

# 9

# Utah

## RISE

# GRADE 5 MATHEMATICS PRACTICE TESTS

Full-Length Standards-Aligned Practice  
for Strong Math Performance

$$A = l \times w$$

$$x^2 + 3x - 4 = 0$$

$$y = 2x + 1$$



**9**  
FULL-LENGTH  
PRACTICE  
TESTS

$$2,345 \times 6 = 14,070$$



$$\frac{3}{4} + \frac{1}{8} = \frac{7}{8}$$

$$7.2 \div 0.8 = 9$$



$$(12 + 8) \div 4 = 5$$



Build Confidence



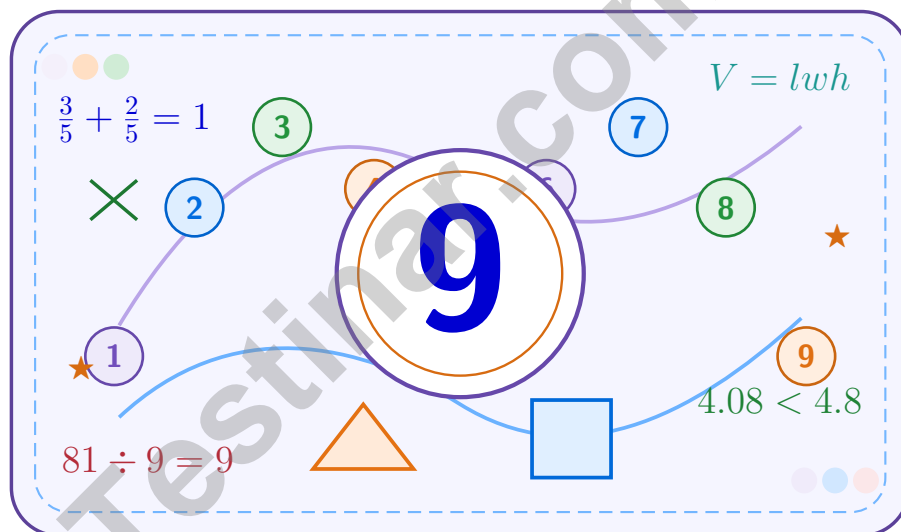
Improve Math Skills



Achieve Success

# 9 Utah RISE Grade 5 Math Practice Tests

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



**Nine full tests, focused skill boosters, 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 nine 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 nine tests into steady growth

## A Nine-Session Climb Map

Session	Mission Focus
1	Take Test 1; review place value and operation slips.
2	Take Test 2; keep work neat and easy to read.
3	Take Test 3; give extra time to fractions and decimals.
4	Take Test 4; slow down on word problems and units.
5	Take Test 5; compare scores and habits with earlier rounds.
6	Take Test 6; notice which habits are now automatic.
7	Take Test 7; explain open-ended answers clearly.
8	Take Test 8; review topics that still need attention.
9	Take Test 9; finish with calm, careful, confident work.

### 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.



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# 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 Utah RISE. 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 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)

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### 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)

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### TIME

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

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1)  $0.04 \times 1,000 = ?$

A. 0.4

B. 4

C. 40

D. 400

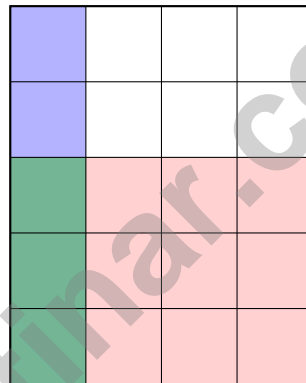
2) A student's garden has  $\frac{3}{10}$  planted with carrots and  $\frac{4}{10}$  with tomatoes. What is left unplanted?

A.  $\frac{1}{10}$

B.  $\frac{7}{10}$

C.  $\frac{6}{10}$

D.  $\frac{3}{10}$

3) The area model below shows  $\frac{1}{4} \times \frac{3}{5}$ .

What is the area of the double-shaded overlap?

A.  $\frac{3}{25}$

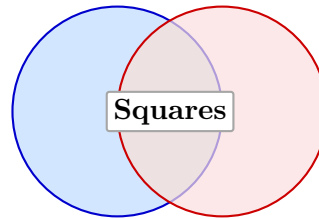
B.  $\frac{3}{20}$

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

D.  $\frac{4}{20}$



Rectangles Rhombuses



overlap

4)

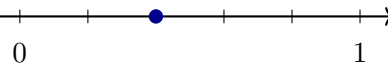
Which quadrilateral belongs in the overlapping region?

- A. A shape with all sides equal AND all  $90^\circ$  angles
- B. A shape with all  $90^\circ$  angles but different side lengths
- C. A shape with all sides equal but no  $90^\circ$  angles
- D. A shape with only one pair of parallel sides

5) Which comparison is true?

- A.  $35 \times 100$  has more zeros than  $35 \times 1,000$ .
- B.  $35 \times 100$  has the same number of zeros as  $35 \times 1,000$ .
- C.  $35 \times 100$  has fewer zeros than  $35 \times 1,000$ .
- D. Cannot be determined.

6) What fraction is marked by the dot on the number line?



- A.  $\frac{1}{5}$
- B.  $\frac{2}{5}$
- C.  $\frac{3}{5}$
- D.  $\frac{1}{2}$

7) A cereal box has a volume of 180 cubic inches. If the box is 9 inches tall and 5 inches wide, what is its length?

- A. 2 inches
- B. 4 inches
- C. 6 inches
- D. 8 inches



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## Grade 5 Mathematics Reference Materials

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1) A school receives 7,200 pencils. They distribute them equally among 100 students. How many pencils does each student get?

- A. 0.72                                       C. 72  
 B. 7.2                                          D. 720

2)

Factor	Scaling Effect	Example
$\frac{1}{2}$	Shrinks by half	$8 \times \frac{1}{2} = 4$
1	No change	$8 \times 1 = 8$
2	Doubles	$8 \times 2 = 16$

Based on the table, if you scale 12 by  $\frac{2}{3}$ , what do you predict about the product?

- A. Product is 6 (half of 12)                                       C. Product is 12 (unchanged)  
 B. Product is 8 (two-thirds of 12)                                       D. Product is 24 (doubled)
- 3) An equilateral triangle and a square both have all sides equal. What attribute shows that the equilateral triangle is not a square?

*Record your answer in the space provided.*

4) A measured distance is 24 centimeters. What is this distance in millimeters?

- A. 2.4 mm                                       C. 240 mm  
 B. 24 mm                                         D. 2,400 mm



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## 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 Utah scores.**

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## Practice Test Answers and Explanations

### Practice Test 1 Answers and Explanations

- 1) **Choice C is correct.** (5.NBT.2) Multiplying by 1,000 moves the decimal three places right:  $0.04 \rightarrow 0.4 \rightarrow 4 \rightarrow 40$ .
- 2) **Choice D is correct.** (5.NBT.2) Planted:  $\frac{3}{10} + \frac{4}{10} = \frac{7}{10}$ . Unplanted:  $1 - \frac{7}{10} = \frac{3}{10}$ .
- 3) **Choice B is correct.** (5.NF.2) The overlap region contains 3 shaded squares out of 20 total, so the area is  $\frac{3}{20}$ .
- 4) **Choice A is correct.** (5.G.4) A square is the only quadrilateral that is both a rectangle (all  $90^\circ$  angles) and a rhombus (all sides equal).
- 5) **Choice C is correct.** (5.NBT.2)  $35 \times 100$  ends with 2 zeros, while  $35 \times 1,000$  ends with 3 zeros. Multiplying by the larger power of 10 gives more zeros.
- 6) **Choice B is correct.** (5.NF.2) The number line shows the dot positioned at  $\frac{2}{5}$  (two-fifths of the way from 0 to 1).
- 7) **Choice B is correct.** (5.MD.4) The known width and height make groups of  $5 \times 9 = 45$  cubic inches. Since  $180 \div 45 = 4$ , the length is 4 inches.
- 8) **Choice D is correct.** (5.MD.4)  $\frac{1}{2} \times 3\frac{1}{3} = \frac{1}{2} \times \frac{10}{3} = \frac{10}{6} = 1\frac{2}{3}$  yards.
- 9) **Choice A is correct.** (5.MD.2) Total:  $(1 \times 3) + (2 \times 2) + (3 \times 3) + (4 \times 1) + (5 \times 1) = 3 + 4 + 9 + 4 + 5 = 25$  servings.
- 10) **The correct answer is 5 polygons.** (5.G.4)  $12 - 7 = 5$  polygons are outside the quadrilateral part of the diagram.
- 11) **Choice B is correct.** (5.OA.3) Rule: Output =  $5 \times$  Input  $- 1$ . When input is 5:  $5 \times 5 - 1 = 24$ .
- 12) **Choice D is correct.** (5.NF.6)  $\frac{18}{20} \times 40 = \frac{18 \times 40}{20} = \frac{720}{20} = 36$  questions.
- 13) **The correct answer is 50.** (5.OA.1) Innermost first:  $8 + 2 = 10$ . Then  $10 \times 3 = 30$ . Then  $30 - 5 = 25$ . Finally  $25 \times 2 = 50$ .
- 14) **Choice B is correct.** (5.OA.1) There are 2 X marks above  $\frac{1}{4}$ , so the total is  $\frac{1}{4} + \frac{1}{4} = \frac{1}{2}$  cup.
- 15) **Choice D is correct.** (5.G.2) With input 0, the multiplication part is  $4 \times 0 = 0$ , and  $0 + 2 = 2$ . The pair is (0, 2).
- 16) **Choice D is correct.** (5.G.2) Product of two dimensions:  $12 \times 7 = 84 \text{ cm}^2$ . Third dimension:  $336 \div 84 = 4 \text{ cm}$ .
- 17) **Choice D is correct.** (5.MD.4) Pattern J is twice Pattern W:  $3 \times 2 = 6$ ,  $6 \times 2 = 12$ ,  $9 \times 2 = 18$ ,  $12 \times 2 = 24$ .
- 18) **Choice B is correct.** (5.OA.3)  $2.7 \times 100 = 270$  (move decimal 2 places right). Student Y is correct.
- 19) **Choice B is correct.** (5.NBT.2)  $52 \times 10 = 520$ . Multiply by 10 by appending one zero.
- 20) **Choice B is correct.** (5.NBT.1) In 56.243, the digits after the decimal point are: 2 (tenths), 4 (hundredths), 3 (thousandths). The digit in the thousandths place is 3.
- 21) **Choice B is correct.** (5.NBT.1) The student treated the problem like adding to the denominator. Dividing  $\frac{1}{5}$  into 2 equal parts means  $\frac{1}{5} \div 2 = \frac{1}{5} \times \frac{1}{2} = \frac{1}{10}$ .
- 22) **Choices A, B are correct.** (5.G.3) An equilateral triangle has three equal sides, and a right triangle has one  $90^\circ$  angle. C describes isosceles, and D contradicts obtuse.
- 23) **Choice B is correct.** (5.NBT.7) Point B is at 0.525, which is 0.025 from 0.5. Point A (0.205) is 0.295 away, and C (0.75) is 0.25 away. Point B is closest.
- 24) **Choice A is correct.** (5.MD.1) Add the four yields:  $200 + 250 + 225 + 275 = 950$  pounds. Keeping the same unit makes the total easy to compare.
- 25) **Choice D is correct.** (5.NF.2) LCD = 12.  $\frac{5}{6} = \frac{10}{12}$ ;  $\frac{1}{4} = \frac{3}{12}$ .  $\frac{10}{12} - \frac{3}{12} = \frac{7}{12}$ .
- 26) **Choice B is correct.** (5.NF.2) Dividing by a power of 10 shifts the value to a smaller place.  $7,200 \div 100 = 72$ . This confirms the answer.
- 27) **Choice D is correct.** (5.G.2) The x-coordinate (7) is the number of weeks, and the y-coordinate (35) is the amount saved in dollars. So \$35 was saved after 7 weeks.
- 28) **Choice D is correct.** (5.NF.7)  $7 \div \frac{1}{2} = 7 \times 2 = 14$ .
- 29) **Choice A is correct.** (5.NF.7) Since 1 pound = 16 ounces, multiply 7 by 16:  $7 \times 16 = 112$  ounces.
- 30) **Choice D is correct.** (5.MD.1) To round to the nearest tenth, look at the hundredths digit. In 6.572, the tenths digit is 5 and the hundredths digit is 7. Because  $7 \geq 5$ , round the tenths digit up:  $5 \rightarrow 6$ , giving 6.6 cups.
- 31) **Choice D is correct.** (5.NBT.4) In 7.84, the 8 is in the tenths place (0.8) and the 4 is in the hundredths place (0.04).



**Champion's Training Log**

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**Dear Math Champion,**

◇ Look at what you did. 9 full practice tests. Hundreds of math problems. Every one of them strengthened your mind. You walked into this prep series as a learner, and you are walking out as a math athlete who knows how to compete. ◇

★ **What champions know:** talent is helpful, but training is everything. You trained. You showed up. You did the work. That is why your skills are sharp today. ★

**Champion's Skill Card**

- **Focus:** MAXED OUT! You can lock onto a problem and stay there.
- **Speed:** CALIBRATED! You move quickly without rushing.
- **Accuracy:** HIGH! You catch your own mistakes.
- **Mindset:** CHAMPION-LEVEL! You believe in your skills.

**Final champion tip:** on test day, walk in like you have trained for it—because you have. Sit down. Breathe. Read carefully. Work steadily. Check confidently. You will be amazed at how prepared you actually are.

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

**Jay Daie**

Your Math Coaches (Champion-in-Training)

# PRACTICE MORE. ACHIEVE MORE.

Give your child the edge they need to excel in **Grade 5 Math!** This book includes **9 full-length** practice tests designed to build confidence, sharpen skills, and improve test performance.

# 9

**FULL-LENGTH  
PRACTICE  
TESTS**

- ✓ Realistic.
- ✓ Rigorous.
- ✓ Results-Driven.

More practice today for a **stronger** tomorrow.



## THIS BOOK HELPS YOUR CHILD:



### Build Confidence

Familiar, focused practice reduces anxiety and boosts self-belief.



### Strengthen Skills

Reinforces key math concepts through high-quality, standards-aligned questions.



### Improve Test Readiness

Full-length tests help students understand test format, pacing, and question types.



### Track Progress

Identify strengths and target areas with purposeful practice.



### Achieve Success

Better preparation leads to higher scores and bright futures.

## COVERS ALL ESSENTIAL TOPICS

- ✓ Whole Numbers & Operations
- ✓ Fractions & Decimals
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- ✓ Geometry
- ✓ Measurement & Data
- ✓ Graphing & Data Analysis
- ✓ Number Patterns
- ✓ Word Problems
- ✓ Ratio & Proportion
- ✓ Perimeter, Area & Volume
- ✓ And More!



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