

5

Tennessee

TCAP

GRADE 6

MATH

PRACTICE TESTS

Standards Aligned Problem Solving
For Comprehensive Assessment Programs



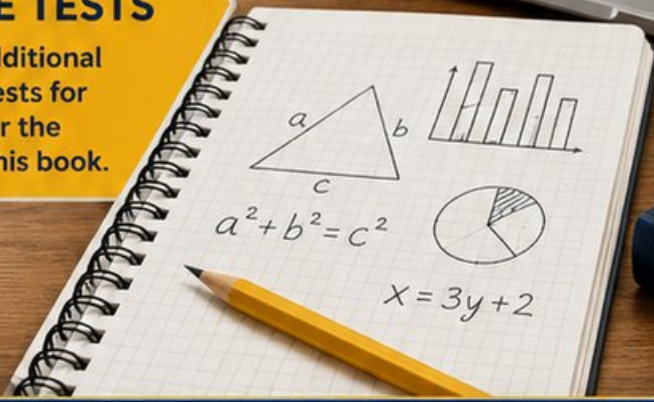
5 PRINTED TESTS

- ✓ Full-Length Practice Tests
- ✓ Realistic Questions
- ✓ Answer Key & Explanations



+ 2 ONLINE TESTS

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



PREPARE • PRACTICE • SUCCEED



5 Tennessee TCAP Grade 6 Math Practice Tests

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



Five 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 five 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 five-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 3–4	Skill-building rounds with expressions, equations, geometry, data, and problem models.
Test 5	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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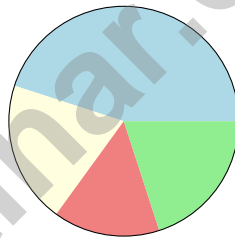
1)

Time (hours)	Distance (miles)
1	60
2	120
3	180
4	d

The table shows a car's distance traveled over time. Which expression represents the distance d at 4 hours?

- A. 60×4 C. $180 - 4$
 B. $120 + 60$ D. $4 + 60$

- 2) A budget is divided into: Housing 45%, Food 20%, Transportation 15%, and Savings. What percent is allocated to savings?



- A. 10% C. 20%
 B. 15% D. 25%

- 3) A bottle contains 3 liters of juice. How many milliliters is this? (Use 1 liter = 1000 milliliters.)

- A. 300 mL C. 30 mL
 B. 3000 mL D. 0.3 mL



8) A student is finding the unit price of shirts. 4 shirts cost \$48. The student divides $4 \div 48$ and gets 0.083. What is the student's error?

- A. Forgot to find the unit rate at all C. Did not round the answer correctly
 B. Divided the quantity by the cost instead of cost by quantity D. Used the wrong operation entirely

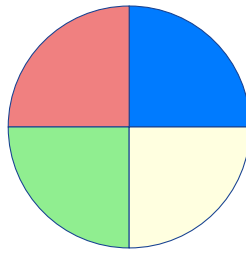
9)

Row	Ratio	Equivalent
A	4 : 12	?
B	6 : 18	2 : 6
C	3 : 9	1 : 3
D	8 : 24	2 : 6

What is the missing equivalent ratio for Row A?

- A. 1 : 3 C. 2 : 4
 B. 2 : 6 D. 3 : 6





1)

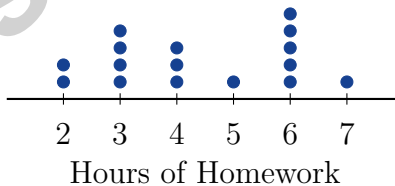
If a circle graph is divided into 4 equal sections, how many degrees is each central angle?

- A. 90°
- B. 72°
- C. 60°
- D. 120°

2) A farmer records the heights of 6 plants: 12, 15, 13, 14, 16, 18 inches. What is the range of the plant heights?

- A. 3
- B. 5
- C. 6
- D. 18

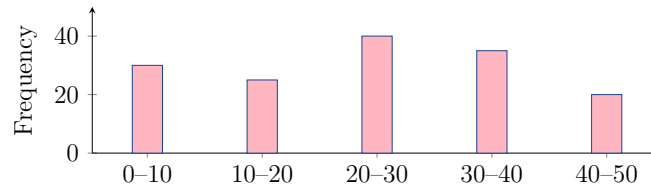
3) The dot plot below shows the number of hours sixth graders spent doing homework in one week. What is the mode (most common value) of the data?



- A. 6 hours
- B. 3 hours
- C. 4 hours
- D. 7 hours



- 5) A histogram shows that the most common range is 20–30 with frequency 40. If the total number of data points is 150, what percentage of data falls in the 20–30 range?



- A. 20% C. 40%
- B. 26.7% D. 33.3%
- 6) Create a stem-and-leaf plot from the data: 34, 38, 42, 45, 41, 39, 44. Which statement is true?
- A. Stem 3 has 2 leaves C. The minimum is 34
- B. Stem 4 has 3 leaves D. All of the above
- 7) A frequency table shows students' favorite lunch types. If the table shows pizza (18 students), sandwich (12 students), pasta (15 students), and salad (5 students), which bar graph would correctly represent this data?
- Which category has the FEWEST students?

- A. Pizza C. Salad
- B. Sandwich D. Pasta



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

Practice Test 1 Answers and Explanations

- 1) **Choice A is correct.** (6.EE.B.6) The pattern is distance = $60 \times$ hours. At 4 hours: $60 \times 4 = 240$ miles.
- 2) **Choice C is correct.** (6.SP.A.1) Savings: $100\% - 45\% - 20\% - 15\% = 20\%$.
- 3) **Choice B is correct.** (6.RP.A.3) Multiply: $3 \times 1000 = 3000$ mL.
- 4) **The correct answer is 15.** (6.SP.B.4) Range = Maximum - Minimum = $20 - 5 = 15$ minutes.
- 5) **Choice D is correct.** (6.RP.A.1) Count the lavender counters first: there are 5. The total is $5 + 2 = 7$, so lavender to total is $5 : 7$.
- 6) **Choice B is correct.** (6.RP.A.3) Choice B keeps the same order: apples first, oranges second. The phrase and the ratio both say $3 : 7$.
- 7) **Choice B is correct.** (6.RP.A.1) From the double number line, 1 hour equals 60 minutes. This is the standard conversion rate.
- 8) **Choice B is correct.** (6.RP.A.2) The correct calculation is $\$48 \div 4 = \12 per shirt. The student reversed the division, computing $4 \div 48$ instead of $48 \div 4$. Unit price requires cost per unit, not units per cost.
- 9) **Choice A is correct.** (6.RP.A.3) Row A is $4 : 12$, which simplifies to $1 : 3$ by dividing both terms by 4. All rows show equivalent ratios that simplify to $1 : 3$.
- 10) **Choice D is correct.** (6.RP.A.3) The unit rate is $8 \div 2 = 4$ oz per serving. Verify: $12 \div 3 = 4$ oz per serving ✓; $16 \div 4 = 4$ oz per serving ✓.
- 11) **Choice C is correct.** (6.RP.A.1) $\frac{15}{50} = \frac{30}{100} = 30\%$ (multiply numerator and denominator by 2).
- 12) **Choice D is correct.** (6.RP.A.3) 20% of $\$24 = 0.20 \times 24 = \4.80 . Final price is $\$24 - \$4.80 = \$19.20$.
- 13) **Choice B is correct.** (6.RP.A.3) Step 1: Rate is $120 \div 2 = 60$ mph. Step 2: Distance in 5 hours is $60 \times 5 = 300$ miles.
- 14) **Choice B is correct.** (6.SP.A.1) Tax: 8% of $\$64 = 0.08 \times 64 = \5.12 . Total: $\$64 + \$5.12 = \$69.12$.
- 15) **Choice A is correct.** (6.RP.A.3) Multiply: $3.5 \times 15 = 52.5$ miles.
- 16) **Choice C is correct.** (6.NS.A.1) Change $3\frac{1}{2}$ to $\frac{7}{2}$, then divide by multiplying by $\frac{4}{3}$: $\frac{7}{2} \times \frac{4}{3} = \frac{28}{6}$, which simplifies to $\frac{14}{3}$ or $4\frac{2}{3}$ lengths along the trail.
- 17) **Choice A is correct.** (6.NS.B.2) $8,064 \div 42 = 192$. Check: $42 \times 192 = 8,064$.
- 18) **The correct answer is Range and IQR as defined; MAD is non-negative.** (6.SP.A.3) A is correct: range is max - min. B is correct: IQR is the spread of the middle 50% ($Q3 - Q1$). C is false because MAD is always non-negative. D is false because range alone does not guarantee consistency. E is false because MAD uses distances from the mean.
- 19) **The correct answer is 71.5.** (6.SP.B.4) In order: 67, 68, 71, 72, 74, 75. With 6 values, the median is the average of the 3rd and 4th values: $(71 + 72) / 2 = 71.5$.
- 20) **Choice A is correct.** (6.NS.B.3) $52 \times 3 = 156$. Since 5.2 has one decimal place, the product is 15.6.
- 21) **Choice B is correct.** (6.NS.B.4) This is a GCF problem. Since $52 = 2 \times 26$ and $78 = 3 \times 26$, the greatest common factor is 26. They can make 26 shelves with 2 fiction books and 3 non-fiction books on each shelf.
- 22) **Choice C is correct.** (6.NS.B.4) Find GCF(36, 48). Factors of 36: 1, 2, 3, 4, 6, 9, 12, 18, 36. Factors of 48: 1, 2, 3, 4, 6, 8, 12, 16, 24, 48. Common factors: 1, 2, 3, 4, 6, 12. GCF is 12. So Maria can make 12 groups with 3 pencils and 4 erasers each.
- 23) **Choice D is correct.** (6.NS.C.5) The student went from $+25$ to -5 . The change is $-5 - 25 = -30$, meaning the lunch cost 30 dollars.
- 24) **Choice B is correct.** (6.EE.B.8) Absolute value $|-25| = 25$ represents the magnitude of the temperature change, not its direction.
- 25) **Choice C is correct.** (6.NS.C.6) $\frac{2}{5} = \frac{4}{10} = 0.4$, so $-\frac{2}{5} = -0.4$.



Math Detective at Work

Hi, Math Detective!

◇ You did such a great job! You finished 5 tests like a real detective. You found the clues, used your tools, and solved the math. ◇

★ **Detectives know:** good work takes time. You took your time. You looked carefully. You found the answers! ★

Your Detective Skills

- **Sharp Eyes:** You notice the small details.
- **Smart Plans:** You pick the right way to solve.
- **Brave Heart:** You try even when it's tricky.
- **Steady Work:** You finish what you start.

Detective tip: on test day, look carefully at each problem. Underline important words. Then solve like the detective you are!

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

Jay Daie

Your Math Detective Helper

PRACTICE MORE. ACHIEVE MORE.

This book provides **5 full-length Math practice tests** designed to help Grade 6 students strengthen their skills, build confidence, and excel on standardized assessments.

Each test is carefully crafted to reflect the latest standards and covers a wide range of math topics with realistic questions and detailed answer explanations.



BUILD CONFIDENCE

Practice builds familiarity and reduces test anxiety.



IMPROVE ACCURACY

Sharpen skills and avoid common mistakes.



ACHIEVE SUCCESS

Consistent practice leads to greater results.

WHAT'S INSIDE?



5 Full-Length Practice Tests

Realistic tests designed to mirror actual exam conditions.



Realistic Questions

A variety of question types to strengthen problem-solving skills.



Answer Keys & Explanations

Detailed solutions to help students learn and improve.



Performance Tracking

Track progress and identify areas that need improvement.



Comprehensive Coverage

All essential topics aligned with Grade 6 math standards.



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PREPARE TODAY. **SUCCEED TOMORROW!**