

# 10 Tennessee TCAP

GRADE  
**6**  
MATH

## PRACTICE TESTS

Standards-Aligned Review  
Mixed Practice & Answer Key



### 10 PRINTED TESTS

Realistic practice to build confidence and mastery



### 2 ONLINE TESTS

Extra practice for continued success



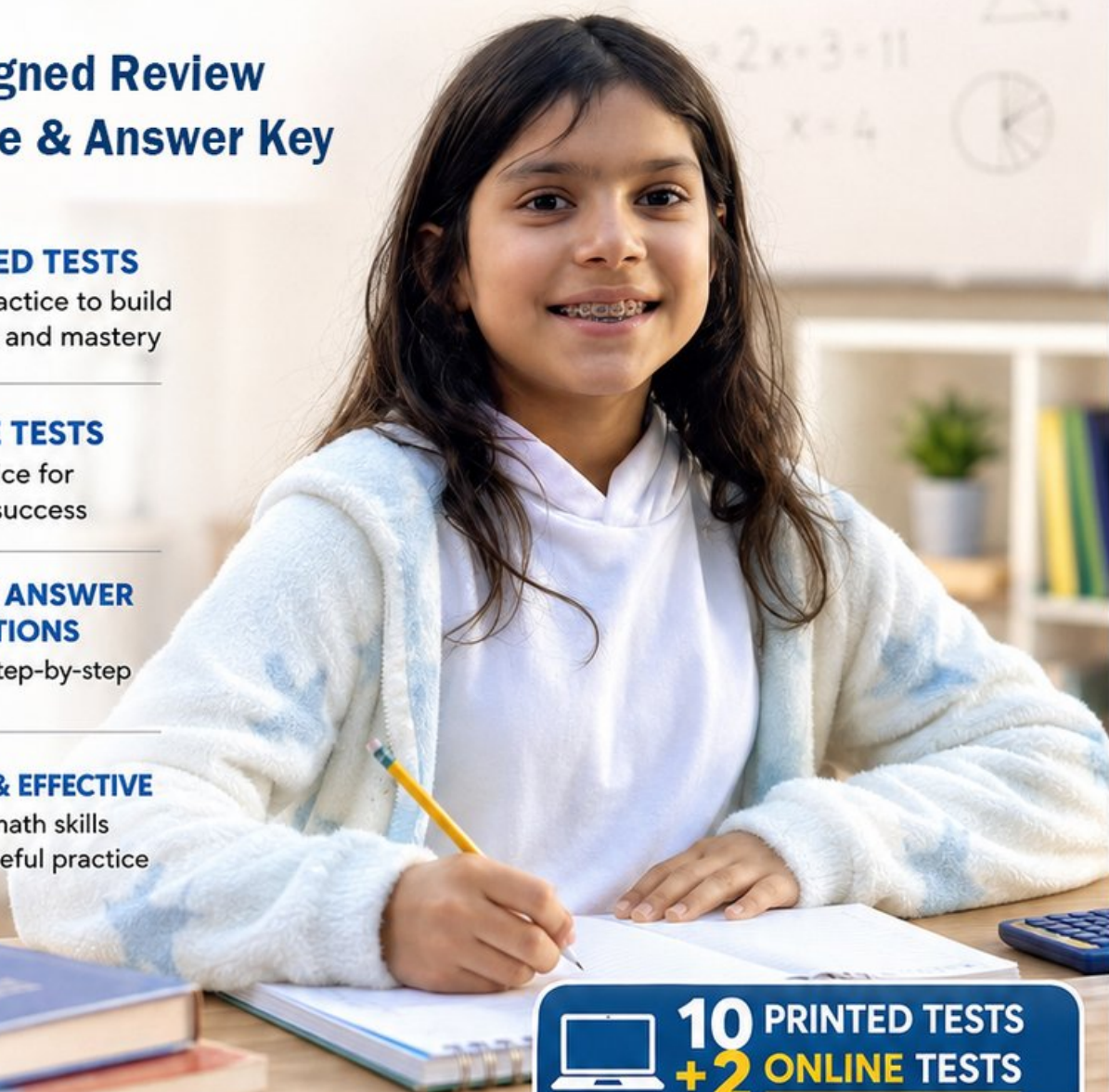
### DETAILED ANSWER EXPLANATIONS

Learn with step-by-step solutions



### FOCUSED & EFFECTIVE

Target key math skills with purposeful practice



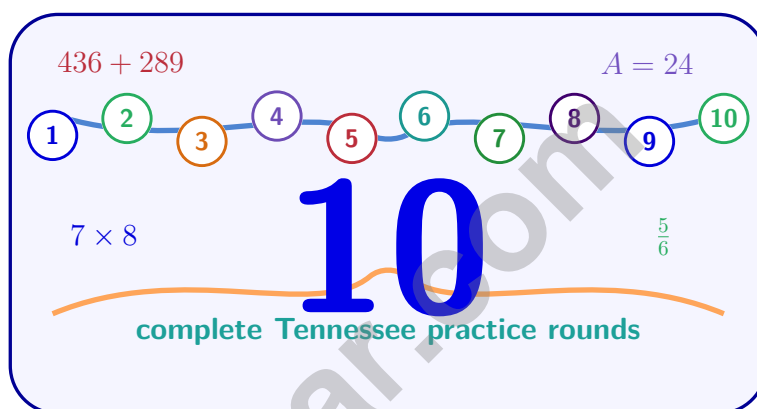
**10** PRINTED TESTS  
**+ 2** ONLINE TESTS

Use these two additional online practice tests for extra review after the printed tests in this book.

PRACTICE • REVIEW • SUCCEED

# 10 Tennessee TCAP Grade 6 Math Practice Tests

*Standards-Aligned Rhythmic, Reliable Reasoning for Tennessee Comprehensive Assessment Program*



Ten complete 40-question Grade 6 practice rounds for TCAP, with ratios, rational numbers, expressions, equations, geometry, statistics, answer keys, and clear explanations for every item.

**Jay Daie and Reza Nazari**



# Copyright ©

## Testinar Inc



Published by Testinar Inc

[Testinar.com](http://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, Tennessee Math Explorer!

Ten steady rounds on a Volunteer State math journey

This book gives you ten full Grade 6 practice tests for TCAP. Each round uses river music, mountain roads, and steady practice rhythm as a fresh mental backdrop while you read closely, choose a smart strategy, show your work, and check whether your answer makes sense.

## Your Tennessee Practice Promise

Keep a steady rhythm: read, model, solve, check. I will slow down for the question, circle what matters, solve one step at a time, and use mistakes as clues for getting stronger.

Read

Plan

Check

## How to Use This Book

A ten-session routine for rhythmic, reliable reasoning

1. **Preview the skills.** Read the quick review pages before the first test.
2. **Take one test at a time.** Work in a quiet place and answer all 40 questions.
3. **Mark your confidence.** Put a small star beside problems you solved with a strong plan.
4. **Check, then retry.** For missed questions, try the problem again before reading the explanation.
5. **Track your next move.** Use the growth log to name one habit and one skill for the next test.

**Tennessee review rhythm:** Test one day, correct carefully the next day, then return for the next round when your corrections feel clear.



## What Is Inside?

Ten TCAP tests, 400 questions, and a full review path

Part	What You Will Practice
Tests 1–3	Warm-up rounds for ratios, rational numbers, operations, and careful reading.
Tests 4–6	Skill-building rounds with expressions, equations, geometry, data, and problem models.
Tests 7–9	Stamina rounds for mixed review, neat work, and flexible strategy choices.
Test 10	Final Tennessee round to show growth across the whole book.
Answer Pages	Compact keys and explanations that show why each answer works.

The tests are mixed on purpose. Rhythmic, reliable reasoning means recognizing the skill even when the next question changes topic.



Scan me!  
For more practice  
& answers

# Table of Contents

★ Practice Test 1	_____	14
★ Practice Test 2	_____	32
★ Practice Test 3	_____	48
★ Practice Test 4	_____	62
★ Practice Test 5	_____	78
★ Practice Test 6	_____	92
★ Practice Test 7	_____	108
★ Practice Test 8	_____	125
★ Practice Test 9	_____	141
★ Practice Test 10	_____	156
<b>Practice Test Answer Keys</b>	_____	<b>171</b>
<b>Practice Test Answers and Explanations</b>	_____	<b>177</b>

1) A rectangular prism has length 5 cm, width 3 cm, and height 2 cm. What is its surface area using the formula  $SA = 2LW + 2LH + 2WH$ ?

A.  $30 \text{ cm}^2$

C.  $62 \text{ cm}^2$

B.  $52 \text{ cm}^2$

D.  $124 \text{ cm}^2$

2) An error was found in a proportional relationship table. The equation should be  $y = 6x$ . Which point does NOT fit the pattern?

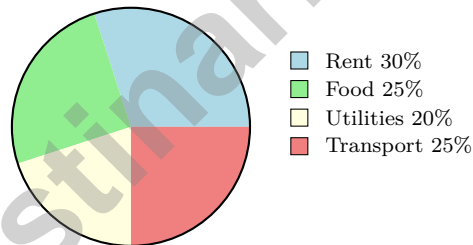
x	1	2	3	4
y	6	12	18	25

A. (1, 6) does not fit

C. (3, 18) does not fit

B. (2, 12) does not fit

D. (4, 25) does not fit



3)

Aisha's monthly budget is shown in the pie chart above. If her monthly income is \$2000, how much does she allocate to rent?

A. \$400

C. \$600

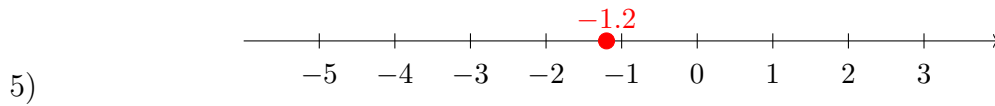
B. \$500

D. \$700



4) A scale drawing uses 1 inch = 10 feet. A square room is drawn with a side length of 2 inches. What is the actual area of the room?

- A. 20 sq ft                                       C. 100 sq ft  
 B. 40 sq ft                                       D. 400 sq ft

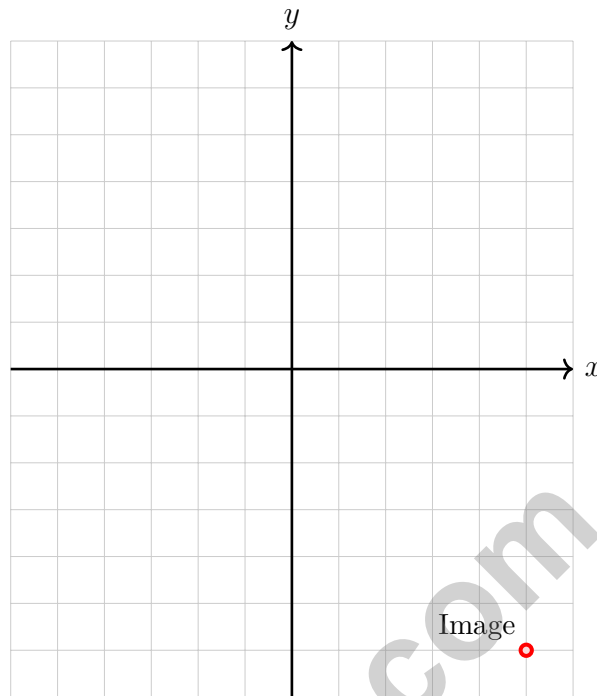


Which number from the list below is closest to the point shown?

- A. -2                                               C. 0  
 B. -1                                               D. 3



Scan me!  
For more practice  
& answers



6)

A point  $H$  is reflected over the  $x$ -axis. If the image is at  $(5, -6)$ , where was the original point  $H$  located?



1) A trapezoid has parallel sides of length 5 units and 7 units. The height is 4 units. What is its area?

A. 16 square units

B. 20 square units

C. 24 square units

D. 28 square units

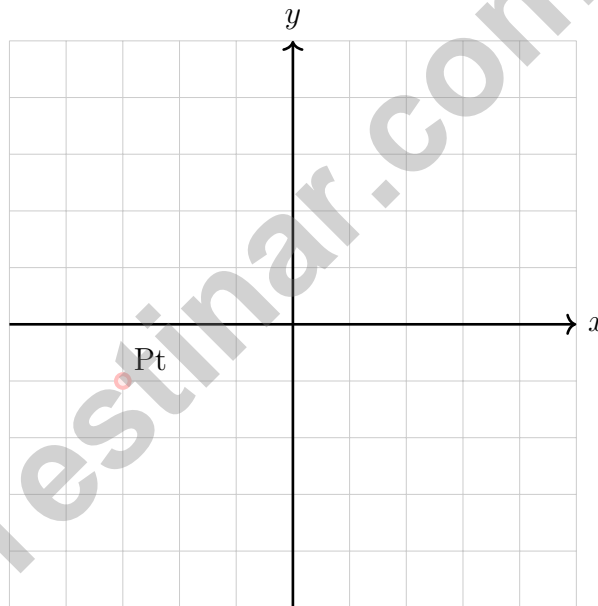
2) Solve for  $x$ :  $\frac{x}{6} = 5$

A.  $x = 1.2$

B.  $x = 11$

C.  $x = 30$

D.  $x = 0.83$



3)

If a point at  $(-3, -1)$  is reflected over the  $x$ -axis, which of the following is the image?

A.  $(-3, 1)$

B.  $(-3, -1)$

C.  $(3, 1)$

D.  $(3, -1)$



4) Simplify  $6a + 9a + 2$ . What is the coefficient of  $a$ ?

5) A circle has a diameter of 12 inches. What is the radius?

- A. 3 inches                       C. 12 inches  
 B. 6 inches                       D. 24 inches

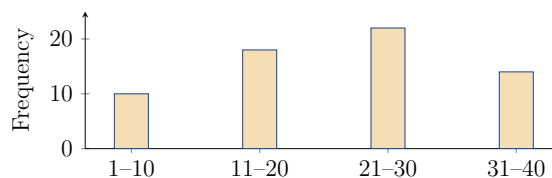
6) A researcher asks students: “How many minutes did you exercise yesterday?” Which describes the population being sampled?

- A. All students in the school                       C. The students who answered the survey  
 B. The number of minutes in a day                       D. All sixth graders in the state

7) Two classes took the same test. Class A has a range of 20 points; Class B has a range of 50 points. What can you infer?

- A. Class A has better test scores                       C. Class A has more consistent scores  
 B. Class B has better test scores                       D. Class B is smaller than Class A

8) A histogram is most useful for displaying data when you need to:



- A. Compare two specific values                       C. Display the distribution of continuous data grouped into bins  
 B. Show individual data points                       D. Track changes over time



Scan me!  
For more practice  
& answers

1) A bakery uses vanilla and chocolate in a 7 : 3 ratio. If the bakery makes a batch with 21 units of vanilla, how much chocolate is used?

A. 3 units

C. 9 units

B. 7 units

D. 24 units

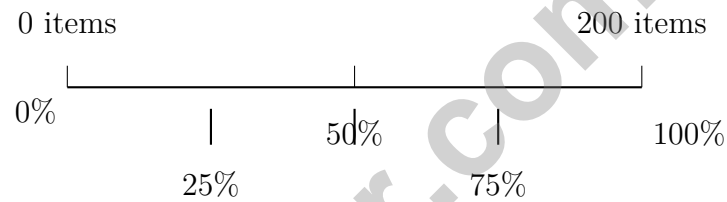
2) On a spelling test, 36 out of 40 students passed. What percent passed?

A. 36%

C. 90%

B. 80%

D. 95%



3)

According to the percent number line, how many items correspond to 75%?

A. 175

C. 50

B. 100

D. 150

4) If  $\frac{3}{4}$  pound of coffee costs \$12, what is the cost per pound?

A. \$9

C. \$16

B. \$12

D. \$18



5) Which conversion uses a correct ratio table?

A. 

Gallons	Quarts
1	3

B. 

Gallons	Quarts
1	2

C. 

Gallons	Quarts
1	8

D. 

Gallons	Quarts
1	4

6) The factor tree below shows the GCF of two numbers. Use it to write the factored form of the sum.

$$\text{GCF} = 2 \times 3$$

$$2 \quad 3$$

$$\text{First number: } 2 \times 3 \times 5 = 30 \quad \text{Second number: } 3 \times 3 \times 4 = 24$$

A.  $6(5 + 4)$

C.  $5(6 + 24)$

B.  $6(5 \times 4)$

D.  $(5 + 4)(2 + 3)$

7) A company's quarterly profit or loss can be shown in a table. If profit is positive and loss is negative, which quarter shows a loss?

Quarter	Profit/Loss (\$)
Q1	+2000
Q2	-500
Q3	+1500
Q4	+3000

A. Q1

C. Q3

B. Q4

D. Q2



Scan me!  
For more practice  
& answers

## Tennessee TCAP Practice Test Answer Keys

**How to use this section with a Grade 6 student:**

1. check the answer first
2. mark questions to try again
3. rework the problem before reading the full explanation

**A calm correction routine turns every missed item into useful practice.**

Testinar.com



Scan me!  
For more practice  
& answers

## Practice Test Answers and Explanations

### Practice Test 1 Answers and Explanations

- 1) **Choice C is correct.** **(6.SP.A.3)**  $SA = 2(5)(3) + 2(5)(2) + 2(3)(2) = 30 + 20 + 12 = 62 \text{ cm}^2$ .
- 2) **Choice D is correct.** **(6.EE.B.8)** For  $y = 6x$ : when  $x = 4$ ,  $y = 6(4) = 24$ , not 25. The point should be  $(4, 24)$ .
- 3) **Choice C is correct.** **(6.G.A.2)** Rent is 30% of income:  $0.30 \times 2000 = \$600$ .
- 4) **Choice D is correct.** **(6.RP.A.1)** Actual side:  $2 \times 10 = 20$  feet. Area:  $20 \times 20 = 400 \text{ sq ft}$ .
- 5) **Choice B is correct.** **(6.SP.B.5)** Find the distance from  $-1.2$  to each choice: to  $-2$  is 0.8, to  $-1$  is 0.2, to 0 is 1.2, to 3 is 4.2. The smallest distance is to  $-1$ , so it is the closest.
- 6) **The correct answer is  $(5, 6)$ .** **(6.EE.C.9)** If the image after reflecting over the  $x$ -axis is  $(5, -6)$ , then the original point was  $(5, 6)$  (reflect back by negating the  $y$ -coordinate again).
- 7) **Choice A is correct.** **(6.SP.B.4)** Simplify each team's ratio. Panthers have  $12 : 8 = 3 : 2$ , Tigers have  $9 : 6 = 3 : 2$ , and Lions have  $6 : 5$ . Only Panthers and Tigers match.
- 8) **Choice D is correct.** **(6.EE.A.2)** Number of purple marbles  $= 0.20 \times 20 = 4$ .
- 9) **Choice D is correct.** **(6.EE.B.8)** There are 15 data values: 65, 67, 69, 71, 72, 72, 74, 74, 78, 80, 83, 86, 89, 92, 95. With an odd count, the median is the middle value at position 8, which is 74.
- 10) **Choice D is correct.** **(6.G.A.3)** The whole bar has  $3 + 1 = 4$  equal parts. Each part is  $20 \div 4 = 5$  units, and wheat is 3 parts:  $3 \times 5 = 15$  units.
- 11) **Choice A is correct.** **(6.G.A.1)** A rate compares two quantities with different units. Divide total distance by total time to find the unit rate:  $200 \div 4 = 50$  miles per hour. The error is using the raw distance instead of dividing.
- 12) **The correct answer is 200.96.** **(6.G.A.4)** Area  $= \pi r^2 \approx 3.14 \times 8^2 = 3.14 \times 64 = 200.96 \text{ ft}^2$ .
- 13) **Choice B is correct.** **(6.SP.A.1)**  $10 \div \frac{3}{2} = 10 \times \frac{2}{3} = \frac{20}{3} \approx 6.67 \text{ mph}$ .
- 14) **The correct answer is 45.** **(6.SP.A.3)** Ordered: 32, 38, 42, 45, 48, 50, 55. The middle (4th) value is 45.
- 15) **Choice B is correct.** **(6.SP.B.4)** The rate is  $100 : 2.50$  or  $40 : 1$ . For  $\$7.50$ :  $7.50 \times 40 = 300$  beads.
- 16) **Choice A is correct.** **(6.NS.C.8)** The vertical axis is scaled in groups of 50 miles. So 50 miles is shown as 1, 100 miles as 2, and 150 miles as 3, giving the points  $(1, 1)$ ,  $(2, 2)$ , and  $(3, 3)$ .
- 17) **Choice B is correct.** **(6.EE.A.1)** A  $10 \times 10$  grid has 100 squares. A percent is a ratio out of 100. So 35 out of 100 squares shaded  $= \frac{35}{100} = 35\%$ .
- 18) **Choice C is correct.** **(6.EE.A.2)** 40% of  $\$300 = 0.40 \times 300 = \$120$ . New price is  $\$300 - \$120 = \$180$ .
- 19) **The correct answer is A and C are the true statements.** **(6.EE.A.4)** A is true: the formula  $A = \frac{1}{2}bh$  applies to right, acute, and obtuse triangles. C is true: area is directly proportional to height when the base is fixed, so doubling the height doubles the area. B is false: in an obtuse triangle the height falls outside the triangle, so the height is not always a side. D is false: any side can serve as the base. E is false: the area of a triangle is exactly *half* the area of a rectangle with the same base and height, not greater.
- 20) **Choice C is correct.** **(6.EE.B.6)** Plan A:  $35 \div 500 = 0.07$  per min. Plan B:  $50 \div 800 = 0.0625$  per min. Plan C:  $60 \div 1000 = 0.06$  per min. Plan C is lowest.
- 21) **Choice C is correct.** **(6.EE.B.5)** Multiply:  $80 \times 3 = 240$  feet.
- 22) **The correct answer is 2.85.** **(6.NS.B.4)** The weighted sum is 57 miles for 20 students, and  $57 \div 20 = 2.85$ .
- 23) **Choice C is correct.** **(6.G.A.1)** Total fixed expenses:  $\$180 + \$60 + \$60 = \$300$ . Percentage of income:  $\frac{\$300}{\$600} = \frac{1}{2} = 50\%$ .
- 24) **Choice D is correct.** **(6.NS.C.8)** Using partial quotients:  $200 + 20 + 8 = 228$ . Verify:  $24 \times 228 = 5,472$ .
- 25) **Choice B is correct.** **(6.RP.A.1)** Multiply:  $2.5 \times 3 = 7.5 \text{ kg}$ .
- 26) **Choice B is correct.** **(6.SP.A.2)**  $36 = 4 \times 9 = (2 \times 2) \times (3 \times 3) = 2^2 \times 3^2$ . Options A, C, and D contain composite numbers.
- 27) **Choice A is correct.** **(6.SP.B.4)** Left ribbon:  $3(5 + 7) = 36$ . Right ribbon:  $2(5 + 7) = 24$ . Stack them openly:  $3(5 + 7) + 2(5 + 7) = 60$ . Option B subtracts instead of adds; option C skips half the rectangles; option D wrongly multiplies inside the parentheses.



Scan me!  
For more practice  
& answers

## Hi, Math Champion!

◇ You trained hard! 10 full practice tests is real practice. Your math game is way better now than when you started. ◇

★ **Coach's truth:** kids who practice get better. You practiced. You got better. That's how it works!  
★

### Your Game Stats

- **Energy:** HIGH! You can finish a long test.
- **Smart Plays:** You know lots of strategies.
- **Calm Head:** You stay cool with hard problems.
- **Game-Day Ready:** You feel strong and prepared.

**Coach's tip:** the night before the test, get good sleep. Eat a good breakfast. Bring a sharp pencil. Trust your training!

If you want to share something or ask a question, please email me at [jay@testinar.com](mailto:jay@testinar.com).

**Jay Daie**

Your Math Coach

# PRACTICE MORE. ACHIEVE MORE. SUCCEED!

This **Grade 6 Math Practice Tests** book is designed to help students build strong math skills, deepen their understanding of key concepts, and gain the confidence they need to succeed on any test.

With 10 full-length printed tests and 2 online tests, students get the review, practice, and realistic test experience they need to improve accuracy, strengthen problem-solving abilities, and reach their full potential.

Perfect for classroom use, homework, test preparation, and extra practice at home.

## PERFECT FOR:

- ✓ Classroom Practice
- ✓ Homework & Review
- ✓ Independent Learning
- ✓ Test Preparation
- ✓ Skill Reinforcement
- ✓ Building Confidence



**CONFIDENCE TODAY.  
SUCCESS TOMORROW!**

## WHAT STUDENTS WILL GAIN



### Stronger Math Skills

Build a solid foundation through targeted practice and review.



### Better Problem Solving

Develop logical thinking and effective solution strategies.



### Deepen Understanding

Reinforce key math concepts aligned with standards.



### Test Confidence

Get familiar with test formats and improve accuracy.



### Achieve Success

Build confidence and perform your best on test day.

## TOPICS COVERED

- ✓ Ratios & Rates
- ✓ The Number System
- ✓ Expressions & Equations
- ✓ Geometry
- ✓ Fractions & Decimals
- ✓ Percents
- ✓ Statistics & Probability
- ✓ Data Analysis
- ✓ Measurement & Conversions
- ✓ And More!



## 2 ONLINE TESTS

Extra online practice to reinforce learning and build confidence.

## MORE PRACTICE. GREATER RESULTS.

Give your child the tools needed to develop strong math skills, confidence, and a positive attitude toward learning.



10 PRINTED  
PRACTICE TESTS



2 ONLINE  
PRACTICE TESTS



DETAILED ANSWER  
EXPLANATIONS