

6

Hawaii

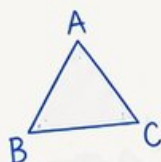
Smarter Balanced

GRADE
6
MATH

PRACTICE TESTS

Standards-Aligned
Steady Southern
Problem Solving for
Comprehensive
Assessment Program

$$2x + 3 = 11$$



$$7^2 = 49$$

BUILD SKILLS.
GAIN CONFIDENCE.
SUCCEED!



6 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



6 PRINTED TESTS + 2 ONLINE TESTS

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



PRACTICE

Sharpen skills with targeted practice tests



REVIEW

Understand concepts and strengthen skills



SUCCEED

Build confidence and achieve your best

6 Hawaii Smarter Balanced Grade 6 Math Practice Tests

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



Six 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 six 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 six-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 1–2	Foundation rounds for ratios, rational numbers, operations, and careful reading.
Tests 3–5	Skill-building rounds with expressions, equations, geometry, data, and problem models.
Test 6	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) 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) Solve for x : $7x = 21$

A. $x = 3$

B. $x = 14$

C. $x = 28$

D. $x = 147$

3) What is $6,216 \div 38$?

A. 163

B. 164

C. 165

D. 168

4) Expand $10(3 + 9)$.

A. $30 + 90$

B. $30 + 9$

C. $10 + 12$

D. 120

5) After distributing $5(x + 6)$, what is the constant term?



6) A bank statement shows two transactions: a withdrawal of \$45 and a deposit of \$28. In terms of absolute value, which transaction has the larger magnitude?

- A. The withdrawal (represented as -45)
- B. The deposit (represented as 28)
- C. They have the same magnitude
- D. Cannot be determined

7) A point is located at $(1, -6)$. If you move this point to $(1, 6)$, which transformation occurred?

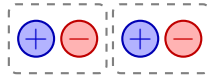
- A. Reflection across the y -axis
- B. A translation up
- C. A 90-degree rotation
- D. Reflection across the x -axis

8) Which list shows the numbers in order from least to greatest?

$-2.5, \frac{1}{4}, -3, 1.75$

- A. $-3, -2.5, \frac{1}{4}, 1.75$
- B. $\frac{1}{4}, 1.75, -2.5, -3$
- C. $-2.5, -3, \frac{1}{4}, 1.75$
- D. $1.75, \frac{1}{4}, -2.5, -3$

9) What is $2 + (-2)$?



two $+1$ chips and two -1 chips make 0

- A. -4
- B. 0
- C. 2
- D. 4



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10) An error was made: a student computed $(-3) \times (-4) \times 2$ and got -24 . What is the correct answer?

- A. -24 (student is correct) C. 9 (student added the negatives)
 B. 24 (student forgot a sign rule) D. 7 (student subtracted)

11) The table below shows the cost of renting a canoe.

Hours	2	4	6
Cost (\$)	30	60	90

What is the cost per hour to rent the canoe?

12) A student's test score history: First test $+5$ points above average, second test -8 points below average, third test $+12$ points above average. What is the total relative to average?

- A. -11 points C. 25 points
 B. 9 points D. -3 points

13) Which of the following equals 32 ?

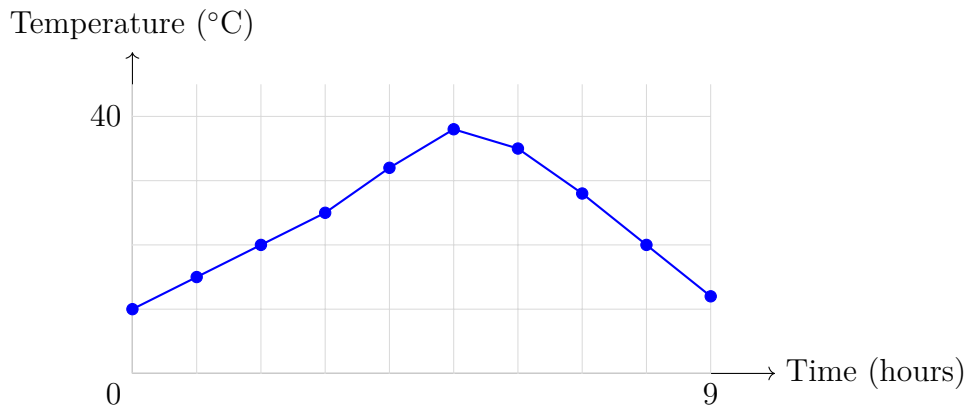
- A. 2^5 C. 4^2
 B. 2^4 D. 8^2



- 1) A company charges \$25 per hour plus a \$50 service fee. Which expression represents the total cost for h hours of work?
- A. $25h + 50$ C. $50h + 25$
 B. $25 + 50h$ D. $25h - 50$
- 2) The mean absolute deviation (MAD) of a data set is the average distance of each data point from the mean. For the data 5, 7, 9, the mean is 7. The distances are $|5 - 7| = 2$, $|7 - 7| = 0$, $|9 - 7| = 2$. What is the MAD?
- A. 0 C. 2
 B. $\frac{4}{3}$ D. 4
- 3) A bag contains 3 red marbles, 5 blue marbles, and 2 green marbles. If one marble is drawn at random, what is the probability that it is blue?
- A. $\frac{1}{10}$ C. $\frac{1}{2}$
 B. $\frac{1}{5}$ D. $\frac{5}{8}$
- 4) Using the temperature data from Question 5, which temperature appears most frequently (the mode)?
- A. No mode C. 44°F
 B. 41°F D. 48°F
- 5) A chemistry lab recorded 520 observations. The circle graph shows $\frac{5}{26}$ were anomalies. How many observations were anomalies?
- A. 80 C. 100
 B. 90 D. 110



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6)

This line graph shows how outdoor temperature changed from 6 AM to 3 PM. Which statement is TRUE?

- A. Temperature peaked around noon (5 hours after start)
- B. Temperature decreased continuously all day
- C. Temperature was highest at 6 AM
- D. Temperature was constant throughout the day

7) A five-number summary is: min = 6, $Q_1 = 12$, median = 18, $Q_3 = 24$, max = 32. Calculate the IQR.

8) If the temperature at noon was 12°C and it dropped 20°C by midnight, what was the temperature at midnight?

- A. 32°C
- B. 20°C
- C. 8°C
- D. -8°C

1) Marcus has \$5 and Jessica has a debt of \$3 (written as -3). Who has more money?

- A. Marcus C. They have the same
 B. Jessica D. Cannot determine

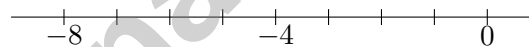
2) A class of 80 students has 20 absent. What percent are absent?

- A. 20% C. 30%
 B. 25% D. 50%

3) Jenny's salary increases from \$40,000 to \$44,000. What is the percent increase?

- A. 8% C. 12%
 B. 15% D. 10%

4) An error in understanding negatives: A student claims that $-4 < -8$ because "4 is less than 8." What is wrong with this reasoning?



- A. The student ignores the negative signs; $-4 > -8$ C. Negative numbers cannot be compared
 B. The student should add the numbers instead D. The student is correct; $-4 < -8$

5) A trapezoid has bases of 18 ft and 12 ft and an area of 60 ft^2 . What is the height?

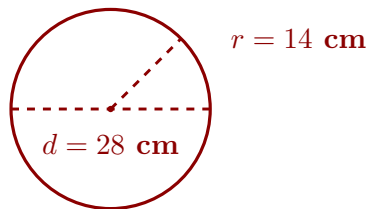
- A. 2.5 ft C. 4 ft
 B. 3 ft D. 5 ft



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6) A rectangular prism has length 8 m, width 4 m, and height 3 m. Find the surface area.

- A. 96 m^2 C. 192 m^2
 B. 152 m^2 D. 288 m^2

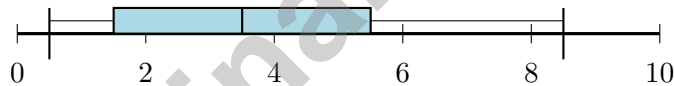


7)

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

- A. 88 cm^2 C. 616 cm^2
 B. 264 cm^2 D. 1232 cm^2

8) Use the box plot to find Q_1 :



- A. 0.5 C. 3.5
 B. 8.5 D. 1.5

9) A class has 24 students. The ratio of boys to girls is 5 : 3. How many boys are in the class?

- A. 16 boys C. 20 boys
 B. 9 boys D. 15 boys



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.



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For more practice
& answers

Hawaii Practice Test Answers and Explanations

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

Practice Test 1 Answers and Explanations

- Choice C is correct. **(6.EE.B.8)** “No more than” means at most: $a \leq \frac{1}{2}$.
- Choice A is correct. **(6.EE.B.5)** Divide both sides by 7: $x = 21 \div 7 = 3$.
- Choice A is correct. **(6.NS.B.2)** $6,216 \div 38 = 163$ remainder 22. Verify: $38 \times 163 + 22 = 6,216$.
- Choice A is correct. **(6.NS.B.4)** Distributive property: $10(3 + 9) = 10 \cdot 3 + 10 \cdot 9 = 30 + 90 = 120$. Choice A shows the expanded form.
- The correct answer is 30. **(6.EE.A.3)** $5(x + 6) = 5x + 30$, so the constant term is 30.
- Choice A is correct. **(6.NS.C.7c)** Magnitude is absolute value: $|-45| = 45$ and $|28| = 28$. Since $45 > 28$, the withdrawal has larger magnitude.
- Choice D is correct. **(6.NS.C.8)** The x -coordinate stays at 1, but the y -coordinate changes from -6 to 6 , which is a reflection across the x -axis.
- Choice A is correct. **(6.NS.C.7d)** On a number line, more negative numbers are less. $-3 < -2.5 < 0 < \frac{1}{4} < 1.75$.
- Choice B is correct. **(6.NS.B.3)** A number and its opposite always sum to zero: $2 + (-2) = 0$.
- Choice B is correct. **(6.NS.B.3)** Step 1: $(-3) \times (-4) = 12$ (negative times negative is positive). Step 2: $12 \times 2 = 24$ (positive times positive is positive). The student likely applied the sign rule incorrectly.
- The correct answer is 15. **(6.EE.C.9)** The cost increases by \$30 for every 2 hours. So the rate is $\frac{\$30}{2 \text{ hours}} = \15 per hour. Check: 2 h at \$15/h costs \$30; 4 h costs \$60; 6 h costs \$90.
- Choice B is correct. **(6.EE.A.3)** Sum of deviations: $5 + (-8) + 12 = 5 - 8 + 12 = 9$ points above average overall.
- Choice A is correct. **(6.EE.A.1)** $2^5 = 2 \times 2 \times 2 \times 2 \times 2 = 32$. Option B: $2^4 = 16$. Option C: $4^2 = 16$. Option D: $8^2 = 64$.
- Choice B is correct. **(6.EE.A.2a)** “The difference of t and 3” starts with t , so we compute $t - 3$. Order matters: $3 - t$ gives a different result.
- Choice C is correct. **(6.EE.A.2b)** Combining like terms: $(5x + 2x) + (3 - 1) = 7x + 2$. The coefficient of x in the simplified expression is 7.
- Choice C is correct. **(6.EE.B.6)** The ratio is flour:sugar = 3 : 2. If flour is f , then sugar = $f \times \frac{2}{3} = \frac{2f}{3}$.
- Choice D is correct. **(6.EE.B.8)** $x > 8$ and $8 < x$ both represent strictly greater than. $x \geq 8$ includes 8, so it represents “greater than or equal to,” not just “greater than.”
- The correct answer is The graph is a straight line through the origin, and the ratio of y to x is always constant. **(6.NS.C.7d)** Statements A and B correctly describe proportional relationships. C is wrong because b must equal 0 for proportionality. D is wrong because proportional equations have the form $y = kx$, not $y = k/x$. E is wrong because a proportional relationship must start at the origin.
- The correct answer is 99. **(6.G.A.1)** $A = \frac{1}{2} \times 11 \times 18 = 99 \text{ in}^2$.
- Choice C is correct. **(6.G.A.2)** $V = 10 \times 8 \times 5 = 80 \times 5 = 400 \text{ cm}^3$.
- Choice B is correct. **(6.G.A.1)** Area of a trapezoid = $\frac{1}{2}(b_1 + b_2) \times h = \frac{1}{2}(8 + 8) \times 4 = \frac{1}{2} \times 16 \times 4 = 32$ square units.
- Choice D is correct. **(6.G.A.4)** $SA = 6s^2 = 600 \Rightarrow s^2 = 100 \Rightarrow s = 10$ cm. A cube has 12 edges, so total length = $12 \times 10 = 120$ cm.
- Choice D is correct. **(6.SP.A.2)** When mean $>$ median, the data is skewed right. The mean is pulled toward the larger outliers on the right.
- Choice B is correct. **(6.SP.B.5c)** The outlier 15 heavily skews the mean. The median (middle value) is more representative: 3.
- Choice D is correct. **(6.SP.B.5c)** The lower half of the ordered data is 2, 3, 4. The median of the lower half (lower quartile, Q1) is 3.



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Ahoy, Math Sailor!

◇ You sailed through 6 full tests. Some waters were calm. Some waters were rough. You kept your boat steady the whole way. ◇

★ **Captain's truth:** good sailors stay calm. They use the wind. They check the map. You did all those things on every test. ★

Sailor's Skills

- **Steady Hand:** You stay calm even when problems are tricky.
- **Map Skills:** You read each problem carefully.
- **Brave Spirit:** You believe in yourself.
- **Safe Harbor:** You finish what you start.

Captain's tip: on test day, sail steady. Trust the map you built through 6 practice tests. You will reach safe harbor!

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

Jay Daie

Your Math Captain

PRACTICE 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 6 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.

6
PRINTED
TESTS

+
2
ONLINE
TESTS

PERFECT FOR:

- ✓ Classroom Practice
- ✓ Homework & Review
- ✓ Independent Learning
- ✓ Test Preparation
- ✓ Skill Reinforcement
- ✓ Building Confidence

★ BUILD SKILLS.
GAIN CONFIDENCE.
SUCCEED!

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.



6 FULL-LENGTH
PRINTED TESTS



2 ONLINE
PRACTICE TESTS



DETAILED ANSWER
EXPLANATIONS