

3

Nevada

Smarter Balanced

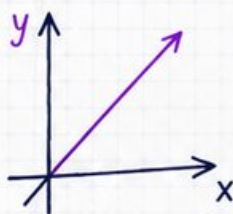
GRADE

7

MATH

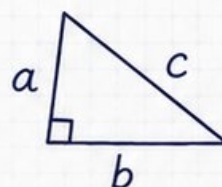
PRACTICE TESTS

- ✓ Standards Aligned
Problem Solving
For Comprehensive
Assessment Programs



$$y = mx + b$$

$$\frac{2}{3}x - \frac{4}{5} = \frac{1}{2}$$



$$3(x - 2) = 2x + 5$$



3 PRINTED TESTS



2 ONLINE TESTS



USE THESE TWO
ADDITIONAL ONLINE
PRACTICE TESTS
FOR EXTRA REVIEW AFTER
THE PRINTED TESTS
IN THIS BOOK.



Build
Confidence



Strengthen
Math Skills



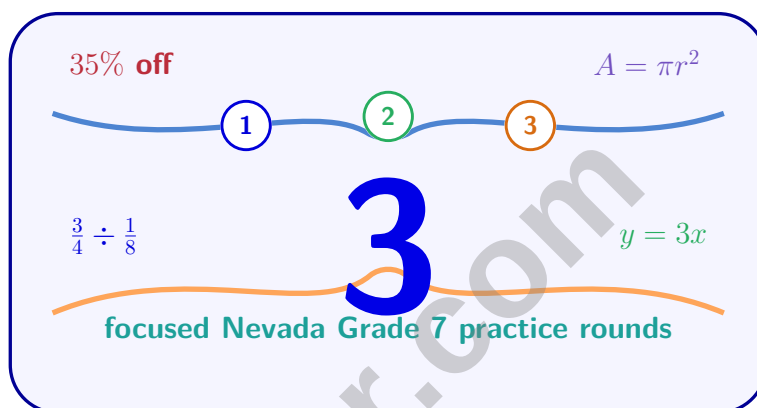
Detailed Answers
& Explanations



Improve Test
Performance

3 Nevada Smarter Balanced Grade 7 Math Practice Tests

Nevada Review Rounds for Proportions, Equations, and Data



Three 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!

Three focused rounds for sharper Smarter Balanced math thinking

This book gives you three 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 three-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?

Three Smarter Balanced tests, 120 questions, and a focused review path

Part	What You Will Practice
Tests 1–2	Proportional relationships, unit rates, percents, rational-number operations, and careful reading.
Test 3	Expressions, equations, inequalities, scale drawings, geometry, data, probability, and multi-step problem solving.
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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For more practice
& answers

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- 1) A printer produces 960 pages in 8 minutes. Find the equation for pages p in terms of minutes m .

☐ A. $p = \frac{m}{120}$

☐ B. $p = 8m$

☐ C. $p = 960m$

☐ D. $p = 120m$

- 2) Distance Estimates (Miles)

Route	Estimate	Actual
Bike Ride	12	15

What is the percent error for the bike ride distance?

☐ A. 80%

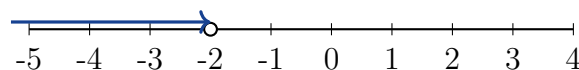
☐ B. 3%

☐ C. 20%

☐ D. 25%

- 3) If you have -5 dollars (meaning you owe 5 dollars) and you lose an additional 12 dollars, what is your new balance? Express your answer as an integer with the appropriate sign.

- 4) A student writes the inequality $x \leq -2$ but graphs it with an open circle instead of a closed circle at -2 . What value is incorrectly excluded from the solution set?



☐ A. All values less than -2

☐ B. The value -2 itself

☐ C. All negative numbers

☐ D. The value -1



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5) Expand and simplify: $3(2x + 4) + 2(x - 3)$

☐ A. $8x + 6$

☐ C. $8x + 18$

☐ B. $6x + 4$

☐ D. $5x + 1$

6)

Principal	Rate	Time (years)	Interest
\$500	3%	2	?

Based on the table above, how much interest will be earned?

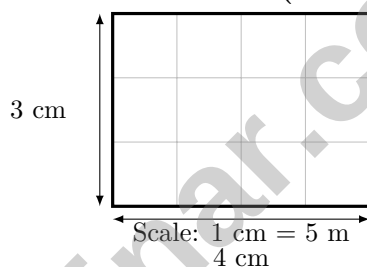
☐ A. \$15

☐ C. \$45

☐ B. \$60

☐ D. \$30

Room Floor Plan (scale model)



7)

According to the scale, what are the actual dimensions of this rectangular room?

☐ A. $10 \text{ m} \times 20 \text{ m}$

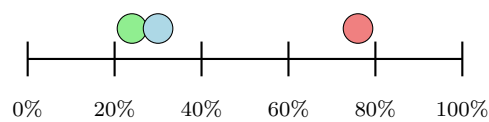
☐ C. $12 \text{ m} \times 15 \text{ m}$

☐ B. $4 \text{ m} \times 3 \text{ m}$

☐ D. $20 \text{ m} \times 15 \text{ m}$



Estimated Probabilities



8)

Three simulation estimates are plotted on the number line: 0.24 (green), 0.38 (blue), and 0.76 (red). If the true theoretical probability is 0.25, which estimate has the smallest error?

☐ A. Green at 0.24

☐ C. Red at 0.76

☐ B. Blue at 0.38

☐ D. All three have equal error

9) Simplify: $\frac{7}{\frac{8}{\frac{3}{5}}}$

10)

Discount (%)	Amount (\$)	Total Price (\$)
10	5	45
20	10	40
25	?	30

Using the ratio table, what is the discount amount for a 25% discount?

☐ A. \$8

☐ C. \$12

☐ B. \$15

☐ D. \$10


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- 1) A travel agent books a vacation package costing \$2,000 and earns a 5% commission. The client also adds travel insurance for \$150. What is the agent's commission on just the package?

☐ A. \$160☐ C. \$150☐ B. \$110☐ D. \$100

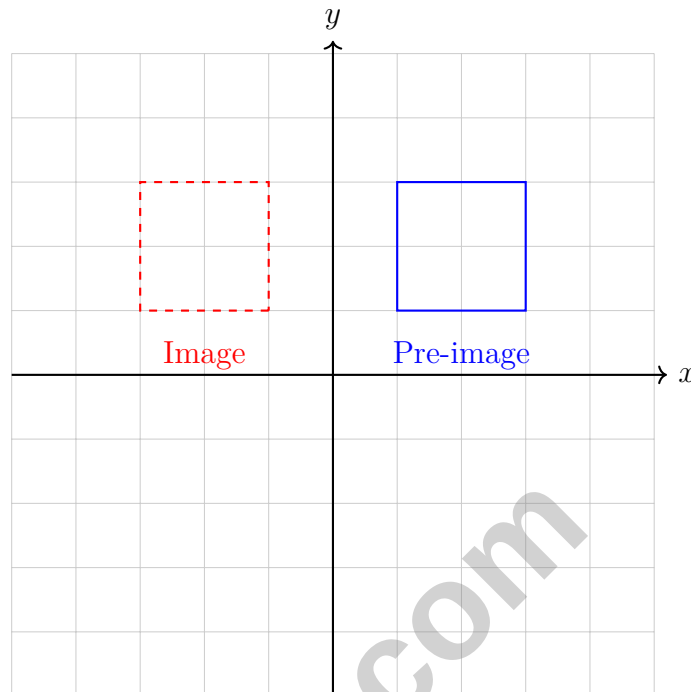
- 2) A cone with height 20 cm and base radius 5 cm is sliced by a vertical plane passing through the apex at an angle (not through the axis). Which shape is the cross-section?

☐ A. Isosceles triangle☐ C. Scalene triangle☐ B. Right triangle☐ D. Trapezoid

- 3) A pair of shoes is on sale for \$60 after a 25% discount. What was the original price of the shoes?

- 4) If two angles are complementary and one angle is 19° , what is the other angle?

☐ A. 19° ☐ C. 161° ☐ B. 61° ☐ D. 71° 



5)

Which transformation maps the blue figure (pre-image) to the red figure (image)?

- | | |
|---|---|
| ☐ A. Translation by $(-2, 0)$ | ☐ C. Rotation of 90° counterclockwise |
| ☐ B. Reflection over the y -axis | ☐ D. Reflection over the x -axis |

6) Two similar rectangles have a scale factor of $2 : 5$. If the smaller rectangle has a perimeter of 28 inches, what is the perimeter of the larger rectangle?

- | | |
|---------------------------------------|--|
| ☐ A. 35 inches | ☐ C. 70 inches |
| ☐ B. 56 inches | ☐ D. 140 inches |



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1) Solve: $5x - 2 \geq 18$

☐ A. $x \geq 4$

☐ C. $x \geq 20$

☐ B. $x \leq 4$

☐ D. $x > 4$

2) A spinner has 5 equal sections: 1, 1, 2, 3, 3. Find $P(1)$.

☐ A. $\frac{1}{5}$

☐ C. $\frac{3}{5}$

☐ B. $\frac{2}{5}$

☐ D. $\frac{1}{3}$

3) A student receives a paycheck stub showing an error. The gross pay is listed as \$1 200, taxes withheld are \$180, but the net pay shows \$1 100 instead of the correct amount. Which error occurred?

☐ A. Net pay is correct; no error exists

☐ D. An additional \$20 deduction was

☐ B. Tax withholding should be \$100

☐ not listed

☐ C. Gross pay should be \$1 280

4) Compare the total interest earned on \$2,000 over 4 years at 5% with compound vs. simple interest. Compound earns approximately how much more?

Year	Compound	Simple
1	\$2,100	\$2,100
2	\$2,205	\$2,200
3	\$2,315.25	\$2,300
4	\$2,431.01	\$2,400

☐ A. \$31.01

☐ C. \$50

☐ B. \$30.50

☐ D. \$100



- 5) A store advertises “Save 30% on all winter coats!” If a coat originally costs \$120, what is the sale price?

☐ A. \$36 ☐ C. \$90
☐ B. \$150 ☐ D. \$84

- 6) A proportional relationship is shown by a line through the origin and (4, 6). What is the constant of proportionality?



- 7) Marcus walks 12 meters east. To return to his starting point, he must walk 12 meters west. Which number represents his westward walk?

☐ A. -12 (opposite direction) ☐ C. 0 (no displacement)
☐ B. 12 (same direction as eastward walk) ☐ D. -24 (double the distance in opposite direction)

- 8) Two fair dice are rolled as a simulation of a compound event. If “success” is rolling a sum of 7, which of the following correctly identifies all successful outcomes?

☐ A. (1, 7), (2, 7), (3, 7), (4, 7), (5, 7), (6, 7) — six outcomes
☐ B. (1, 6), (2, 5), (3, 4), (4, 3), (5, 2), (6, 1) — six outcomes
☐ C. (1, 6), (2, 5), (3, 4) — three outcomes
☐ D. Any roll where one die shows 7 — multiple outcomes



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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 D is correct.** (7.RP.1-7.RP.3) Rate is $\frac{960}{8} = 120$ pages per minute. So $p = 120m$.
- 2) **Choice C is correct.** (7.RP.3) Percent error = $\frac{|12-15|}{15} \times 100\% = \frac{3}{15} \times 100\% = 20\%$.
- 3) **The correct answer is -17 .** (7.NS.1-7.NS.3) The new balance is $-5 - 12 = -17$. You now owe 17 dollars.
- 4) **Choice B is correct.** (7.EE.4b) The inequality $x \leq -2$ includes the boundary value -2 . Using an open circle instead of a closed circle removes -2 from the solution set, changing it to $x < -2$.
- 5) **Choice A is correct.** (7.EE.1-7.EE.2) Expand: $6x + 12 + 2x - 6 = 8x + 6$. Combine like terms.
- 6) **Choice D is correct.** (7.RP.3) $I = 500 \times 0.03 \times 2 = \30 .
- 7) **Choice D is correct.** (7.RP.1-7.RP.3) Using the scale 1 cm = 5 m: width is $4 \times 5 = 20$ m; height is $3 \times 5 = 15$ m.
- 8) **Choice A is correct.** (7.SP.5-7.SP.8) Error for green: $|0.24 - 0.25| = 0.01$. Error for blue: $|0.38 - 0.25| = 0.13$. Error for red: $|0.76 - 0.25| = 0.51$. Green has the smallest error.
- 9) **The correct answer is $\frac{35}{24}$.** (7.RP.1-7.RP.3) $\frac{\frac{7}{8}}{\frac{5}{3}} = \frac{7}{8} \times \frac{3}{5} = \frac{35}{24}$.
- 10) **Choice D is correct.** (7.RP.3) The original price is \$40 (since 75% of it is \$30). 25% of \$40 is $0.25 \times 40 = 10$ dollars.
- 11) **Choice D is correct.** (7.RP.3) Markup = $0.80 \times 45 = \$36$. Retail price = $45 + 36 = \$81$.
- 12) **Choice A is correct.** (7.NS.1b) Start at -3 and move 7 units to the right to reach 4. Options B, C, and D either move in the wrong direction or start at the wrong point.
- 13) **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.
- 14) **Choice C is correct.** (7.EE.1-7.EE.2) Check A: $-3(x + 3) = -3x - 9$. Correct. Check B: $2(-y + 4) = -2y + 8$. Correct. Check D: $-4(m + 5) = -4m - 20$. Correct. Check C: $-5(a + 3) = -5a - 15 \neq -5a + 15$. Incorrect. The correct factorization is $-5(a + 3) = -5a + 15$.
- 15) **Choice B is correct.** (7.G.4-7.G.6) $SA = 2(12 \cdot 6 + 12 \cdot 5 + 6 \cdot 5) = 2(72 + 60 + 30) = 2(162) = 324 \text{ in}^2$.
- 16) **Choice A is correct.** (7.NS.1-7.NS.3) Each descent of 3.5 m is negative: $-3.5 \times 6 = -21$ m.
- 17) **Choice D is correct.** (7.EE.1-7.EE.2) Substitute: $4(3) - 5 + 2 = 12 - 5 + 2 = 9$.
- 18) **Choice A is correct.** (7.EE.3-7.EE.4) Subtract 7: $3x = 15$. Divide by 3: $x = 5$. Check: $3(5) + 7 = 15 + 7 = 22$ ✓. Reasonable: three times 5 is 15; add 7 gives 22.
- 19) **The correct answer is 40.** (7.RP.1-7.RP.3) Substitute: $y = 5(8) = 40$.
- 20) **The correct answer is A,C.** (7.SP.1-7.SP.4) City A dark roast (42%) > City B dark roast (38%), so A is correct. City B light roast (40%) > City A light roast (35%), so C is correct. B is wrong (survey size not given). D is wrong (A: 23%, B: 22%).
- 21) **Choice B is correct.** (7.EE.4b) Add 4: $3x \leq 15$. Divide by 3: $x \leq 5$.
- 22) **Choice C is correct.** (7.G.1-7.G.5) Real length: $8 \text{ cm} \times 64 = 512 \text{ cm} = 5.12 \text{ m}$.
- 23) **Choice B is correct.** (7.SP.1-7.SP.4) Random selection from all students ensures the sample is representative because it includes diverse students: athletes and non-athletes, different grade levels, and different interests. Method 1 only surveys gym class students, who are more likely to favor sports, making that sample biased and unrepresentative of all students.
- 24) **Choice B is correct.** (7.SP.1-7.SP.4) Variability is measured by range. Group 2's range (30 min) is triple Group 1's range (10 min), indicating much more variable completion times in Group 2. The mean-median relationships also suggest outliers in both groups, but the range directly shows variability in homework times.
- 25) **Choice C is correct.** (7.SP.1-7.SP.4) Shape (skewness) describes asymmetry, but variability (spread) is measured by range, IQR, or standard deviation. Two distributions can have different shapes but similar spreads, or vice versa.
- 26) **Choice D is correct.** (7.RP.1-7.RP.3) The unit-rate point (1, 0.45) indicates approximately 0.45 kg per pound.
- 27) **Choice D is correct.** (7.RP.3) Discount: $\frac{35}{100} \times 60 = 21$. Sale price: $60 - 21 = \$39$.
- 28) **The correct answer is 8.** (7.RP.1-7.RP.3) The constant of proportionality is the unit price, 8 dollars per photo.



The Power of Showing Work

Hi, Organized Solver!

◇ You practiced Grade 7 skills that often require more than one step. That means your written work matters. ◇

★ **Remember this:** Showing work is not extra. It is how you track your thinking, find errors, and prove that your answer did not happen by luck. You practiced across 3 full Grade 7 practice tests, and that repeated effort matters. ★

Organized Work Habits

- **One Line Per Step:** Keep the path readable.
- **Box the Answer:** Make the final result easy to find.
- **Use Labels:** Tell what each value represents.
- **Check the Path:** Follow your steps backward if needed.

Grade 7 test-day tip: When a problem has several steps, write less on each line. Space makes checking easier.

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

Jay Daie

Your Organized-Work Coach

PRACTICE TODAY. SUCCEED TOMORROW!

This book includes **3** full-length Math practice tests and **2** 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:

3 Full-Length Printed Tests

2 Online Practice Tests

 Detailed Answers & 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



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Practice regularly to feel prepared and test-ready.



Strengthen Math Skills

Develop key math concepts and problem solving abilities.



Detailed Answers & Explanations

Learn from clear explanations and step-by-step solutions.



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Apply your knowledge and achieve your best score!

TOPICS COVERED

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



2 ONLINE TESTS

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