

7 Tennessee TCAP

Grade 6 MATH

PRACTICE TESTS

7
PRINTED
TESTS

+

2
ONLINE
TESTS

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

Standards-Aligned *Steady Southern*
Problem Solving for Comprehensive
Assessment Program



7 Full-Length
Printed Tests



Standards-Aligned
Math Practice



Detailed Answer Keys
and Explanations



Build Confidence.
Achieve Success.



You've
Got
This!



PREPARE
PRACTICE
SUCCEED



PRACTICE
WITH PURPOSE



STRENGTHEN
MATH SKILLS



REVIEW, IMPROVE,
AND SUCCEED

7 Tennessee TCAP Grade 6 Math Practice Tests

Standards-Aligned Volunteer-State Math Rhythm for Tennessee Comprehensive Assessment Program



Seven complete 40-question Grade 6 practice rounds for TCAP, built for volunteer-state math rhythm with ratios, rational numbers, expressions, equations, geometry, statistics, answer keys, and clear explanations for every item.

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Welcome, Tennessee Math Explorer!

Eight focused rounds using volunteer-state math rhythm

This book gives you seven full Grade 6 practice tests for TCAP. Each round uses river music, mountain roads, and practical review habits 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, and check the final note.

Read

Plan

Check

How to Use This Book

A seven-session routine for volunteer-state math rhythm

1. **Preview the skills.** Scan the quick review pages before beginning the first round.
2. **Mark confidence.** Put a small star beside problems where your plan felt strong.
3. **Work in order.** Take one 40-question test at a time in a quiet place.
4. **Plan the next round.** Use the growth log to choose one habit and one skill to practice.
5. **Correct actively.** Retry missed items before reading the full explanation.

Tennessee review rhythm: Practice one round, listen to what the mistakes teach, and tune up before the next test.



What Is Inside?

Eight TCAP tests, 320 questions, and a full review path

Part	What You Will Practice
Tests 1–3	Foundation rounds for ratios, rational numbers, operations, and careful reading.
Tests 4–6	Skill-building rounds with expressions, equations, geometry, data, and problem models.
Test 7	Final stamina round for mixed review, neat work, and flexible strategy choices.
Answer Pages	Compact keys and explanations that show why each answer works.

The tests are mixed on purpose. Volunteer-state math rhythm means recognizing the skill even when the next question changes topic, changes format, or asks for an explanation.



Scan me!
For more practice
& answers

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1) A student says the coefficient of x in $-7x + 4$ is 7. What is the correct answer?

- A. The coefficient is -7 (the student forgot the negative sign). C. The coefficient is 4.
 B. The coefficient is 7 (the student is correct). D. There is no coefficient; the term has a variable only.

2) For the point $(-2, 5)$, what is the x -coordinate?

3) What is the median of the data set: 3, 7, 9, 12, 15?

- A. 9 C. 12
 B. 7 D. 10.2

4) A dot plot shows rainfall (in inches) recorded over several days. Based on the frequency table, what is the most common rainfall amount?

Rainfall (in)	Frequency
0.5	2
1.0	4
1.5	7
2.0	5
2.5	2

- A. 1.0 inch C. 2.0 inches
 B. 2.5 inches D. 1.5 inches



5) Which balance is greater: 45 or -20 ?

6) A 3-digit number has a stem-and-leaf representation with stem 23 and leaf 5. What is the number?

A. 235

C. 253

B. 325

D. 52

7) Which statement about a misleading graph is TRUE?

A. The data is always incorrect

C. All bar graphs are inherently misleading

B. Misleading graphs always have negative intent

D. The visual display exaggerates or downplays differences

8)

Material	Sand	Gravel
Parts	4	6

A builder uses sand and gravel in a mixing ratio of 4 : 6. Which of the following is NOT equivalent to this ratio?

A. 2 : 3

C. 12 : 18

B. 8 : 12

D. 4 : 9



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9) A container holds w liters of water. A second container holds twice as much water. How many liters are in the second container?

- A. $w + 2$
 B. $\frac{w}{2}$

- C. $w - 2$
 D. $2w$

10) An airline allows carry-on baggage with weight greater than 0 pounds but not exceeding 50 pounds. Which compound inequality represents the allowed weight w ?

- A. $0 < w \leq 50$
 B. $0 \leq w < 50$

- C. $0 < w < 50$
 D. $0 \geq w$ and $w \leq 50$

11) What is $-9 + 4$? using a number line

12) A researcher asks sixth graders: “How many hours do you sleep per night?”
The table shows some responses:

Student	A	B	C	D	E
Hours of Sleep	8	9.5	7	8.5	9

What does the variability in these responses tell us about the question?

- A. The question has no correct answer. C. All students should sleep the same amount.
 B. The question is statistical because answers vary. D. The question is not statistical.



- 1) A graph shows the relationship between pencils purchased and total cost. Four points are plotted: (2, 0.80), (4, 1.60), (6, 2.40), and (8, 3.20).

What is the cost of one pencil?

- A. \$0.20 C. \$0.60
 B. \$0.40 D. \$0.80

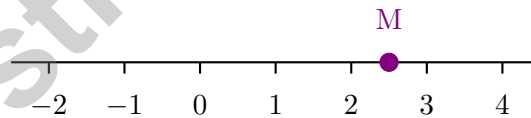
- 2) Which ratio is equivalent to 6 : 9?

- A. 2 : 3 C. 4 : 6
 B. 3 : 4 D. 8 : 10

- 3) Which expression with a negative number equals 10?

- A. $|-10|$ C. $|10|$
 B. The opposite of 10 D. -10

- 4) The number line below shows tick marks at each integer. Point M is marked on the line. What is the coordinate of point M?



- A. 2.5 C. 2
 B. 2.25 D. 3



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- 5) A gardener plants flowers in a ratio of roses to tulips of 4 : 5. If the gardener plants 16 roses, how many tulips are planted?

Roses	Tulips
4	5
8	10
16	?

- A. 18 C. 22
 B. 24 D. 20
- 6) A basketball player made 18 out of 20 shots. What percent is this?
- A. 18% C. 90%
 B. 80% D. 95%
- 7) What is the GCF of 18 and 24?
- A. 2 C. 6
 B. 3 D. 12
- 8) A recipe calls for flour and sugar in a 5 : 2 ratio. If the recipe uses 10 cups of flour, how many cups of sugar are needed?



1) Of 240 employees, 62.5% work full-time. How many employees work full-time?

- A. 150 C. 100
 B. 120 D. 180

2)

Hours	1	2	3	4
Gallons	12	24	36	48

Based on the table, what is the unit rate in gallons per hour?

- A. 8 gallons per hour C. 24 gallons per hour
 B. 36 gallons per hour D. 12 gallons per hour
- 3) A graph shows earnings from mowing lawns. The relationship is linear, and the point (3, 45) is on the line. If the origin (0, 0) is also on the line, what is the constant rate of pay per lawn?

- A. \$12 per lawn C. \$20 per lawn
 B. \$15 per lawn D. \$45 per lawn

4) A comparison of two phone plans shows: Plan A: \$30 per month with no additional fees Plan B: \$10 per month plus a \$20 one-time activation fee
Which plan's cost is proportional to the number of months?

- A. Plan A only C. Both plans
 B. Plan B only D. Neither plan



5) A town's elevation is 350 meters. A nearby valley is 120 meters lower. What is the valley's elevation?

A. -230 meters

C. 470 meters

B. 230 meters

D. -470 meters

6) A lemonade stand sells lemonade and iced tea in a ratio of 3 : 2. If the stand sells 18 cups of lemonade, how many cups of iced tea does it sell?

A. 6 cups

C. 27 cups

B. 30 cups

D. 12 cups

7) Ice must stay below 32°F . What is the greatest whole-number temperature below 32?

8) In a parking lot, there are 6 red cars and 9 blue cars. If we describe this as "for every 2 red cars there are ___ blue cars," what number fills the blank?

A. 2

C. 6

B. 9

D. 3

9) Two cyclists are training. Cyclist A travels 84 miles in 6 hours. Cyclist B travels 75 miles in 5 hours. Who is traveling faster?

A. Cyclist A at 14 mph

C. Cyclist B at 15 mph

B. Cyclist A at 12 mph

D. Cyclist B at 14 mph



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Tennessee TCAP Practice Test Answer Keys

How to use this Tennessee TCAP answer section with a Grade 6 student:

1. check the answer first, then write one quick reason the choice is correct
2. mark questions to try again, especially the skills that feel connected to volunteer-state math rhythm
3. rework the problem before reading the full explanation, using this reminder:
Keep a steady rhythm: read, model, solve, and check the final note.

A calm Tennessee correction routine turns every missed item into useful practice. Practice one round, listen to what the mistakes teach, and tune up before the next test.

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Tennessee Practice Test Answers and Explanations

Review the seven printed TCAP tests with steady, tuned, and ready for the next round habits.

Practice Test 1 Answers and Explanations

- Choice A is correct. **6.EE.A.4** Coefficients include their sign. The term $-7x$ has coefficient -7 , not 7 .
- The correct answer is -2 . **6.NS.C.8** In an ordered pair (x, y) , the first coordinate is x .
- Choice A is correct. **6.SP.A.3** The data is already ordered. The median is the middle value: 9 .
- Choice D is correct. **6.SP.B.4** The mode is the value with the highest frequency. The frequency 7 for 1.5 inches is the largest, so 1.5 inches is the mode.
- The correct answer is 45 . **6.NS.C.7** A positive number is greater than a negative number.
- Choice A is correct. **6.SP.B.4** With a 2-digit stem (23), the leaf (5) is appended to form the 3-digit number 235 .
- Choice D is correct. **6.RP.A.3** Misleading graphs use visual techniques (truncated axes, 3D effects, non-uniform scales) to distort perception. The data itself may be correct, but the visual misrepresents it.
- Choice D is correct. **6.RP.A.1** The ratio $4 : 6$ simplifies to $2 : 3$. Choices A, B, and C all match that same relationship, but $4 : 9$ does not simplify to $2 : 3$.
- Choice D is correct. **6.EE.B.6** "Twice as much" means multiply by 2 .
- Choice A is correct. **6.EE.B.8** "Greater than 0 " gives $w > 0$. "Not exceeding 50 " means at most 50 : $w \leq 50$. Together: $0 < w \leq 50$.
- The correct answer is -5 . **6.NS.B.3** Start at -9 and move 4 units right: $-9 + 4 = -5$.
- Choice B is correct. **6.SP.A.1** Variability in responses is a key indicator that a question is statistical. Different students sleep different amounts, which is expected and shows the question requires data collection to analyze.
- Choice B is correct. **6.SP.A.2** In right-skewed data, the mode is at the peak, median is in the middle, and mean is pulled right by outliers. The order is always Mode $<$ Median $<$ Mean.
- Choice A is correct. **6.RP.A.1** Median measures center; IQR measures spread. Dataset A's median is higher and IQR is smaller (less spread).
- Choice D is correct. **6.RP.A.1** White or striped marbles $= 3 + 3 = 6$. Probability $= \frac{6}{8} = \frac{3}{4}$.
- Choice D is correct. **6.SP.B.4** 19% of 720 is $0.19 \times 720 = 136.8 \approx 137$ visitors.
- Choice A is correct. **6.EE.B.5** Substitute $x = 6$ into the equation. Check: $6 - 2 = 4$ is true.
- Choice D is correct. **6.EE.B.8** "Taller than" (strictly greater) means $h > 48$, not $h \geq 48$.
- The correct answer is Both $2 : 3$ and $8 : 12$ are equivalent to $4 : 6$. **6.RP.A.3** $4 : 6$ simplifies to $2 : 3$ (divide by 2), so A is correct. $8 : 12$ simplifies to $2 : 3$ (divide by 4), so B is correct. $6 : 8$ simplifies to $3 : 4$ — not equivalent. $12 : 16$ simplifies to $3 : 4$ — not equivalent. $10 : 14$ simplifies to $5 : 7$ — not equivalent.
- Choice B is correct. **6.G.A.1** $A = \frac{1}{2} \times 13 \times 6 = 39 \text{ m}^2$.
- Choice C is correct. **6.G.A.1** Using $60 = \frac{1}{2}(18 + 12) \times h = 15h$, so $h = 4$ ft.
- The correct answer is 31.4 . **6.EE.A.2** Substitute: $C = 2(3.14)(5) = 6.28 \times 5 = 31.4$ units.
- Choice B is correct. **6.RP.A.1** A rate compares quantities with different units. Option B compares distance (miles) to time (hours), which are different units. All other options compare quantities in the same category.
- Choice D is correct. **6.RP.A.3** The ratio is $4 : 7$. When roses are 16 (multiply by 4), daisies are $7 \times 4 = 28$.
- Choice B is correct. **6.RP.A.1** $37.5\% = \frac{37.5}{100} = 0.375$.
- Choice A is correct. **6.RP.A.3** The constant of proportionality is $k = \text{centimeters/inches} = 2.54/1 = 12.7/5 = 25.4/10 = 2.54$ cm per inch.
- Choice C is correct. **6.EE.A.3** Distribute first: $3(2x + 1) + 5x = 6x + 3 + 5x = 11x + 3$.



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Inventor's Workshop Note

Hi, Math Inventor!

◇ 7 practice tests. 7 chances to invent new ways to think. You tried things. You changed them. You made your math brain stronger! ◇

★ **Inventors know:** the first try isn't always the best try. Sometimes you fix it. Sometimes you start over. You did all of that! ★

Inventor's Workshop

- **Sketch Pad:** Full of ideas!
- **Toolbox:** Lots of math strategies.
- **Workbench:** Neat and organized.
- **Brave Mind:** You try new things.

Inventor tip: on test day, if your first try doesn't work, switch tools. Inventors don't get stuck on one tool. Pick the right one for the job!

If you want to share something or ask a question, please email me at jay@testinar.com.

Jay Daie

Your Math Inventor

MASTER TODAY. SUCCEED TOMORROW.

This Grade 6 Math Practice Tests book is designed to help students strengthen their math skills, master important concepts, and build the confidence they need to excel on comprehensive assessments.

With 7 full-length printed tests and 2 online tests, students get the review, practice, and realistic test experience they need to improve accuracy, develop 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

★ PRACTICE TODAY.
SUCCEED 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.



Deeper Understanding

Reinforce key concepts aligned with standards through meaningful practice.



Test Confidence

Become familiar with test formats and improve accuracy and speed.



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.



7 FULL-LENGTH
PRINTED TESTS



STANDARDS-
ALIGNED PRACTICE



DETAILED ANSWER
KEYS & EXPLANATIONS