

3

Ohio OST

GRADE

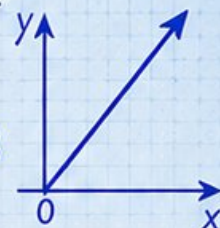
6

MATH

PRACTICE TESTS

Standards Aligned Problem Solving
For Comprehensive Assessment Programs

$$y = 2x + 3$$



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

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



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 Ohio OST Grade 6 Math Practice Tests

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



Three 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.

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Welcome, Ohio Math Explorer!

Three focused rounds using Buckeye-state problem solving

This book gives you three 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 three-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?

Three OST 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. Buckeye-state problem solving 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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4) An online store's order values (in dollars) for 5 days: {150, 175, 200, 225, 500}. How should the center be best described?

- A. Use the mean because it is always best.
- B. Use the median because the outlier distorts the mean.
- C. Use the mode because it is most reliable.
- D. Use the range because it gives spread.

5) A ratio table shows the relationship between pages read and time in minutes.

Time (minutes)	Pages Read
10	5
20	10
30	15

If the ratio remains constant, what is the y-value when the x-value (time) is 50 minutes?

- A. 20 pages
- B. 40 pages
- C. 35 pages
- D. 25 pages

6) A person reads 0.72 of a book. What percent of the book has been read?

- A. 7.2%
- B. 28%
- C. 272%
- D. 72%

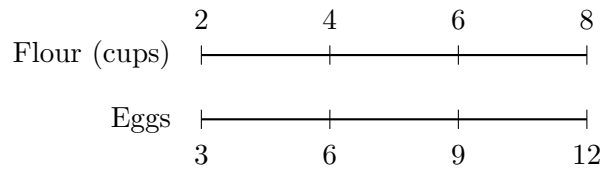
7) A recipe calls for \$12 worth of ingredients. The ingredients are on sale for 25% off. How much will the ingredients cost?

- A. \$3
- B. \$6
- C. \$9
- D. \$12



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8) A recipe uses 2 cups of flour for every 3 eggs. How many cups of flour are needed for 12 eggs?



- | | |
|-------------------------------|--------------------------------|
| <input type="checkbox"/> A. 4 | <input type="checkbox"/> C. 8 |
| <input type="checkbox"/> B. 6 | <input type="checkbox"/> D. 10 |

9)

Yards	1	3
Feet	3	?

Complete the ratio table. How many feet are in 3 yards?

- | | |
|-------------------------------------|-------------------------------------|
| <input type="checkbox"/> A. 6 feet | <input type="checkbox"/> C. 12 feet |
| <input type="checkbox"/> B. 15 feet | <input type="checkbox"/> D. 9 feet |
- 10) A teenager earns \$50 per week from a part-time job. She saves \$12 per week and spends the rest. How much does she spend per week?
- | | |
|----------------------------------|----------------------------------|
| <input type="checkbox"/> A. \$25 | <input type="checkbox"/> C. \$38 |
| <input type="checkbox"/> B. \$32 | <input type="checkbox"/> D. \$40 |
- 11) A recipe calls for flour and sugar in a 5 : 2 ratio. If the recipe uses 10 cups of flour, how many cups of sugar are needed?

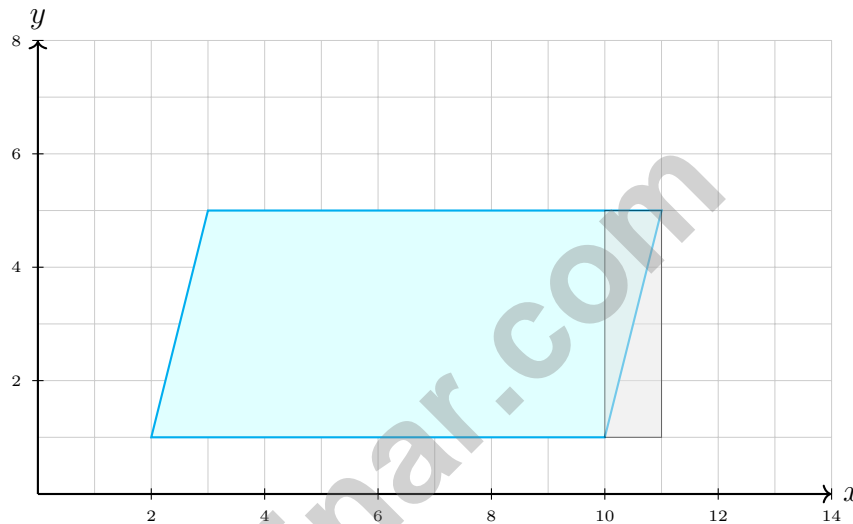
- 1) A recipe calls for no more than $\frac{1}{2}$ cup of salt. Which inequality represents the amount a of salt that can be used?

A. $a < \frac{1}{2}$

B. $a \geq \frac{1}{2}$

C. $a \leq \frac{1}{2}$

D. $a > \frac{1}{2}$



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

B. 32 square units

C. 36 square units

D. 40 square units

- 3) A triangular prism has two congruent triangular bases (each with area 20 cm^2) and three rectangular faces with areas 30 cm^2 , 40 cm^2 , and 50 cm^2 . What is the total surface area?

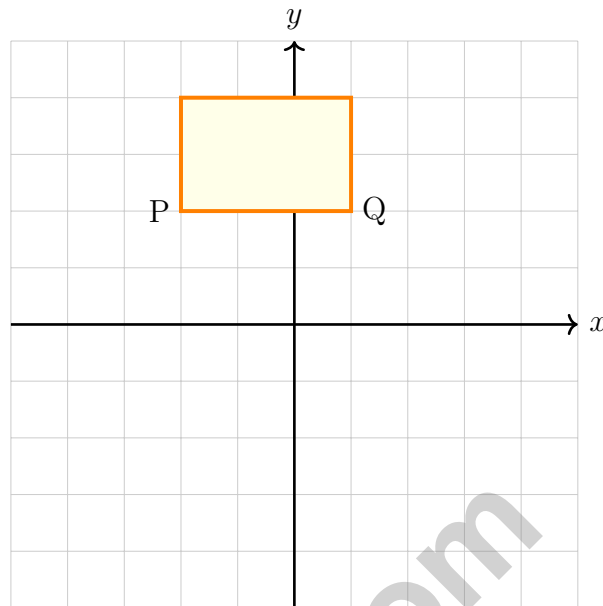
A. 140 cm^2

B. 160 cm^2

C. 180 cm^2

D. 200 cm^2

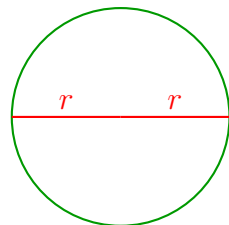




4)

Rectangle $PQRS$ is shown. If it is reflected over the x -axis, the vertex $Q(1, 2)$ will move to which point?

- A. $(1, -2)$
- B. $(-1, 2)$
- C. $(1, 2)$
- D. $(-1, -2)$



5)

If $r = 15$ ft, $A = ?$

A circle has a radius of 15 feet. Using $\pi \approx 3.14$, what is the approximate area?

- A. 47.1 ft^2
- B. 94.2 ft^2
- C. 235.5 ft^2
- D. 706.5 ft^2



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1) Compare -1.2 and -1.5 . Which is true?

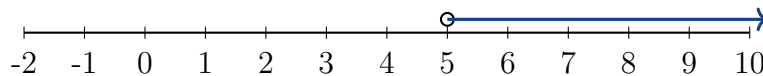
A. $-1.2 < -1.5$

C. $-1.2 = -1.5$

B. $-1.2 > -1.5$

D. They are opposites

2) Examine this number line. Which inequality does it represent?



A. $x \leq 5$

C. $x > 5$

B. $x < 5$

D. $x \geq 5$

3) A plumber charges a fixed fee of \$50 plus \$60 per hour. If h is the hours worked and C is total cost, which equation represents this?

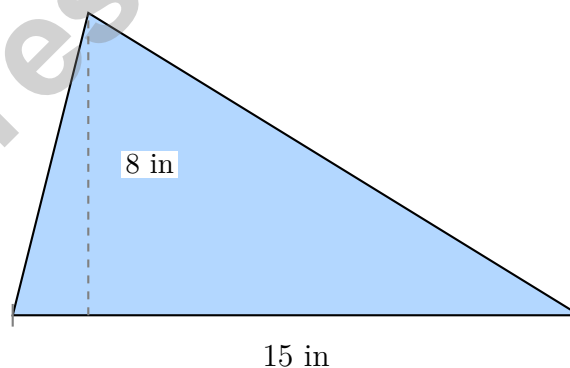
A. $C = 50h + 60$

C. $C = 110h$

B. $h = 60C + 50$

D. $C = 60h + 50$

4) An obtuse triangle has a base of 15 inches and a perpendicular height of 8 inches measured from the opposite vertex to the extended base line. What is the area?



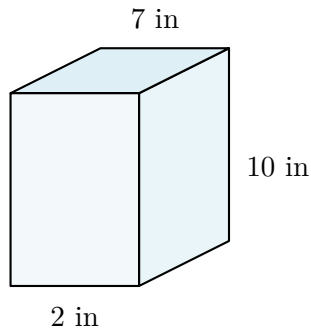
A. 60 in^2

C. 23 in^2

B. 30 in^2

D. 120 in^2





5)

A cereal box measures 10 inches tall, 7 inches wide, and 2 inches deep. What is its volume?

- A. 19 in^3 C. 100 in^3
 B. 70 in^3 D. 140 in^3

6) A student plots a rectangle and claims it has vertices at $(2, 2)$, $(5, 2)$, $(5, 5)$, and $(3, 5)$. What is the error?

- A. The shape is not a rectangle because the sides are not parallel.
 B. The y -coordinates are wrong.
 C. The shape is a rectangle but with incorrect dimensions.
 D. There is no error.



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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 three 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.SP.5c)** $IQR = Q3 - Q1 = 32 - 18 = 14$. This measures the spread of the middle 50% of the data.
- 2) **Choice D is correct.** **(6.G.1)** $Area = 7 \times 2.5 = 17.5 \text{ cm}^2$. The slant side is not used in the formula.
- 3) **Choice C is correct.** **(6.SP.4)** Total: $4 + 9 + 7 + 3 = 23$ plants measured.
- 4) **Choice B is correct.** **(6.SP.5d)** Mean = $(150 + 175 + 200 + 225 + 500)/5 = 250$, pulled high by the outlier. Median = 200, closer to typical orders. Median is more appropriate here.
- 5) **Choice D is correct.** **(6.RP.3a)** Pick the unit rate that matches the question. Since the y-axis is pages and the x-axis is minutes, the unit rate is $\frac{\text{pages}}{\text{minutes}} = \frac{5}{10} = 0.5$ pages per minute. In 50 minutes, the student reads $50 \times 0.5 = 25$ pages. (You can also reason: 10 minutes per 5 pages means 2 minutes per page, so $50 \div 2 = 25$ pages.)
- 6) **Choice D is correct.** **(6.RP.3c)** Multiply the decimal by 100: $0.72 \times 100 = 72\%$.
- 7) **Choice C is correct.** **(6.RP.3c)** 25% of \$12 = $0.25 \times 12 = \$3$. New cost is $\$12 - \$3 = \$9$.
- 8) **Choice C is correct.** **(6.RP.3)** The ratio is 2 : 3 (flour to eggs). For 12 eggs, multiply both parts by 4: $2 \times 4 = 8$ cups of flour.
- 9) **Choice D is correct.** **(6.RP.3d)** The ratio is 1 yard = 3 feet. Multiply both sides by 3: 3 yards = 9 feet.
- 10) **Choice C is correct.** **(6.NS.7d)** Spending: $\$50 - \$12 = \$38$ per week.
- 11) **The correct answer is 4.** **(6.RP.3)** Flour is the 5-part amount. Since $10 \div 5 = 2$, each part is 2 cups, and sugar is 2 parts: $2 \times 2 = 4$ cups.
- 12) **Choice B is correct.** **(6.NS.7d)** Using $d = 60t$ with $t = 2.5$: $d = 60 \times 2.5 = 150$ miles.
- 13) **Choice A is correct.** **(6.EE.9)** Selling price: $\$80 + 25\%$ of $\$80 = \$80 + \$20 = \100 .
- 14) **Choice B is correct.** **(6.RP.3)** Divide the actual length by the scale factor: $60 \div 12 = 5$ inches.
- 15) **Choice D is correct.** **(6.NS.1)** $\frac{5}{8} \times \frac{6}{5} = \frac{30}{40} = \frac{3}{4}$.
- 16) **Choice A is correct.** **(6.NS.2)** $6,048 \div 36 = 168$. Verify: $36 \times 168 = 6,048$.
- 17) **Choice C is correct.** **(6.NS.3)** $2 \times 3 = 6$. We have $1 + 1 = 2$ decimal places, so 0.06 is correct.
- 18) **Choice A is correct.** **(6.NS.4)** Multiples of 10: 10, 20, 30, 40, ... Multiples of 15: 15, 30, 45, ... The least common multiple is 30.
- 19) **The correct answer is 9 dollars per book.** **(6.RP.3d)** Divide the total cost by the number of books: $45 \div 5 = 9$ dollars per book.
- 20) **Choice B is correct.** **(6.NS.4)** GCF of 35 and 49 is 7. So $35 + 49 = 7(5 + 7)$. Only Choice B uses the GCF and whole numbers.
- 21) **Choice B is correct.** **(6.NS.5)** A loss is a negative change. Losing 15 yards means the team moved 15 yards backward, represented by the integer -15 .
- 22) **The correct answer is 4 : 6 = 2 : 3 (dividing by 2) and 4 : 6 = 8 : 12 (multiplying by 2).** **(6.RP.1)** Nice checking: Choice A works because 4 : 6 simplifies to 2 : 3, and Choice B works because multiplying both parts of 4 : 6 by 2 gives 8 : 12. The other choices change the relationship.
- 23) **Choice A is correct.** **(6.NS.7c)** Below sea level is represented by a negative number: -650 . The absolute value $|-650| = 650$ represents the magnitude of the depth.
- 24) **Choice B is correct.** **(6.NS.6c)** The midpoint between -2 and 2 is found by taking the average: $\frac{-2+2}{2} = 0$.
- 25) **Choice B is correct.** **(6.NS.8)** By definition, Quadrant II (upper left) has all points where $x < 0$ and $y > 0$.
- 26) **Choice A is correct.** **(6.NS.7d)** $A = -0.5$ and $B = 2.5$. Since $-0.5 < 2.5$, we have $A < B$.
- 27) **Choice C is correct.** **(6.NS.8)** The x -coordinates are the same, so subtract the y -coordinates: $|4 - (-2)| = |4 + 2| = 6$ units.



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Hi, Brave Explorer!

◇ What a trip! You explored 3 full tests. You went to many math places: multiplication, fractions, area, time, and more. ◇

★ **Smart explorers know:** every trip teaches something. Through 3 tests, you learned a lot. You are a stronger math explorer now. ★

Your Explorer Tools

- **Map Reading:** You read problems carefully.
- **Trail Skills:** You take steps in the right order.
- **Backpack:** You have many math tools.
- **Brave Heart:** You explore even hard problems.

Explorer tip: on test day, use the tools you packed. You have the skills. You are ready!

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 book includes 3 full-length Math practice tests and 2 online tests to help Grade 6 students build confidence, strengthen skills, and excel on standardized assessments.

Each practice test is carefully crafted to reflect the latest standards and includes a variety of question types, realistic test conditions, and detailed answer explanations.

Perfect for classroom use, homework, test preparation, and extra practice at home.

THIS BOOK INCLUDES:

- 3 Full-Length Printed Tests
 - 2 Online Practice Tests
-  Detailed Answer Explanations

MORE PRACTICE. GREATER RESULTS.

Give your child the tools to build strong math skills, confidence, and a positive attitude toward learning.

WHAT YOU'LL 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 with clear explanations and meaningful practice.



Test Confidence

Familiarize 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

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



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AND LEARNING RESOURCES



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