

8 Hawaii

Smarter Balanced

GRADE 6

MATH

PRACTICE TESTS

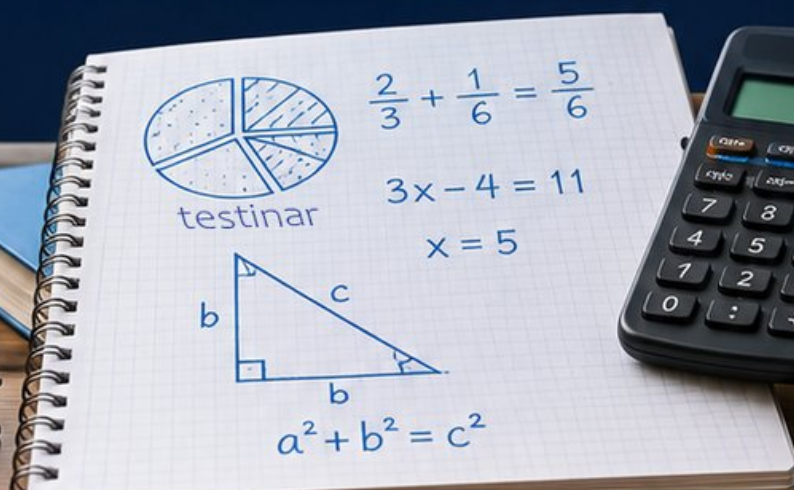
8
PRINTED
TESTS

+

2
ONLINE
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



BUILT FOR
ACAP SUCCESS



REALISTIC TESTS
& QUESTION TYPES



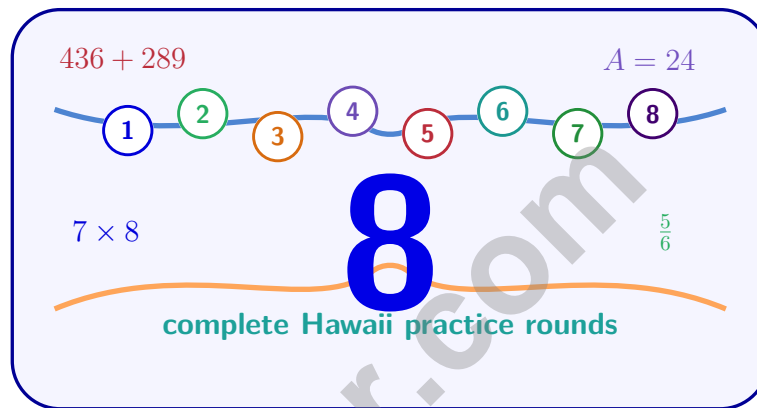
STRENGTHEN
MATH SKILLS



REVIEW, PRACTICE,
AND IMPROVE

8 Hawaii Smarter Balanced Grade 6 Math Practice Tests

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



Eight 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 eight 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 eight-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.
Tests 7–8	Final stamina rounds 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 ordered pair is in Quadrant II?

A. $(7, -2)$

B. $(-3, 5)$

C. $(4, 6)$

D. $(-5, -4)$

2) Solve for x : $5x = 30$.

3) Which of the following sentences matches the inequality $p > 15$?

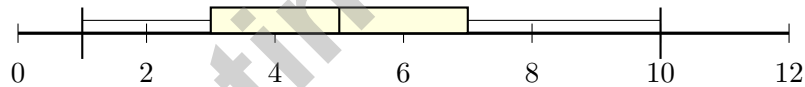
A. p is less than 15

B. p is at least 15

C. p is greater than 15

D. p is no more than 15

4) Use the box plot below to determine which statement is true:



A. $Q_1 = 3$, median = 5, $Q_3 = 7$

B. Min = 1, $Q_1 = 5$, median = 7

C. The IQR is 4.

D. The range is 10.

5) A quality control manager receives monthly defect counts: 2, 3, 4, 5, 6, 8, 10, 15. She wants to determine if the process is stable. Should she use the mean or median?

A. Mean, because it uses all data points

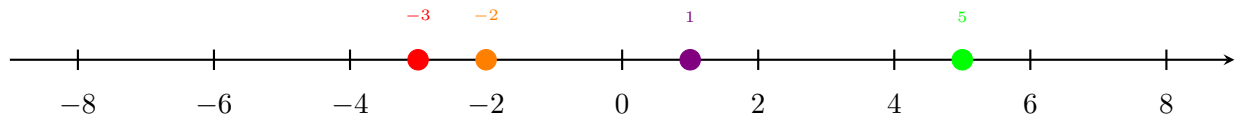
B. Median, because the high count of 15 may be an unusual spike

C. Mode, because it is the most stable measure

D. Range, because it shows the worst-case scenario

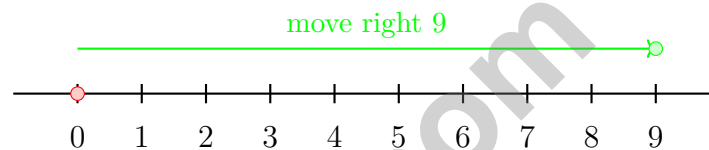


6)



On a number line, which number is farthest from zero?

- A. $|-3|$ C. $|-2|$
 B. $|5|$ D. $|1|$

7) What is $0 - (-9)$?

- A. -9 C. 9
 B. 0 D. 18

8) A weather report shows: Day 1 temperature change -5°F , Day 2 change $+8^\circ\text{F}$, Day 3 change -6°F . If the starting temperature was 32°F , what is the final temperature?

- A. 23°F C. 35°F
 B. 29°F D. 51°F

9) Evaluate: 5^3

- A. 15 C. 125
 B. 25 D. 243



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10) Write an expression for “the sum of the product of a and b and c ”.

A. $ab + c$

C. abc

B. $a(b + c)$

D. $a + b \cdot c$

11) Write all terms in the expression $8x - 3y + 2 - 5z$.

A. $8x, -3y, 2, -5z$

C. $8, 3, 2, 5$

B. $8x, 3y, 2, 5z$

D. $x, y, 2, z$

12) Which inequality best represents “the value is at least 15”?

A. $v < 15$

C. $v > 15$

B. $v \leq 15$

D. $v \geq 15$

13) A babysitter charges \$12 per hour. If the sitter works for h hours, the total earnings are $e = 12h$. When this relationship is graphed with hours on the horizontal axis and earnings on the vertical axis, what earnings value does the line cross the vertical axis at?

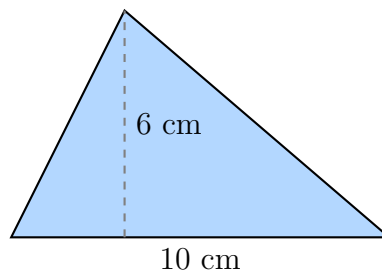
A. 0

C. 6

B. 12

D. 24

14) What is the area of a triangle with base 10 cm and height 6 cm?



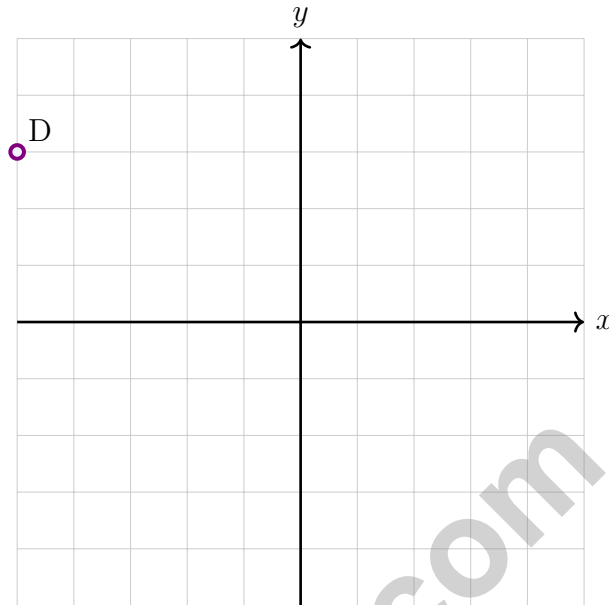
A. 16 cm^2

C. 60 cm^2

B. 30 cm^2

D. 120 cm^2





1)

Point D is at $(-5, 3)$ and is reflected over the y -axis. What is the x -coordinate of D' ?

- A. -5
- B. 3
- C. 5
- D. -3

2) Which question is BEST written as a statistical question?

- A. What is the area of a rectangle with length 5 and width 3?
- B. How many books are in our school library?
- C. What is the average number of pages in novels written in the past 10 years?
- D. Who is the principal of my school?

- 3) A student counts the number of jumping jacks completed by classmates and creates a frequency table. If the frequency of 25 jumping jacks is 3 and the frequency of 30 jumping jacks is 6, how many more students completed 30 jacks than 25 jacks?

Jumping Jacks	Frequency
20	2
25	3
30	6
35	4

- A. 2 more students C. 4 more students
 B. 9 more students D. 3 more students
- 4) Evaluate: $10^2 \div 5 + 3$
- A. 20 C. 30
 B. 27 D. 23
- 5) Write an expression for “the difference of a number s and the product of 3 and 2”.
- A. $3 \cdot 2 - s$ C. $(s - 3)(2)$
 B. $s(3 - 2)$ D. $s - 3 \cdot 2$
- 6) A cell-phone plan costs \$30 per month plus \$0.10 per text message. The total monthly cost is $30 + 0.10t$ where t is the number of texts. What do the terms represent?
- A. 30 is the cost per text; $0.10t$ is the base cost. C. 0.10 is the base cost; $30t$ is the cost for all texts.
 B. 30 is the base cost; $0.10t$ is the cost for all texts. D. Both are constant costs independent of usage.



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& answers

1) A rectangular aquarium has volume 50 liters, width $\frac{5}{2}$ dm, and height 4 dm. Find the length.

- A. 2 dm C. 10 dm
 B. 20 dm D. 5 dm

2) A dot plot: {1, 2, 2, 3, 3, 3, 4, 5, 5, 6}. What is the IQR?

- A. 1.5 C. 2.5
 B. 3 D. 2

3) The table below shows pairs of expressions. Which pair represents the same value?

	Expression 1	Expression 2
A.	$4(5 + 7)$	$20 + 27$
B.	$6(3 + 7)$	$18 + 42$
C.	$3(9 + 5)$	$27 + 10$
D.	$2(11 + 6)$	$22 + 11$

- A. Choice A C. Choice C
 B. Choice B D. Choice D

4) On an elevator, someone travels down 7 floors (represented as -7). How far did they travel in terms of absolute value?

- A. -7 floors C. 0 floors
 B. 7 floors D. 14 floors



5) Which sequence shows integers in order from least to greatest?

A. $-8, -3, 0, 5, 12$

C. $-3, -8, 0, 5, 12$

B. $12, 5, 0, -3, -8$

D. $0, -3, -8, 5, 12$

6) A recipe calls for 3 cups of flour. Maya accidentally used 2 cups less. How much flour did she use?

A. 5 cups

C. 2 cups

B. 1 cup

D. -1 cup

7) Evaluate: $(8 + 2) \times (2^2 - 1)$

A. 20

C. 10

B. 30

D. 36

8) What is the coefficient of x in the expression 15?

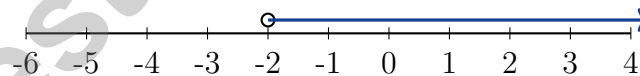
A. 15

C. 1

B. 0

D. x is not in the expression

9) Which inequality is represented by the number line?



A. $x \leq -2$

C. $x > -2$

B. $x < -2$

D. $x \geq -2$



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& answers

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.



Scan me!
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& answers

Hawaii Practice Test Answers and Explanations

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

Practice Test 1 Answers and Explanations

- Choice B is correct.** **(6.NS.C.8)** Quadrant II has negative x and positive y . The point $(-3, 5)$ fits this pattern.
- The correct answer is 6.** **(6.EE.B.5)** Divide both sides by 5: $x = 30 \div 5 = 6$. The inverse of multiplying by 5 is dividing by 5.
- Choice C is correct.** **(6.EE.B.8)** The symbol $>$ means “greater than,” so $p > 15$ reads as “ p is greater than 15.”
- Choice A is correct.** **(6.RP.A.1)** From the plot: min at 1, left edge of box (Q_1) at 3, median line at 5, right edge (Q_3) at 7, max at 10. IQR = $7 - 3 = 4$; range = $10 - 1 = 9$.
- Choice B is correct.** **(6.SP.B.5)** Mean = $(2 + 3 + 4 + 5 + 6 + 8 + 10 + 15) / 8 = 53 / 8 = 6.625$. Median = $(5 + 6) / 2 = 5.5$. The single outlier of 15 pulls the mean up. For stability assessment, median better reflects typical performance, ignoring the anomalous high month.
- Choice B is correct.** **(6.NS.C.7c)** We compare absolute values: $|-3| = 3$, $|5| = 5$, $|-2| = 2$, $|1| = 1$. The largest is 5.
- Choice C is correct.** **(6.NS.B.3)** Subtracting a negative is the same as adding its opposite: $0 - (-9) = 0 + 9 = 9$.
- Choice B is correct.** **(6.EE.A.3)** Final temperature: $32 + (-5) + (+8) + (-6) = 32 - 5 + 8 - 6 = 29^\circ \text{F}$.
- Choice C is correct.** **(6.EE.A.1)** $5^3 = 5 \times 5 \times 5 = 125$. The exponent 3 means we multiply 5 by itself 3 times (a cube).
- Choice A is correct.** **(6.EE.A.2a)** “The product of a and b ” is ab . “The sum of ab and c ” is $ab + c$.
- Choice A is correct.** **(6.EE.A.2b)** Terms include their signs. When you see $-3y$ or $-5z$, the sign is part of the term.
- Choice D is correct.** **(6.EE.B.8)** “At least” means “greater than or equal to,” so the inequality is $v \geq 15$.
- Choice A is correct.** **(6.EE.C.9)** The equation $e = 12h$ has no constant added, so when $h = 0$ (zero hours), $e = 0$ (zero earnings). The line crosses the vertical axis at earnings = 0.
- Choice B is correct.** **(6.G.A.1)** Area of a triangle = $\frac{1}{2} \times b \times h = \frac{1}{2} \times 10 \times 6 = 30 \text{ cm}^2$.
- Choice A is correct.** **(6.NS.C.8)** Translate: $(-1, 3) \rightarrow (-1 + 3, 3 - 2) = (2, 1)$.
- The correct answer is 3.** **(6.G.A.2)** From $V = L \times W \times H$: $120 = 8 \times 5 \times H = 40 \times H$, so $H = 3 \text{ ft}$.
- Choice D is correct.** **(6.SP.A.2)** Sum = $3 + 5 + 7 + 9 + 11 = 35$. Mean = $35 \div 5 = 7$.
- Choice D is correct.** **(6.SP.B.5c)** Mean = $\frac{5 + 10 + 15 + 20 + 25}{5} = \frac{75}{5} = 15$. For symmetric data, mean equals median.
- Choice B is correct.** **(6.NS.B.3)** Complement probability = $1 - 0.75 = 0.25$ or 25%.
- The correct answer is 8.** **(6.G.A.3)** The bottom base goes from $(1, 1)$ to $(9, 1)$. Length = $9 - 1 = 8$ units.
- The correct answer is 15.** **(6.G.A.1)** Base: $8 - 2 = 6$ units. Height: $8 - 3 = 5$ units. Area = $\frac{1}{2} \times 6 \times 5 = 15$ square units.
- The correct answer is 4 and 12.** **(6.NS.B.4)** The number of boxes must divide both 48 and 60. Choice B works because both numbers are divisible by 4. Choice D works because both numbers are divisible by 12. Choices A, C, and E do not divide both amounts evenly.
- Choice C is correct.** **(6.SP.B.4)** 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.
- Choice C is correct.** **(6.NS.A.1)** $\frac{2}{5} = 40\%$. So $0.40 \times 480 = 192$ matinee tickets.
- Choice D is correct.** **(6.RP.A.3)** Pizza accounts for $\frac{120}{360} = \frac{1}{3}$ of students. The angle is $\frac{1}{3} \times 360^\circ = 120^\circ$.
- Choice B is correct.** **(6.RP.A.3a)** For a 7:3 ratio, if flour = 14, then the scale factor is $14 \div 7 = 2$. So baking powder = $3 \times 2 = 6$. The point $(14, 6)$ is correct.
- Choice D is correct.** **(6.RP.A.3d)** After 4 days: $5 \times 4 = 20$ mL taken. Remaining: $30 - 20 = 10$ mL. Convert: $10 \div 1000 = 0.01$ liters.



Author's Note

From a Friend Who Believes in You

Hi, Friend!

◇ I just want to say something important: I am proud of you. You did 8 full practice tests. That takes time, hard work, and heart. ◇

★ **Friendly truth:** a test is just one part of your math journey. You are SO much more than a score. The work you did is the real win! ★

What I Want You to Know

- **You are smart.** Every test you finished proves it.
- **You are brave.** You tried hard problems.
- **You are growing.** Mistakes taught you new things.
- **You are ready.** The skills are inside you.

One more thing: on test day, take a deep breath. Smile. Remember that someone (me!) believes in you. You can do this!

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

Jay Daie

Your Math Friend

MASTER MATH. ACE YOUR TESTS.

This Grade 6 Math Practice Tests book is designed to help students build confidence, strengthen math skills, and excel on comprehensive assessments.

With 8 full-length printed tests and 2 online tests, this resource provides realistic practice, a variety of question types, and detailed answer explanations to help students achieve their best.

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.



Understand Key Concepts

Reinforce important math ideas 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
- ✓ Percents
- ✓ The Number System
- ✓ Statistics & Probability
- ✓ Expressions & Equations
- ✓ Data Analysis
- ✓ Geometry
- ✓ Measurement & Conversions
- ✓ Fractions & Decimals
- ✓ 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.



8 FULL-LENGTH
PRACTICE TESTS



2 ONLINE
PRACTICE TESTS



DETAILED ANSWER
EXPLANATIONS