

4

Nevada

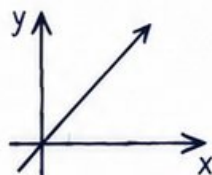
Smarter Balanced

GRADE
7
MATH

PRACTICE TESTS

Standards Aligned
Problem Solving
For Comprehensive
Assessment Programs

$$y = mx + b$$



$$\frac{2x}{3} + \frac{x}{6} = 2$$



$$V = \frac{1}{3} \pi r^2 h$$



4 PRINTED TESTS



2 ONLINE TESTS



USE THESE TWO
ADDITIONAL ONLINE
PRACTICE TESTS

FOR EXTRA REVIEW AFTER
THE PRINTED TESTS
IN THIS BOOK.



Build
Confidence



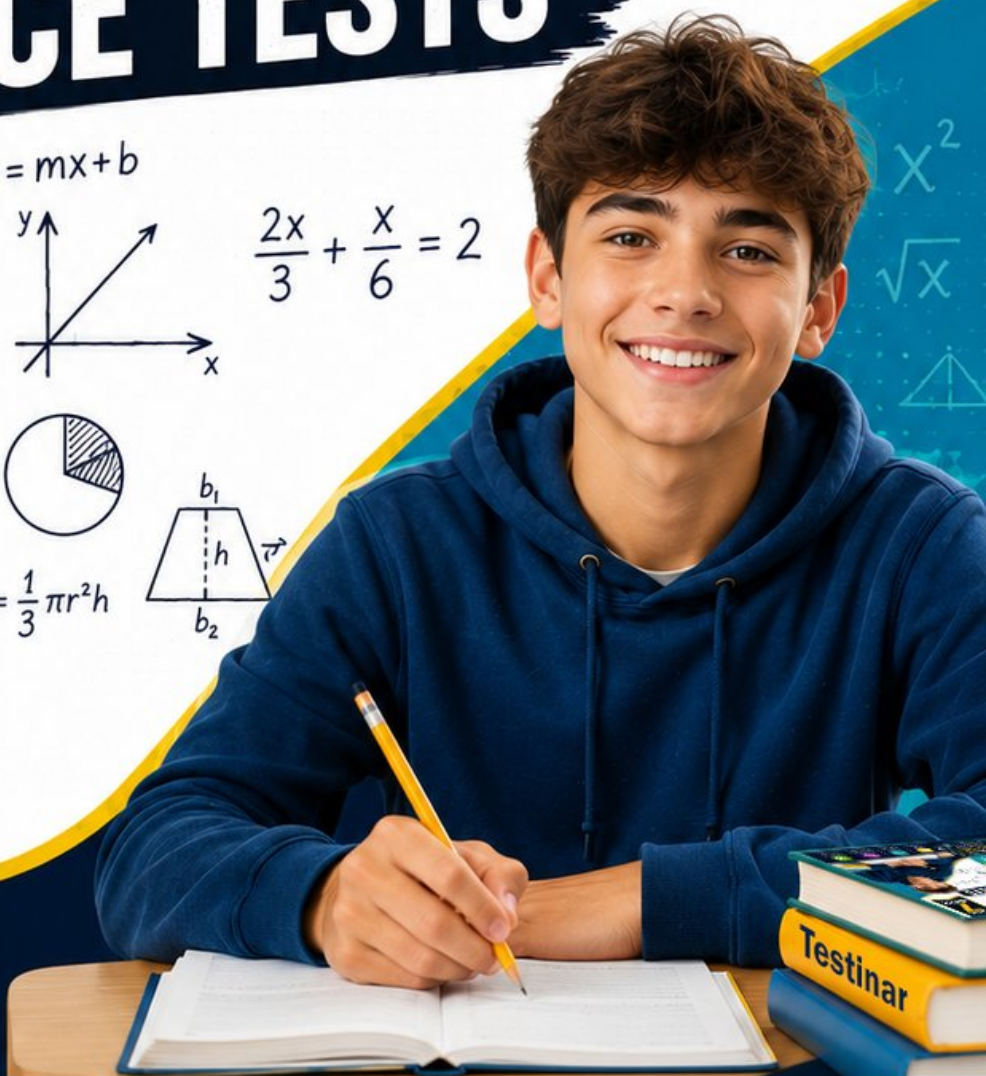
Strengthen
Math Skills



Detailed Answers
& Explanations

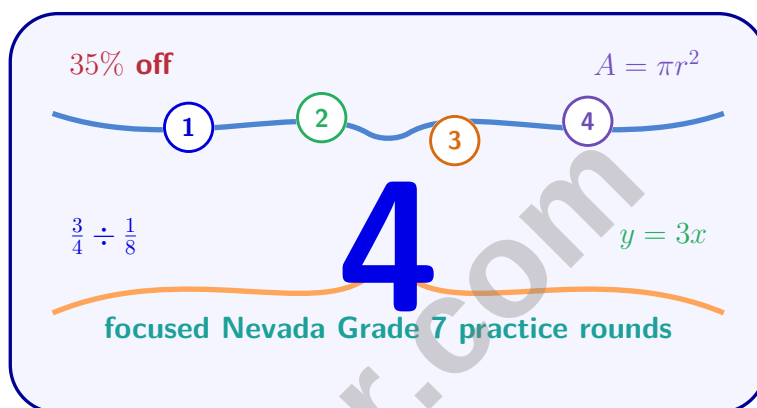


Improve Test
Performance



4 Nevada Smarter Balanced Grade 7 Math Practice Tests

Nevada Grade 7 Review with Solutions and Answer Keys



Four 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!

Four focused rounds for sharper Smarter Balanced math thinking

This book gives you four 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 four-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?

Four Smarter Balanced tests, 160 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.
Tests 3–4	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.



Scan me!
For more practice
& answers

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1) Three-digit data in a stem-and-leaf plot with stem 14 and leaves 2, 5, 8 represents which values?

☐ A. 142, 145, 148

☐ C. 14.2, 14.5, 14.8

☐ B. 1402, 1405, 1408

☐ D. 214, 514, 814

2) A circle has radius $\frac{3}{2}$ meters. What is its area? Use $\pi \approx 3.14$.

☐ A. 7.065 m^2

☐ C. 9.42 m^2

☐ B. 4.71 m^2

☐ D. 14.13 m^2

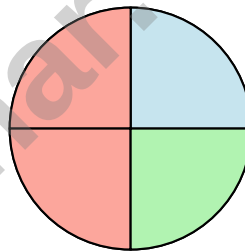
3) A cylinder has a surface area of 251.2 m^2 and a radius of 2 m. What is the height? Use $\pi \approx 3.14$.

☐ A. 8 m

☐ C. 12 m

☐ B. 10 m

☐ D. 15 m



4)

A spinner has four equal sections: one blue, two red, and one green. What is the probability of spinning red?

☐ A. $\frac{1}{4}$

☐ C. $\frac{2}{3}$

☐ B. $\frac{1}{2}$

☐ D. $\frac{3}{4}$



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- 5) A beverage vendor mixes drinks using one flavor (Cherry, Lime, or Orange) and one temperature (Hot or Cold). A customer drinks 3 of the 6 possible combinations. How many combinations remain untasted?

☐ A. 2 ☐ C. 4
☐ B. 3 ☐ D. 5

- 6) Two box plots compare monthly rainfall (in inches) for Region A and Region B. Region A: IQR (Interquartile Range) = 3 inches; Region B: IQR = 8 inches. What does this comparison reveal?

☐ A. Region A has more variable rainfall ☐ C. Both regions have identical rainfall patterns
☐ B. Region B has a wider middle 50% of data (more variability in the middle) ☐ D. Region A receives more total rain annually

- 7) A number from 1 to 20 is selected at random. What is the probability of selecting a multiple of 3 OR a multiple of 5?

☐ A. $\frac{6}{20}$ ☐ C. $\frac{8}{20}$
☐ B. $\frac{9}{20}$ ☐ D. $\frac{10}{20}$

- 8) A student flipped a coin and recorded the results in a tally chart:

Outcome	Tally
Heads	IIIIIIII
Tails	IIIIIIII

How many total flips were recorded?

☐ A. 12 ☐ C. 20
☐ B. 15 ☐ D. 25



- 9) A delivery service charges \$4.50 base fee plus \$1.25 per mile. What is the cost to deliver a package 12 miles away?

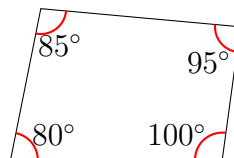
- 10) A bakery display is shaped like a trapezoid on top of a rectangle. The rectangle is 5 inches wide and 4 inches tall. The trapezoid has parallel sides of 5 inches and 3 inches with height 2 inches. What is the total area?

- ☐ A. 12 in^2 ☐ C. 32 in^2
☐ B. 28 in^2 ☐ D. 36 in^2

- 11) A rectangular prism has a square base with side length 7 cm and a height of 11 cm. What is the volume?

- ☐ A. 49 cm^3 ☐ C. 539 cm^3
☐ B. 77 cm^3 ☐ D. $1,078 \text{ cm}^3$

12)



Which statement is true about the angle measures shown?

- ☐ A. Their sum is 180° . ☐ C. They are all equal.
☐ B. Their sum is 360° . ☐ D. They cannot make a quadrilateral.



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- 1) A baker estimated 120 cups of flour were needed, but the recipe actually required 100 cups. What is the percent error?
- ☐ A. 83.3% ☐ C. 22.2%
- ☐ B. 16.7% ☐ D. 20%
- 2) Which statement is true?
- ☐ A. $(-6) \times 3 > 0$ ☐ C. $5 \times (-2) = (-2) \times 5$
- ☐ B. $(-4) \times (-4) < 0$ ☐ D. $(-1) \times 7 < (-1) \times 6$
- 3) If a square has a side length of 11 cm, what is its area?
- ☐ A. 110 cm² ☐ C. 132 cm²
- ☐ B. 121 cm² ☐ D. 144 cm²
- 4) Which expression is equivalent to $2a + 2b + 2c$?
- ☐ A. $2(a + b + c)$ ☐ C. $2abc$
- ☐ B. $2(a + b) + c$ ☐ D. $(2 + a)(2 + b)(2 + c)$
- 5) A fitness trainer earns \$40 per session plus a \$5 facility fee per client per session. If the trainer has 8 clients in a week (each attending one session), what is the total earnings including facility fees?
- ☐ A. \$320 ☐ C. \$380
- ☐ B. \$400 ☐ D. \$360
- 6) A store sells 6 notebooks for \$15. What is the unit price (cost per notebook)?
- ☐ A. \$1.50 ☐ C. \$4.00
- ☐ B. \$5.00 ☐ D. \$2.50



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7) Which statement best explains why simulation results often differ from theoretical probabilities?

- ☐ A. The simulation tool is always imperfect
- ☐ B. Random variation causes small differences in finite samples
- ☐ C. Theoretical probability is always wrong
- ☐ D. More simulations guarantee exact agreement with theory

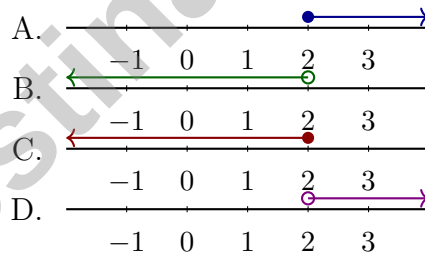
8) Simplify: $10m - 3m + 7m$

- ☐ A. $14m$
- ☐ B. $7m$
- ☐ C. $13m$
- ☐ D. $4m$

9) What is the GCF of $28xy$ and $42x$?

- ☐ A. $14x$
- ☐ B. $28xy$
- ☐ C. $42x$
- ☐ D. $7x$

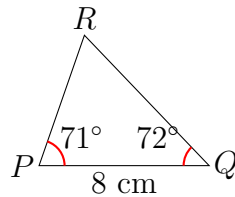
10) Which number line represents $x \leq 2$?



- 1) A rectangular pool on a site plan is 4 cm by 6 cm at scale 1 cm : 5 m. When enlarged to scale 1 cm : 2.5 m, what will be the new dimensions?
- ☐ A. 2 cm by 3 cm ☐ C. 8 cm by 12 cm
☐ B. 4 cm by 6 cm ☐ D. 20 cm by 30 cm
- 2) A box plot compares the test scores of two tutoring methods. Traditional Method: Median = 75, Range = 25. New Method: Median = 78, Range = 35. Which method is better?
- ☐ A. New Method (higher median, but less consistent) ☐ C. Both methods produce identical results
☐ B. Traditional Method (consistent with reasonable performance) ☐ D. New Method is clearly superior
- 3) A piece of cardboard is a square (15 cm $\times$ 15 cm) with a rectangular notch (4 cm $\times$ 3 cm) cut from one corner and a circular hole (radius 2 cm) drilled in the center. What remains? (Use $\pi \approx 3.14$.)
- ☐ A. 200.44 cm² ☐ C. 213 cm²
☐ B. 212.56 cm² ☐ D. 225 cm²
- 4) A rectangular prism with a volume of 360 m³ has a base area of 40 m². Find the height.
- ☐ A. 4 m ☐ C. 9 m
☐ B. 7 m ☐ D. 14400 m



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& answers



5)

A triangle has angles of 71° and 72° , and the side between them is 8 cm . How many non-congruent triangles can be drawn?

☐ A. 1☐ C. 3☐ B. 2☐ D. Infinitely many6) A circle has a diameter of 24 cm . What is half the radius?☐ A. 3 cm ☐ C. 12 cm ☐ B. 6 cm ☐ D. 24 cm

7) A spinner has 6 equal sections. To simulate rolling a standard die once, how many trials are needed if we spin once per trial?

☐ A. 1 trial☐ C. 6 trials☐ B. 2 trials☐ D. 36 trials8) Are the expressions $12a - 5a + 3a$ and $10a$ equivalent?☐ A. Yes, because $12 - 5 + 3 = 10$.☐ C. Yes, both are equal to $10a$.☐ B. No, because the coefficients are different.☐ D. No, because $12a - 5a + 3a$ cannot be simplified.

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.



Scan me!
For more practice
& answers

Practice Test Answers and Explanations

Practice Test 1 Answers and Explanations

- 1) **Choice A is correct.** (7.SP.1-7.SP.4) With a two-digit stem (14), leaves are the ones place: 142, 145, 148.
- 2) **Choice A is correct.** (7.G.4-7.G.6) $A = 3.14 \times \left(\frac{3}{2}\right)^2 = 3.14 \times \frac{9}{4} = 3.14 \times 2.25 = 7.065 \text{ m}^2$.
- 3) **Choice B is correct.** (7.G.4-7.G.6) $251.2 = 2(3.14)(4) + 2(3.14)(2)(h) \Rightarrow 251.2 = 25.12 + 12.56h \Rightarrow h = 10 \text{ m}$.
- 4) **Choice B is correct.** (7.SP.5-7.SP.8) Red sections: 2 out of 4. $P(\text{red}) = \frac{2}{4} = \frac{1}{2}$.
- 5) **Choice B is correct.** (7.SP.5-7.SP.8) Total combinations: $3 \times 2 = 6$. Tasted: 3. Remaining: $6 - 3 = 3$ combinations.
- 6) **Choice B is correct.** (7.SP.3) The IQR (from Q1 to Q3) represents the spread of the middle 50% of data. A larger IQR (8 vs. 3) indicates more variability in the central portion of the distribution.
- 7) **Choice B is correct.** (7.SP.5-7.SP.8) Multiples of 3: 3, 6, 9, 12, 15, 18 and multiples of 5: 5, 10, 15, 20. Total: 3, 5, 6, 9, 10, 12, 15, 18, 20 = 9 numbers. So $\frac{9}{20}$.
- 8) **Choice C is correct.** (7.SP.6) Heads: $5 + 5 = 10$ tallies. Tails: $5 + 5 = 10$ tallies. Total: $10 + 10 = 20$.
- 9) **The correct answer is \$19.50.** (7.RP.3) Cost = $4.50 + (1.25 \times 12) = 4.50 + 15 = \19.50 .
- 10) **Choice B is correct.** (7.G.4-7.G.6) Rectangle: $5 \times 4 = 20 \text{ in}^2$. Trapezoid: $\frac{1}{2}(5 + 3) \times 2 = 8 \text{ in}^2$. Total: $20 + 8 = 28 \text{ in}^2$.
- 11) **Choice C is correct.** (7.G.4-7.G.6) Base area = $7^2 = 49 \text{ cm}^2$. Volume = $49 \times 11 = 539 \text{ cm}^3$.
- 12) **Choice B is correct.** (7.G.1-7.G.5) $80^\circ + 100^\circ + 95^\circ + 85^\circ = 360^\circ$, which is the sum of the interior angles of a quadrilateral.
- 13) **Choice B is correct.** (7.G.1-7.G.5) We have angle α at G , the side $GH = 7 \text{ cm}$ between them, and angle β at H . This is Angle-Side-Angle (ASA): two angles and the included side are given.
- 14) **Choice A is correct.** (7.G.4-7.G.6) The radius is half the diameter: $14 \div 2 = 7 \text{ cm}$.
- 15) **Choice A is correct.** (7.SP.5-7.SP.8) A very small probability (close to 0) means the event is unlikely. 0.05 is the smallest value.
- 16) **Choice C is correct.** (7.SP.1-7.SP.4) Researcher 1: $\frac{8}{32} = 0.25$ or 25%. Researcher 2: $\frac{12}{48} = 0.25$ or 25%. Same proportion, though Researcher 2's larger sample is more reliable.
- 17) **Choice A is correct.** (7.NS.1-7.NS.3) Working left to right: $-15 - 6 = -21$, then $-21 + (-4) = -25$.
- 18) **Choice D is correct.** (7.RP.3) Discount is $60 - 45 = 15$. Percent: $\frac{15}{60} = \frac{1}{4} = 25\%$.
- 19) **The correct answer is B,C.** (7.RP.1-7.RP.3) Option B: cost = $1.50 \times$ pounds (proportional, of form $y = kx$). Option C: distance = speed $\times$ time (proportional). Option A is a general trend but not a strict proportional relationship. Option D: height does not scale proportionally with age (growth rates vary).
- 20) **Choice C is correct.** (7.RP.3) Tax = $0.12 \times 250 = \$30$. Total = $250 + 30 = \$280$.
- 21) **Choice C is correct.** (7.SP.1-7.SP.4) 25% of $360^\circ = 0.25 \times 360^\circ = 90^\circ$.
- 22) **Choice D is correct.** (7.RP.1-7.RP.3) Distance equals speed times time. With speed $k = 8 \text{ mph}$, the equation is $d = 8t$.
- 23) **Choice D is correct.** (7.RP.1-7.RP.3) Unit rate = $\frac{900}{3/4} = 900 \times \frac{4}{3} = 1200$ dollars per house.
- 24) **The correct answer is 2.** (7.NS.2) $(-2) \times 3 = -6$. Then $(-6) \times (-\frac{1}{3}) = \frac{6}{3} = 2$. Two negatives give positive.
- 25) **Choice D is correct.** (7.RP.1-7.RP.3) In $y = kx$, solve for k : $20 = k(4)$, so $k = \frac{20}{4} = 5$.
- 26) **The correct answer is 11.** (7.NS.1-7.NS.3) $11^2 = 121$ and $12^2 = 144$. Since 130 is very close to 121, $\sqrt{130} \approx 11.4$, which rounds to 11.
- 27) **Choice D is correct.** (7.RP.1-7.RP.3) Unit rate = $\$90 \div 6 = \15 per week.
- 28) **Choice D is correct.** (7.RP.3) Set up the proportion $\frac{15}{25} = \frac{p}{100}$. Solving gives $p = 60$, so 60% play a sport.
- 29) **Choice C is correct.** (7.SP.5-7.SP.8) Prime numbers on a die: 2, 3, 5 (three primes). $P(\text{prime}) = \frac{3}{6} = \frac{1}{2}$.
- 30) **Choice D is correct.** (7.RP.3) Savings allocation: $0.40 \times 4000 = \$1600$.
- 31) **Choice A is correct.** (7.RP.3) Account 1: $1200(1.07) = 1284$. Account 2: $1100(1.08) = 1188$. Difference: $1284 - 1188 = 96$.



Hi, Thoughtful Reader!

◇ A strong Grade 7 test taker is also a strong reader. You practiced turning words, tables, graphs, and diagrams into math decisions. ◇

★ **Remember this:** That skill grows each time you slow down enough to ask what the problem is really telling you and what it is really asking for. This version gave you 4 opportunities to rehearse test-day habits. ★

Reader-to-Solver Skills

- **Circle the Ask:** Make the target visible.
- **Sort Information:** Separate useful facts from extra words.
- **Match Units:** Keep quantities connected.
- **Answer Fully:** Include the value and what it means.

Grade 7 test-day tip: After solving, reread only the final question. Make sure your answer matches it exactly.

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

Jay Daie

Your Reading-and-Math Helper

PRACTICE TODAY. SUCCEED TOMORROW!

This book includes **4** 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:

4 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



Build Confidence

Practice regularly to feel prepared and test-ready.



Strengthen Math Skills

Develop key math concepts and problem solving abilities.



Improve Understanding

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



Test Confidence

Familiarize with test formats and improve accuracy and speed.



Boost Performance

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

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!



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