

7

Vermont

VT CAP

GRADE 5

MATHEMATICS

PRACTICE TESTS

✓
PRACTICE
PREPARE
SUCCEED

★★★

Comprehensive Standards-Aligned
Review for Strong Grade 5
Math Performance



$$\frac{3}{4} + \frac{2}{4} = \frac{5}{4}$$

$$2.4 + 1.6 = 4.0$$

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



**7 FULL-LENGTH
PRACTICE TESTS**

Realistic style
questions



**STANDARDS-
ALIGNED**

Covers all Grade 5
standards



BUILD CONFIDENCE

Target weak areas
and improve
performance



ACHIEVE SUCCESS

Develop skills,
stay prepared,
excel on test day

★ PRACTICE TODAY. PERFORM TOMORROW. **SUCCEED** FOREVER. ★



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Welcome to the Practice Path, Vermont

This book is here to help you practice, reflect, and rise across seven tests

Trail Briefing for Vermont Grade 5 Math Crew

This practice book is your steady companion for seven tests, not a place to be perfect. Math is like a Green Mountain trail – it climbs gently, rewards patience, and never asks you to sprint.

Use these seven 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 across seven rounds.

Watch

Watch what the problem actually wants from you.

Choose

Choose the operation, model, or table that fits.

Polish

Check labels, units, and the final word of the question.

A strong habit for Vermont mathematicians: 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.

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How to Use This Book

A simple routine that turns practice into progress

Step 1: Open

Open the warm-up review and use it.

Spend a few minutes waking up your memory before the test begins.

Step 2: Test

Take the test with steady focus.

Work in a calm spot and focus on careful thinking before speed.

Step 3: Reflect

Notice what was sharp and what was shaky.

Circle missed questions and notice which topics keep showing up.

Step 4: Sharpen

Practice the shaky skills before the next round.

Read the explanation, repair the work, and bring that lesson into the next test.

A Good 7-Week Vermont Rhythm

Week 1	Take Test 1 like a maple-grove morning.
Week 2	Take Test 2 and slow down on word problems.
Week 3	Take Test 3 and lift fraction and decimal work.
Week 4	Take Test 4 and pay close attention to labels and units.
Week 5	Take Test 5 and compare your habits with your first test.
Week 6	Take Test 6 and practice staying calm during tricky questions.
Week 7	Take Test 7 with calm, careful focus.



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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)

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)

1 gallon (gal) = 4 quarts (qt)

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1 liter (L) = 1,000 milliliters (mL)

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



1) A place-value chart shows a mystery number. Use the chart to identify it.

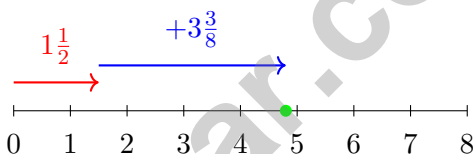
Ones	Tenths	Hundredths	Thousandths
9	4	2	8

Express this in expanded form.

- A. $9 + 4 + 2 + 8$
 C. $90 + 4 + 0.2 + 0.008$
 B. $9 + 0.4 + 0.02 + 0.008$
 D. $9 + 0.04 + 0.002 + 0.008$
- 2) Which expression is greater: $(20 - 5) \times 3$ or $20 - (5 \times 3)$?

- A. $(20 - 5) \times 3$
 C. The expressions are equal.
 B. $20 - (5 \times 3)$
 D. Cannot be determined.

3)



Number line: $1\frac{1}{2} + 3\frac{3}{8} = ?$

- A. $4\frac{7}{8}$
 C. 5
 B. $4\frac{3}{4}$
 D. $5\frac{1}{8}$



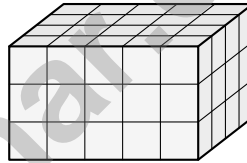
4) Pattern table:

Input	Output
1	3
2	6
3	9
4	?

Which rule describes the table?

- A. Add 2 to the input C. Add 3 to the input
 B. Multiply the input by itself D. Multiply the input by 3

5) A prism has a bottom layer of 20 unit cubes. If there are 3 layers stacked, how many cubes in total?



- A. 20 unit cubes C. 23 unit cubes
 B. 40 unit cubes D. 60 unit cubes

6) A bakery makes 156 cupcakes. They package them in boxes of 12. How many boxes do they fill completely?

- A. 12 boxes C. 14 boxes
 B. 13 boxes D. 15 boxes



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- 1) Two students find $3\frac{2}{5} - 1\frac{4}{5}$. Which approach is correct?

Student X: "Borrow 1 from 3 to get $2\frac{7}{5} - 1\frac{4}{5} = 1\frac{3}{5}$."

Student Y: "Convert: $\frac{17}{5} - \frac{9}{5} = \frac{8}{5} = 1\frac{3}{5}$."

- A. Only X is correct
 B. Only Y is correct
 C. Neither is correct
 D. Both are correct

- 2) Which student made an error multiplying $\frac{3}{5} \times \frac{2}{7}$?

Student	Work
Leo	$\frac{3}{5} \times \frac{2}{7} = \frac{6}{35}$
Sage	$\frac{3}{5} \times \frac{2}{7} = \frac{3+2}{5+7} = \frac{5}{12}$
Quinn	$\frac{3}{5} \times \frac{2}{7} = \frac{6}{35}$
Riley	$\frac{3}{5} \times \frac{2}{7} = \frac{3}{5} + \frac{2}{7}$

- A. Leo only
 B. Leo and Quinn
 C. Quinn only
 D. Sage and Riley

- 3) Find: 34×10^3 .

Record your answer in the space provided.



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1) Which is “the quotient of 36 and 4, increased by 9”?

A. $36 + 4 \div 9$

C. $9 + 36 \div (4 + 1)$

B. $36 \div (4 + 9)$

D. $(36 \div 4) + 9$

2) Compare $8 \times 1\frac{1}{2}$ to 8. Which statement is correct?

A. $8 \times 1\frac{1}{2} < 8$

C. $8 \times 1\frac{1}{2} > 8$

B. $8 \times 1\frac{1}{2} = 8$

 D. They are not comparable

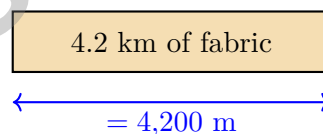
3) A recipe uses 2.5 cups of flour for each batch. How much flour is needed for 6 batches?

 A. 12 cups C. 15 cups B. 13 cups D. 18 cups

4) A construction graph records bricks. The x-axis shows hours, and the y-axis shows bricks laid. What does the point (10, 200) mean?

 A. hours is 200 when bricks laid is 10 C. bricks laid is 10 when hours is 200 B. hours and bricks laid are both 210 D. bricks laid is 200 when hours is 10

5) A textile factory has 4.2 kilometers of fabric on a roll. If they cut it into 1,000-meter pieces, how many complete pieces will they have?



Cut into 1,000 m pieces

 A. 2 pieces C. 5 pieces B. 42 pieces D. 4 pieces

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1) A small storage box measures 5 centimeters long, 5 centimeters wide, and 2 centimeters tall. What is its volume?

- A. 50 cubic centimeters
- B. 25 cubic centimeters

- C. 10 cubic centimeters
- D. 12 cubic centimeters

2) Find: 0.4×0.6 .

Record your answer in the space provided.

3) What is the x-coordinate of the point at (6,4)?



- A. 6
- B. 4

- C. 10
- D. 2



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

- Choice B is correct.** (5.NBT.A.1) The number is 9.428. In expanded form: $9 + 0.4 + 0.02 + 0.008$.
- Choice A is correct.** (5.OA.A.2) The first expression makes 3 copies of $20 - 5$. The second expression subtracts 3 copies of 5 from only one 20. The first expression is greater.
- Choice A is correct.** (5.NF.A.1) Convert to eighths: $1\frac{4}{8} + 3\frac{3}{8} = 4\frac{7}{8}$.
- Choice D is correct.** (5.OA.B.3) Each output is 3 times the input: $1 \times 3 = 3$, $2 \times 3 = 6$, and $3 \times 3 = 9$. So the missing output for input 4 would be 12.
- Choice D is correct.** (5.MD.C.4) Each layer has 20 unit cubes. With 3 layers stacked, the total is $20 \times 3 = 60$ unit cubes.
- Choice B is correct.** (5.MD.C.5) Choose the operation from the story, then keep the unit with the answer. Divide: $156 \div 12 = 13$ boxes. This confirms the answer.
- The correct answer is 21.** (5.OA.A.1) First simplify the parentheses: $6 + 2 = 8$. Then $48 \div 8 = 6$ and $5 \times 3 = 15$, so the total is $6 + 15 = 21$.
- Choice C is correct.** (5.NF.A.2) Toys and games: $\frac{2}{11} + \frac{3}{11} = \frac{5}{11}$. Other: $1 - \frac{5}{11} = \frac{6}{11}$.
- Choice D is correct.** (5.G.A.2) We need an input that gives an output of 8 after adding 3. Since $5 + 3 = 8$, the value of x is 5.
- Choice C is correct.** (5.NBT.A.4) The hundredths digit is 3. The thousandths digit is 5. Since $5 \geq 5$, round hundredths up: $3 \rightarrow 4$, giving 7.64 g.
- Choice D is correct.** (5.NF.A.2) $\frac{9}{12} - \frac{3}{12} = \frac{6}{12}$, which simplifies to $\frac{1}{2}$.
- Choice B is correct.** (5.NF.B.7c) A meter has 10 tenths, so $1 \div \frac{1}{10} = 10$ fixtures.
- Choice A is correct.** (5.NBT.B.7) Using the distributive property: $3.5 \times 4 = (3 + 0.5) \times 4 = 3 \times 4 + 0.5 \times 4 = 12 + 2 = 14$.
- Choice D is correct.** (5.G.A.2) The first coordinate, 8, matches the x-axis label: laps completed. The second coordinate, 16, matches the y-axis label: minutes elapsed. So the point means minutes elapsed is 16 when laps completed is 8.
- Choice A is correct.** (5.NF.B.5b) Each row shows one group of $1\frac{1}{2}$. Four groups make $4 \times 1\frac{1}{2} = 4 \times \frac{3}{2} = \frac{12}{2} = 6$.
- Choice C is correct.** (5.MD.B.2) Count the X marks above each value. The value $1\frac{1}{4}$ has 3 marks, which is more than any other value.
- Choice D is correct.** (5.MD.A.1) 1 liter = 1,000 milliliters. Divide: $5000 \div 1000 = 5$ L.
- Choice D is correct.** (5.NBT.A.2) A: $4.5 \times 10 = 45$. B: $450 \div 10 = 45$. C: $0.45 \times 100 = 45$. D: $0.45 \times 10 = 4.5$ (NOT 45).
- Choice A is correct.** (5.MD.C.5a) Volume = $l \times w \times h = 8 \times 5 \times 4 = 160$ cm³.
- Choices A, B are correct.** (5.NF.B.5a) Multiplying by a factor less than 1 makes a number smaller, while multiplying by a factor greater than 1 makes it larger. Choices C and D reverse that scaling rule.
- The correct answer is $33\frac{3}{4}$ in.** (5.MD.B.2) $2(5\frac{1}{4}) + 1(5\frac{1}{2}) + 3(5\frac{3}{4}) = 10\frac{1}{2} + 5\frac{1}{2} + 17\frac{1}{4} = 33\frac{3}{4}$ in.
- Choice B is correct.** (5.G.A.2) A vertical line has the same x -coordinate for both points. Choice B has both points at $x = 4$, making them vertical.
- The correct answer is $\frac{1}{6}$.** (5.NF.B.5b) Multiply across: $\frac{3 \times 4}{8 \times 9} = \frac{12}{72}$. Divide both parts by 12 to simplify to $\frac{1}{6}$.
- Choice A is correct.** (5.NF.A.1) $8 - 3 = 5$ and $\frac{4}{6} - \frac{2}{6} = \frac{2}{6} = \frac{1}{3}$. Simplified: $5\frac{1}{3}$.
- Choice D is correct.** (5.NF.B.4) Multiplying by 7 means 7 groups of $\frac{1}{9}$. That gives $\frac{7}{9}$ in all.
- Choice B is correct.** (5.MD.C.5c) Find each part first: Prism A is $9 \times 4 \times 3 = 108$ cubic inches, and Prism B is $6 \times 4 \times 5 = 120$ cubic inches. Because the parts do not overlap, add them: $108 + 120 = 228$ cubic inches.
- Choice A is correct.** (5.NF.A.2) The GCF of 15 and 20 is 5. Divide: $\frac{15}{20} = \frac{15 \div 5}{20 \div 5} = \frac{3}{4}$.
- Choice D is correct.** (5.G.A.1) Points on the same horizontal grid line have the same second coordinate, but their first coordinates can be different. Points A, B, C are all 5 units above the x-axis and have first coordinates 2, 5, and 8.
- Choice A is correct.** (5.NBT.A.2) The diagram shows $42.6 \div 10 = 4.26$. Move decimal 1 place left.



Dear Problem Solver,

- ★ Finishing seven tests means you practiced many types of problems—fractions, decimals, geometry, word problems, and more. That variety is exactly how you build strong, flexible math thinking. ★
- ◇ **A smart secret:** strong students use strategies, not speed. When you choose a plan, show steps, and check your work, you give yourself the best chance to earn points. ◇

Four Helpful Moves

- **Circle the question:** what are you finding?
- **Underline the data:** what numbers and facts matter?
- **Write a quick plan:** add, subtract, multiply, divide, or draw?
- **Do a reasonableness check:** is the answer too big or too small?

You are ready to use these moves on test day—because you practiced them again and again. I love hearing student success stories. Email me at reza@testinar.com.

Reza Nazari & Jay Daie
Your Math Coaches (Keep Going!)

PRACTICE TODAY. PERFORM TOMORROW.

Success in math starts with practice! This book provides the **practice, confidence, and skills** your child needs to excel on the Grade 5 Math test and beyond.

KEY BENEFITS:



TARGETED PRACTICE

Focus on the most important Grade 5 math skills.



STANDARD-ALIGNED

All tests align with state standards for Grade 5.



BUILD CONFIDENCE

Strengthen skills, reduce test anxiety, and boost confidence.



IMPROVE PERFORMANCE

Timed practice helps improve speed and accuracy.



ACHIEVE SUCCESS

Develop strong test-taking skills and achieve your best score!

PERFECT FOR:

✓ Classroom Practice

✓ Homework Help

✓ Test Preparation

✓ Summer Learning

✓ On-the-Go Practice

✓
PRACTICE
PREPARE
SUCCEED



STRONG SKILLS. BRIGHT FUTURE.

Give your child the tools they need to succeed in math and in life!



Visit testinar.com/math5 for more Grade 5 math resources and practice materials!



TRUSTED
BY PARENTS

Quality resources you can trust.



DESIGNED
FOR SUCCESS

Proven practice for real results.



SUPPORT
YOUR CHILD

Every step of the way.