

10

Hawaii

Smarter Balanced

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



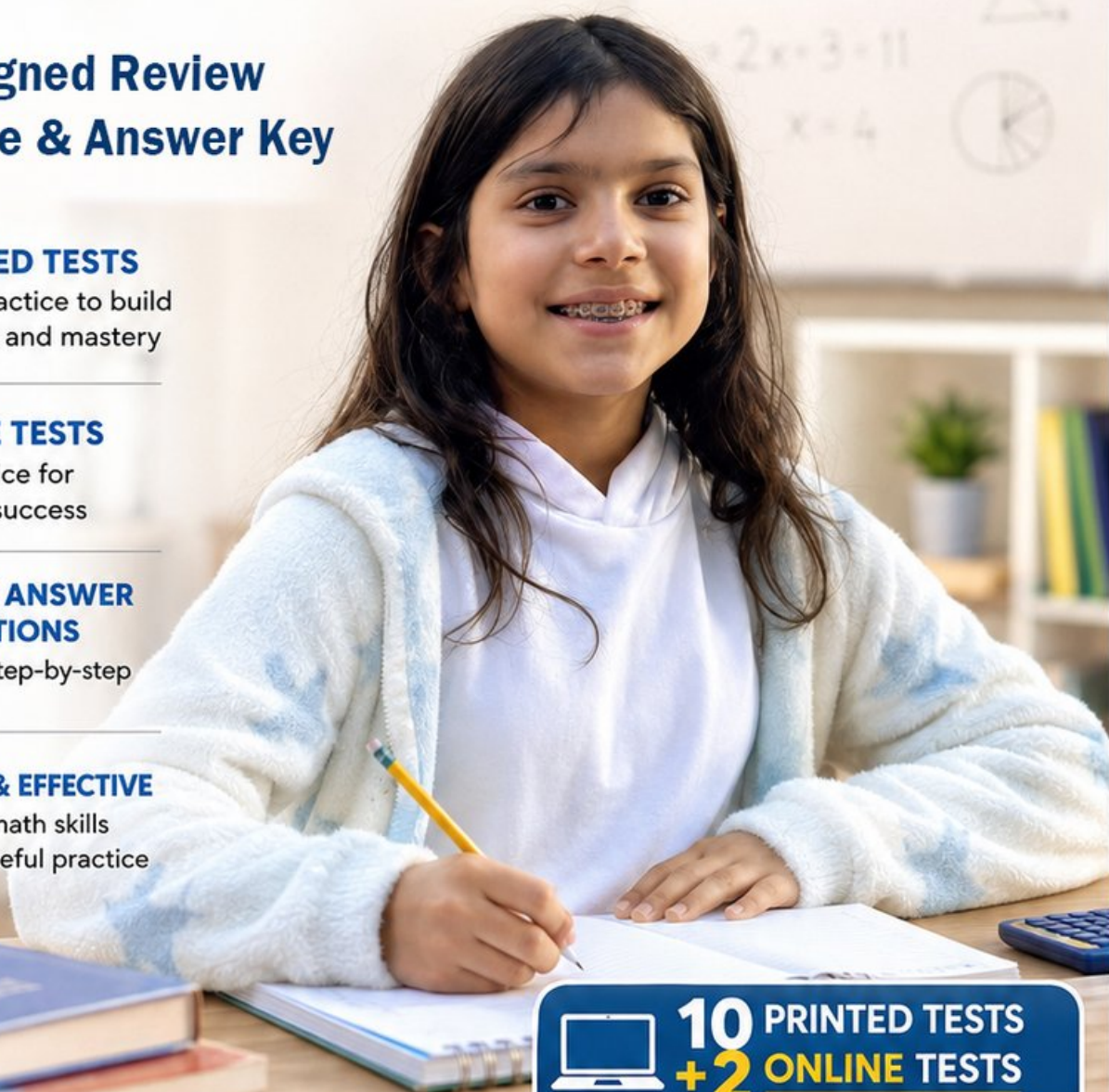
DETAILED ANSWER EXPLANATIONS

Learn with step-by-step solutions



FOCUSED & EFFECTIVE

Target key math skills with purposeful practice



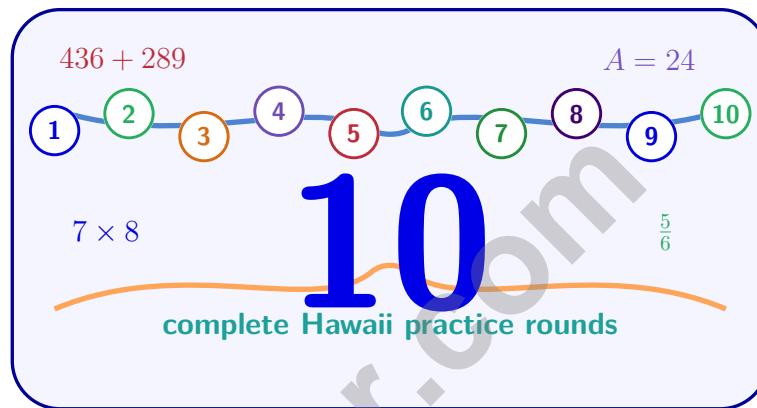
10 PRINTED TESTS
+ 2 ONLINE TESTS

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

PRACTICE • REVIEW • SUCCEED

10 Hawaii Smarter Balanced Grade 6 Math Practice Tests

Standards-Aligned Balanced Island Thinking for Smarter Balanced Assessment Consortium



Ten complete 40-question Grade 6 practice rounds for Smarter Balanced, 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!

Ten steady rounds on an island-hopping review journey

This book gives you ten full Grade 6 practice tests for Smarter Balanced. Each round uses ocean routes, volcanic slopes, and steady classroom rhythm 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 each problem have a beginning, middle, and check. 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 balanced island 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.

Hawaii 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 Smarter Balanced 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 Hawaii 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. Balanced island thinking means recognizing the skill even when the next question changes topic.

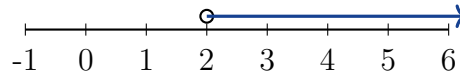


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1) Which number line represents the inequality $x > 2$?



- A. An open circle at 2 with an arrow pointing right
- C. An open circle at 2 with an arrow pointing left
- B. A closed circle at 2 with an arrow pointing right
- D. A closed circle at 2 with an arrow pointing left

2) A recipe uses a scale where 1 inch on a diagram represents 2 inches of actual ingredient. If the actual length of an ingredient is 18 inches, what length is shown in the diagram?

- A. 6 inches
- C. 18 inches
- B. 9 inches
- D. 36 inches

3) A truck travels 350 miles on 14 gallons of gas. How many miles per gallon is the fuel efficiency?

- A. 20 mpg
- C. 24 mpg
- B. 22 mpg
- D. 25 mpg

4) A car travels at a constant speed. The table shows equivalent distances and times:

Distance (miles)	Time (hours)
60	1
120	2
?	3

- A. 160
- C. 200
- B. 180
- D. 220

- 5) A table has an error. Three data points should show a proportional relationship between x and y , but one point breaks the pattern.

x	1	3	5
y	5	15	27

Which point should be changed to make the table proportional with constant $k = 5$?

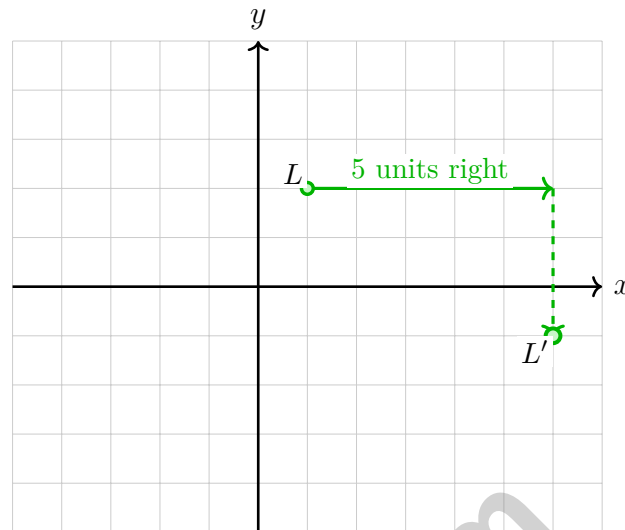
- A. Change (1, 5) to (1, 5) (no change) C. Change (5, 27) to (5, 25)
 B. Change (3, 15) to (3, 15) (no change) D. The table already shows proportionality
- 6) Which pair shows equivalent expressions for dividing $\frac{4}{5}$ by $\frac{2}{3}$?
- A. $\frac{4}{5} \times \frac{2}{3}$ and $\frac{8}{15}$ C. $\frac{4}{5} \times \frac{3}{2}$ and $\frac{12}{10}$
 B. $\frac{4}{5} \div \frac{2}{3}$ and $\frac{12}{10}$ D. $\frac{2}{3} \times \frac{4}{5}$ and $\frac{6}{20}$
- 7) A rectangle has vertices at (1, 1), (10, 1), (10, 4), and (1, 4). What is the perimeter of this rectangle?

- 8) Which data set would have the largest mean?

- A. 1, 2, 3, 4, 5 C. 2, 3, 4, 5, 6
 B. 3, 4, 5, 6, 7 D. 1, 2, 3, 4, 50



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3)

Point L at $(1, 2)$ is translated 5 units right and 3 units down. What is the distance between L and L' along the x -direction?

- A. 5 units C. 2 units
 B. 3 units D. 8 units
- 4) A circle has a diameter of 20 cm. What is its approximate area using $\pi \approx 3.14$?
- A. 62.8 cm^2 C. 314 cm^2
 B. 125.6 cm^2 D. 1256 cm^2
- 5) Which question BEST represents the core concept of a statistical question?

**A statistical question expects variability
and is answered by collecting data
from multiple sources.**

Which example matches this definition?

- A. What time does the bus arrive at school?
 B. What is the name of my best friend?
- C. How many days are in a week?
 D. How many siblings do students in my grade have?



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1) Which relationship is shown by the equation $y = 7x$?

- A. Proportional; constant of proportionality is 7
- B. Non-proportional; the constant is 7
- C. Proportional; constant of proportionality is $1/7$
- D. Non-proportional; there is a 7-unit shift

2) A field is 80 yards long. How many feet long is the field? (Use 1 yard = 3 feet.)

- A. 160 feet
- B. 200 feet
- C. 240 feet
- D. 320 feet

3) If $\frac{1}{4}$ gallon of paint costs \$8, how much does 1 gallon of paint cost?

4) Keisha uses a debit card to purchase a video game for \$45. What will happen to her bank account?

- A. The bank lends her \$45
- B. The balance decreases by \$45
- C. She earns \$45 in interest
- D. The balance increases by \$45



Hawaii Smarter Balanced 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.

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Practice Test Answers and Explanations

Practice Test 1 Answers and Explanations

- 1) **Choice A is correct.** **(6.EE.A.1)** $x > 2$ means x is strictly greater than 2, so use an open circle (not including 2) with the arrow pointing toward larger values.
- 2) **Choice B is correct.** **(6.SP.B.4)** To find the diagram length, divide the actual length by the scale factor: $18 \div 2 = 9$ inches.
- 3) **Choice D is correct.** **(6.RP.A.1)** $350 \div 14 = 25$ miles per gallon.
- 4) **Choice B is correct.** **(6.SP.B.5)** The car travels 60 miles per hour. In 3 hours: $60 \times 3 = 180$ miles.
- 5) **Choice C is correct.** **(6.NS.B.3)** For $k = 5$, $(1, 5)$ and $(3, 15)$ both fit because $5/1 = 5$ and $15/3 = 5$. The point $(5, 27)$ does not fit because $27/5 = 5.4$. Changing it to $(5, 25)$ makes $25/5 = 5$.
- 6) **Choice C is correct.** **(6.G.A.1)** Invert the divisor $\frac{2}{3}$ to get $\frac{3}{2}$, then multiply: $\frac{4}{5} \times \frac{3}{2} = \frac{12}{10} = \frac{6}{5}$.
- 7) **The correct answer is 26.** **(6.NS.C.7d)** Length = $10 - 1 = 9$ units; width = $4 - 1 = 3$ units. Perimeter = $2(9 + 3) = 2(12) = 26$ units.
- 8) **Choice D is correct.** **(6.NS.A.1)** Set D has a large outlier (50) that increases the mean to $\frac{60}{5} = 12$. The other sets have means of 3, 5, and 4 respectively.
- 9) **Choice C is correct.** **(6.NS.B.4)** 40% of 250 is $0.40 \times 250 = 100$ students.
- 10) **Choice D is correct.** **(6.NS.C.7c)** Great start: keep the order the same, apples first and oranges second. Both 6 and 4 can be divided by 2, so $6 : 4$ becomes $3 : 2$.
- 11) **Choice D is correct.** **(6.EE.B.8)** To compare the two ratios, find how many peach parts there are per apple part in each. Mixture A: $2 \div 1 = 2$ peach parts per apple part. Mixture B: $3 \div 2 = 1.5$ peach parts per apple part. Since $2 > 1.5$, Mixture A has the higher peach-to-apple ratio (more peach for each apple).
- 12) **Choice C is correct.** **(6.SP.B.4)** Option C compares boys to girls, which are both types of people (same category), so it is a ratio, not a rate. Options A, B, and D all compare quantities with different units (laps/time, loaves/time, miles/time), making them rates.
- 13) **Choice B is correct.** **(6.EE.A.3)** With students on the x-axis and desks on the y-axis, the first row of the table (4 students, 2 desks) becomes the ordered pair $(4, 2)$.
- 14) **Choice B is correct.** **(6.EE.A.2a)** A 10×10 grid has 100 squares. A percent is a ratio out of 100. So 35 out of 100 squares shaded = $\frac{35}{100} = 35\%$.
- 15) **Choice C is correct.** **(6.EE.A.2c)** $\frac{18}{40} = 0.45 = 45\%$.
- 16) **Choice B is correct.** **(6.EE.B.6)** Cross-multiply: $8 \times 30 = 12 \times x$, so $240 = 12x$, thus $x = 20$.
- 17) **Choice C is correct.** **(6.EE.B.8)** Divide: $18 \div 2 = 9$ quarts.
- 18) **Choice C is correct.** **(6.EE.C.9)** Tip: 15% of $\$32 = 0.15 \times 32 = \4.80 .
- 19) **The correct answer is 24.** **(6.NS.B.3)** Width: $8 - 2 = 6$ units. Height: $6 - 2 = 4$ units. Area = $6 \times 4 = 24$ square units.
- 20) **Choice C is correct.** **(6.G.A.1)** Available: $100\% - 35\% = 65\%$ of $\$400 = 0.65 \times 400 = \260 .
- 21) **The correct answer is A and C are the true statements..** **(6.G.A.3)** A is true: the formula $A = \frac{1}{2}bh$ applies to right, acute, and obtuse triangles. C is true: area is directly proportional to height when the base is fixed, so doubling the height doubles the area. B is false: in an obtuse triangle the height falls outside the triangle, so the height is not always a side. D is false: any side can serve as the base. E is false: the area of a triangle is exactly *half* the area of a rectangle with the same base and height, not greater.
- 22) **Choice A is correct.** **(6.G.A.4)** $8,925 \div 35 = 255$ exactly. Verify: $35 \times 255 = 8,925$.
- 23) **Choice A is correct.** **(6.SP.A.2)** Multiply: $63 \times 9 = 567$. With $1 + 1 = 2$ decimal places total, the answer is 5.67.
- 24) **Choice B is correct.** **(6.G.A.1)** $100 = 4 \times 25 = (2 \times 2) \times (5 \times 5) = 2^2 \times 5^2$. Options A, C, and D use composite numbers.
- 25) **The correct answer is $(5, 1)$.** **(6.NS.C.8)** Translate right: add 3 to the x -coordinate: $2 + 3 = 5$. Translate down: subtract 2 from the y -coordinate: $3 - 2 = 1$. So $E' = (5, 1)$.



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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.

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.



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DETAILED ANSWER
EXPLANATIONS