprehensive mathematical investigations, testing hypotheses, analyzing variables, and reaching valid conclusions like a dedicated researcher! Each problem represented a unique research question, and you approached every one with scientific rigor and methodical thinking. Your research methodology has become exemplary! ★

◇ **Here's what distinguished researchers know:** breakthrough discoveries come from persistent investigation and careful analysis. They replicate experiments to verify results and document findings meticulously. You've practiced that same scientific discipline through these six tests! Your mathematical research skills are now publication-ready! ◇

### Research Quality Metrics

1. **Methodology:** Your problem-solving approaches are systematic and logical!
2. **Data Analysis:** You evaluate information thoroughly before concluding!
3. **Verification:** You confirm results carefully to ensure accuracy!
4. **Publication Ready:** Your research stands up to peer review standards!

**Research principle:** credible scientists verify their findings before sharing conclusions. On test day, apply that same careful verification standard. After solving each problem, check whether your answer makes logical sense. Review your calculations. Confirm your reasoning. You've practiced scientific verification six times; trust your research instincts!

Want to share groundbreaking mathematical research or discuss experimental methodologies? Submit your findings to [reza@testinar.com](mailto:reza@testinar.com). The scientific community values your contributions!

**Reza Nazari & Jay Daie**

Your Math Coaches for Today and Test Day

# 6 FULL-LENGTH TESTS. ENDLESS POTENTIAL.

PRACTICE TODAY. SUCCEED TOMORROW.

Give your child the tools they need to build strong math skills and test-taking confidence! This book includes **6 full-length practice tests** along with standards-based practice, mixed review, word problems, and a complete answer key.

★★★  
PRACTICE  
WITH PURPOSE.  
ACHIEVE WITH  
CONFIDENCE.

## WHAT'S INSIDE:



### 6 FULL-LENGTH PRACTICE TESTS

Realistic tests designed to reflect the actual test format and help build confidence.



### STANDARDS-BASED PRACTICE

Covers all essential Grade 5 math standards with clear explanations and examples.



### MIXED REVIEW

Reinforces key concepts with a variety of question types and review exercises.



### WORD PROBLEMS

Build critical thinking and problem-solving skills with real-world scenarios.



### COMPLETE ANSWER KEY

Step-by-step explanations for every question to support learning and growth.



### IMPROVE. PRACTICE. ACHIEVE.

Consistent practice leads to stronger skills, higher scores, and greater success.



## WHY PRACTICE MAKES A DIFFERENCE



### BUILD CONFIDENCE

Feel prepared and ready for any challenge.



### IMPROVE ACCURACY

Strengthen skills and reduce careless mistakes.



### THINK STRATEGICALLY

Develop problem-solving skills and deepen understanding.



### MANAGE TIME

Practice under timed conditions to build stamina.



### STAY MOTIVATED

Track progress and celebrate every win.



### ACHIEVE SUCCESS

Reach goals and unlock your full potential!



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