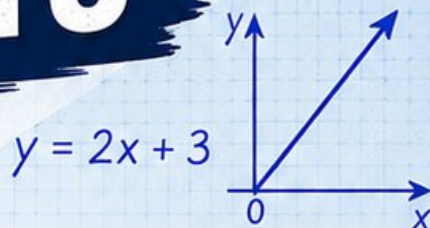


3 Tennessee TCAP

GRADE
6
MATH

PRACTICE TESTS

Standards Aligned Problem Solving
For Comprehensive Assessment Programs



$$\frac{3}{5} + \frac{2}{10} = \frac{8}{10} = \frac{4}{5}$$

$36\% \text{ of } 150 = ?$



3 | PRINTED
TESTS



2 | ONLINE
TESTS



Build
Confidence



Master Key
Math Skills



Answer Explanations
for Every Question

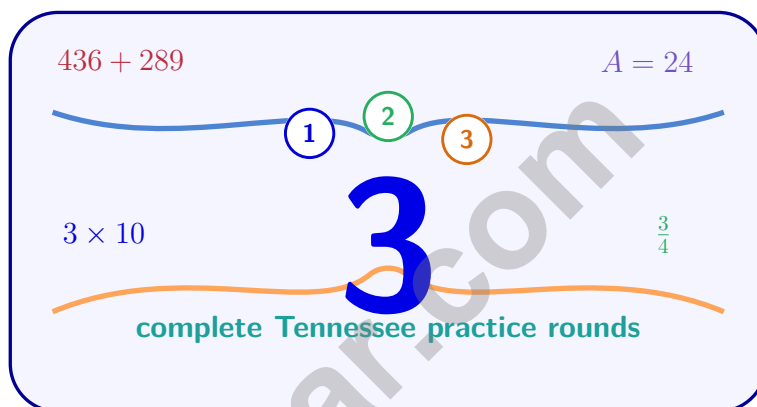


Test-Taking
Strategies That Work

USE THESE TWO
ADDITIONAL ONLINE
PRACTICE TESTS
FOR EXTRA REVIEW AFTER
THE PRINTED TESTS
IN THIS BOOK.

3 Tennessee TCAP Grade 6 Math Practice Tests

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



Three 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!

Three focused rounds using volunteer-state math rhythm

This book gives you three 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 three-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?

Three TCAP tests, 120 questions, and a full review path

Part	What You Will Practice
Tests 1–2	Foundation rounds for ratios, rational numbers, operations, and careful reading.
Test 3	Final stamina round for expressions, equations, geometry, data, problem models, and mixed review.
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.



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For more practice
& answers

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- 1) Which measure of center is LEAST affected by outliers?
- A. Median C. Mode
 B. Mean D. Range
- 2) What is $(-8) \times (-3)$?
- A. -24 C. 24
 B. 11 D. -11
- 3) The interquartile range of a dataset is 18. If $Q_1 = 32$, what is Q_3 ?
- A. 14 C. 68
 B. 32 D. 50
- 4) A survey shows that the probability a person likes ice cream is 90%. What is the probability that a person does **not** like ice cream?
- A. 0.1 C. 0.5
 B. 0.2 D. 0.9
- 5) A student graphed the relationship between tickets sold and money earned. The graph is a straight line passing through $(0, 0)$ and $(8, 32)$. What is the slope of this line?
- A. $\frac{1}{4}$ C. $\frac{1}{8}$
 B. 4 D. 8



- 6) A library has 250 books. If 150 books are checked out, what percent are checked out?
- A. 60% C. 40%
- B. 50% D. 100%
- 7) A recipe calls for \$12 worth of ingredients. The ingredients are on sale for 25% off. How much will the ingredients cost?
- A. \$3 C. \$9
- B. \$6 D. \$12
- 8) The ratio of length to width of a rectangle is 7 : 4. If the width is 20 cm, what is the length?
- A. 28 cm C. 40 cm
- B. 30 cm D. 35 cm
- 9) A recipe calls for 3 cups of milk. A student incorrectly divided by 8 instead of multiplying. What error did the student make?
- A. The student was converting to fluid ounces correctly C. The conversion factor is wrong
- B. The student should multiply: $3 \times 8 = 24$ fluid ounces D. Dividing is the correct operation
- 10) A clothing store offers layered discounts: first take 20% off, then take an additional 10% off the already-reduced price. If an item originally costs \$100, what is the final price?
- A. \$70 C. \$80
- B. \$90 D. \$72



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- 11) A table compares yards and meters with a constant ratio column. Which table represents a proportional relationship?

Yards (A)	1	2	3	$\frac{m}{y}$
Meters (A)	0.9	1.8	2.7	0.9
Yards (B)	1	2	3	$\frac{m}{y}$
Meters (B)	0.8	1.7	2.5	?

- A. Option A only C. Both are proportional
 B. Option B only D. Neither is proportional
- 12) A jar contains red and blue marbles. The ratio of red to blue is 3 : 5. If there are 18 red marbles, how many blue marbles are in the jar?

- 13) A household plans to save \$200 per month for a vacation. How much will they save in 2 years?
- A. \$2400 C. \$4000
 B. \$3200 D. \$4800
- 14) A map shows two different regions using different scales. Region X has a scale of 1 inch = 2 km and is drawn as 5 inches. Region Y has a scale of 1 inch = 1 km and is drawn as 8 inches. Which region represents a larger actual distance?
- A. Region X (10 km) C. Both are equal
 B. Region Y (8 km) D. Insufficient information



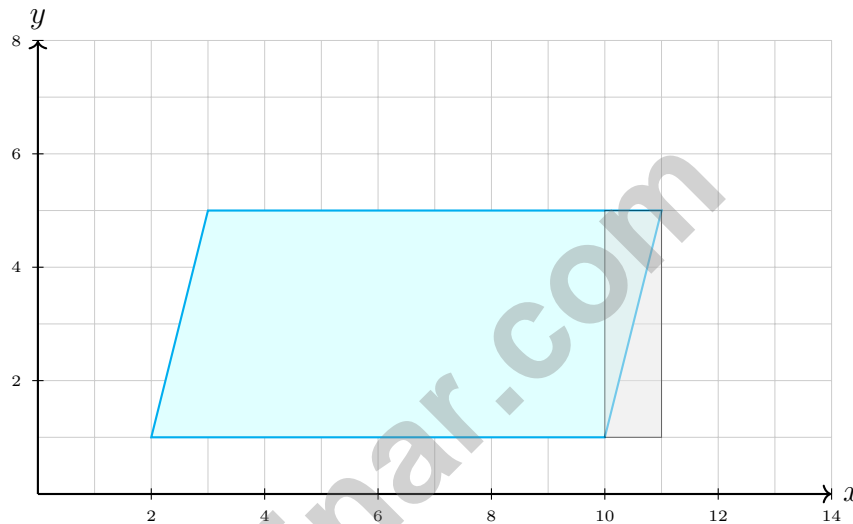
1) A question expects variability and requires collecting data from multiple sources. Which word BEST describes this question?

A. Factual

C. Quick

B. Simple

D. Statistical



2)

A trapezoid has parallel sides (bases) of 8 units and 8 units, with a height of 4 units. What is its area?

A. 28 square units

C. 36 square units

B. 32 square units

D. 40 square units

3) If a rectangular prism has length 12 cm, width 9 cm, and height 6 cm, what is the lateral surface area (area of the 4 vertical faces, not including top and bottom)?

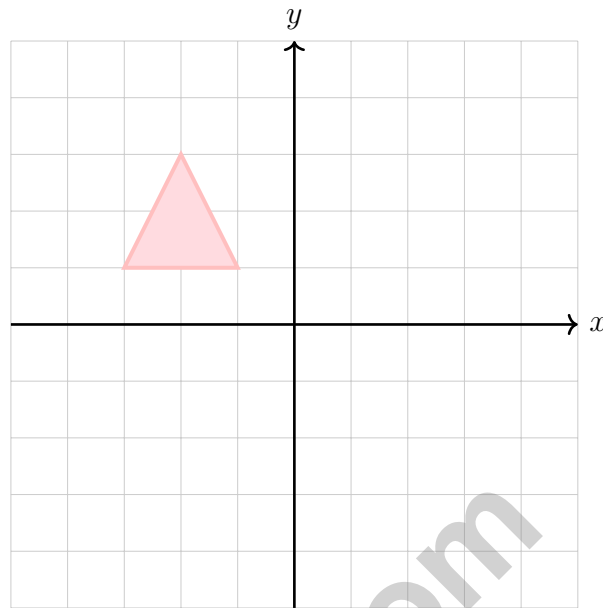
A. 108 cm^2

C. 216 cm^2

B. 180 cm^2

D. 252 cm^2

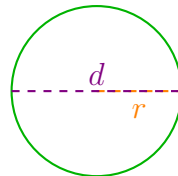




4)

A triangle has vertices at $(-3, 1)$, $(-1, 1)$, and $(-2, 3)$. If it is reflected over the x -axis, what will be the image of the vertex at $(-2, 3)$?

- | | |
|--|---------------------------------------|
| <input type="checkbox"/> A. $(2, 3)$ | <input type="checkbox"/> C. $(-2, 3)$ |
| <input type="checkbox"/> B. $(-2, -3)$ | <input type="checkbox"/> D. $(2, -3)$ |



5)

Relationship: $d = 2r$

If the radius of a circle is 9 inches, what is the diameter?

- | | |
|--|---------------------------------------|
| <input type="checkbox"/> A. 4.5 inches | <input type="checkbox"/> C. 18 inches |
| <input type="checkbox"/> B. 9 inches | <input type="checkbox"/> D. 81 inches |



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- 1) A stock gained \$8 one day and lost \$3 the next day. What is the net change?
- A. -11 dollars C. 5 dollars
 B. -5 dollars D. 11 dollars
- 2) A submarine at -300 feet relative to sea level moves up 75 feet. What is its new depth?

- 3) A student's score on a test depends on the number of questions answered correctly. In this situation, which variable is dependent?
- A. The test C. The student's score
 B. The number of questions answered correctly D. The difficulty of the test
- 4) If a triangle has an area of 104 in^2 and a base of 13 inches, what is the height?
- A. 8 in C. 26 in
 B. 16 in D. 52 in
- 5) A parallelogram has a base of 20 cm and an area of 140 cm^2 . What is its height?
- A. 5 cm C. 9 cm
 B. 7 cm D. 14 cm



6) A rectangular prism has dimensions 5 cm by 5 cm by 2 cm. What is the volume?

A. 12 cm^3

C. 50 cm^3

B. 25 cm^3

D. 75 cm^3

7) A triangle has vertices at $(1, 1)$, $(5, 1)$, and $(3, 5)$. What is the length of the base?

A. 3 units

C. 5 units

B. 4 units

D. 6 units

8) On a number line, point A is at -3 and point B is at 4 . What is the distance between the two points?

9) Error Analysis: A student claims, "The question 'How old is my parent?' is statistical because I need to ask my parent to find the answer."

What is the error in this reasoning?

A. Parents don't like to share their age.

C. Your parent will not give an accurate answer.

B. Statistical questions are always asked in school.

D. Asking someone a question does not make it statistical.

10) The point $(3, 2)$ is reflected across the x -axis. What are the coordinates of the reflected point?



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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.



Tennessee Practice Test Answers and Explanations

Review the three 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.SP.A.2)** The median is the middle value and is not affected by how extreme outliers are. The mean is pulled by outliers; range includes them; mode may or may not be.
- 2) **Choice C is correct.** **(6.NS.B.3)** Negative times negative equals positive: $(-8) \times (-3) = 24$.
- 3) **Choice D is correct.** **(6.RP.A.1)** $Q_3 = Q_1 + \text{IQR} = 32 + 18 = 50$.
- 4) **Choice A is correct.** **(6.RP.A.1)** Probability of not liking ice cream = $1 - 0.9 = 0.1$ or 10%.
- 5) **Choice B is correct.** **(6.RP.A.3)** The slope is $\frac{\text{rise}}{\text{run}} = \frac{32-0}{8-0} = \frac{32}{8} = 4$. This represents \$4 per ticket.
- 6) **Choice A is correct.** **(6.RP.A.1)** $\frac{150}{250} = \frac{3}{5} = \frac{60}{100} = 60\%$.
- 7) **Choice C is correct.** **(6.RP.A.3)** 25% of \$12 = $0.25 \times 12 = \$3$. New cost is $\$12 - \$3 = \$9$.
- 8) **Choice D is correct.** **(6.RP.A.3)** Ratio 7 : 4 with width 20 cm: each part is $20 \div 4 = 5$ cm. Length is $7 \times 5 = 35$ cm.
- 9) **Choice B is correct.** **(6.RP.A.3)** Converting cups to fluid ounces requires multiplying by 8, not dividing. $3 \times 8 = 24$ fl oz.
- 10) **Choice D is correct.** **(6.SP.A.1)** After first discount: $\$100 - 0.20 \times 100 = \80 . After second discount: $\$80 - 0.10 \times 80 = \72 .
- 11) **Choice A is correct.** **(6.RP.A.3)** Option A has a constant m/y ratio: $0.9/1 = 1.8/2 = 2.7/3 = 0.9$. Option B does not: $0.8/1 = 0.8$, $1.7/2 = 0.85$, and $2.5/3 \approx 0.83$.
- 12) **The correct answer is 30.** **(6.RP.A.3)** Red marbles are the 3-part amount. Since $18 \div 3 = 6$, each part is worth 6 marbles, and blue marbles are 5 parts: $5 \times 6 = 30$.
- 13) **Choice D is correct.** **(6.SP.A.1)** 2 years = 24 months. Total savings: $\$200 \times 24 = \4800 .
- 14) **Choice A is correct.** **(6.RP.A.3)** Region X: $5 \times 2 = 10$ km. Region Y: $8 \times 1 = 8$ km. Region X is larger.
- 15) **Choice B is correct.** **(6.NS.A.1)** $5 \div \frac{5}{6} = 5 \times \frac{6}{5} = \frac{30}{5} = 6$.
- 16) **Choice C is correct.** **(6.NS.B.2)** The number line shows the relationship: 0 to 4,392 on the bottom corresponds to 0 to 244 on the top. The quotient is the top label, which is 244. Verify: $18 \times 244 = 4,392$.
- 17) **Choice A is correct.** **(6.NS.B.3)** Work left to right: $9.6 - 2.7 = 6.9$, then $6.9 + 1.1 = 8.0$.
- 18) **Choice A is correct.** **(6.NS.B.4)** Following the tree: $60 = 6 \times 10 = (2 \times 3) \times (2 \times 5) = 2 \times 2 \times 3 \times 5 = 2^2 \times 3 \times 5$.
- 19) **Choice D is correct.** **(6.NS.B.4)** Factors of 16: 1, 2, 4, 8, 16. Factors of 40: 1, 2, 4, 5, 8, 10, 20, 40. Common factors: 1, 2, 4, 8. GCF is 8.
- 20) **The correct answer is Girls to boys is 10 : 15 = 2 : 3 (Choice A is correct). Boys to total is 15 : 25 = 3 : 5 (Choice B is correct)..** **(6.RP.A.1)** Choice A is correct because girls to boys is 10 : 15, which simplifies to 2 : 3. Choice B is correct because boys to total is 15 : 25, which simplifies to 3 : 5. The other choices either flip the order, swap which group is named first, or use the wrong total (10 girls out of 25 students is 2 : 5, not 1 : 3).
- 21) **Choice A is correct.** **(6.NS.C.5)** Opposites are two numbers that are the same distance from zero but on opposite sides of zero. 3 is 3 units right of zero, and -3 is 3 units left of zero.
- 22) **The correct answer is 40 miles per hour.** **(6.RP.A.1)** Divide distance by time: $360 \div 9 = 40$ miles per hour.
- 23) **Choice C is correct.** **(6.EE.B.8)** Computing: $|-11| = 11$, $|-7| = 7$, $|4| = 4$, $|-9| = 9$. The smallest is 4.
- 24) **Choice D is correct.** **(6.NS.C.6)** Distance = $1.5 - (-3.5) = 1.5 + 3.5 = 5$.
- 25) **Choice B is correct.** **(6.NS.C.8)** To estimate closeness, compare the absolute values of the coordinates. The point (3, -2) has the smallest coordinate values ($|3| = 3$ and $|-2| = 2$), making it closest to the origin (0,0).
- 26) **Choice D is correct.** **(6.NS.C.7)** Bob has a score of -3, which is the lowest of all scores: $-3 < -1 < 5 < 8$.
- 27) **Choice A is correct.** **(6.NS.C.8)** Since $|x - 8| = 5$, then $x = 8 - 5 = 3$ or $x = 8 + 5 = 13$.
- 28) **Choice C is correct.** **(6.NS.B.3)** The distance from -8 to 6 is $6 - (-8) = 6 + 8 = 14$ units.



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Hi, Math Champion!

◇ You trained hard! 3 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.

Jay Daie

Your Math Coach

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