

6

Iowa
ISASP

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



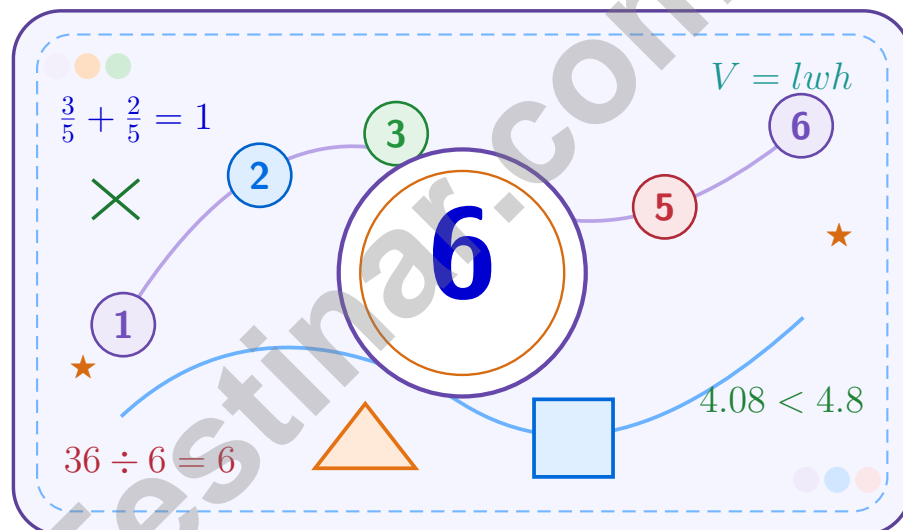
**BUILD CONFIDENCE.
IMPROVE SCORES.**

Target weak areas and
achieve success

★ STRONG PRACTICE. BRIGHT FUTURE. ★

6 Iowa ISASP 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



Copyright ©

Testinar Inc



Published by Testinar Inc

Testinar.com

All rights reserved. No part of this publication may be reproduced, distributed, or transmitted in any form or by any means, including photocopying, recording, or other electronic or mechanical methods, without the prior written permission of the author, except in the case of brief quotations embodied in critical reviews and certain other noncommercial uses permitted by copyright law, including Section 107 or 108 of the 1976 United States Copyright Act.

This publication is independently produced and has no official connection to any state, district, or national testing program.

Test names and organizational names used herein are the property of their respective trademark holders.



Copyright ©

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
Week 1	Take Test 1 and review any place-value or operation slips.
Week 2	Take Test 2 and focus on showing neat, easy-to-read work.
Week 3	Take Test 3 and give extra time to fractions or decimals if needed.
Week 4	Take Test 4 and slow down on word problems and units.
Week 5	Take Test 5 and compare your score and habits with earlier rounds.
Week 6	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 Iowa ISASP. 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

★ Practice Test 1	_____	15
★ Practice Test 2	_____	29
★ Practice Test 3	_____	44
★ Practice Test 4	_____	60
★ Practice Test 5	_____	75
★ Practice Test 6	_____	92
Practice Test Answer Keys	_____	107
Practice Test Answers and Explanations	_____	111

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)

1 gallon (gal) = 4 quarts (qt)

Metric

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

WEIGHT AND MASS

Customary

1 pound (lb) = 16 ounces (oz)

Metric

1 kilogram (kg) = 1,000 grams (g)

1 gram (g) = 1,000 milligrams (mg)

TIME

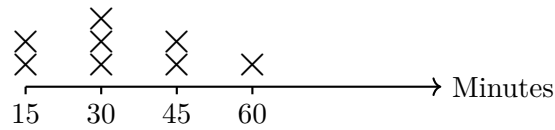
1 minute (min) = 60 seconds (sec) 1 week = 7 days

1 hour (hr) = 60 minutes (min) 1 year = 12 months

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

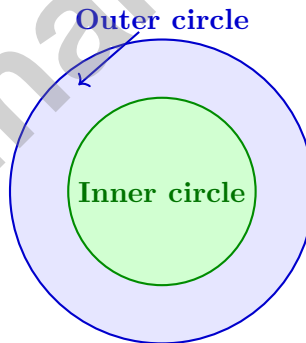


- 1) The line plot shows times (in minutes) students spent on homework:



How many more students spent 30 minutes than 60 minutes on homework?

- A. 2 more students
- B. 3 more students
- C. 4 more students
- D. 5 more students
- 2) Evaluate: $24 - 2 \times (3 + 5)$
- A. 8
- B. 16
- C. 26
- D. 44
- 3) In a Venn diagram with an outer circle and an inner circle, which labels make a correct relationship?



- A. Triangles inside quadrilaterals
- B. Circles inside polygons
- C. Pentagons inside quadrilaterals
- D. Rectangles inside parallelograms



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)

Metric

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

WEIGHT AND MASS

Customary

1 pound (lb) = 16 ounces (oz)

Metric

1 kilogram (kg) = 1,000 grams (g)

1 gram (g) = 1,000 milligrams (mg)

TIME

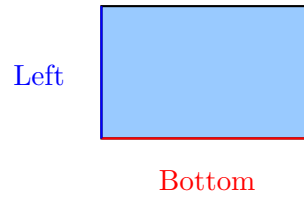
1 minute (min) = 60 seconds (sec) 1 week = 7 days

1 hour (hr) = 60 minutes (min) 1 year = 12 months

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

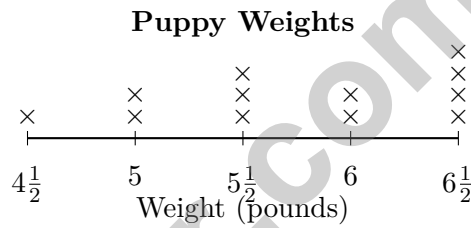


1) Which pair of sides are perpendicular?



- A. Bottom and Left C. Left and Right
 B. Bottom and Top D. No sides are perpendicular

2) The line plot shows the weights (in pounds) of 12 puppies at a shelter:



How many puppies weigh $5\frac{1}{2}$ pounds?

- A. 2 C. 4
 B. 3 D. 5

3) Compare: $0 \times (53 + 98)$ $53 + 98$

- A. > C. =
 B. < D. Cannot tell

4) How many $\frac{1}{4}$ -cup scoops are in 6 cups?

Record your answer in the space provided.



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)

Metric

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

WEIGHT AND MASS

Customary

1 pound (lb) = 16 ounces (oz)

Metric

1 kilogram (kg) = 1,000 grams (g)

1 gram (g) = 1,000 milligrams (mg)

TIME

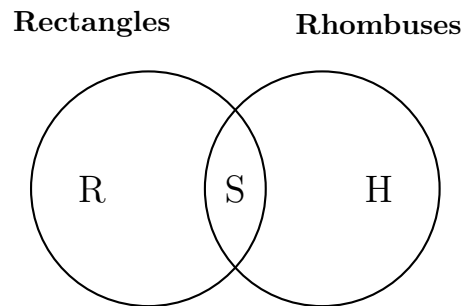
1 minute (min) = 60 seconds (sec) 1 week = 7 days

1 hour (hr) = 60 minutes (min) 1 year = 12 months

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



- 1) In the standard Grade 5 hierarchy, a square is both a rectangle and a rhombus. The Venn diagram has one circle for rectangles and one circle for rhombuses:



What type of quadrilateral should label S represent?

- A. A pentagon C. A triangle
 B. A rectangle with unequal side lengths D. A square
- 2) Without calculating both products, which expression has the larger value?
A: $\frac{5}{4} \times 16$ B: $\frac{3}{4} \times 16$

Record A or B in the space provided.

- 3) How many unit cubes fit inside a $2 \times 4 \times 5$ rectangular prism?

Record your answer in the space provided.



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)

Metric

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

WEIGHT AND MASS

Customary

1 pound (lb) = 16 ounces (oz)

Metric

1 kilogram (kg) = 1,000 grams (g)

1 gram (g) = 1,000 milligrams (mg)

TIME

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

1 hour (hr) = 60 minutes (min) 1 year = 12 months

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



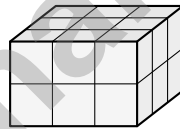
- 1) A composite garden block is made from two non-overlapping rectangular prisms. Prism A is 8 feet long, 2 feet wide, and 4 feet tall. Prism B is 3 feet long, 5 feet wide, and 4 feet tall. What is the total volume?

- A. 64 cubic feet C. 124 cubic feet
 B. 60 cubic feet D. 140 cubic feet

- 2) A toy chest is 30 in long, 18 in wide, 12 in tall. Find its volume.

Record your answer in the space provided.

- 3) A small gift box can hold exactly 18 unit cubes. If it measures 3 units by 3 units by what unit in height?



- A. 2 units C. 4 units
 B. 3 units D. 6 units
- 4) A recipe for 8 servings uses 2.5 cups of flour. How much flour is needed for 24 servings?
- A. 7.5 cups C. 6.5 cups
 B. 7.0 cups D. 8.0 cups



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.

Testinar.com



Practice Test Answers and Explanations

Practice Test 1 Answers and Explanations

- 1) **Choice A is correct.** **(5.MD.B.2)** At 30 minutes: 3 marks. At 60 minutes: 1 mark. Difference: $3 - 1 = 2$ more students.
- 2) **Choice A is correct.** **(5.OA.A.1)** First simplify inside the parentheses: $3 + 5 = 8$. Then multiply, $2 \times 8 = 16$, and subtract from 24 to get 8.
- 3) **Choice D is correct.** **(5.G.B.4)** Every rectangle has two pairs of parallel sides, so every rectangle is a parallelogram.
- 4) **The correct answer is (2, 6).** **(5.G.A.2)** The first pair is (0, 0). After one step, A is 2 and B is 6, giving (2, 6).
- 5) **Choice D is correct.** **(5.NF.B.7)** $\frac{1}{9} \div 3 = \frac{1}{9} \times \frac{1}{3} = \frac{1}{27}$.
- 6) **Choice B is correct.** **(5.NBT.A.2)** The basic fact is $7 \times 8 = 56$. The factors 700 and 80 have three zeros total, so the product is 56,000.
- 7) **Choice A is correct.** **(5.NBT.A.2)** A: $0.5 \times 100 = 50$. B: $0.5 \times 10 = 5$. C: $0.05 \times 100 = 5$. D: $50 \times 0.1 = 5$. The largest value is 50.
- 8) **Choice D is correct.** **(5.NF.A.2)** Common denominator for 3 and 2 is 6. $\frac{1}{3} = \frac{2}{6}$ and $\frac{1}{2} = \frac{3}{6}$.
- 9) **Choice D is correct.** **(5.MD.C.5)** $\frac{1}{2} \times \frac{4}{5} = \frac{4}{10} = \frac{2}{5} = \frac{8}{20}$. $\frac{2}{3} \times \frac{3}{4} = \frac{6}{12} = \frac{1}{2} = \frac{10}{20}$. Since $\frac{10}{20} > \frac{8}{20}$, the second is larger.
- 10) **Choice C is correct.** **(5.NF.A.2)** Use a common denominator of 24: $\frac{5}{6} = \frac{20}{24}$ and $\frac{3}{8} = \frac{9}{24}$. Then $\frac{20}{24} - \frac{9}{24} = \frac{11}{24}$ yard.
- 11) **Choice D is correct.** **(5.NF.B.5)** 20×1 is exactly 20, not greater than 20. The factor $1\frac{1}{20}$ is just a little more than 1, so $20 \times 1\frac{1}{20} = 21$ is the closest product above 20.
- 12) **Choice C is correct.** **(5.NBT.A.2)** Multiplying by 100 moves the decimal two places right: $0.7 \rightarrow 7 \rightarrow 70$.
- 13) **Choice C is correct.** **(5.MD.C.4)** C is correct: $6 \times 5 \times 4 = 120$ cubic units. A: volume is 60. B: volume uses cubic units. D: doubling one dimension doubles the volume.
- 14) **Choice D is correct.** **(5.MD.C.4)** Volume of a rectangular prism is length \times width \times height, so $3 \times 4 \times 5$ is correct.
- 15) **The correct answer is 165.** **(5.MD.A.1)** Convert the hours first: 2 hours is $2 \times 60 = 120$ minutes. Add 45 minutes to get $120 + 45 = 165$ minutes.
- 16) **Choice D is correct.** **(5.NBT.A.2)** $36 \times 10^6 = 36 \times 1000000 = 36000000$ units.
- 17) **Choice C is correct.** **(5.MD.C.5)** Choose the operation from the story, then keep the unit with the answer. Multiply: $0.6 \times 5 = 3.0$ kilometers. This confirms the answer.
- 18) **The correct answer is $(7+8) \times 4$.** **(5.OA.A.2)** Rubric note: accept $(7+8) \times 4$, $4 \times (7+8)$, or any equivalent expression that clearly shows 7 and 8 are added first and that the resulting sum is multiplied by 4.
- 19) **Choice D is correct.** **(5.NF.A.1)** Because $\frac{1}{6}$ is smaller than $\frac{5}{6}$, regroup $4\frac{1}{6}$ as $3\frac{7}{6}$. Then $3\frac{7}{6} - 2\frac{5}{6} = 1\frac{2}{6}$.
- 20) **Choice C is correct.** **(5.NF.A.2)** Common denominator 12: $\frac{5}{12}$ and $\frac{1}{4} = \frac{3}{12}$. Difference: $\frac{5}{12} - \frac{3}{12} = \frac{2}{12}$. Cotton is more.
- 21) **Choice D is correct.** **(5.NBT.B.5)** Round 312 to 300. Then $300 \times 8 = 2,400$.
- 22) **Choices A, B are correct.** **(5.NF.B.4)** Both A and B equal $\frac{1}{6}$ because the same two factors can be multiplied in either order. C is $\frac{1}{8}$, and D is $\frac{1}{9}$.
- 23) **Choice D is correct.** **(5.NF.B.6)** $\frac{9}{10} \approx 1$ and $\frac{8}{11} \approx 1$. So $\frac{9}{10} + \frac{8}{11} \approx 1 + 1 = 2$ meters.
- 24) **Choice C is correct.** **(5.MD.C.4)** The base has $4 \times 2 = 8$ cubes. Since $32 \div 8 = 4$, the box must be 4 units tall.
- 25) **The correct answer is 52.** **(5.NBT.B.6)** $16 \times 50 = 800$, leaving 32. $32 \div 16 = 2$. So quotient is $50 + 2 = 52$.
- 26) **Choice C is correct.** **(5.MD.C.5)** The known length and height make groups of $12 \times 5 = 60$ cubic centimeters. Since $360 \div 60 = 6$, the width is 6 cm.
- 27) **Choice D is correct.** **(5.MD.A.1)** Convert all: 5 km = 5,000 m, 500 m = 500 m, 50 cm = 0.5 m, 5 mm = 0.005 m. Order: 5 mm < 50 cm < 500 m < 5 km.
- 28) **Choice B is correct.** **(5.MD.A.1)** 1 gallon = 4 quarts = 8 pints. So 2 gallons = $2 \times 8 = 16$ pints.
- 29) **Choice D is correct.** **(5.NBT.A.2)** Dividing by 100 moves the decimal 2 places left: $9.3 \rightarrow 0.93 \rightarrow 0.093$.
- 30) **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.



Greetings, Star Navigator!

★ Stellar achievements unlocked! You've traversed six complete mathematical galaxies, calculating trajectories, solving cosmic puzzles, and navigating through challenging mathematical dimensions like an intergalactic explorer! Each test took you to new mathematical frontiers, and you charted your course with remarkable precision. Your navigation systems are fully calibrated and operational! ★

◇ **Here's what intergalactic navigators understand:** exploring unknown galaxies requires preparation, courage, and advanced navigation skills. They study star maps, practice emergency protocols, and trust their instruments completely. You've developed those same skills through these six test voyages! Your mathematical navigation systems are reliable and ready for any cosmic challenge! ◇

Spacecraft Systems Status

- **Navigation Computers:** All mathematical coordinates calculated accurately!
- **Life Support Systems:** Problem-solving stamina at maximum capacity!
- **Communication Array:** Clear understanding of all mathematical signals!
- **Mission Status:** Cleared for test day deep space exploration!

Interstellar travel wisdom: experienced navigators remain calm during meteor showers because they've trained for turbulence. When test day presents unexpected mathematical asteroids, remember your six training missions through different galaxies. You've already navigated successfully through diverse challenges. Trust your instruments, maintain your course, and reach your destination confidently!

Want to report discoveries from distant mathematical galaxies? Transmit your findings to reza@testinar.com. Command Center is receiving!

Reza Nazari & Jay Daie

Your Math Coaches for Big Confidence

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!



Visit testinar.com/math5

for more Grade 5 math resources and practice materials!



Testinar

Smart Practice. Stronger Results.