

10

Nevada

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

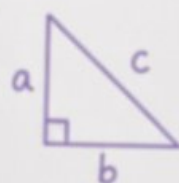
Learn with step-by-step
solutions



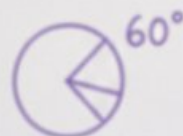
FOCUSED & EFFECTIVE

Target key math skills
with purposeful practice

$$y = mx + b$$



$$2x - 3 = 11$$



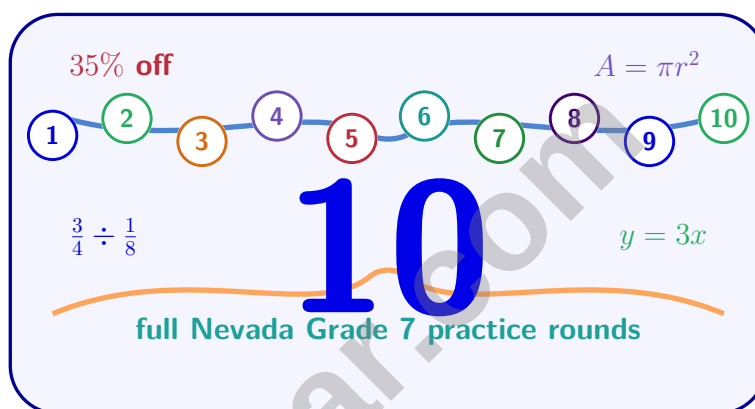
10 PRINTED TESTS
+2 ONLINE TESTS

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

PRACTICE ★ REVIEW ★ SUCCEED

10 Nevada Smarter Balanced Grade 7 Math Practice Tests

Nevada Grade 7 Smarter Balanced Practice for focused practice in proportional graphs, percents, expressions, inequalities, geometry, and statistics



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



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Welcome, Nevada Grade 7 Problem Solver!

Ten focused rounds for sharper Nevada 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 Nevada 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.

Nevada 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 Nevada 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 Nevada 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.



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& answers

Table of Contents

★ Practice Test 1	_____	11
★ Practice Test 2	_____	26
★ Practice Test 3	_____	41
★ Practice Test 4	_____	55
★ Practice Test 5	_____	70
★ Practice Test 6	_____	84
★ Practice Test 7	_____	97
★ Practice Test 8	_____	112
★ Practice Test 9	_____	127
★ Practice Test 10	_____	143
Practice Test Answer Keys	_____	157
Practice Test Answers and Explanations	_____	163

- 1) Two similar triangles have corresponding sides of 12 cm and 18 cm. If the smaller triangle has an area of 40 square cm, what is the area of the larger triangle?

- ☐ A. 60 square cm
☐ B. 90 square cm
☐ C. 120 square cm
☐ D. 180 square cm

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

- ☐ A. $x = 5$
☐ B. $x = 8$
☐ C. $x = 10$
☐ D. $x = 16$

Week 1: \$ - 45
Week 2: \$ + 120
Week 3: \$ - 30
Week 4: \$ + 85

- 3) Weekly Profit/Loss

A small business tracks its weekly profit and loss. What is the net profit or loss over the 4 weeks?

- ☐ A. Net loss of \$130
☐ B. Net profit of \$130
☐ C. Net profit of \$175
☐ D. Net loss of \$70

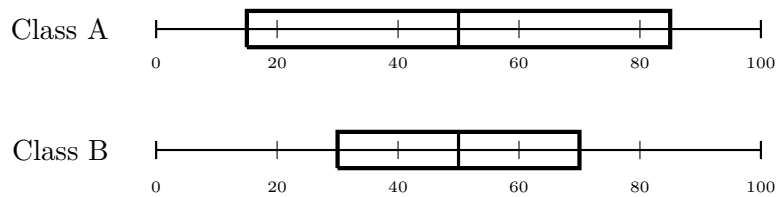
- 4) Simplify: $(-8d + 3) - (4d - 7)$

- ☐ A. $-12d + 10$
☐ B. $-4d - 4$
☐ C. $-12d - 4$
☐ D. $-4d + 10$



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5) Two box plots show test scores from two classes:



Which is most true?

- ☐ A. Class A has a wider overall range
- ☐ B. Class B has a smaller box (IQR), indicating less variability in the middle
- ☐ C. Both classes have identical medians shown by whiskers
- ☐ D. Class A is easier than Class B 50%
- 6) A bag contains 4 red, 5 blue, and 6 green marbles. What is the theoretical probability of drawing a blue marble at random?
- ☐ A. $\frac{1}{5}$
- ☐ B. $\frac{1}{3}$
- ☐ C. $\frac{4}{15}$
- ☐ D. $\frac{2}{5}$
- 7) A card is drawn from a deck with 5 cards (labeled 1 to 5), and a coin is flipped. If you want to find outcomes where the card is even and the coin is Heads, how many favorable outcomes are there?
- ☐ A. 1
- ☐ B. 2
- ☐ C. 3
- ☐ D. 5
- 8) A bag contains letters spelling PROBABILITY. If one letter is drawn at random, what is the probability of drawing a B OR a Y?
- ☐ A. $\frac{2}{11}$
- ☐ B. $\frac{3}{11}$
- ☐ C. $\frac{4}{11}$
- ☐ D. $\frac{1}{11}$



- 9) A spinner was designed with sections of different sizes. After 400 spins, the yellow section appeared 120 times. If the spinner is spun 2000 times, about how many times would yellow be expected to appear?

☐ A. 120 ☐ C. 600
☐ B. 400 ☐ D. 800

- 10) The stem-and-leaf plot shows daily sales:

Stem	Leaves
1	4, 7
2	2, 5, 8
3	1, 5, 6, 9

How many days did sales fall below 25?

☐ A. 3 ☐ C. 5
☐ B. 4 ☐ D. 6

- 11) An artist estimated she would use 16 ounces of paint but used 20 ounces. What is the percent error?

☐ A. 25% ☐ C. 4%
☐ B. 80% ☐ D. 20%

- 12) Expand: $-5(4 - n)$

☐ A. $-20 + 5n$ ☐ C. $20 + 5n$
☐ B. $-20 - 5n$ ☐ D. $5n - 4$



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1) Three given side lengths are 4 cm, 5 cm, and 10 cm. How many distinct triangles can be formed?

☐ A. 0

☐ C. 2

☐ B. 1

☐ D. Infinitely many

2) The stem-and-leaf plot below displays the number of points scored:

Stem	Leaves
4	3, 7
5	2, 5, 8
6	1, 4, 6, 9
7	0, 3, 8
8	2, 5

What is the lower quartile (Q1) of this dataset?

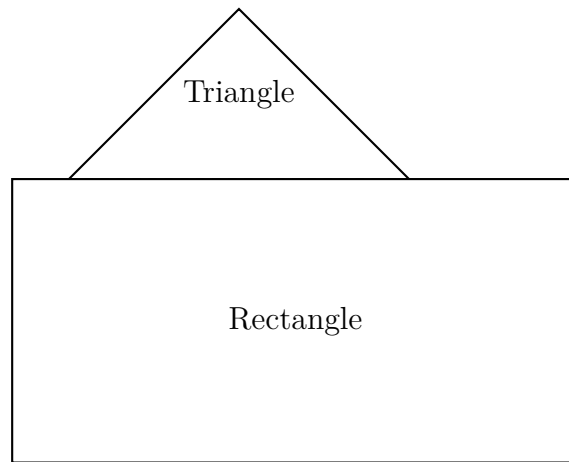
☐ A. 52

☐ C. 58

☐ B. 55

☐ D. 61

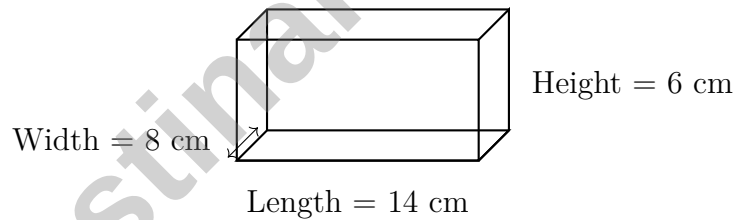




3)

A composite figure shows a house shape: a rectangle (10 units $\times$ 5 units) with a triangular roof (base 6 units, height 3 units). What is the total area?

- ☐ A. 50 sq units ☐ C. 68 sq units
☐ B. 59 sq units ☐ D. 80 sq units



4)

A rectangular prism has the dimensions shown. What is its volume?

- ☐ A. 28 cm³ ☐ C. 504 cm³
☐ B. 224 cm³ ☐ D. 672 cm³



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- 1) A rectangular prism has length 8 m, width 5 m, and height 2 m. Find the surface area.

☐ A. 80 m^2

☐ B. 112 m^2

☐ C. 132 m^2

☐ D. 176 m^2

- 2) A circle graph shows that 28% of a company's 700 employees work in sales. How many employees work in sales?



- 3) Identify which pair of expressions are equivalent.

☐ A. $(3c + 2) + (4c - 1)$ and $7c + 1$

☐ B. $(6c + 5) - (2c + 3)$ and $4c + 8$

☐ C. $(2c + 3) + (5c - 2)$ and $7c + 1$

☐ D. $(9c - 4) - (3c + 1)$ and $6c - 5$

- 4) Simplify: $\frac{4y^9}{2y^4}$

☐ A. $2y^5$

☐ B. $2y^{13}$

☐ C. $2y^{36}$

☐ D. $4y^5$

- 5) Jenna joins a gym with a membership fee of \$50 and monthly charges of \$25. Let m represent the number of months. Which equation shows the total cost T including the membership fee?

☐ A. $T = 50m + 25$

☐ B. $T = 25(m + 50)$

☐ C. $T = 50 + 25m$

☐ D. $T = (50 + 25)m$



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6) What is x if $3(x - 2) = 9$?

☐ A. $x = 2$

☐ C. $x = 5$

☐ B. $x = 3$

☐ D. $x = 6$

$$4 \times \begin{array}{|c|c|} \hline 2x & -3 \\ \hline \end{array}$$

7)

$$4(2x - 3) = 20$$

Solve for x : $4(2x - 3) = 20$

☐ A. $x = 1$

☐ C. $x = 3$

☐ B. $x = 2$

☐ D. $x = 4$

8) Solve: $5(x - 2) = 30$ and verify using inverse operations.

☐ A. $x = 6$

☐ C. $x = 10$

☐ B. $x = 8$

☐ D. $x = 12$

9) A scale drawing of a soccer field uses a scale of 1 cm : 10 m. The drawing shows the field as 6 cm long and 4 cm wide. What is the perimeter of the actual field?

☐ A. 80 m

☐ C. 120 m

☐ B. 100 m

☐ D. 200 m

10) An architect draws a rectangular lobby 3.5 inches by 4.5 inches at scale 1 in : 12 ft. If the scale is changed to 1 in : 6 ft, what are the new dimensions?

☐ A. 3.5 in by 4.5 in

☐ C. 1.75 in by 2.25 in

☐ B. 7 in by 9 in

☐ D. 14 in by 18 in



Nevada 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 Nevada Smarter Balanced practice test.



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Practice Test Answers and Explanations

Practice Test 1 Answers and Explanations

- 1) **Choice B is correct.** (7.G.1-7.G.5) Scale factor = $\frac{18}{12} = 1.5$. Area scales by $(1.5)^2 = 2.25$. New area = $40 \times 2.25 = 90$ square cm.
- 2) **Choice C is correct.** (7.EE.3-7.EE.4) Subtract 3: $\frac{1}{2}x = 5$. Multiply by 2: $x = 10$.
- 3) **Choice B is correct.** (7.NS.1-7.NS.3) Net = $-45 + 120 - 30 + 85 = 130$ dollars (profit).
- 4) **Choice A is correct.** (7.EE.1-7.EE.2) Distribute the negative: $-8d + 3 - 4d + 7 = (-8d - 4d) + (3 + 7) = -12d + 10$.
- 5) **Choice B is correct.** (7.SP.1-7.SP.4) Class A's box spans x-coordinates 1.5 to 8.5 (map to scores 30–85, IQR = 55), median 50. Class B's box spans 3 to 7 (map to scores 60–70, IQR = 10), median 50. Class B's smaller box means less spread in the middle 50% of scores, despite both having the same median.
- 6) **Choice B is correct.** (7.SP.5-7.SP.8) Total = $4 + 5 + 6 = 15$. $P(\text{blue}) = \frac{5}{15} = \frac{1}{3}$.
- 7) **Choice B is correct.** (7.SP.5-7.SP.8) Even cards: $\{2, 4\} = 2$ outcomes. Heads: 1 outcome. Favorable: $2H, 4H = 2$ outcomes.
- 8) **Choice A is correct.** (7.SP.5-7.SP.8) PROBABILITY has 11 letters. B appears once and Y appears once. $P(B \text{ or } Y) = \frac{1}{11} + \frac{1}{11} = \frac{2}{11}$.
- 9) **Choice C is correct.** (7.SP.6) Relative frequency from observed data: $\frac{120}{400} = 0.30$. Use this to predict outcomes in a larger sample: $0.30 \times 2000 = 600$ spins yield yellow.
- 10) **Choice A is correct.** (7.SP.1-7.SP.4) Values less than 25: 14, 17, 22 from stems 1 and 2. Total: 3 values.
- 11) **Choice D is correct.** (7.RP.3) Percent error = $\frac{|16-20|}{20} \times 100\% = \frac{4}{20} \times 100\% = 20\%$.
- 12) **Choice A is correct.** (7.EE.1-7.EE.2) Distribute -5 : $-5(4) - 5(-n) = -20 + 5n$.
- 13) **The correct answer is 8 .** (7.G.4-7.G.6) $h = \frac{V}{B} = \frac{480}{60} = 8$ m.
- 14) **Choice D is correct.** (7.RP.3) $I = 2000 \times 0.055 \times 3 = \330 . $A = 2000 + 330 = \$2330$.
- 15) **Choice A is correct.** (7.NS.1-7.NS.3) Moving right 4 units from -7 means adding 4, which is the same as subtracting -4 : $-7 - (-4) = -7 + 4 = -3$.
- 16) **Choice D is correct.** (7.RP.1-7.RP.3) Linear scale is 1 : 50. Volume scales by $(1/50)^3 = 1/125,000$. Model volume = $5,000,000 \div 125,000 = 40 \text{ cm}^3$.
- 17) **Choice C is correct.** (7.RP.3) The increase is $65 - 50 = 15$. Percent: $\frac{15}{50} = 0.30 = 30\%$.
- 18) **Choice D is correct.** (7.RP.3) Discount = $\frac{1}{3} \times 150 = \50 . Final price = $150 - 50 = \$100$.
- 19) **Choice A is correct.** (7.EE.1-7.EE.2) GCF of 14 and 21 is 7. The second term has no variable factor.
- 20) **Choice C is correct.** (7.SP.1-7.SP.4) 36% of 2500 = $0.36 \times 2500 = 900$ customers.
- 21) **Choice D is correct.** (7.NS.1b) New altitude = $35000 + (-2000) = 33000$ feet. The plane's altitude decreased by 2000 feet.
- 22) **The correct answer is A,D.** (7.G.4-7.G.6) Choice A gives the correct formula. Choice D is verified: $3.14 \times 5^2 = 78.5 \text{ cm}^2$. B confuses formula with circumference. C forgets that area scales with the square of the radius. E mistakes semicircle (half) for one-third.
- 23) **Choice B is correct.** (7.EE.1) Unlike terms have different variables. b and c are different variables, so $3b$ and $5c$ are unlike.
- 24) **Choice D is correct.** (7.RP.1-7.RP.3) The unit-rate point (1, 0.9) shows 0.9 grams per serving.
- 25) **The correct answer is 157 .** (7.G.4-7.G.6) $V = \pi r^2 h \approx 3.14 \times (2.5)^2 \times 8 = 3.14 \times 6.25 \times 8 = 157 \text{ m}^3$.
- 26) **The correct answer is 432 .** (7.SP.1-7.SP.4) The sample proportion is $\frac{18}{50}$. Use a proportion to estimate the population: $\frac{18}{50} = \frac{x}{1200}$. Cross-multiply: $50x = 21,600$, so $x = 432$ students. This estimate assumes the random sample is representative of all students.
- 27) **Choice A is correct.** (7.NS.1-7.NS.3) Common denominator 4: $-\frac{6}{4} - \frac{9}{4} + \frac{19}{4} = \frac{-6-9+19}{4} = \frac{4}{4} = 1$.
- 28) **Choice B is correct.** (7.NS.1-7.NS.3) $\frac{2}{9} \div \frac{4}{3} = \frac{2}{9} \times \frac{3}{4} = \frac{6}{36} = \frac{1}{6}$.



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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

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BRIGHTLY

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