

9

Ohio OST

GRADE

6

MATH

PRACTICE TESTS

Standards-Aligned Review
Mixed Practice & Answer Key



9 PRINTED TESTS

Realistic practice to build confidence and mastery



DETAILED ANSWER EXPLANATIONS

Learn with step-by-step solutions



FOCUSED & EFFECTIVE

Target key math skills with purposeful practice



BUILD CONFIDENCE

Strengthen problem solving and test-taking skills



9 PRINTED TESTS
+2 ONLINE TESTS

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

PRACTICE TODAY.
SUCCEED TOMORROW.



PRACTICE



REVIEW



SUCCEED

9 Ohio OST Grade 6 Math Practice Tests

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



Nine 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!

Nine focused rounds using Buckeye-state problem solving

This book gives you nine 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 nine-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?

Nine OST tests, 360 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.
Tests 7–9	Final stamina rounds 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.

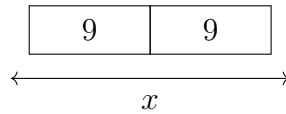


Scan me!
For more practice
& answers

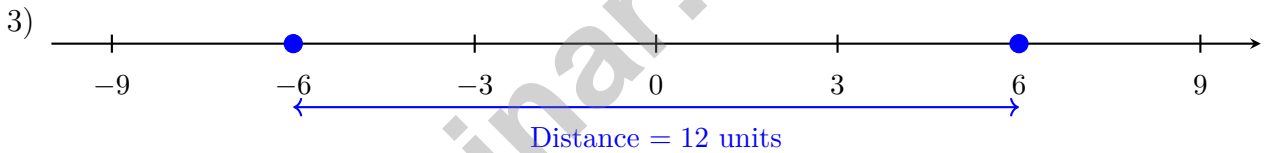
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- 1) A bar model shows a number split into two equal parts. Each part is 9. Which equation and solution is correct?



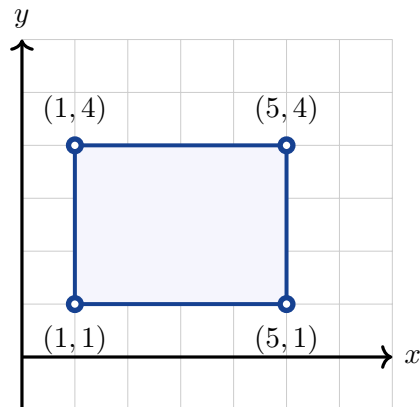
- A. $\frac{x}{2} = 9; x = 18$
 C. $2x = 9; x = 4.5$
 B. $x + 2 = 9; x = 7$
 D. $\frac{x}{2} = 9; x = 4.5$
- 2) On a number line, which integer has an absolute value of 7?
- A. Only 7
 D. Neither; absolute value is not defined for 7
 B. Only -7
 C. Both 7 and -7



On a number line, the distance between -6 and 6 is:

- A. 0
 C. 12
 B. 6
 D. -12





4)

A rectangle has vertices at $(1, 1)$, $(5, 1)$, $(5, 4)$, and $(1, 4)$. What is the area?

- A. 9 square units
- B. 18 square units
- C. 15 square units
- D. 12 square units

5) A gym membership cost follows the pattern shown in the table. How much would 8 months of membership cost?

Months	Cost (\$)
2	50
8	?



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& answers

6) Find the LCM of 7 and 11.

A. 18

C. 70

B. 77

D. 88

7) Expand $12(1 + 4)$.

A. $12 + 48$

C. $1 + 4$

B. $12 + 4$

D. 60

8) On a number line, point X is at -3.5 and point Y is at 1.5 . What is the distance between points X and Y?

A. 2

C. 6

B. 3

D. 5

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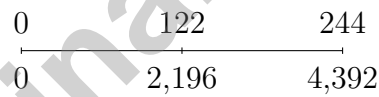
- 1) Which net cannot fold into a cube without overlapping faces?
- A. T-shaped net with 6 squares C. Cross with 6 squares
 B. Zigzag with 6 squares D. Straight line of 6 squares
- 2) Elena’s income is \$400 per month. After saving 35%, how much does she have available for spending and expenses?

Savings 35%	Available 65%
----------------	------------------

Income = \$400

- A. \$140 C. \$260
 B. \$165 D. \$385

Double Number Line: $4,392 \div 18$

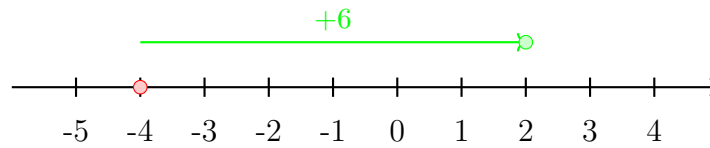


- 3) According to the number line, what is $4,392 \div 18$?
- A. 122 C. 244
 B. 200 D. 220
- 4) A pencil is 0.15 meters long. A pen is 0.08 meters long. How much longer is the pencil?
- A. 0.07 meters C. 0.07 cm
 B. 0.23 meters D. 1.87 meters



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5) Which number line correctly shows $-4 + 6 = 2$?



- A. Arrow goes from -4 right 6 to 2 C. Arrow goes from 0 right 6 to 6
 B. Arrow goes from -4 left 6 to -10 D. Arrow goes from 4 right 6 to 10

6) Maria has 30 beads and 45 beads of two different colors. She wants to make identical bracelets with no beads left over. What is the greatest number of bracelets she can make?

- A. 15 bracelets C. 5 bracelets
 B. 10 bracelets D. 30 bracelets

7) Which pair of numbers are opposites on a number line (equal distance from 0 but opposite sides)?

- A. -3 and 3 C. -1 and 0
 B. -2 and 4 D. 2 and 2.5



8)

If $A = 1$ and $B = 4$, order $-A$, $-B$, and 0 .

- A. $-B < -A < 0$ C. $0 < -A < -B$
 B. $-A < -B < 0$ D. $-B = -A$

1) If $|x| = 9$, which value(s) could x be?

A. 9 only

C. Undefined

B. -9 only

D. Both 9 and -9

2) A stem-and-leaf plot shows daily temperatures (in $^{\circ}\text{F}$) recorded during winter:

Stem	Leaf
3	2, 5, 9
4	1, 4, 6, 8
5	0, 3, 7

How many temperatures are recorded?

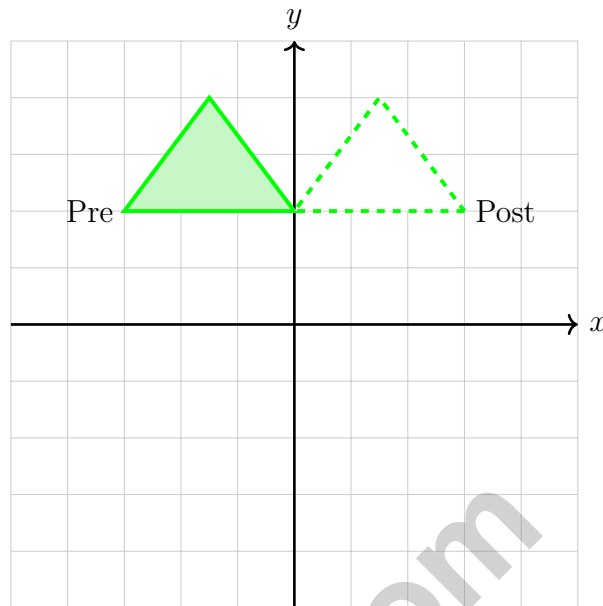
A. 7

C. 10

B. 8

D. 11





3)

The solid triangle is reflected over the y -axis to create the dashed triangle. If a vertex of the original triangle is at $(-3, 2)$, what is the corresponding vertex of the image?

- A. $(3, 2)$ C. $(3, -2)$
 B. $(-3, -2)$ D. $(-3, 2)$

4) A circle has a radius of 12 cm. Using $\pi \approx \frac{22}{7}$, what is the approximate area?

- A. 264 cm^2 C. 352 cm^2
 B. 451.5 cm^2 D. 528 cm^2



Scan me!
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& answers

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.



Ohio Practice Test Answers and Explanations

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

Practice Test 1 Answers and Explanations

- 1) **Choice A is correct.** **(6.EE.5)** The number x is split into two equal parts of 9 each, so $\frac{x}{2} = 9$. Multiplying by 2 gives $x = 18$.
- 2) **Choice C is correct.** **(6.NS.5)** Absolute value is the distance from zero. Both 7 and -7 are 7 units away from zero, so $|7| = |-7| = 7$.
- 3) **Choice C is correct.** **(6.NS.7c)** From -6 to 6 is $6 - (-6) = 6 + 6 = 12$ units apart.
- 4) **Choice D is correct.** **(6.NS.8)** Length: $|5 - 1| = 4$ units. Width: $|4 - 1| = 3$ units. Area: $4 \times 3 = 12$ square units.
- 5) **The correct answer is 200.** **(6.RP.3)** The rate is $2 : 50$ or $1 : 25$. For 8 months: $8 \times 25 = \$200$.
- 6) **Choice B is correct.** **(6.NS.4)** Since 7 and 11 are both prime and share no common factors, their LCM is their product: $7 \times 11 = 77$.
- 7) **Choice A is correct.** **(6.NS.4)** Distributive property: $12(1 + 4) = 12 \cdot 1 + 12 \cdot 4 = 12 + 48 = 60$. Choice A shows the expanded form.
- 8) **Choice D is correct.** **(6.NS.6c)** Distance = $1.5 - (-3.5) = 1.5 + 3.5 = 5$.
- 9) **Choice A is correct.** **(6.NS.8)** Point T is at $(-2, -3)$. Reflecting across the x -axis changes the sign of the y -coordinate, giving $(-2, 3)$.
- 10) **Choice D is correct.** **(6.NS.7d)** A is true ($-9 < -5$). B is true ($-2.5 > -3.5$). C is true ($-0.5 < 0.5$). D is false: $-7 < -3$, not greater.
- 11) **Choice C is correct.** **(6.EE.3)** Distribute first: $3(2x + 1) + 5x = 6x + 3 + 5x = 11x + 3$.
- 12) **Choice B is correct.** **(6.EE.8)** $x \geq 3$ means x is at least 3. $x \leq 7$ means x is at most 7. Only 5 falls in the range $[3, 7]$.
- 13) **Choice C is correct.** **(6.G.1)** Area = $6 \times 1.5 = 9$ yd².
- 14) **Choice D is correct.** **(6.G.2)** $V = 4 \times 3.5 \times 2 = 14 \times 2 = 28$ in³.
- 15) **Choice C is correct.** **(6.G.3)** The bottom goes from $(1, 2)$ to $(9, 2)$. Length = $9 - 1 = 8$ units.
- 16) **Choice C is correct.** **(6.SP.2)** Mode identifies the most frequently sold shoe size, which best represents the “typical” size. Mean and median average sizes; range describes spread.
- 17) **Choice A is correct.** **(6.SP.5c)** IQR measures spread in the middle 50%. Set X’s IQR of 15 is larger than Set Y’s IQR of 8, indicating Set X has greater spread in the middle half.
- 18) **The correct answer is 32.** **(6.RP.3)** Unit cost: $8 \div \frac{1}{4} = 8 \times 4 = 32$ dollars per gallon.
- 19) **Choice B is correct.** **(6.RP.1)** Identical boxes mean the same Q_1 , median, and Q_3 (hence same IQR). Longer whiskers indicate the min and max values are further from the box.
- 20) **The correct answer is A and C are correct.** **(6.RP.3)** A: $6 \times 3 = 18$ feet (correct). B: $4 \times 3 = 12$ feet, not 10 (incorrect). C: $21 \div 3 = 7$ inches (correct). D: $9 \div 3 = 3$ inches, not 2 (incorrect). E: $5 \times 3 = 15$ feet, not 16 (incorrect).
- 21) **Choice C is correct.** **(6.SP.5d)** Median of 7 values = 4th value = 1350 (unaffected by \$3000). Mean = $(1200 + 1250 + 1300 + 1350 + 1400 + 1450 + 3000) / 7 = 2193$, pulled up significantly. Range = $3000 - 1200 = 1800$, expanded. Std Dev also increases. Median alone is robust.
- 22) **The correct answer is 800.** **(6.NS.7d)** Total spent: $50\% + 20\% + 10\% = 80\%$ of $\$4000 = \3200 . Remaining: $\$4000 - \$3200 = \$800$.
- 23) **Choice C is correct.** **(6.EE.9)** College: 28% of $\$5000 = 0.28 \times 5000 = \1400 .
- 24) **Choice A is correct.** **(6.NS.2)** $7,020 \div 30 = 234$. Verify: $30 \times 234 = 7,020$.
- 25) **Choice A is correct.** **(6.NS.3)** Multiply: $63 \times 9 = 567$. With $1 + 1 = 2$ decimal places total, the answer is 5.67.
- 26) **Choice B is correct.** **(6.NS.3)** Starting debt: -75 . Payment of 30: $-75 + 30 = -45$. Remaining debt is \$45.
- 27) **Choice C is correct.** **(6.EE.3)** Temperature change is final minus initial: $8 - (-3) = 8 + 3 = 11^\circ$ C (an increase of 11 degrees).
- 28) **Choice B is correct.** **(6.EE.6)** Three equal parts of m means add m three times, or multiply by 3: $3m$.



Author's Note

From a Friend Who Believes in You

Hi, Friend!

◇ I just want to say something important: I am proud of you. You did 9 full practice tests. That takes time, hard work, and heart. ◇

★ **Friendly truth:** a test is just one part of your math journey. You are SO much more than a score. The work you did is the real win! ★

What I Want You to Know

- **You are smart.** Every test you finished proves it.
- **You are brave.** You tried hard problems.
- **You are growing.** Mistakes taught you new things.
- **You are ready.** The skills are inside you.

One more thing: on test day, take a deep breath. Smile. Remember that someone (me!) believes in you. You can do this!

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

Jay Daie

Your Math Friend

PRACTICE MORE. ACHIEVE MORE.

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 any test.

With 9 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 math concepts aligned with standards.



Test Confidence

Get familiar with test formats and improve accuracy.



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.



9 PRINTED
PRACTICE TESTS



2 ONLINE
PRACTICE TESTS



DETAILED ANSWER
EXPLANATIONS