

# 7 Hawaii

Smarter Balanced

7  
PRINTED  
TESTS  
+  
2  
ONLINE  
TESTS

## Grade 6 MATH

# PRACTICE TESTS

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

Standards-Aligned *Steady Southern*  
Problem Solving for Comprehensive  
Assessment Program

-  7 Full-Length Printed Tests
-  Standards-Aligned Math Practice
-  Detailed Answer Keys and Explanations
-  Build Confidence. Achieve Success.



You've Got This!



PREPARE  
PRACTICE  
SUCCEED



PRACTICE  
WITH PURPOSE



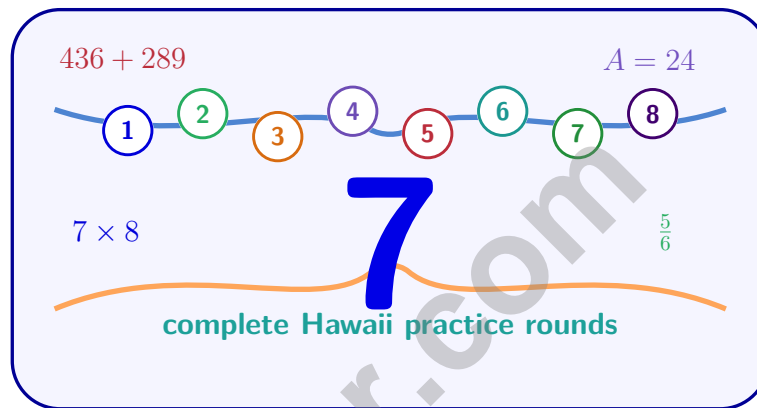
STRENGTHEN  
MATH SKILLS



REVIEW, IMPROVE,  
AND SUCCEED

# 7 Hawaii Smarter Balanced Grade 6 Math Practice Tests

*Standards-Aligned Island-Paced Precision for Smarter Balanced Assessment Consortium*



Seven complete 40-question Grade 6 practice rounds for Smarter Balanced, built for island-paced precision 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, Hawaii Math Explorer!

Eight focused rounds using island-paced precision

This book gives you seven full Grade 6 practice tests for Smarter Balanced. Each round uses island routes, ocean patterns, and calm step-by-step thinking as a fresh mental backdrop while you read closely, choose a smart strategy, show your work, and check whether your answer makes sense.

## Your Hawaii Practice Promise

Let the problem unfold in order: read, represent, solve, and check the meaning.

Read

Plan

Check

# How to Use This Book

A seven-session routine for island-paced precision

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.

**Hawaii review rhythm:** Use each round like a wave set: work steadily, review carefully, and return stronger.



## What Is Inside?

Eight Smarter Balanced tests, 320 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.
Test 7	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. Island-paced precision 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) Which number is located farthest from 0 on a number line?

- A. -4                       C. 2.5  
 B. -1.5                     D. 3

2) What is  $-9 + 4$ ? using a number line

3) A data set shows the following box plot summary statistics: min = 5, Q1 = 12, median = 18, Q3 = 24, max = 35. Find both the range and the IQR.

- A. Range = 30, IQR = 12                       C. Range = 29, IQR = 12  
 B. Range = 30, IQR = 11                     D. Range = 30, IQR = 6

4) A jar contains 20 marbles of different colors. The probability of drawing a purple marble is 0.20. How many purple marbles are in the jar?

- A. 2     C. 5  
 B. 10     D. 4





9) Convert 0.09 to a percent.

A. 0.9%

B. 900%

C. 90%

D. 9%

10) Solve for  $x$ :  $0.5x = 7$

A.  $x = 3.5$

B.  $x = 6.5$

C.  $x = 7.5$

D.  $x = 14$

11) A library book can be checked out for at most 14 days. Which inequality represents the number of days  $d$  a book may be borrowed?

A.  $d \leq 14$

B.  $d > 14$

C.  $d \geq 14$

D.  $d < 14$

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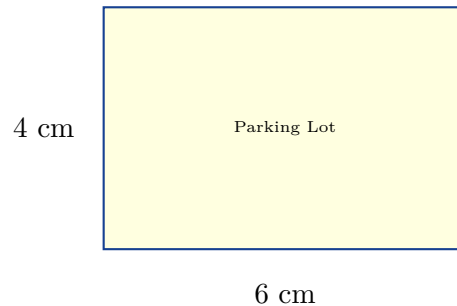
- 1) A basketball team's game scores:  $\{78, 82, 85, 87, 88, 89, 90, 92, 96\}$ . If a student calculated the median as 88 but got the mean as 79, what is the student's error?
- A. Median is correct but mean is wrong; mean should be about 87.4
- B. Median is wrong; should be 87. Mean of 79 is too low
- C. Both calculations are correct but the student misunderstood spread
- D. Median is correct but mean is wrong; mean should be 89.33
- 2) If the point  $(6, -4)$  is reflected across the  $x$ -axis and then across the  $y$ -axis, what are the final coordinates?
- A.  $(6, -4)$
- B.  $(-6, 4)$
- C.  $(6, 4)$
- D.  $(-6, -4)$
- 3) A garden has red flowers and yellow flowers in the ratio  $4 : 5$ . If there are 20 red flowers, how many yellow flowers are there?

- 4) A student's grade increased from 82 to 90. What is the percent increase, rounded to the nearest whole number?
- A. 10%
- B. 9.8%
- C. 8%
- D. 12%



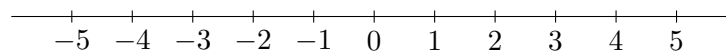
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& answers

- 5) A scale drawing of a rectangular parking lot is shown with dimensions labeled in centimeters. The scale is  $1 \text{ cm} = 5 \text{ m}$ .



What is the actual area of the parking lot?

- A. 24 sq m                       C. 150 sq m  
 B. 120 sq m                     D. 600 sq m
- 6) A drink contains 0.5 L of juice. If you pour 0.3 L, how much is left?
- A. 0.8 L                       C. 0.2 L  
 B. 0.15 L                     D. 0.35 L
- 7) What is the prime factorization of 72?
- A.  $2^3 \times 3^2$                        C.  $8 \times 9$   
 B.  $2^2 \times 18$                        D.  $2 \times 36$
- 8) Which number line correctly shows the position of  $-5$ ?



What is the correct location of  $-5$  on the number line above?

- A. Between  $-6$  and  $-4$ , closer to  $-4$      C. At the fifth tick mark to the left of zero  
 B. At the fifth tick mark to the right of zero  
 D. Exactly at zero



1) Which expression is equivalent to  $3(2x + 5)$ ?

A.  $6x + 5$

C.  $6x + 15$

B.  $6x + 8$

D.  $2x + 15$

2) A vehicle travels at a constant speed. The graph shows the relationship between time and distance. If the point  $(2, 110)$  is on the line (meaning 2 hours  $\rightarrow$  110 miles), which equation models this relationship?

A.  $d = 50t$

C.  $d = 110t$

B.  $d = 55t$

D.  $d = 220t$

3) Which number line correctly shows three points:  $-3$ ,  $0$ , and  $2$ ?



Based on the number line, which statement is true?

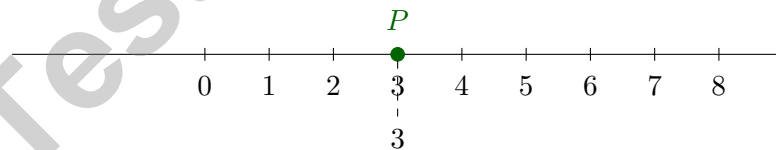
A.  $-3 > 2$

C.  $-3 < 0 < 2$

B.  $0 < -3$

D.  $2 < 0$

4)



Which number is less than  $P$ ?

A. 5

C. 2

B. 4

D. 6



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5) Simplify the ratio 14 : 21.

A. 1 : 2

C. 3 : 2

B. 2 : 3

D. 14 : 21

6) A store sells pencils in packs where the ratio of mechanical to wooden is 1 : 4. If a pack has 5 mechanical pencils, how many wooden pencils are in the pack?

A. 4

C. 20

B. 9

D. 25

7) A basketball player scores 42 points in 6 games. What is the average rate in points per game?

A. 6 points per game

C. 7 points per game

B. 36 points per game

D. 48 points per game

8) The maximum capacity is 4,000 gallons. What is the greatest allowed number of gallons?

9) A swimmer swims 100 meters in 25 seconds. What is the unit rate in meters per second?

A. 2 m/s

C. 5 m/s

B. 4 m/s

D. 25 m/s



**Hawaii Smarter Balanced Practice Test Answer Keys**

**How to use this Hawaii Smarter Balanced 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 island-paced precision
3. rework the problem before reading the full explanation, using this reminder:  
Let the problem unfold in order: read, represent, solve, and check the meaning.

**A calm Hawaii correction routine turns every missed item into useful practice. Use each round like a wave set: work steadily, review carefully, and return stronger.**



## Hawaii Practice Test Answers and Explanations

Review the seven printed Smarter Balanced tests with calm, clear, and ready for the next wave habits.

### Practice Test 1 Answers and Explanations

- Choice A is correct.** **6.NS.C.6c** Distance from zero is the absolute value.  $|-4| = 4$ ,  $|-1.5| = 1.5$ ,  $|2.5| = 2.5$ ,  $|3| = 3$ . The greatest distance is 4.
- The correct answer is -5.** **6.NS.B.3** Start at  $-9$  and move 4 units right:  $-9 + 4 = -5$ .
- Choice A is correct.** **6.SP.B.5c** Range = max - min =  $35 - 5 = 30$ . IQR =  $Q3 - Q1 = 24 - 12 = 12$ .
- Choice D is correct.** **6.NS.B.3** Number of purple marbles =  $0.20 \times 20 = 4$ .
- Choice A is correct.** **6.SP.B.4** The smallest value in the plot is found by taking the smallest stem (14) with its smallest leaf (0), giving 140 cm.
- Choice A is correct.** **6.NS.A.1**  $33\frac{1}{3}\%$  of 420 is  $\frac{1}{3} \times 420 = 140$  members.
- The correct answer is 35.** **6.EE.A.3** Balance after two withdrawals:  $150 - 75 - 40 = 35$  dollars.
- Choice C is correct.** **6.RP.A.3** Students scoring 70-80 (8) + 80-90 (4) = 12 students. Total students =  $2 + 5 + 8 + 4 + 1 = 20$ . Percentage =  $\frac{12}{20} = 0.6 = 60\%$ .
- Choice D is correct.** **6.RP.A.3c**  $0.09 \times 100 = 9\%$ .
- Choice D is correct.** **6.EE.B.5** Divide both sides by 0.5:  $x = 7 \div 0.5 = 14$ .
- Choice A is correct.** **6.EE.B.8** "At most 14 days" means up to and including 14:  $d \leq 14$ .
- Choice A is correct.** **6.G.A.3** Area of triangle =  $\frac{1}{2} \times \text{base} \times \text{height} = \frac{1}{2} \times 7 \times 5 = 17.5$  square units, not 35. The student forgot the division by 2.
- Choice C is correct.** **6.SP.A.2** This rewrite introduces variability: different cities have different populations. The original and options A, B, D ask for facts with single answers or time-based changes, not variability across multiple sources.
- The correct answer is 17.** **6.EE.A.1** Substitute:  $a = 2$  so  $a^3 = 2^3 = 8$ . And  $b = 3$  so  $b^2 = 3^2 = 9$ . Then add:  $8 + 9 = 17$ .
- Choice D is correct.** **6.SP.B.4** A bimodal distribution has two modes (peaks). This dot plot shows two peaks: one at 14 cm (frequency 4) and another at 18 cm (frequency 4). The values in between are lower, so the data clusters at two distinct points.
- Choice B is correct.** **6.EE.A.2b** When a variable has no visible coefficient, it is understood to be 1 (i.e.,  $x = 1x$ ). The coefficient is never 0 unless the term is absent.
- Choice B is correct.** **6.EE.B.8** "Younger than 65" means strictly less than 65, so the inequality is  $a < 65$ .
- Choice B is correct.** **6.EE.C.9** Each row shows cost =  $15 \times$  number of tickets. For example, 1 ticket costs \$15; 5 tickets cost  $\$75 = 15 \times 5$ .
- The correct answer is *y*-coordinate changes sign, *x*-coordinate stays the same.** **6.NS.C.8** When reflecting across the *x*-axis, the *y*-coordinate changes to  $-q$  (B is correct) and the *x*-coordinate remains *p* (D is correct). This means the reflected point is  $(p, -q)$ . Statement A is false—only the *y*-coordinate changes sign. Statement C is false because the reflection is vertical. Statement E describes the result but is not separately identifying a true property about the transformation.
- Choice C is correct.** **6.G.A.1**  $A = \frac{1}{2} \times 19 \times 8 = 76 \text{ cm}^2$ .
- Choice D is correct.** **6.G.A.2** Box X:  $V = 5 \times 2 \times 3 = 30 \text{ ft}^3$ . Box Y:  $V = 4 \times 2 \times 4 = 32 \text{ ft}^3$ . Difference:  $32 - 30 = 2 \text{ ft}^3$ , with Box Y being larger.
- Choice B is correct.** **6.G.A.1** Original rectangle: width  $10 - 2 = 8$ , height  $8 - 2 = 6$ , area = 48 sq. units. Option B: width  $15 - 3 = 12$ , height  $5 - 1 = 4$ , area = 48 sq. units. Match!
- Choice D is correct.** **6.RP.A.3a** The unit rate is the change in goals divided by the change in hours:  $\frac{15-6}{5-2} = \frac{9}{3} = 3$  goals per hour.
- Choice D is correct.** **6.RP.A.3c** 72% of 250 =  $0.72 \times 250 = 180$  people.



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## Hi, Math Athlete!

◇ 7 practice tests done! That's serious training. Your math muscles are strong. You are in great shape for the big test. ◇

★ **Trainers know:** muscle memory is real. The more you practice, the more your brain knows what to do without thinking. You built that muscle memory! ★

### Athlete Performance

- **Endurance:** TOP! You can finish a long test.
- **Strength:** STRONG! You handle hard problems.
- **Speed:** JUST RIGHT! You don't rush.
- **Recovery:** GOOD! You bounce back from tough questions.

**Trainer tip:** on test day, drink water, breathe deeply, and warm up with the easier questions first. Your training will carry you the rest of the way!

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 Trainer

# MASTER 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 7 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 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.



7 FULL-LENGTH  
PRINTED TESTS



STANDARDS-  
ALIGNED PRACTICE



DETAILED ANSWER  
KEYS & EXPLANATIONS