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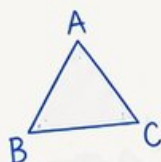
Ohio OST

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 Ohio OST Grade 6 Math Practice Tests

Standards-Aligned Buckeye-State Problem Solving for Ohio's State Tests



Six complete 40-question Grade 6 practice rounds for OST, built for Buckeye-state problem solving 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, Ohio Math Explorer!

Eight focused rounds using Buckeye-state problem solving

This book gives you six full Grade 6 practice tests for OST. Each round uses lake edges, city routes, and classroom-ready strategy as a fresh mental backdrop while you read closely, choose a smart strategy, show your work, and check whether your answer makes sense.

Your Ohio Practice Promise

Use a clear game plan: underline the task, write the math, and check the choice.

Read

Plan

Check

How to Use This Book

A six-session routine for Buckeye-state problem solving

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

Ohio review rhythm: Take a round, review what changed your answer, and carry that habit forward.



What Is Inside?

Eight OST 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. Buckeye-state problem solving 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) In a box plot, what does the left edge of the box represent?
- A. The minimum C. The median
 B. Q_1 D. The mean
- 2) A plant must grow to a height of more than 12 inches to be considered mature. Which inequality represents the height h ?
- A. $h \geq 12$ C. $h < 12$
 B. $h \leq 12$ D. $h > 12$
- 3) A trapezoid has an area of 48 m^2 and a height of 6 m. One base is 5 m long. What is the length of the other base?
- A. 5 m C. 11 m
 B. 8 m D. 16 m
- 4) What is the GCF of 26 and 39?
- A. 13 C. 39
 B. 26 D. 2
- 5) A student had 25 dollars. After buying lunch, the student has -5 dollars (meaning the student owes 5 dollars). How much did lunch cost?
- A. 20 dollars C. 5 dollars
 B. 25 dollars D. 30 dollars



6) Which number has an absolute value of 20?

A. 20 only

C. Only zero

B. -20 only

D. Both 20 and -20

7) Which pair of numbers are NOT equivalent on the number line?

A. $-\frac{1}{2}$ and -0.5

C. $-\frac{1}{4}$ and -0.4

B. $\frac{3}{4}$ and 0.75

D. -2 and $-\frac{6}{3}$

8) An elevator is at floor 8. It descends 11 floors. At which floor is the elevator now?

Start: Floor 8



Descend 11 floors



End: Floor ?

A. -3

C. 19

B. 3

D. -19

9) A temperature drops by 7° per hour. After 5 hours, what is the total change in temperature?

A. 35°

C. 2°

B. -35°

D. 12°

10) A recipe calls for 3 cups of flour. Maya accidentally used 2 cups less. How much flour did she use?

A. 5 cups

C. 2 cups

B. 1 cup

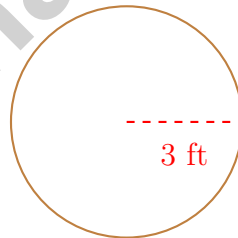
D. -1 cup



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- 1) A toy manufacturer creates building blocks in red and blue. The ratio of red to blue is 7 : 5. Which statement is always true?
- A. There are 7 red blocks and 5 blue blocks.
- B. There are 12 blocks total.
- C. Blue blocks are twice as many as red blocks.
- D. For every 7 red blocks there are 5 blue blocks.
- 2) Is this a statistical question? “What is the price of a loaf of bread at the grocery store?” Explain why or why not.

Circular Pool

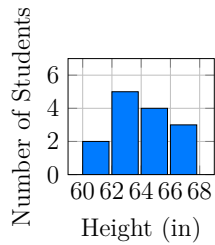


- 3)
- A circular pool has a radius of 3 feet. What is the approximate area using $\pi \approx 3.14$?
- A. 9.42 ft²
- B. 18.84 ft²
- C. 28.26 ft²
- D. 56.52 ft²



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- 4) The histogram shows the heights (in inches) of students in a class. Which interval contains the most students?

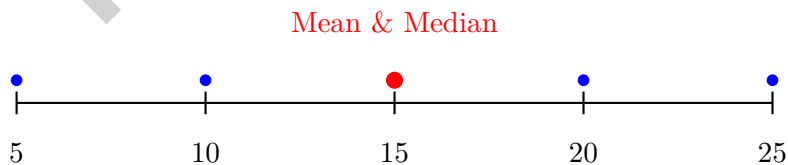


- A. 60–62 inches C. 64–66 inches
 B. 62–64 inches D. 66–68 inches
- 5) The table below shows the cost of renting a canoe.

Hours	2	4	6
Cost (\$)	30	60	90

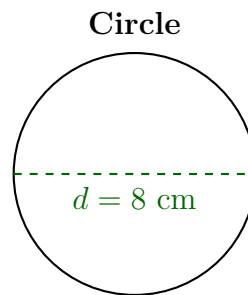
What is the cost per hour to rent the canoe?

- 6) Find the mean of the 5 values shown. Which also equals the median?



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



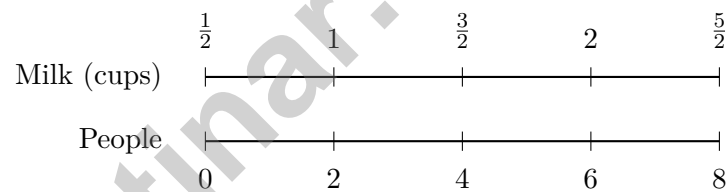


1)

The circle above has a diameter of 8 cm. Which expression finds its area?

- A. $\pi \times 8$ C. $\pi \times 4^2$
 B. $\pi \times 8^2$ D. $2 \times \pi \times 4$

2) A recipe serves 2 people and uses $\frac{1}{2}$ cup of milk. How much milk is needed to serve 8 people?

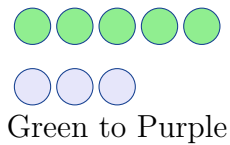


- A. $\frac{1}{2}$ cup C. 2 cups
 B. 1 cup D. 4 cups



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& answers

3) This image shows a collection of marbles.



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

- A. 5 C. 8
 B. 7 D. 9

4) A bag contains 9 marbles. If the probability of drawing a green marble is $\frac{1}{3}$, how many green marbles are in the bag?

5) A recipe calls for $\frac{1}{2}$ cup of sugar for 12 cookies. What is the rate in cups per cookie?

- A. $\frac{1}{24}$ cup per cookie C. $\frac{1}{6}$ cup per cookie
 B. $\frac{1}{12}$ cup per cookie D. $\frac{1}{2}$ cup per cookie

6) A jacket's original price is unknown. After a 25% discount, it costs \$75. What was the original price?

- A. \$100 C. \$56.25
 B. \$93.75 D. \$150



Ohio OST Practice Test Answer Keys

How to use this Ohio OST 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 Buckeye-state problem solving

3. rework the problem before reading the full explanation, using this reminder:
Use a clear game plan: underline the task, write the math, and check the choice.

A calm Ohio correction routine turns every missed item into useful practice. Take a round, review what changed your answer, and carry that habit forward.



Scan me!
For more practice
& answers

Ohio Practice Test Answers and Explanations

Review the six printed OST tests with prepared, steady, and ready for the next question habits.

Practice Test 1 Answers and Explanations

- 1) **Choice B is correct.** **(6.RP.1)** The left edge of the box is Q_1 , the first quartile.
- 2) **Choice D is correct.** **(6.EE.8)** “More than 12” means strictly greater: $h > 12$.
- 3) **Choice C is correct.** **(6.G.1)** Using $A = \frac{1}{2}(b_1 + b_2) \times h$: $48 = \frac{1}{2}(5 + b_2) \times 6 = 3(5 + b_2) = 15 + 3b_2$, so $3b_2 = 33$ and $b_2 = 11$ m.
- 4) **Choice A is correct.** **(6.NS.4)** Factors of 26: 1, 2, 13, 26. Factors of 39: 1, 3, 13, 39. Common factors: 1, 13. GCF is 13.
- 5) **Choice D is correct.** **(6.NS.5)** The student went from +25 to -5. The change is $-5 - 25 = -30$, meaning the lunch cost 30 dollars.
- 6) **Choice D is correct.** **(6.NS.7c)** $|20| = 20$ and $|-20| = 20$. Both positive and negative numbers can have the same absolute value.
- 7) **Choice C is correct.** **(6.NS.6c)** $-\frac{1}{4} = -0.25$, not -0.4 . The other pairs are equivalent.
- 8) **Choice A is correct.** **(6.NS.3)** Starting floor: 8. Descending 11 floors: $8 + (-11) = -3$.
- 9) **Choice B is correct.** **(6.NS.3)** A drop of 7° per hour for 5 hours: $(-7) \times 5 = -35^\circ$. The temperature decreases by 35° total.
- 10) **Choice B is correct.** **(6.EE.3)** Using less means: $3 - 2 = 1$ cup of flour.
- 11) **Choice D is correct.** **(6.EE.1)** First, compute the exponent: $10^2 = 100$. Then divide: $100 \div 5 = 20$. Finally add: $20 + 3 = 23$.
- 12) **Choice A is correct.** **(6.EE.2b)** In the term $0.75p$, the coefficient 0.75 is the unit rate (cost per pen). The variable p is multiplied by this rate.
- 13) **Choice C is correct.** **(6.EE.2c)** Substitute $p = 4$: $T = 12.5(4) + 8 = 50 + 8 = 58$ dollars.
- 14) **Choice B is correct.** **(6.EE.6)** Receiving money means adding to what he already has: $12 + d$.
- 15) **Choice C is correct.** **(6.EE.5)** Add 7 to both sides: $x = 13 + 7 = 20$.
- 16) **Choice B is correct.** **(6.EE.9)** Earnings equal hourly rate multiplied by hours worked: $E = 15h$.
- 17) **Choice A is correct.** **(6.G.3)** One side has length $9 - 2 = 7$ units. If the width is 5, the adjacent side extends 5 units horizontally from (3, 2) to (8, 2).
- 18) **Choice A is correct.** **(6.NS.8)** The translation is 5 units right, so the distance moved in the x -direction is 5 units.
- 19) **The correct answer is Both scenarios require rounding up because partial containers/buses must be counted as whole units..** **(6.NS.2)** A is correct: $5,432 \div 32 = 169$ remainder 24, so 170 crates are needed. C is correct: $6,250 \div 48 = 130$ remainder 10, so 131 buses are needed. B, D, and E distribute items equally with no rounding needed (they divide evenly or we report the quotient with remainder).
- 20) **Choice B is correct.** **(6.RP.1)** From $A = \pi r^2$, we get $50.24 \approx 3.14 \times r^2$, so $r^2 \approx 16$, thus $r = 4$ cm.
- 21) **The correct answer is 30.** **(6.EE.3)** $5(x + 6) = 5x + 30$, so the constant term is 30.
- 22) **Choice D is correct.** **(6.SP.2)** The peak on the left with a tail extending right indicates a right-skewed distribution, where a few high scores pull the distribution to the right.
- 23) **Choice D is correct.** **(6.SP.2)** With 7 values, the median is the 4th value when ordered: 0.5, 0.8, 1.2, 1.5, 2.5, 2.8, 3.1. Median is 1.5.
- 24) **Choice C is correct.** **(6.NS.3)** Favorable outcomes: 1, 2, 3, 4 (four outcomes). Total outcomes: 6. Probability = $\frac{4}{6} = \frac{2}{3}$.
- 25) **The correct answer is 3.** **(6.EE.8)** The boundary value is the number in the inequality, 3.
- 26) **The correct answer is 28.** **(6.G.1)** Base: $10 - 2 = 8$ units. Height: $8 - 1 = 7$ units. Area = $\frac{1}{2} \times 8 \times 7 = 28$ square units.
- 27) **Choice A is correct.** **(6.SP.4)** The smallest value in the plot is found by taking the smallest stem (14) with its smallest leaf (0), giving 140 cm.
- 28) **Choice B is correct.** **(6.SP.1d)** $\frac{7}{16} \times 560 = \frac{3920}{16} = 245$ employees.



Scan me!
For more practice
& answers

Hi, Strong Climber!

◇ You climbed all 6 tests. One step at a time. That takes patience and grit. The view from the top is amazing because you earned it! ◇

★ **Mountain guides say:** steady steps win the climb. You climbed steady. You stayed strong. ★

Climber's Skills

- **Strong Steps:** You move forward, problem by problem.
- **Steady Pace:** You don't rush. You don't stop.
- **Map Skills:** You read questions carefully.
- **Top of the Mountain:** You can finish a long test.

Guide's tip: on test day, take small breaths between problems. One foot, then the next. You'll reach the top!

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

Jay Daie

Your Math Trail Guide

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