

5 FULL-LENGTH Minnesota MCA III

GRADE 5 MATH

★ PRACTICE TESTS ★



5 FULL-LENGTH
PRACTICE TESTS



COMPLETE
STANDARDS
REVIEW



SKILL PRACTICE,
WORD PROBLEMS,
AND MORE!

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



$$12 \times 3 = 36$$



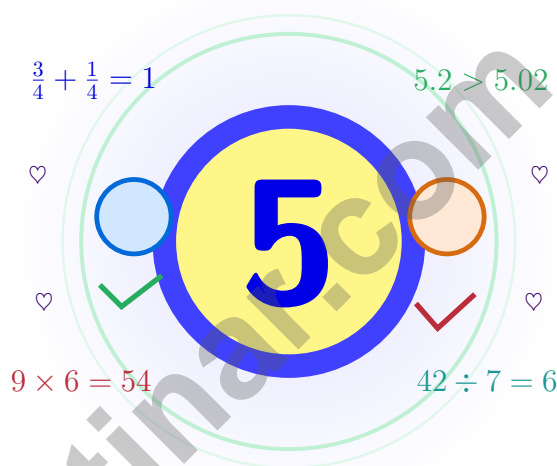
$$\frac{7}{10} = 0.7$$



BUILT FOR SUCCESS. DESIGNED TO HELP EVERY STUDENT.

5 Minnesota MCA-III Grade 5 Math Practice Tests

Five checkpoints, five growth checks, one calm routine



Five full tests, a friendly quick review, smart strategy pages, and student-tested support that turn Grade 5 practice in The Land of 10,000 Lakes into a steady quest of real growth.

Jay Daie and Reza Nazari



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Minnesota Math Crew, Welcome to the Quest

Five checkpoints, five growth checks, one calm routine

To the Grade 5 Problem Solver

This book is your practice zone, not a place to be perfect. Each of the five tests gives you a chance to notice clues, choose a strategy, check your thinking, and come back stronger for the next round. Math practice is like canoeing the Boundary Waters – balanced strokes, patient eyes, and a calm trust in the route.

Some questions will feel easy right away. Some will make you slow down, draw, estimate, or retry. That is excellent news. It means your math brain is doing real work.

Watch

Watch what the question really wants from you.

Try

Try a strategy that matches the size of the numbers.

Polish

Polish your steps, units, and final answer.

A strong quest habit for Minnesota: slow down, write neatly, estimate before you solve, and keep going even when a problem looks tricky at first. That is exactly how confident math students are built.

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How to Get the Most Out

A simple routine that turns five tests into real growth

Step 1: Plan

Plan a quiet hour for one full test.
Wake up important ideas before you begin so your brain is ready to use them.

Step 2: Practice

Take the test with calm focus.
Find a quiet space, work carefully, and let accuracy matter more than speed.

Step 3: Inspect

Inspect every answer like a careful builder.
Circle missed questions and look for patterns. Which skill or habit needs another try?

Step 4: Adjust

Adjust what needs adjusting for the next test.
Read the explanation, repair the work, and carry that lesson into the next test.

A Five-Week Minnesota Quest Map

Week	Mission Focus
Week 1	Take Test 1 and pick your first lake.
Week 2	Take Test 2 and notice one habit that grew steadier.
Week 3	Take Test 3 and lift fractions, decimals, and measurement work.
Week 4	Take Test 4 and slow down on multi-step problems.
Week 5	Take Test 5 with calm, careful, confident paddling.



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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

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1 foot (ft) = 12 inches (in.)

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Metric

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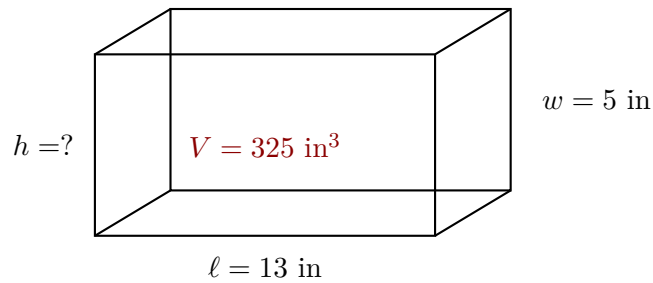
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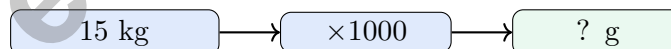
- 1) A classroom storage unit is a rectangular prism with length 13 in, width 5 in, and volume 325 in^3 . What is the height?



- A. 3 in C. 5 in
 B. 4 in D. 6 in
- 2) Find: $9 \times \frac{2}{6}$.

Record your answer in the space provided.

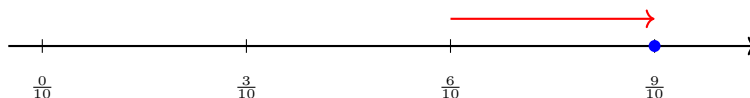
- 3) A school bought 15 kilograms of rice. How many grams did they buy?



- A. 1,500 g C. 150,000 g
 B. 15,000 g D. 1,500,000 g

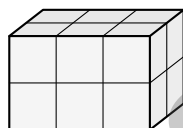


- 4) Number line: Start at $\frac{9}{10}$. Back by $\frac{3}{10}$.



Where do you land?

- A. $\frac{5}{10}$ C. $\frac{7}{10}$
 B. $\frac{6}{10}$ D. $\frac{8}{10}$
- 5) Count the unit cubes layer by layer. The first layer has 6 cubes, the second layer has 6 cubes. How many unit cubes are there in total?



- A. 6 unit cubes C. 10 unit cubes
 B. 12 unit cubes D. 15 unit cubes
- 6) Pattern J: 6, 12, 18, 24. Pattern W: 3, 6, 9, 12. Which statement is correct?
- A. $J = W + 3$ C. $J = W - 3$
 B. $J = W \times 3$ D. $J = 2 \times W$
- 7) Which benchmark is closest to the sum $\frac{2}{9} + \frac{3}{10}$?
- A. $\frac{1}{2}$ C. $\frac{3}{4}$
 B. $\frac{2}{3}$ D. 1



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1) Compare: $(45 \div 5) + 10$ \square $45 \div (5 + 10)$

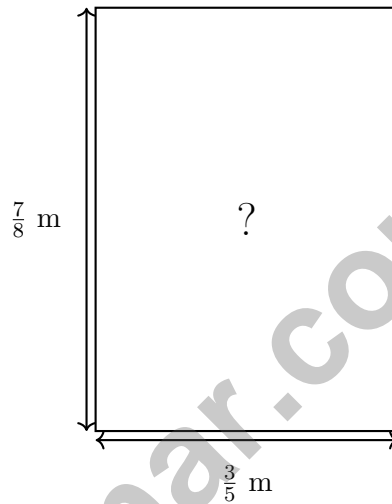
A. $>$

B. $<$

C. $=$

D. Cannot tell

2) A rectangular picture frame is $\frac{7}{8}$ meter tall and $\frac{3}{5}$ meter wide. What is the area of the frame?



A. $\frac{21}{40}$ m²

B. $\frac{10}{13}$ m²

C. $\frac{1}{2}$ m²

D. 1 m²

3) What is $4.5 \div 10$?

A. 45

B. 0.045

C. 450

D. 0.45

4) Find: 135×27 .

Record your answer in the space provided.



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1) Write 9.16 in expanded form using addition of decimals.

A. $9 + 0.1 + 0.06$

C. $9 + 0.01 + 0.06$

B. $9 + 1 + 6$

D. $90 + 0.16$

2) Find missing subtrahend: $\frac{7}{9} - \boxed{} = \frac{1}{3}$

A. $\frac{2}{9}$

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

B. $\frac{4}{9}$

D. $\frac{3}{9}$

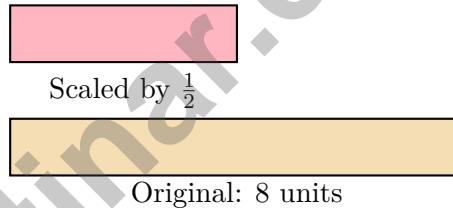
3) A delivery company charges \$3.50 per package. A business ships 42 packages per week. How much does it cost per week?

A. \$147.00

C. \$145.00

B. \$140.00

D. \$135.00



4)

If the original length is 8 units and it is scaled by $\frac{1}{2}$, what is the new length?

A. 2 units

C. 6 units

B. 4 units

D. 12 units

5) A science experiment requires 2 kilograms and 500 grams of sugar total. How many grams is that?

A. 2,050 g

C. 250,000 g

B. 25,000 g

D. 2,500 g



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 C is correct.** (5.3.2.2) The base area is $13 \times 5 = 65$ square inches. Since $325 \div 65 = 5$, the height is 5 in.
- The correct answer is 3.** (5.1.2.3) First simplify $\frac{2}{6}$ to $\frac{1}{3}$. Then $9 \times \frac{1}{3} = \frac{9}{3} = 3$.
- Choice B is correct.** (5.4.1.2) 1 kilogram = 1,000 grams. Multiply: $15 \times 1000 = 15000$ g.
- Choice B is correct.** (5.1.3.4) $\frac{9}{10} - \frac{3}{10} = \frac{6}{10}$.
- Choice B is correct.** (5.3.2.3) If there are 2 layers with 6 cubes each: $6 + 6 = 12$ or $6 \times 2 = 12$ unit cubes.
- Choice D is correct.** (5.2.1.2) Pattern J is twice Pattern W: $3 \times 2 = 6$, $6 \times 2 = 12$, $9 \times 2 = 18$, $12 \times 2 = 24$.
- Choice A is correct.** (5.1.3.3) The exact sum is $\frac{2}{9} + \frac{3}{10} = \frac{47}{90}$, which is closest to $\frac{1}{2}$.
- Choice D is correct.** (5.1.2.3) Rearrange: missing number = $9\frac{3}{5} - 4\frac{1}{5} = 5\frac{2}{5}$.
- Choice B is correct.** (5.2.2.1) The grouping changes the value. The left expression is $(12 + 8) \div 4 = 20 \div 4 = 5$, while the right expression is $12 + (8 \div 4) = 12 + 2 = 14$. Since $5 < 14$, the left side is less.
- Choice D is correct.** (5.1.3.4) Divide a whole number by a unit fraction: $4 \div \frac{1}{2} = 4 \times 2 = 8$ pieces.
- The correct answer is (3, 6).** (5.1.3.4) Move 3 units right for the x-coordinate and 6 units up for the y-coordinate, so the point is (3, 6).
- Choice C is correct.** (5.3.2.4) Volume = $4 \times 3 \times 5 = 60$ unit cubes.
- Choice B is correct.** (5.1.3.3) Marcus needs $285 - 147 = 138$ additional dollars. Each week he earns $\$25 + \$12 = \$37$. Dividing: $138 \div 37 \approx 3.73$, so he needs 4 full weeks. Check: $147 + 4 \times 37 = 295 \geq 285$.
- Choice D is correct.** (5.1.2.2) Multiplying by 100 makes the value 100 times as large: $48 \times 100 = 4,800$.
- Choice B is correct.** (5.1.3.4) Common denominator is 15. $\frac{2}{5} = \frac{6}{15}$ and $\frac{1}{3} = \frac{5}{15}$. Since $6 > 5$, $\frac{2}{5} > \frac{1}{3}$.
- The correct answer is 4.62.** (5.1.3.4) Line up decimal points and subtract place by place. $7.00 - 2.38 = 4.62$. This confirms the answer.
- Choice C is correct.** (5.4.1.2) There are 3 pieces that are 1 inch long and 2 pieces that are $1\frac{1}{2}$ inches long. The total is $3 \times 1 + 2 \times 1\frac{1}{2} = 3 + 3 = 6$ inches.
- Choice D is correct.** (5.1.2.1) 0.91 has two decimal places, which means hundredths. The correct reading is “ninety-one hundredths”. Maya counted the digits incorrectly.
- Choice B is correct.** (5.1.2.3) Add: $\frac{5}{6} + 2\frac{1}{6} = 2\frac{6}{6} = 3$.
- Choice D is correct.** (5.2.2.1) Both expressions contain the same sum, $240 + 80$. The first expression multiplies that whole sum by 5, so it is 5 times the second expression.
- The correct answer is 700.** (5.1.2.2) $10^2 = 100$, so $7 \times 10^2 = 7 \times 100 = 700$.
- Choices A, B, C are correct.** (5.3.2.2) Volume counts cubic units, so multiply length, width, and height. Adding the dimensions does not find the space inside.
- Choice C is correct.** (5.1.2.2) $100 \times \frac{4}{5} = 80$ points. Multiplying by $\frac{4}{5}$ (less than 1) reduces the score.
- Choice C is correct.** (5.1.3.4) The next Rule A value is 5 and the next Rule B value is 10, so the next ordered pair is (5, 10).
- Choice C is correct.** (5.3.2.4) Volume = $25 \times 15 \times 10 = 375 \times 10 = 3750$ cm³.
- Choice B is correct.** (5.1.3.4) The x-coordinate is the number of apples (8), and the y-coordinate is the cost in dollars (4). So 8 apples cost \$4.
- Choice A is correct.** (5.2.2.1) LCM(7,3) = 21. $\frac{2}{7} = \frac{6}{21}$ and $\frac{1}{3} = \frac{7}{21}$. $\frac{6}{21} + \frac{7}{21} = \frac{13}{21}$ of the project.
- Choice D is correct.** (5.1.2.3) $0.5 \div 2 = 0.25$, which is indeed less than 0.5. Dividing by a whole number greater than 1 makes the result smaller.
- The correct answer is 18.** (5.4.1.2) Each whole contains 2 halves. Nine wholes contain $9 \times 2 = 18$ halves, so the quotient is 18.
- Choice D is correct.** (5.1.3.3) The tenths digit is 7. Since $7 \geq 5$, round ones up: $18 \rightarrow 19$. So 18.75 seconds rounds to 19 seconds.



Master Chef's Final Tasting Notes

Greetings, Culinary Master!

★ Exquisite preparation! You've created five complete mathematical menus, carefully measuring ingredients, following recipes with precision, and presenting solutions with excellence like a master chef! Each problem required you to gather your mathematical ingredients, combine them skillfully, and create perfect solutions. Your culinary mathematical skills have reached professional chef level! ★

◇ **Here's what master chefs understand:** great cooking requires practice, patience, and precision. They test recipes multiple times, adjust their techniques, and perfect their presentation. You've done exactly that through these five tests! You've practiced your mathematical recipes until they're perfected, and now you can execute them flawlessly under any kitchen conditions! ◇

Kitchen Quality Assessment

- **Recipe Mastery:** You know all mathematical procedures and execute them perfectly!
- **Ingredient Balance:** You combine different mathematical concepts harmoniously!
- **Timing Precision:** You pace yourself efficiently without rushing or dawdling!
- **Restaurant Ready:** You're prepared to serve excellence on test day!

Remember this culinary wisdom: master chefs taste as they cook, making adjustments along the way. On test day, check your work as you proceed, ensuring each solution is properly "seasoned" with careful verification. You've practiced these recipes five times trust your expertise and cook with confidence!

Want to share your signature mathematical recipe or discuss an elegant solution technique? Send your culinary innovations to reza@testinar.com. I appreciate mathematical gastronomy!

Reza Nazari & Jay Daie

Your Math Coaches (You're Getting Stronger!)

5 FULL-LENGTH TESTS. STRONG SKILLS. BRIGHTER RESULTS.



Build confidence and master math with **5 full-length** practice tests designed to reflect the real test experience. This book provides the practice, review, and support students need to succeed in Grade 5 and beyond!

WHAT'S INSIDE:



5 FULL-LENGTH PRACTICE TESTS

Realistic tests that build familiarity, boost focus, and improve test readiness.



COMPLETE STANDARDS REVIEW

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



SKILL PRACTICE

Strengthen key math skills through a wide variety of practice questions.



WORD PROBLEMS

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



FULL ANSWER KEY

Step-by-step explanations for every question to help students learn and improve.



PRACTICE MORE. LEARN BETTER. SUCCEED ANYWHERE.



Build Confidence
with consistent
practice



Improve Accuracy
and problem-
solving skills



Time Management
strategies for
test success



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Smart Practice. Stronger Results.