

10

Hawaii

Smarter Balanced

GRADE

7

MATH

PRACTICE TESTS

Standards Aligned Problem
Solving For Comprehensive
Assessment Programs



10 PRINTED TESTS

Realistic practice to build
confidence and mastery



2 ONLINE TESTS

Extra practice for
continued success



DETAILED ANSWER EXPLANATIONS

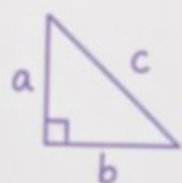
Learn with step-by-step
solutions



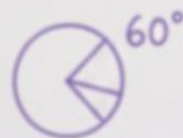
FOCUSED & EFFECTIVE

Target key math skills
with purposeful practice

$$y = mx + b$$



$$2x - 3 = 11$$



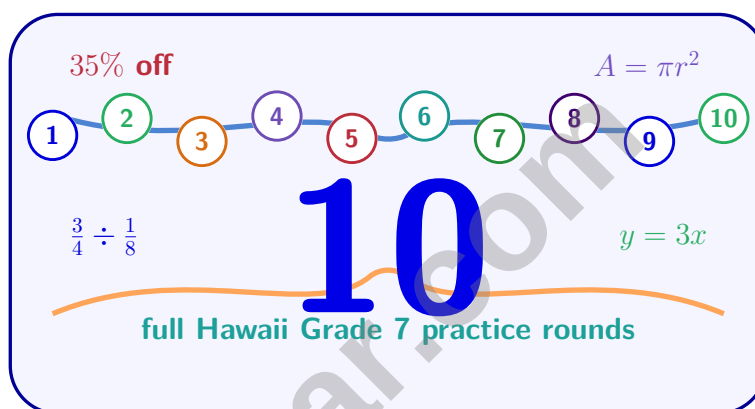
10 PRINTED TESTS
+2 ONLINE TESTS

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 7 Math Practice Tests

Hawaii Grade 7 Smarter Balanced Practice for island-ready reasoning with ratios, percents, rational numbers, geometry, data, and probability



Ten complete 40-question Grade 7 Smarter Balanced practice rounds with proportional relationships, percents, rational numbers, expressions, equations, geometry, statistics, probability, answer keys, and clear explanations for every item.

Jay Daie and Reza Nazari



Copyright ©

Testinar Inc



Published by Testinar Inc

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, Hawaii Grade 7 Problem Solver!

Ten focused rounds for sharper Hawaii Smarter Balanced math thinking

This book gives you ten full Grade 7 Smarter Balanced math practice tests. Each round is built to help you notice structure, compare quantities, use proportional reasoning, handle rational numbers, and explain your thinking with care.

Your Hawaii Practice Promise

I will read every question carefully, choose a strategy that fits, write enough work to prove my answer, and use corrections as training for the next test.

Read

Model

Verify

How to Use This Book

A ten-session plan for confident Grade 7 review

1. **Warm up with the review pages.** Notice the big ideas before starting the tests.
2. **Complete one test at a time.** Treat each 40-question round like a real practice session.
3. **Show your reasoning.** Jot a proportion, equation, diagram, number line, or quick estimate when it helps.
4. **Correct actively.** Rework missed items before reading the explanation.
5. **Choose the next target.** After each test, name one skill and one habit to improve.

Hawaii review rhythm: Work a test, score it, study your misses, then come back ready for the next round with one clear goal.



What Is Inside?

Ten Hawaii Smarter Balanced tests, 400 questions, and a complete review path

Part	What You Will Practice
Tests 1–3	Proportional relationships, unit rates, percents, rational-number operations, and careful reading.
Tests 4–6	Expressions, equations, inequalities, scale drawings, geometry, and multi-step problem solving.
Tests 7–9	Statistics, probability, mixed review, stamina, and choosing efficient strategies.
Test 10	A 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. Grade 7 success means recognizing which idea is being tested even when the next question changes format.



Scan me!
For more practice
& answers

Table of Contents

★ Practice Test 1	_____	11
★ Practice Test 2	_____	25
★ Practice Test 3	_____	41
★ Practice Test 4	_____	55
★ Practice Test 5	_____	70
★ Practice Test 6	_____	84
★ Practice Test 7	_____	102
★ Practice Test 8	_____	116
★ Practice Test 9	_____	132
★ Practice Test 10	_____	147
Practice Test Answer Keys	_____	162
Practice Test Answers and Explanations	_____	168

1) If $5x + b = 20$ and $x = 2$, what is b ?

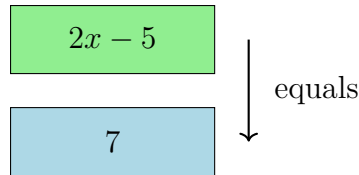
☐ A. $b = 5$

☐ B. $b = 10$

☐ C. $b = 15$

☐ D. $b = 20$

2)



Solve: $2x - 5 = 7$

☐ A. $x = 1$

☐ B. $x = 6$

☐ C. $x = 12$

☐ D. $x = 24$

3) An athlete burns 450 calories on Monday, 520 on Tuesday, and 485 on Wednesday. What is the average calories burned per day?

☐ A. 485 calories

☐ B. 515 calories

☐ C. 495 calories

☐ D. 505 calories

4) Which expression is equivalent to $0.98x$?

☐ A. $x + 0.98x$

☐ B. $x - 0.02x$

☐ C. $0.98 + x$

☐ D. $0.02x - x$

5) Two coins are flipped. What is the probability that both coins show the same result (either both Heads or both Tails)?

☐ A. $\frac{1}{4}$

☐ B. $\frac{1}{3}$

☐ C. $\frac{1}{2}$

☐ D. $\frac{3}{4}$



Scan me!
For more practice
& answers

6) A bag contains 35 marbles. The probability of drawing a specific color is $\frac{5}{7}$. How many marbles of that color are in the bag?

- ☐ A. 5
☐ B. 15

- ☐ C. 25
☐ D. 30

7) Two spinners are spun. Spinner A has 5 equal sections, and Spinner B has 3 equal sections. If each outcome on Spinner A has probability $\frac{1}{5}$ and each outcome on Spinner B has probability $\frac{1}{3}$, what is $P(\text{specific outcome on A AND specific outcome on B})$?

- ☐ A. $\frac{2}{8}$
☐ B. $\frac{1}{15}$

- ☐ C. $\frac{1}{8}$
☐ D. $\frac{1}{5} + \frac{1}{3} = \frac{8}{15}$

8) A frequency table shows results from drawing cards with replacement 500 times:

Card Type	Hearts	Diamonds	Clubs	Spades
Frequency	140	125	128	107

Which suit has the lowest experimental probability?

- ☐ A. Hearts
☐ B. Diamonds

- ☐ C. Clubs
☐ D. Spades

9) Which statement describes an event with probability 1?

- ☐ A. Drawing a red card from a shuffled deck
☐ B. Picking a number from 1 to 10 that is less than 11
☐ C. Flipping a coin and getting heads
☐ D. Rolling a number greater than 6 on a standard die



10) Tree Height Measurements (Feet)

Tree	Estimate	Actual
Oak	45	50

What is the percent error for the oak tree height?

- ☐ A. 90% ☐ C. 11.1%
☐ B. 5% ☐ D. 10%

11) Expand: $-\frac{1}{2}(6x - 4)$

- ☐ A. $-3x + 2$ ☐ C. $3x - 2$
☐ B. $-3x - 2$ ☐ D. $-3x - 4$

12) A student computed: $I = 600 \times 0.04 \times 2 = 4.8$. What mistake did she make?

- ☐ A. She forgot to convert the percentage to a decimal ☐ C. She forgot the principal amount
☐ B. She computed correctly; no error was made ☐ D. She placed the decimal incorrectly in her answer

13) A student evaluates $-4 - (-6)$ and claims the answer is -10 . What is the student's mistake?

- ☐ A. Computing $-4 + 6 = 2$ when the answer should be -10 ☐ C. Adding instead of subtracting the opposite value
☐ B. Adding the numbers instead of converting to addition: $-4 + (-6) = -10$ ☐ D. Correctly applying the rule but making a computation error



Scan me!
For more practice
& answers

- 1) A rectangular garden is 12 feet long and 8 feet wide. A scale drawing of the garden uses a scale of 1 ft : 2 ft. What are the dimensions of the drawing?

☐ A. 6 ft $\times$ 4 ft☐ C. 10 ft $\times$ 8 ft☐ B. 8 ft $\times$ 6 ft☐ D. 12 ft $\times$ 8 ft

- 2) How much principal is needed to earn \$500 in simple interest at 5% per year over 4 years?



- 3) A histogram shows test scores for two classes. Class 1 has a tall bar at 90–95 with few lower scores. Class 2 has bars spread from 70 to 95 with a shorter peak around 80. Which statement is most accurate?

☐ A. Class 1 performed better with less variation☐ C. Both classes have identical score distributions☐ B. Class 2 had more students overall☐ D. Class 2 has higher average scores

- 4) A storage shed floor plan shows a large rectangle (14 ft $\times$ 10 ft) with two triangular sections attached to the shorter sides (each triangle has base 10 ft and height 4 ft). What is the total floor area?

☐ A. 100 ft²☐ C. 180 ft²☐ B. 140 ft²☐ D. 220 ft²

- 5) A trapezoidal prism has a base with parallel sides of 7 cm and 9 cm and height 4 cm. The prism has a depth of 5 cm. What is the volume?

☐ A. 320 cm^3

☐ C. 160 cm^3

☐ B. 240 cm^3

☐ D. 80 cm^3

- 6) An investment account earns 7% simple interest per year. If someone invests \$3,000, how much interest will they earn after 3 years?

- 7) Simplify: $11a - 6a + 2a$

☐ A. $7a$

☐ C. $9a$

☐ B. $19a$

☐ D. $5a$

- 8) Factor the expression: $6x + 18$

☐ A. $6(x + 3)$

☐ C. $2(3x + 9)$

☐ B. $3(2x + 6)$

☐ D. $6(x + 18)$

- 9) A circle graph shows website traffic sources. Direct traffic is 15%, organic search is 50%, paid ads is 20%, and referrals is 15%. If there are 10,000 monthly visitors, how many come from organic search?

☐ A. 1500

☐ C. 5000

☐ B. 2000

☐ D. 7500



Scan me!
For more practice
& answers

- 1) A student writes: $(-7) \times 5 = 35$. What error did the student make?
- ☐ A. Forgot to apply the negative sign ☐ C. Multiplied the absolute values incorrectly
- ☐ B. Added instead of multiplied ☐ D. Used the wrong order of operations
- 2) A hospital tracks patient visit types. If emergency visits occupy 216° of a circle graph, what percent do they represent?
- ☐ A. 36% ☐ C. 60%
- ☐ B. 54% ☐ D. 72%
- 3) Simplify: $(6m - 2) - (4m - 8)$
- ☐ A. $2m + 6$ ☐ C. $10m - 10$
- ☐ B. $2m - 10$ ☐ D. $2m - 6$
- 4) Simplify $\frac{15m^8}{5m^3}$:
- ☐ A. $3m^5$ ☐ C. $10m^5$
- ☐ B. $3m^{11}$ ☐ D. $3m^8$
- 5) An ice cream shop charges \$6 for a cone and \$1.50 for each extra topping. If the bill is \$13.50, which equation finds t , the number of extra toppings?
- ☐ A. $1.50t + 6 = 13.50$ ☐ C. $1.50 + 6t = 13.50$
- ☐ B. $6t + 1.50 = 13.50$ ☐ D. $6(t + 1.50) = 13.50$
- 6) Find x : $-2x + 5 = 1$
- ☐ A. $x = -2$ ☐ C. $x = 2$
- ☐ B. $x = 1$ ☐ D. $x = 3$



Scan me!
For more practice
& answers

7) Solve for x : $4(x + 9) = 60$

☐ A. $x = 6$

☐ C. $x = 12$

☐ B. $x = 9$

☐ D. $x = 15$

8) Solve: $\frac{1}{2}x + 3 = 8$

☐ A. $x = 5$

☐ C. $x = 10$

☐ B. $x = 8$

☐ D. $x = 16$

9) A scale model of a skyscraper is built with a scale of 1 : 200. The model is 45 cm tall. Which measurement is closest to the height of the actual building in meters?

☐ A. 45 m

☐ C. 450 m

☐ B. 90 m

☐ D. 900 m

10) A map shows a rectangular park with scale 1 in : 500 ft. An error causes the scale to be doubled (widening the drawing). If the park measures 6 inches by 8 inches on the original map, what are the dimensions on the incorrectly scaled map?

☐ A. 3 in by 4 in

☐ C. 12 in by 16 in

☐ B. 6 in by 8 in

☐ D. 24 in by 32 in

11) A right circular cone with base radius 4 cm and height 12 cm is sliced by a plane that is 8 cm from the apex and parallel to the base. What is the radius of the circular cross-section?

☐ A. $\frac{8}{3}$ cm

☐ C. $\frac{8}{12}$ cm

☐ B. $\frac{16}{3}$ cm

☐ D. 3 cm



Hawaii Smarter Balanced Grade 7 Practice Test Answer Keys

How to use this section with a Grade 7 student:

1. check the answer first and circle any item that needs another look
2. retry the problem with fresh work before reading the explanation
3. write one short lesson learned from each missed or guessed item

A strong review routine turns every correction into a sharper plan for the next Hawaii Smarter Balanced practice test.

Testinar.com



Practice Test Answers and Explanations

Practice Test 1 Answers and Explanations

- 1) **Choice B is correct.** (7.EE.3-7.EE.4) Substitute $x = 2$: $5(2) + b = 20 \Rightarrow 10 + b = 20 \Rightarrow b = 10$.
- 2) **Choice B is correct.** (7.EE.3-7.EE.4) Add 5: $2x = 12$. Divide by 2: $x = 6$.
- 3) **Choice A is correct.** (7.NS.1-7.NS.3) Average = $\frac{450+520+485}{3} = \frac{1455}{3} = 485$ calories.
- 4) **Choice B is correct.** (7.EE.1-7.EE.2) $x - 0.02x = (1 - 0.02)x = 0.98x$. A 2% discount leaves 98% of the original.
- 5) **Choice C is correct.** (7.SP.5-7.SP.8) Sample space: HH, HT, TH, TT. Favorable outcomes (same result): HH, TT. Probability: $\frac{2}{4} = \frac{1}{2}$.
- 6) **Choice C is correct.** (7.SP.5-7.SP.8) $\frac{5}{7} \times 35 = \frac{5 \times 35}{7} = \frac{175}{7} = 25$.
- 7) **Choice B is correct.** (7.SP.5-7.SP.8) Independent events: $P(A \text{ and } B) = \frac{1}{5} \cdot \frac{1}{3} = \frac{1}{15}$.
- 8) **Choice D is correct.** (7.SP.6) Compare relative frequencies: Hearts $\frac{140}{500} = 0.28$, Diamonds $\frac{125}{500} = 0.25$, Clubs $\frac{128}{500} = 0.256$, Spades $\frac{107}{500} = 0.214$. Spades has the lowest.
- 9) **Choice B is correct.** (7.SP.5-7.SP.8) Every number from 1 to 10 is less than 11, so this event is certain (probability = 1).
- 10) **Choice D is correct.** (7.RP.3) Percent error = $\frac{|45-50|}{50} \times 100\% = \frac{5}{50} \times 100\% = 10\%$.
- 11) **Choice A is correct.** (7.EE.1-7.EE.2) Distribute $-\frac{1}{2}$: $-\frac{1}{2}(6x) - \frac{1}{2}(-4) = -3x + 2$. Negative times negative is positive.
- 12) **Choice D is correct.** (7.RP.3) The correct calculation is $600 \times 0.04 \times 2 = 48$, not 4.8. Since $0.04 \times 2 = 0.08$, $600 \times 0.08 = \$48$. The student moved the decimal point one place too far to the left.
- 13) **Choice B is correct.** (7.NS.1-7.NS.3) The error is choice B. The student forgot to flip the sign of -6 to $+6$. The correct process: $-4 - (-6) = -4 + 6 = 2$. The student mistakenly added $-4 + (-6) = -10$ instead.
- 14) **Choice C is correct.** (7.RP.1-7.RP.3) Scale 1 : 4 means the new dimensions are $\frac{1}{4}$ of the original: $24 \div 4 = 6$ inches; $36 \div 4 = 9$ inches.
- 15) **Choice D is correct.** (7.RP.3) 25% of 80 is $\frac{1}{4} \times 80 = 20$.
- 16) **Choice D is correct.** (7.RP.3) Sale price = original $\times 0.80$. So $72 = \text{original} \times 0.80$, giving original = $72 \div 0.80 = \$90$.
- 17) **Choice A is correct.** (7.NS.1b) The student added $|-7| + |4| = 7 + 4 = 11$ and kept the negative sign. For opposite signs, subtract: $|-7| - |4| = 7 - 4 = 3$, so the correct answer is -3 .
- 18) **Choice C is correct.** (7.EE.1) Option C has no like terms remaining. All other options have like terms that can still be combined.
- 19) **Choice A is correct.** (7.EE.1-7.EE.2) GCF of $6ab$, $9b$, and $3b$ is $3b$. Factor: $6ab - 9b + 3b = 3b(2a - 3 + 1) = 3b(2a - 2)$.
- 20) **The correct answer is A,B.** (7.G.4-7.G.6) A is correct: volume $V = B \times h$ for any prism. B is correct: $V = 4^3 = 64 \text{ cm}^3$. C is false: doubling height doubles volume, not triples it. D is false: a triangular prism can have larger volume than a rectangular prism depending on dimensions.
- 21) **The correct answer is 8.5.** (7.SP.1-7.SP.4) The sample mean of 8.5 hours is used to estimate the population parameter. Since the sample is random and reasonably sized, this sample mean is a good estimate for the entire population.
- 22) **Choice D is correct.** (7.SP.1-7.SP.4) 42% of 600 = $0.42 \times 600 = 252$ students.
- 23) **Choice B is correct.** (7.SP.5-7.SP.8) Relative frequency = $\frac{144}{300} = 0.48$.
- 24) **Choice A is correct.** (7.EE.1-7.EE.2) Substitute: $(5)^2 - 4(5) = 25 - 20 = 5$.
- 25) **Choice A is correct.** (7.EE.4b) "A number" is n ; "is more than" is $>$; "twice itself minus 5" is $2n - 5$. Direct translation: $n > 2n - 5$.
- 26) **Choice D is correct.** (7.RP.1-7.RP.3) The unit rate is 0.9 (from the point $(1, 0.9)$). When $x = 5$, $y = 5 \times 0.9 = 4.5$.
- 27) **Choice D is correct.** (7.RP.3) Months needed = $\$3,000 \div \$250 = 12$ months.
- 28) **The correct answer is Class 1.** (7.SP.3) Both classes may have the same median of 30 sit-ups, but the distribution shape matters. Class 1's tight clustering (small range) means less variability and easier group improvement. Class 2's spread (large range) indicates inconsistency within the group.



Hi, Math Hero!

◇ This full-length book gave you ten complete Grade 7 practice tests, so you had repeated chances to build accuracy, pacing, and confidence. You showed up for Grade 7 practice again and again. That is what real growth looks like: steady effort, honest review, and a willingness to try. ◇

★ **Remember this:** A math hero is not someone who never misses a question. A math hero learns from the miss and comes back stronger. ★

Hero Habits

- **Courage:** You try problems that are not automatic.
- **Honesty:** You review what needs work.
- **Patience:** You let skills grow over time.
- **Pride:** You recognize the effort you gave.

Grade 7 test-day tip: Save one solved problem you are proud of. Looking back at progress helps motivation stay strong.

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

Jay Daie

Your Math Hero Guide

PRACTICE TODAY. SUCCEED TOMORROW!

This book includes 10 full-length Math practice tests and 2 extra online tests to help Grade 7 students build confidence, strengthen skills, and excel on standardized assessments.

Each practice test is carefully crafted to reflect the latest standards and includes a variety of question types, realistic test conditions, and detailed answer explanations.

Perfect for classroom use, homework, test preparation, and extra practice at home.

THIS BOOK INCLUDES:

10 Full-Length Printed Tests

2 Online Practice Tests

 Detailed Answer Explanations



MORE PRACTICE. GREATER RESULTS.

Give your child the tools to build strong math skills, confidence, and a positive attitude toward learning.

WHAT YOU'LL 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 with clear explanations and meaningful practice.



Test Confidence

Familiarize with test formats and improve accuracy and speed.



Achieve Success

Build confidence and perform your best on test day.

TOPICS COVERED

- ✓ Ratios & Proportions
- ✓ The Number System
- ✓ Expressions & Equations
- ✓ Geometry
- ✓ Fractions & Decimals
- ✓ Percents
- ✓ Statistics & Probability
- ✓ Data Analysis
- ✓ Measurement & Conversions
- ✓ And More!



2 EXTRA ONLINE TESTS

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



2 EXTRA ONLINE TEST ACCESS CODE IS INSIDE THE BOOK!

Don't lose it—your extra practice and success start here!



VISIT **TESTINAR.COM/MATH7**
FOR MORE PRACTICE TESTS
AND LEARNING RESOURCES.



PRACTICE
REGULARLY



STAY
FOCUSED



SOLVE
CONFIDENTLY



SUCCEED
BRIGHTLY

PRACTICE ★ REVIEW ★ SUCCEED