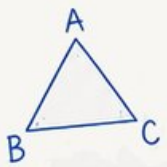
6 Tennessee TCAP

GRADE 6 MATH

PRACTICE TESTS

Standards-Aligned Steady Southern Problem Solving for Comprehensive Assessment Program

$2x + 3 = 11$



$7^2 = 49$

BUILD SKILLS. GAIN CONFIDENCE. SUCCEED!

6 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

6 PRINTED TESTS +2 ONLINE TESTS

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

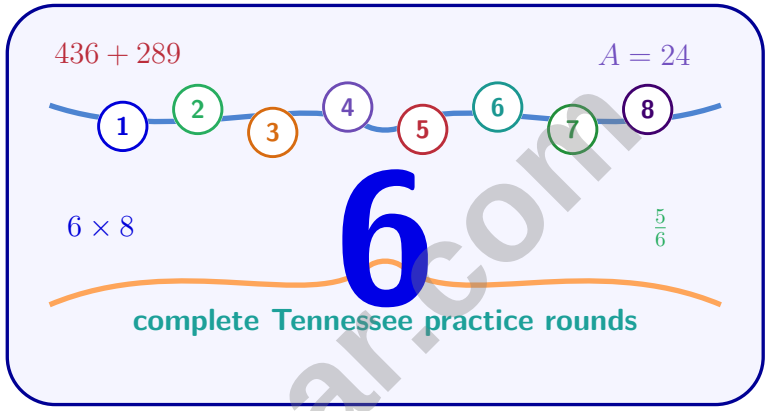
PRACTICE
Sharpen skills with targeted practice tests

REVIEW
Understand concepts and strengthen skills

SUCCEED
Build confidence and achieve your best

6 Tennessee TCAP Grade 6 Math Practice Tests

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



Six 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.

Jay Daie and Reza Nazari

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Welcome, Tennessee Math Explorer!

Eight focused rounds using volunteer-state math rhythm

This book gives you six 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.

How to Use This Book

A six-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 1–2	Foundation rounds for ratios, rational numbers, operations, and careful reading.
Tests 3–5	Skill-building rounds with expressions, equations, geometry, data, and problem models.
Test 6	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.

Table of Contents

1) A store sells 8 notebooks for \$6.40. What is the unit price per notebook?

☐ A. \$0.50 per notebook
☐ B. \$0.70 per notebook
☐ C. \$0.80 per notebook
☐ D. \$1.00 per notebook

2) A student reads r pages per day for 10 days. Which expression represents the total number of pages read?

☐ A. $r + 10$
☐ B. $10r$
☐ C. $r - 10$
☐ D. $\frac{r}{10}$

3) A thermometer reads a temperature no greater than 32 degrees. Which phrase does NOT describe this situation?

☐ A. The temperature is at most 32 degrees
☐ B. The temperature is 32 degrees or less
☐ C. The temperature is below 32 degrees
☐ D. The temperature does not exceed 32 degrees

4) What are the coordinates of a point on the positive x-axis?

☐ A. $(0, 5)$
☐ B. $(0, -2)$
☐ C. $(-3, 0)$
☐ D. $(4, 0)$

5) Order from least to greatest:

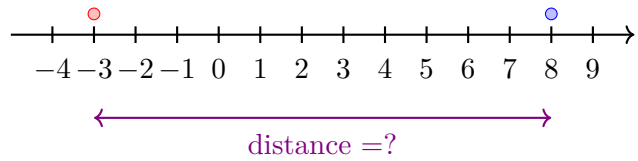
$$-\frac{3}{4},\ \frac{1}{4},\ -\frac{1}{4},\ \frac{3}{4}$$

☐ A. $-\frac{1}{4},\ -\frac{3}{4},\ \frac{1}{4},\ \frac{3}{4}$
☐ B. $\frac{1}{4},\ \frac{3}{4},\ -\frac{1}{4},\ -\frac{3}{4}$
☐ C. $-\frac{3}{4},\ -\frac{1}{4},\ \frac{1}{4},\ \frac{3}{4}$
☐ D. $\frac{3}{4},\ \frac{1}{4},\ -\frac{1}{4},\ -\frac{3}{4}$

6) The distance between points $(b, 10)$ and $(b, 2)$ is 8 units. The points have the same x-coordinate. What value of b makes this true?

☐ A. Only $b = 0$
☐ B. Only $b = 1$
☐ C. Only $b = 6$
☐ D. Any value of b works

7) On a number line, what is the distance from -3 to 8?



☐ A. 5 units
☐ B. -5 units
☐ C. -11 units
☐ D. 11 units

8) What is the value of 11^2?

☐ A. 22
☐ B. 110
☐ C. 121
☐ D. 132

9) Write an expression for "three times a number e, decreased by 9".

☐ A. $3(e - 9)$
☐ B. $9 - 3e$
☐ C. $3 - e - 9$
☐ D. $3e - 9$

10) In the expression $5x + 3 + 2x - 1$, after combining like terms, what is the coefficient of x?

☐ A. 5
☐ B. 2
☐ C. 7
☐ D. 3

11) Evaluate $4a + 3b - 2c$ when $a = 1$, $b = 2$, and $c = 3$.

☐ A. 4
☐ B. 5
☐ C. 8
☐ D. 12

12) A shop has some apples. After selling 12 apples, there are 28 left. Write an equation and solve for the original number of apples x.

☐ A. $x + 12 = 28$; $x = 16$
☐ B. $x - 12 = 28$; $x = 40$
☐ C. $12x = 28$; $x = 2.33$
☐ D. $\frac{x}{12} = 28$; $x = 336$

13) Which inequality best represents "the value is at least 15"?

☐ A. $v < 15$
☐ B. $v \leq 15$
☐ C. $v > 15$
☐ D. $v \geq 15$

14) After simplifying $4x + 7 + 2x - 3$, what is the coefficient of x?

1) Write an expression for "twice the sum of a number c and 7".

☐ A. $2c + 7$
☐ B. $c + 7 + 2$
☐ C. $2c + 2 \cdot 7$
☐ D. $2(c + 7)$

2) A spinner is divided into 4 equal sections colored red, blue, green, and yellow. What is the probability of spinning red or blue?

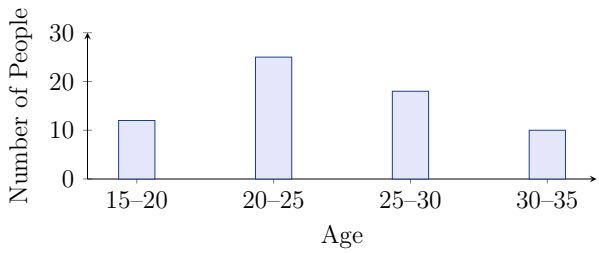
☐ A. 0.25
☐ B. 0.33
☐ C. 0.5
☐ D. 0.75

3) For $3, 5, 7, 9, 11, 13, 15$, find the interquartile range.

4) A data set has 8 values. To find the median, you must:

☐ A. Find the middle value
☐ B. Find the average of the 4th and 5th values
☐ C. Find the mode
☐ D. Count all the values

5) A histogram displays the ages of people at a concert. The bars show frequencies: Ages 15–20: 12; Ages 20–25: 25; Ages 25–30: 18; Ages 30–35: 10. What is the total number of people at the concert?



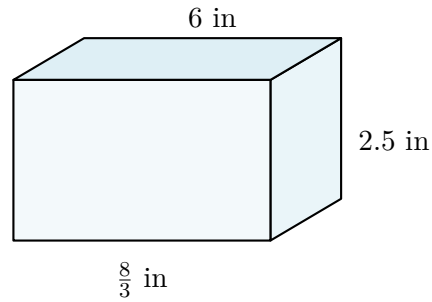
☐ A. 55 people
☐ B. 60 people
☐ C. 65 people
☐ D. 70 people

6) A triangular prism has a triangular base with area 24 cm^2 and a perimeter of 20 cm. The prism has a height of 8 cm. What is the total surface area (in cm^2)?

7) A student reads data from a stem-and-leaf plot and says: "The median is 55 and there are 11 data points." Based only on this information, what position is the median value in the ordered list?

☐ A. Position 5
☐ B. Cannot determine from given information
☐ C. Position 7
☐ D. Position 6

1)



Find the volume of the prism.

☐ A. 20 in^3
☐ B. 30 in^3
☐ C. 40 in^3
☐ D. 60 in^3

2) A painter paints 48 square feet in 2 hours. What is the rate in square feet per hour?

☐ A. 20 square feet per hour
☐ B. 96 square feet per hour
☐ C. 50 square feet per hour
☐ D. 24 square feet per hour

3) A library organizes fiction and non-fiction books in a 9 : 11 ratio. The table shows the collection:

Fiction Books	Non-Fiction Books
9	11
18	22
?	33

☐ A. 25
☐ B. 36
☐ C. 30
☐ D. 27

4) What is $\frac{3}{6}$ as a percent?

☐ A. 30%
☐ B. 36%
☐ C. 50%
☐ D. 60%

5) A baker uses 2 eggs for every 3 cups of flour. If the baker uses 6 cups of flour, how many eggs are needed?

☐ A. 6 eggs
☐ B. 8 eggs
☐ C. 4 eggs
☐ D. 9 eggs

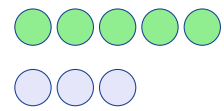
6) Simplify $5a + 2b + 3a + 4b$.

☐ A. $15ab$
☐ B. $8a + 6$
☐ C. $9a + 6b$
☐ D. $8a + 6b$

7) A stem-and-leaf plot has stem = tens digit, leaf = ones digit. If dataset is $\{32, 35, 37, 42, 45, 51\}$, what is the median?

☐ A. 37
☐ B. 39
☐ C. 39.5
☐ D. 42

8) This image shows a collection of marbles.



Green to Purple

If the pattern continues and we have 15 green marbles, how many purple marbles should there be?

☐ A. 5
☐ B. 7
☐ C. 8
☐ D. 9

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.

Tennessee Practice Test Answers and Explanations

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

Practice Test 1 Answers and Explanations

1) **Choice C is correct.** 6.RP.A.1 Divide total cost by number of notebooks: $6.40 \div 8 = 0.80$ dollars per notebook.
2) **Choice B is correct.** 6.EE.B.6 Total pages = pages per day × number of days = $10r$.
3) **Choice C is correct.** 6.EE.B.8 "No greater than 32" means $t \leq 32$, which includes 32 itself. But "below 32" means $t < 32$, excluding 32, so C is not correct.
4) **Choice D is correct.** 6.NS.C.8 Points on the x-axis have a y-coordinate of 0. For a point to be on the positive x-axis, the x-coordinate must be positive. The point $(4, 0)$ satisfies both conditions.
5) **Choice C is correct.** 6.NS.C.7 Negatives come before positives. $-\frac{3}{4} = -0.75 < -\frac{1}{4} = -0.25 < \frac{1}{4} = 0.25 < \frac{3}{4} = 0.75$.
6) **Choice D is correct.** 6.NS.C.8 Distance: $|10 - 2| = 8$ units. The x-coordinate b can be any value; distance depends only on differing coordinates.
7) **Choice D is correct.** 6.NS.B.3 The distance from -3 to 8 is $8 - (-3) = 8 + 3 = 11$ units.
8) **Choice C is correct.** 6.EE.A.1 $11^2 = 11 \times 11 = 121$. This is a two-digit squared number.
9) **Choice D is correct.** 6.EE.A.2 "Three times e" is $3e$. "Decreased by 9" means subtract 9: $3e - 9$.
10) **Choice C is correct.** 6.EE.A.4 Combining like terms: $(5x + 2x) + (3 - 1) = 7x + 2$. The coefficient of x in the simplified expression is 7.
11) **Choice A is correct.** 6.EE.A.2 Substitute: $4(1) + 3(2) - 2(3) = 4 + 6 - 6 = 4$.
12) **Choice B is correct.** 6.EE.B.5 Starting number minus 12 sold equals 28 remaining. So $x - 12 = 28$, giving $x = 40$.
13) **Choice D is correct.** 6.EE.B.8 "At least" means "greater than or equal to," so the inequality is $v \geq 15$.
14) **The correct answer is 6.** 6.EE.A.3 Combine like terms: $4x + 2x = 6x$.
15) **Choice A is correct.** 6.G.A.1 Even for obtuse triangles, $A = \frac{1}{2}bh = \frac{1}{2} \times 15 \times 8 = 60$ in^2.
16) **Choice D is correct.** 6.G.A.1 Area $= 7 \times 2.5 = 17.5$ cm^2. The slant side is not used in the formula.
17) **The correct answer is 15.** 6.EE.C.9 The cost increases by \$30 for every 2 hours. So the rate is $\frac{\$30}{2 \text{ hours}} = \$15$ per hour. Check: 2 h at \$15/h costs \$30; 4 h costs \$60; 6 h costs \$90.
18) **The correct answer is Opposite numbers and equivalent decimals/fractions.** 6.NS.C.6 Statement B is correct because opposites are the same distance from zero on opposite sides. Statement C is correct because $0.25 = \frac{1}{4}$, so $-0.25 = -\frac{1}{4}$. Statements A, D, and E are false.
19) **Choice A is correct.** 6.G.A.2 $V = 4 \times 1.5 \times 2.5 = 6 \times 2.5 = 15$ m^3.
20) **Choice A is correct.** 6.G.A.3 Length $= 8 - 2 = 6$ units; width $= 5 - 2 = 3$ units. Perimeter $= 2(6 + 3) = 18$ units.
21) **Choice A is correct.** 6.G.A.4 A valid cube net (such as a T-shape) folds into exactly one cube (up to rigid motion). There is only one way to fold it without overlaps or gaps.
22) **The correct answer is 36.** 6.G.A.1 Side length: $8 - 2 = 6$ units. Area of square $= 6^2 = 36$ square units.
23) **The correct answer is 13.** 6.SP.A.2 IQR $=$ Q3 $-$ Q1 $= 23 - 10 = 13$.
24) **Choice B is correct.** 6.NS.C.8 Reflection over the y-axis negates the x-coordinate: $(3, 1) \to (-3, 1)$.
25) **Choice B is correct.** 6.RP.A.1 Radius $r = \frac{12}{2} = 6$ in. Area $= \pi r^2 \approx 3.14 \times 6^2 = 3.14 \times 36 = 113.04$ in^2.
26) **Choice A is correct.** 6.SP.A.3 Mean $= 6$, Median $= 3$. The outlier (20) skews the mean upward. The median (3) is more representative of a typical value in this data set.
27) **Choice B is correct.** 6.SP.A.3 Swimmer A's range is 4 seconds, Swimmer B's range is 10 seconds. The smaller range indicates less variation in Swimmer A's times.
28) **Choice C is correct.** 6.SP.B.4 Total: $4 + 9 + 7 + 3 = 23$ plants measured.
29) **Choice C is correct.** 6.SP.B.4 Total readings: $2 + 4 + 3 + 3 = 12$. Readings from 60-79 (stems 6 and 7): $4 + 3 = 7$ out of 12. Percent: $7/12 \approx 58\% \approx 60\%$.

Author's Note

Inventor's Workshop Note

Hi, Math Inventor!

◇ 6 practice tests. 6 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

PRACTICE 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 6 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.

6 PRINTED TESTS

+

2 ONLINE TESTS

PERFECT FOR:

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

BUILD SKILLS. GAIN CONFIDENCE. SUCCEED!

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.

6 FULL-LENGTH PRINTED TESTS

2 ONLINE PRACTICE TESTS

DETAILED ANSWER EXPLANATIONS