

6

OKLAHOMA OSTP

GRADE

7

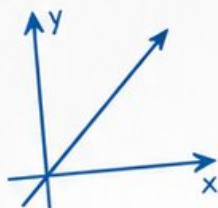
MATH

PRACTICE TESTS



Standards Aligned
Problem Solving For
Comprehensive
Assessment Programs

$$y = mx + b$$



$$2(x - 3) = 4x + 6$$

6 PRINTED TESTS



2 ONLINE TESTS



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



Build
Confidence



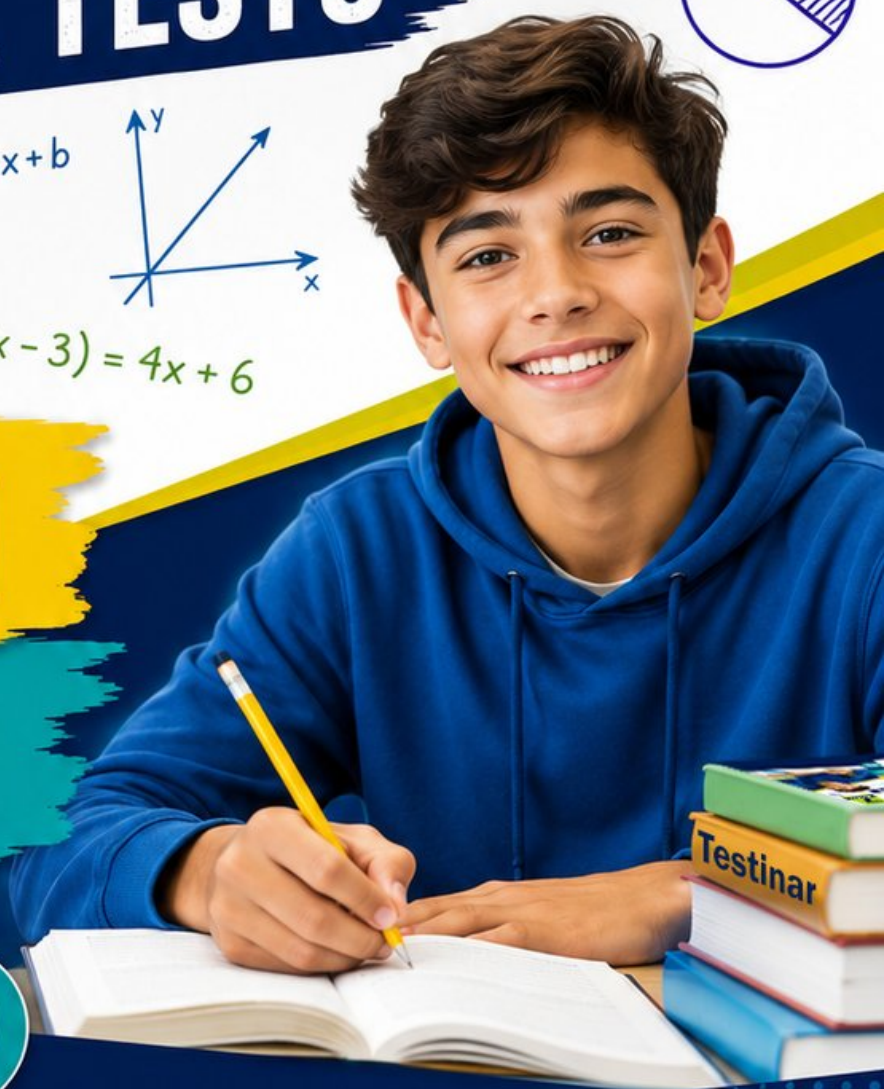
Strengthen
Math Skills



Detailed Answers
& Explanations



Improve Test
Performance



6 Oklahoma OSTP Grade 7 Math Practice Tests

Standards-Aligned Practice with Review, Answer Keys, and Explanations



Six complete 40-question Grade 7 OSTP practice rounds with proportional relationships, percents, rational numbers, expressions, equations, geometry, statistics, probability, answer keys, and clear explanations for every item.

Jay Daie and Reza Nazari



Copyright ©

Testinar Inc



Published by Testinar Inc

Testinar.com

All rights reserved. No part of this publication may be reproduced, distributed, or transmitted in any form or by any means, including photocopying, recording, or other electronic or mechanical methods, without the prior written permission of the author, except in the case of brief quotations embodied in critical reviews and certain other noncommercial uses permitted by copyright law, including Section 107 or 108 of the 1976 United States Copyright Act.

This publication is independently produced and has no official connection to any state, district, or national testing program.

Test names and organizational names used herein are the property of their respective trademark holders.



Copyright ©

Welcome, Oklahoma Grade 7 Problem Solver!

Six focused rounds for sharper OSTP math thinking

This book gives you six full Grade 7 OSTP math practice tests. Each round is built to help you notice structure, compare quantities, use proportional reasoning, handle rational numbers, and explain your thinking with care.

Your Oklahoma Practice Promise

I will read every question carefully, choose a strategy that fits, write enough work to prove my answer, and use corrections as training for the next test.

Read

Model

Verify

How to Use This Book

A six-session plan for confident Grade 7 review

1. **Warm up with the review pages.** Notice the big ideas before starting the tests.
2. **Complete one test at a time.** Treat each 40-question round like a real practice session.
3. **Show your reasoning.** Jot a proportion, equation, diagram, number line, or quick estimate when it helps.
4. **Correct actively.** Rework missed items before reading the explanation.
5. **Choose the next target.** After each test, name one skill and one habit to improve.

Oklahoma review rhythm: Work a test, score it, study your misses, then come back ready for the next round with one clear goal.



What Is Inside?

Six OSTP tests, 240 questions, and a complete review path

Part	What You Will Practice
Tests 1–3	Proportional relationships, unit rates, percents, rational-number operations, and careful reading.
Tests 4–6	Expressions, equations, inequalities, scale drawings, geometry, and multi-step problem solving.
Answer Pages	Compact keys and explanations that show why each answer works.

The tests are mixed on purpose. Grade 7 success means recognizing which idea is being tested even when the next question changes format.

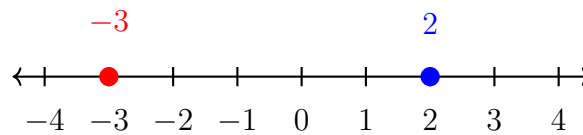


Scan me!
For more practice
& answers

Table of Contents

★ Practice Test 1	_____	15
★ Practice Test 2	_____	29
★ Practice Test 3	_____	43
★ Practice Test 4	_____	57
★ Practice Test 5	_____	71
★ Practice Test 6	_____	85
Practice Test Answer Keys	_____	99
Practice Test Answers and Explanations	_____	103

- 1) Which number is further from zero on the number line?



- ☐ A. 2 is further
- ☐ B. -3 is further
- ☐ C. They are equal distance
- ☐ D. Cannot be determined
- 2) A square has vertices at $(0, 0)$, $(2, 0)$, $(2, 2)$, and $(0, 2)$. If the square is reflected over the line $y = -x$, what is the x -coordinate of the image of the vertex originally at $(2, 0)$?

- 3) A survey asks 400 people about their favorite food. If 28% prefer pizza, how many prefer pizza?
- ☐ A. 28
- ☐ B. 72
- ☐ C. 112
- ☐ D. 288
- 4) A model train set has a scale of 1 : 87. If the model is 12 cm long, how many centimeters long is the actual train (to the nearest whole number)?



Scan me!
For more practice
& answers

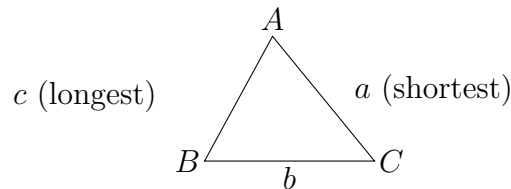
5) Solve for x : $4(x - 3) = 12$

☐ A. $x = 0$

☐ C. $x = 6$

☐ B. $x = 3$

☐ D. $x = 9$



6)

A scalene triangle has sides of length a , b , and c where $a < b < c$. Which inequality must be true?

☐ A. $a + b < c$

☐ C. $a + b > c$

☐ B. $a + b = c$

☐ D. $a - b > c$

7) A television network wants to know what percentage of households in the United States watch sports. It surveys viewers who call into its sports hotline. Why is this a biased sample?

☐ A. It only includes people who already watch sports and made the effort to call

☐ C. It has no bias because hotline numbers are public

☐ D. The sample size is too small

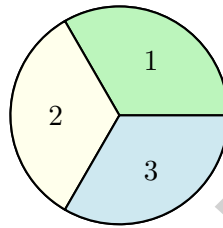
☐ B. It uses random sampling

8) A circular clock face has circumference 88 cm. Using $\pi \approx \frac{22}{7}$, what is the radius of the clock?



9) A student compared two datasets with the same mean of 50 and concluded, “Dataset A is better because it has a larger range.” Is the student correct?

- ☐ A. Yes, larger range always means better data quality
- ☐ B. No, larger range indicates more variability, not quality
- ☐ C. The ranges must be equal if means are equal
- ☐ D. Cannot judge without sample sizes



10)

A spinner is divided into 3 equal sections labeled 1, 2, 3. What is the probability of spinning a 2 or a 3?

- ☐ A. $\frac{1}{3}$
- ☐ B. $\frac{2}{3}$
- ☐ C. $\frac{1}{2}$
- ☐ D. $\frac{3}{4}$

11) A school cafeteria offers lunch combinations with a choice of 2 sides (Salad or Veggies), 3 proteins (Chicken, Fish, Beef), and 2 breads (Roll or Cornbread). How many different lunches can be made?

- ☐ A. 7
- ☐ B. 12
- ☐ C. 18
- ☐ D. 36



Scan me!
For more practice
& answers

1) Which is the best estimate for 5.8×10^9 ?

☐ A. 5.8 billion

☐ C. 580 billion

☐ B. 58 billion

☐ D. 5.8 trillion

2) A box plot shows test scores with minimum 45, $Q1 = 65$, median = 75, $Q3 = 85$, maximum = 95. What is the interquartile range (IQR)?

3) A car's value is \$15 000 after a 40% depreciation. What was the original value?

☐ A. \$9 000

☐ C. \$25 000

☐ B. \$21 000

☐ D. \$37 500

4) A simulation of rolling two dice uses two spinners, each with 6 equal sections numbered 1–6. If the simulation is performed 120 times, approximately how many times would you expect to see a sum of 7?

☐ A. 10 times

☐ C. 20 times

☐ B. 15 times

☐ D. 25 times

5) A number from 1 to 4 is selected, and then a letter from A to C is selected. How many favorable outcomes result in an even number and a vowel (A)?

☐ A. 1

☐ C. 3

☐ B. 2

☐ D. 6



Scan me!
For more practice
& answers

- 6) A fair die is rolled and a fair coin is flipped. What is the probability of rolling a 5 AND flipping heads?

☐ A. $\frac{1}{12}$
☐ B. $\frac{1}{6}$

☐ C. $\frac{1}{8}$
☐ D. $\frac{5}{12}$

- 7) **Distance Estimates (Miles)**

Route	Estimate	Actual
Bike Ride	12	15

What is the percent error for the bike ride distance?

☐ A. 80%
☐ B. 3%

☐ C. 20%
☐ D. 25%

- 8) Expand and simplify: $2(3 + 4y) - 5$

☐ A. $8y + 1$
☐ B. $8y - 5$

☐ C. $6 + 8y - 5$
☐ D. $12y + 1$

- 9) On a map with scale 1 inch : 25 miles, how far apart are two towns if they are 4.5 inches apart on the map?

☐ A. 20.5 miles
☐ B. 150 miles

☐ C. 25 miles
☐ D. 112.5 miles

- 10) A parent wants to save money for a child's education. If \$4500 is invested at 5.5% simple interest, what is the difference in total amount between 5 years and 3 years?

☐ A. \$247.50
☐ B. \$990

☐ C. \$742.50
☐ D. \$495



- 1) A car's fuel tank is at $\frac{3}{4}$ capacity. After a drive, $\frac{1}{4}$ of the tank is used. What fraction of the tank remains?

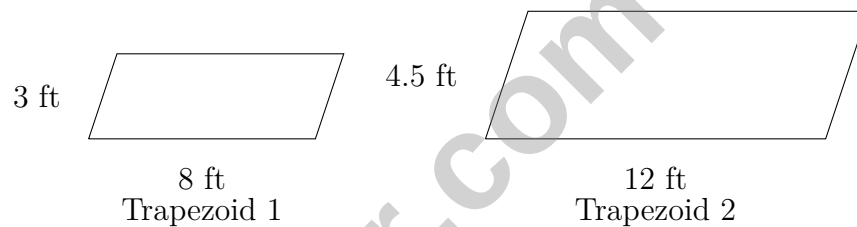
☐ A. $\frac{1}{12}$
☐ B. $\frac{1}{2}$

☐ C. $\frac{5}{12}$
☐ D. $\frac{1}{3}$

- 2) A map shows a park with a scale of 2 cm : 1 km. If the park on the map has an area of 8 cm², what is the actual area of the park in square kilometers?

☐ A. 2 km²
☐ B. 4 km²

☐ C. 8 km²
☐ D. 16 km²

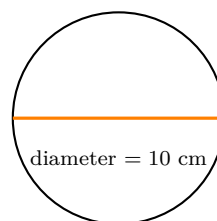


3)

These similar trapezoids have heights of 3 ft and 4.5 ft. If Trapezoid 1 has a base of 8 ft, what is the base of Trapezoid 2?

☐ A. 10 ft
☐ B. 11 ft

☐ C. 12 ft
☐ D. 14 ft



4)

What is the area of this circle? Use $\pi \approx 3.14$.

☐ A. 15.7 cm²
☐ B. 31.4 cm²

☐ C. 78.5 cm²
☐ D. 314 cm²



Scan me!
For more practice
& answers

- 5) Two triangles both have side lengths 5, 5, and 7. How many corresponding side lengths match?

- 6) A cylinder has a surface area formula $SA = 2\pi r^2 + 2\pi rh$. This can also be written as:

- ☐ A. $SA = 2\pi r(r + h)$ ☐ C. $SA = 2\pi(r^2 + h^2)$
☐ B. $SA = \pi r(r + h)$ ☐ D. $SA = \pi r(2r + h)$

- 7) A histogram shows customer wait times (in minutes) at a restaurant: 0–5 min (8 customers), 5–10 min (12 customers), 10–15 min (6 customers), 15–20 min (4 customers). What can you conclude about typical wait time?

- ☐ A. Most customers wait 0–5 minutes ☐ C. Most customers wait 15–20 minutes
☐ B. Most customers wait 5–10 minutes ☐ D. Wait times are evenly distributed

- 8) Which is the best estimate for $\sqrt{120}$?

- ☐ A. 10 ☐ C. 11
☐ B. 10.5 ☐ D. 12

- 9) Expand and simplify: $2(3a + 4b) - 5a$.

- ☐ A. $6a + 8b - 5a = a + 8b$ ☐ C. $6a + 4b$
☐ B. $a + 4b$ ☐ D. $11a + 8b$



Oklahoma OSTP Grade 7 Practice Test Answer Keys**How to use this section with a Grade 7 student:**

1. check the answer first and circle any item that needs another look
2. retry the problem with fresh work before reading the explanation
3. write one short lesson learned from each missed or guessed item

A strong review routine turns every correction into a sharper plan for the next Oklahoma OSTP practice test.



Scan me!
For more practice
& answers

Practice Test Answers and Explanations

Practice Test 1 Answers and Explanations

- 1) **Choice B is correct.** (7.NS.1-7.NS.3) Distance from zero: $|-3| = 3$ and $|2| = 2$. Since $3 > 2$, -3 is further from zero.
- 2) **The correct answer is 0.** (7.G.1-7.G.5) Reflection over $y = -x$ uses the rule $(x, y) \rightarrow (-y, -x)$. Applying this to $(2, 0)$: $(2, 0) \rightarrow (-0, -2) = (0, -2)$. The x -coordinate of the image is 0.
- 3) **Choice C is correct.** (7.RP.3) Using the proportion $\frac{28}{100} = \frac{x}{400}$, cross-multiply: $x = 112$ people prefer pizza.
- 4) **The correct answer is 1044.** (7.G.1-7.G.5) Actual length = $12 \times 87 = 1044$ cm. This is approximately 10.44 meters.
- 5) **Choice C is correct.** (7.EE.4a) Distribute: $4x - 12 = 12$. Add 12: $4x = 24$. Divide by 4: $x = 6$.
- 6) **Choice C is correct.** (7.G.1-7.G.5) By the Triangle Inequality, the sum of the two shorter sides must exceed the longest side.
- 7) **Choice A is correct.** (7.SP.1-7.SP.4) This sample only reaches people who (1) already watch sports, and (2) are motivated enough to call in. This excludes the majority of households and creates severe self-selection bias and voluntary response bias.
- 8) **The correct answer is 14.** (7.G.4-7.G.6) $C = 2\pi r \Rightarrow 88 = 2 \times \frac{22}{7} \times r \Rightarrow 88 = \frac{44}{7}r \Rightarrow r = 88 \times \frac{7}{44} = 14$ cm.
- 9) **Choice B is correct.** (7.SP.1-7.SP.4) The student confused range (a measure of spread) with quality. Larger range means data is more spread out, indicating greater variability. More variability does not equal better; it depends on context.
- 10) **Choice B is correct.** (7.SP.5-7.SP.8) Favorable outcomes: 2, 3 (2 sections). $P(2 \text{ or } 3) = \frac{2}{3}$.
- 11) **Choice B is correct.** (7.SP.5-7.SP.8) By the counting principle: $2 \times 3 \times 2 = 12$ different lunch combinations.
- 12) **Choice C is correct.** (7.G.4-7.G.6) Volume of a cylinder $= \pi r^2 h \approx 3.14 \times 3^2 \times 5 = 3.14 \times 9 \times 5 = 141.3 \text{ m}^3$.
- 13) **Choice A is correct.** (7.SP.1-7.SP.4) The plant grows about 2 cm/week initially, then slows to 0.5 cm/week. Continuing the slowing trend suggests growth of 0.5 cm more, giving $14.5 + 0.5 = 15$ cm.
- 14) **Choice B is correct.** (7.SP.5-7.SP.8) $P(HHH) = \frac{1}{2} \cdot \frac{1}{2} \cdot \frac{1}{2} = \frac{1}{8}$.
- 15) **Choice B is correct.** (7.SP.6) The law of large numbers states that as the number of trials increases, the experimental probability converges toward the theoretical probability. Both 0.495 and 0.505 are very close to the theoretical 0.5, which is expected with 1000 trials.
- 16) **Choice B is correct.** (7.SP.1-7.SP.4) Ordering leaves helps quickly locate the median and identify patterns in the data distribution.
- 17) **Choice B is correct.** (7.SP.5-7.SP.8) Every number from 1 to 10 is less than 11, so this event is certain (probability = 1).
- 18) **The correct answer is A, C.** (7.G.1-7.G.5) A: Two triangles with the same three side lengths are congruent by SSS. C: Two triangles with two equal sides and an equal included angle are congruent by SAS. B is incorrect because AAA determines similarity, not congruence (triangles can be different sizes). D is incorrect because two angles and two separate sides (not necessarily properly positioned) do not guarantee congruence.
- 19) **Choice D is correct.** (7.RP.3) If percent error is 16.7%, then $\frac{|42 - \text{actual}|}{|\text{actual}|} \times 100\% = 16.7\%$. Testing 50: $\frac{|42 - 50|}{50} \times 100\% = 16\% \approx 16.7\%$.
- 20) **Choice B is correct.** (7.EE.1-7.EE.2) Distribute -3 to both terms: $-3(2a) = -6a$ and $-3(-5) = +15$ (negative times negative is positive). Result: $-6a + 15$.
- 21) **Choice D is correct.** (7.RP.1-7.RP.3) Convert to common units: 120 feet = 1440 inches. Scale = $6 : 1440 = 1 : 240$. Student forgot unit conversion.
- 22) **Choice D is correct.** (7.RP.3) Simple interest is calculated on the original principal only, not on accumulated interest. If the principal, rate, and one-year time interval stay the same, the account earns the same dollar amount of interest each year: \$50.
- 23) **The correct answer is 100.48.** (7.G.4-7.G.6) Full circle: $A = 3.14 \times 8^2 = 3.14 \times 64 = 200.96 \text{ in}^2$. Semicircle: $\frac{200.96}{2} = 100.48 \text{ in}^2$.
- 24) **Choice D is correct.** (7.NS.1b) -9 and 9 are opposites; they sum to zero. $-9 + 9 = 0$.
- 25) **Choice D is correct.** (7.NS.1-7.NS.3) $-2 - (-8) = -2 + 8 = 6$. The opposite of -8 is 8 , and $-2 + 8 = 6$.
- 26) **Choice A is correct.** (7.EE.1-7.EE.2) Expand: $-4(2m + 3) = -4(2m) + (-4)(3) = -8m - 12$. Correct.



Scan me!
For more practice
& answers

Hi, Persistent Problem Solver!

◇ Some Grade 7 questions ask you to hold several ideas in your mind at once. That can feel hard, and that is exactly why practice matters. ◇

★ **Remember this:** You showed persistence by continuing through the set. That habit is powerful because difficult problems often open after one more good attempt. You practiced across 6 full Grade 7 practice tests, and that repeated effort matters. ★

Persistence Tools

- **Try a Smaller Case:** Use an easier number to see the pattern.
- **Draw It:** Make the situation visible.
- **Restate It:** Say the question in your own words.
- **Check One Step:** Fix the first unclear place.

Grade 7 test-day tip: When stuck, do not restart everything. Find the first step you trust, then rebuild from there.

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

Jay Daie

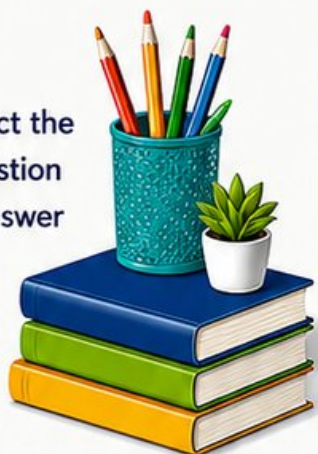
Your Persistence Coach

PRACTICE TODAY. SUCCEED TOMORROW!

This book includes **6** full-length Math practice tests and **2** online tests to help Grade 7 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:

6 Full-Length Printed Tests

2 Online Practice Tests

 Detailed Answers & 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



Build Confidence

Practice regularly to feel prepared and test-ready.



Strengthen Math Skills

Develop key math concepts and problem solving abilities.



Improve Understanding

Learn with clear explanations and step-by-step solutions.



Test Confidence

Familiarize with test formats and improve accuracy and speed.



Boost Performance

Apply your knowledge and achieve your best score!

TOPICS COVERED

- ✓ Ratios & Proportions
- ✓ The Number System
- ✓ Expressions & Equations
- ✓ Geometry
- ✓ Percents & Decimals
- ✓ Statistics & Probability
- ✓ Data Analysis
- ✓ Measurement & Conversions
- ✓ Algebraic Thinking
- ✓ And More!



2 ONLINE TESTS

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



2 EXTRA ONLINE TEST ACCESS CODE IS INSIDE THE BOOK!

Don't lose it—your extra practice and success start here!



VISIT [TESTINAR.COM/MATH7](https://www.testinar.com/math7)
FOR MORE PRACTICE TESTS



PRACTICE
REGULARLY



STAY
FOCUSED



SOLVE
CONFIDENTLY



SUCCEED
BRIGHTLY