

# 10

# Oregon OSAS

GRADE  
**6**  
MATH

## PRACTICE TESTS

**Standards-Aligned Review**  
**Mixed Practice & Answer Key**



### 10 PRINTED TESTS

Realistic practice to build confidence and mastery



### 2 ONLINE TESTS

Extra practice for continued success



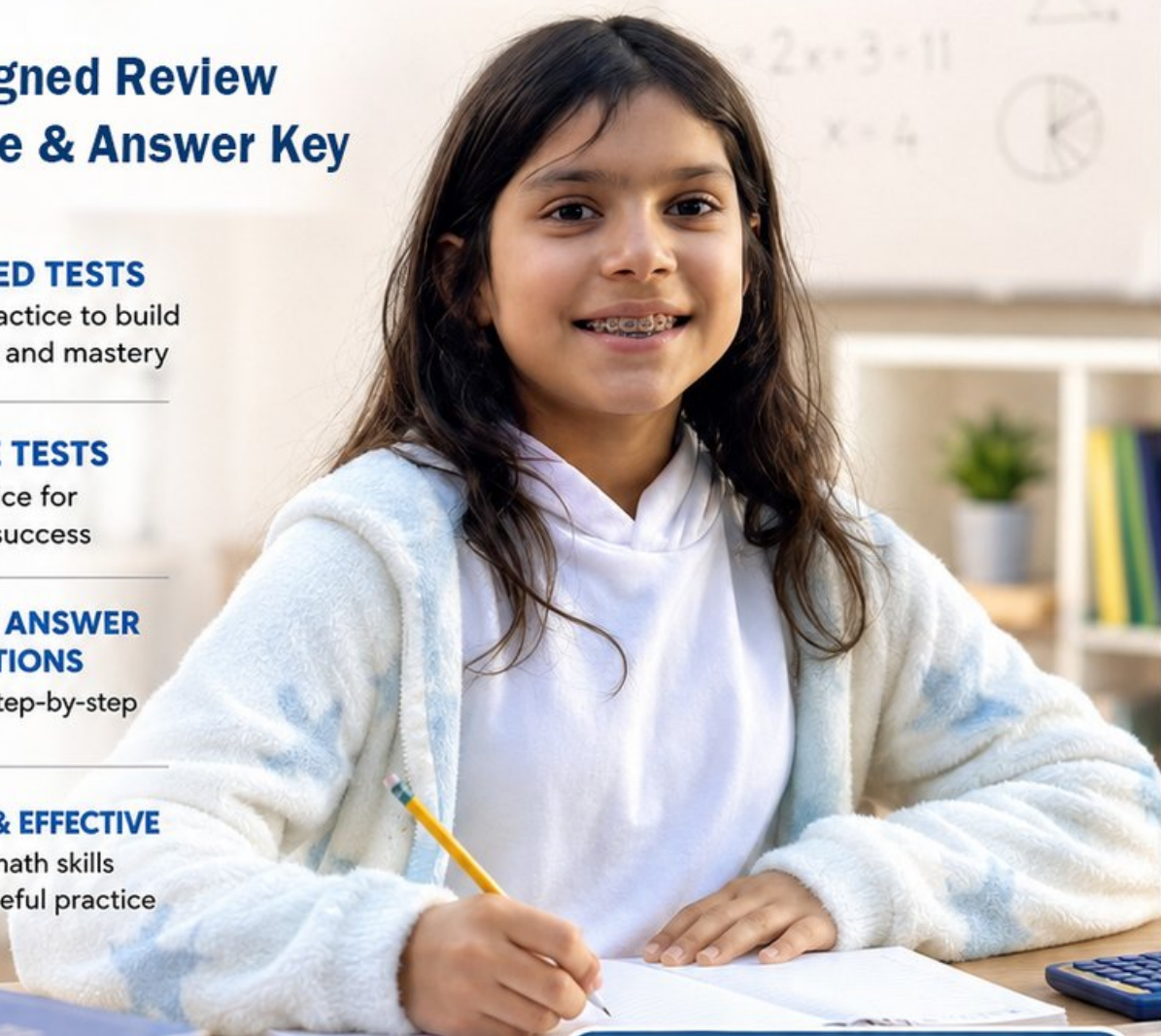
### DETAILED ANSWER EXPLANATIONS

Learn with step-by-step solutions



### FOCUSED & EFFECTIVE

Target key math skills with purposeful practice



**10** PRINTED TESTS  
**+ 2** ONLINE TESTS

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

**PRACTICE • REVIEW • SUCCEED**

# 10 Oregon OSAS Grade 6 Math Practice Tests

*Standards-Aligned Clear Forest-Trail Thinking for Oregon Statewide Assessment System*



Ten complete 40-question Grade 6 practice rounds for OSAS, with ratios, rational numbers, expressions, equations, geometry, statistics, answer keys, and clear explanations for every item.

**Jay Daie and Reza Nazari**



# Copyright ©

## Testinar Inc



Published by Testinar Inc

[Testinar.com](http://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, Oregon Math Explorer!

Ten steady rounds on a Pacific Northwest math trail

This book gives you ten full Grade 6 practice tests for OSAS. Each round uses forest paths, coast roads, and careful data reading as a fresh mental backdrop while you read closely, choose a smart strategy, show your work, and check whether your answer makes sense.

## Your Oregon Practice Promise

Pause at graphs and tables long enough to read every label. I will slow down for the question, circle what matters, solve one step at a time, and use mistakes as clues for getting stronger.

Read

Plan

Check

## How to Use This Book

A ten-session routine for clear forest-trail thinking

1. **Preview the skills.** Read the quick review pages before the first test.
2. **Take one test at a time.** Work in a quiet place and answer all 40 questions.
3. **Mark your confidence.** Put a small star beside problems you solved with a strong plan.
4. **Check, then retry.** For missed questions, try the problem again before reading the explanation.
5. **Track your next move.** Use the growth log to name one habit and one skill for the next test.

**Oregon review rhythm:** Test one day, correct carefully the next day, then return for the next round when your corrections feel clear.



## What Is Inside?

Ten OSAS tests, 400 questions, and a full review path

Part	What You Will Practice
Tests 1–3	Warm-up 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	Stamina rounds for mixed review, neat work, and flexible strategy choices.
Test 10	Final Oregon round to show growth across the whole book.
Answer Pages	Compact keys and explanations that show why each answer works.

The tests are mixed on purpose. Clear forest-trail thinking means recognizing the skill even when the next question changes topic.



Scan me!  
For more practice  
& answers

# Table of Contents

★ Practice Test 1	_____	14
★ Practice Test 2	_____	28
★ Practice Test 3	_____	43
★ Practice Test 4	_____	60
★ Practice Test 5	_____	75
★ Practice Test 6	_____	90
★ Practice Test 7	_____	106
★ Practice Test 8	_____	122
★ Practice Test 9	_____	138
★ Practice Test 10	_____	153
<b>Practice Test Answer Keys</b>	_____	<b>169</b>
<b>Practice Test Answers and Explanations</b>	_____	<b>175</b>



5)

## Proportional Relationship

Quantity A	Quantity B	Ratio
8	12	2 : 3
10	15	?
12	18	2 : 3

What ratio should fill the ? in the table above?

- A. 1 : 2                                       C. 2 : 5  
 B. 2 : 3                                       D. 3 : 4

6) A fitness coach records the number of push-ups done by 11 athletes:

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

Which interval contains the most data points?

- A. 20–29                                       C. Both have equal counts  
 B. 30–39                                       D. 40–49

7) A circle graph divides 180 minutes of study time into four subjects: math 45 minutes, science 60 minutes, English 45 minutes, social studies 30 minutes.

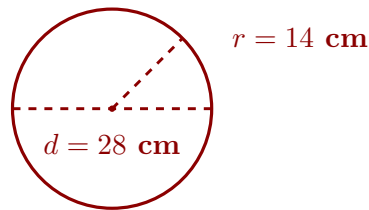
What angle (in degrees) should represent the social studies section?

- A. 45 degrees                                       C. 90 degrees  
 B. 30 degrees                                       D. 60 degrees



Scan me!  
For more practice  
& answers





1)

What is the approximate area of a circle with diameter 28 cm? Use  $\pi \approx \frac{22}{7}$ .

- A.  $88 \text{ cm}^2$ 
 C.  $616 \text{ cm}^2$   
 B.  $264 \text{ cm}^2$ 
 D.  $1232 \text{ cm}^2$

2) To qualify for a school club, you must have no less than a 3.0 grade point average. Which inequality describes the minimum GPA  $g$ ?

- A.  $g < 3.0$ 
 C.  $g \leq 3.0$   
 B.  $g > 3.0$ 
 D.  $g \geq 3.0$

3) Three students propose questions about movies. Which is statistical?

- A: "How long is the movie Frozen?"
- B: "How long are animated movies?"
- C: "When was the movie Frozen released?"

- A. Question A
  C. Question C  
 B. Question B
  D. None of them

4) Which measure describes the SPREAD of a data set?

- A. Mean
  C. Range  
 B. Median
  D. Mode

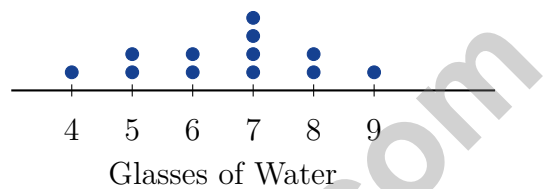


Scan me!  
For more practice  
& answers

5) Two classes took the same test. Class A's scores have a mean of 80 and MAD of 4. Class B's scores have a mean of 80 and MAD of 7. What does this tell you?

- A. Class A performed better overall.
- B. Class B performed better overall.
- C. Class A's scores are more consistent.
- D. Class B's scores are more consistent.

6) A dot plot displays the number of glasses of water consumed daily by 12 people. The values are: 4, 5, 5, 6, 6, 7, 7, 7, 7, 8, 8, 9. Which is true?



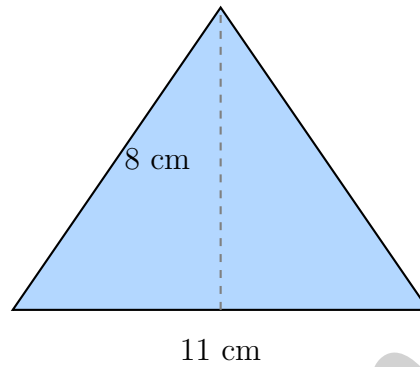
- A. The mode is 5 glasses
- B. The mode is 7 glasses
- C. The range is 6 glasses
- D. The median is 5 glasses

7) A dot plot shows scores: {3, 5, 7, 7, 8, 8, 8, 9}. What is the mode?

- A. 7
- B. 3
- C. 9
- D. 8

8) A school has  $s$  students. It also has  $s + 25$  staff members. If the school has 600 students, how many staff members does it have?

- 1) What is the area of an isosceles triangle with base 11 cm and height 8 cm?



- A.  $19 \text{ cm}^2$                        C.  $88 \text{ cm}^2$   
 B.  $44 \text{ cm}^2$                        D.  $176 \text{ cm}^2$
- 2) A shirt is on sale for 50% off. Which decimal represents the discount?
- A. 0.05                               C. 5.0  
 B. 0.5                                  D. 50.0
- 3) A graph shows the relationship between the amount of flour (in cups) and the number of muffins baked. The point (2, 24) is on the line. If the ratio is constant and starts at the origin, how many muffins can be made with 5 cups of flour?



Scan me!  
For more practice  
& answers



## Oregon OSAS Practice Test Answer Keys

**How to use this section with a Grade 6 student:**

1. check the answer first
2. mark questions to try again
3. rework the problem before reading the full explanation

**A calm correction routine turns every missed item into useful practice.**

Testinar.com



Scan me!  
For more practice  
& answers

## Practice Test Answers and Explanations

### Practice Test 1 Answers and Explanations

- 1) **Choice C is correct.** **(6.AEE.B.7)** The vertical distance is the difference:  $150 - (-45) = 150 + 45 = 195$  feet.
- 2) **Choice A is correct.** **(6.GM.A.1)** A relationship is proportional if  $y/x$  is constant. Option A has  $5/1 = 5$ ,  $10/2 = 5$ , and  $15/3 = 5$ , so it is proportional. Option B has  $3/1 = 3$  and  $5/2 = 2.5$ , so the ratio is not constant.
- 3) **Choice C is correct.** **(6.DR.D.4)** Rent is \$500 out of \$1000:  $\frac{500}{1000} = 0.50 = 50\%$ .
- 4) **Choice A is correct.** **(6.RP.A.3)** Divide:  $5280 \text{ feet} \div 200 \text{ feet/inch} = 26.4$  inches.
- 5) **Choice B is correct.** **(6.NS.A.1)** Each row maintains the ratio 2 : 3. Row 1:  $8 : 12 = 2 : 3$  (divide by 4). Row 2:  $10 : 15 = 2 : 3$  (divide by 5). Row 3:  $12 : 18 = 2 : 3$  (divide by 6). All rows have the ratio 2 : 3.
- 6) **Choice C is correct.** **(6.NS.C.6)** Count the leaves on each stem: stem 2 (the 20s) has 4 leaves, stem 3 (the 30s) has 4 leaves, and stem 4 (the 40s) has 3 leaves. Stems 2 and 3 are tied for the most data points, so the correct response is that both intervals have equal counts.
- 7) **Choice D is correct.** **(6.NS.B.2)** Social studies is 30 minutes out of 180 total. The fraction is  $\frac{30}{180} = \frac{1}{6}$ . The angle is  $\frac{1}{6} \times 360^\circ = 60^\circ$ .
- 8) **Choice D is correct.** **(6.GM.A.1)** The 1 loss part stands for 4 losses, so each ratio part is worth 4. Wins are 4 parts, and  $4 \times 4 = 16$  wins.
- 9) **Choice C is correct.** **(6.AEE.A.3)** Mechanical pencils are the 1-part amount. If that part is 5, then wooden pencils are 4 parts:  $4 \times 5 = 20$ .
- 10) **Choice D is correct.** **(6.NS.C.6)** Divide cups by minutes:  $54 \div 9 = 6$  cups per minute.
- 11) **Choice A is correct.** **(6.DR.B.2)** Unit rate:  $180 \div 3 = 60$  pages per minute.
- 12) **Choice B is correct.** **(6.DR.D.4)** All these points lie on a straight line passing through (0,0) because the ratio is constant (12 dollars per hour). Proportional relationships always graph as straight lines through the origin.
- 13) **Choice C is correct.** **(6.NS.B.3)**  $\frac{36}{40} = \frac{9}{10} = \frac{90}{100} = 90\%$  (simplify, then write with denominator 100).
- 14) **The correct answer is 480.** **(6.AEE.A.3)**  $V = 10 \times 6 \times 8 = 480 \text{ in}^3$ .
- 15) **The correct answer is 10 meters.** **(6.AEE.A.3)** From  $A = \pi r^2$ , we get  $314 \approx 3.14 \times r^2$ , so  $r^2 \approx 100$ , thus  $r = 10$  meters.
- 16) **Choice D is correct.** **(6.AEE.B.5)** 60% of 15 =  $0.60 \times 15 = 9$  kg.
- 17) **Choice B is correct.** **(6.AEE.B.4)** Ratio 3 : 2 with red = 9 cans: each part is  $9 \div 3 = 3$  cans. Blue paint:  $2 \times 3 = 6$  cans.
- 18) **Choice D is correct.** **(6.AEE.B.7)** Multiply:  $120 \times 3 = 360$  feet.
- 19) **Choice B is correct.** **(6.AEE.C.8)** Net worth = Assets - Debts =  $\$1200 - \$300 = \$900$ .
- 20) **The correct answer is 2.4.** **(6.NS.C.8)** Mean =  $(6 + 8 + 10 + 12 + 14) / 5 = 10$ . Deviations:  $|6 - 10| = 4$ ,  $|8 - 10| = 2$ ,  $|10 - 10| = 0$ ,  $|12 - 10| = 2$ ,  $|14 - 10| = 4$ . MAD =  $(4 + 2 + 0 + 2 + 4) / 5 = 2.4$ .
- 21) **The correct answer is Statements B, C, and E are correct: Time is the independent variable (you choose how long to run); the equation is  $d = 8t$ ; and the constant rate is 8 mph.** **(6.GM.A.1)** Correct: B (time is independent—you control it), C (equation  $d = 8t$  is correct), and E (the rate is indeed 8 mph). Incorrect: A (distance depends on time), D (reverses the relationship).
- 22) **Choice A is correct.** **(6.GM.A.2)** Check by multiplying and adding the remainder:  $22 \times 194 = 4,268$ , and  $4,268 + 16 = 4,284$ . The remainder 16 is less than 22, so Mika's answer is correct.
- 23) **Choice A is correct.** **(6.DR.C.3)** Multiply:  $2.35 \times 5 = 11.75$  minutes.
- 24) **Choice A is correct.** **(6.DR.B.2)**  $48 = 16 \times 3 = 2 \times 2 \times 2 \times 2 \times 3 = 2^4 \times 3$ . Option B uses composite 6; C and D use composite factors.
- 25) **Choice A is correct.** **(6.DR.D.4)** Distributive property:  $4(7 + 8) = 4 \cdot 7 + 4 \cdot 8 = 28 + 32 = 60$ . Choice A shows the expanded form.
- 26) **Choice B is correct.** **(6.DR.A.1)** The absolute value  $|-17| = 17$  gives the magnitude, or distance from zero, which is 17 degrees.
- 27) **Choice A is correct.** **(6.DR.C.3)** Point J is located at  $-0.8$ , which equals  $-\frac{8}{10} = -\frac{4}{5}$ .



Scan me!  
For more practice  
& answers

## Hi, Math Champion!

◇ You trained hard! 10 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](mailto:jay@testinar.com).

**Jay Daie**

Your Math Coach

# PRACTICE MORE. ACHIEVE MORE. SUCCEED!

This **Grade 6 Math Practice Tests** book is designed to help students build strong math skills, deepen their understanding of key concepts, and gain the confidence they need to succeed on any test.

With 10 full-length printed tests and 2 online tests, students get the review, practice, and realistic test experience they need to improve accuracy, strengthen 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

★ **CONFIDENCE TODAY.  
SUCCESS 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.



### Deepen 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.



10 PRINTED  
PRACTICE TESTS



2 ONLINE  
PRACTICE TESTS



DETAILED ANSWER  
EXPLANATIONS