

4

South Carolina

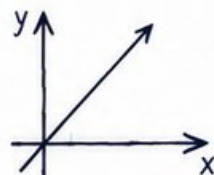
SC READY

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



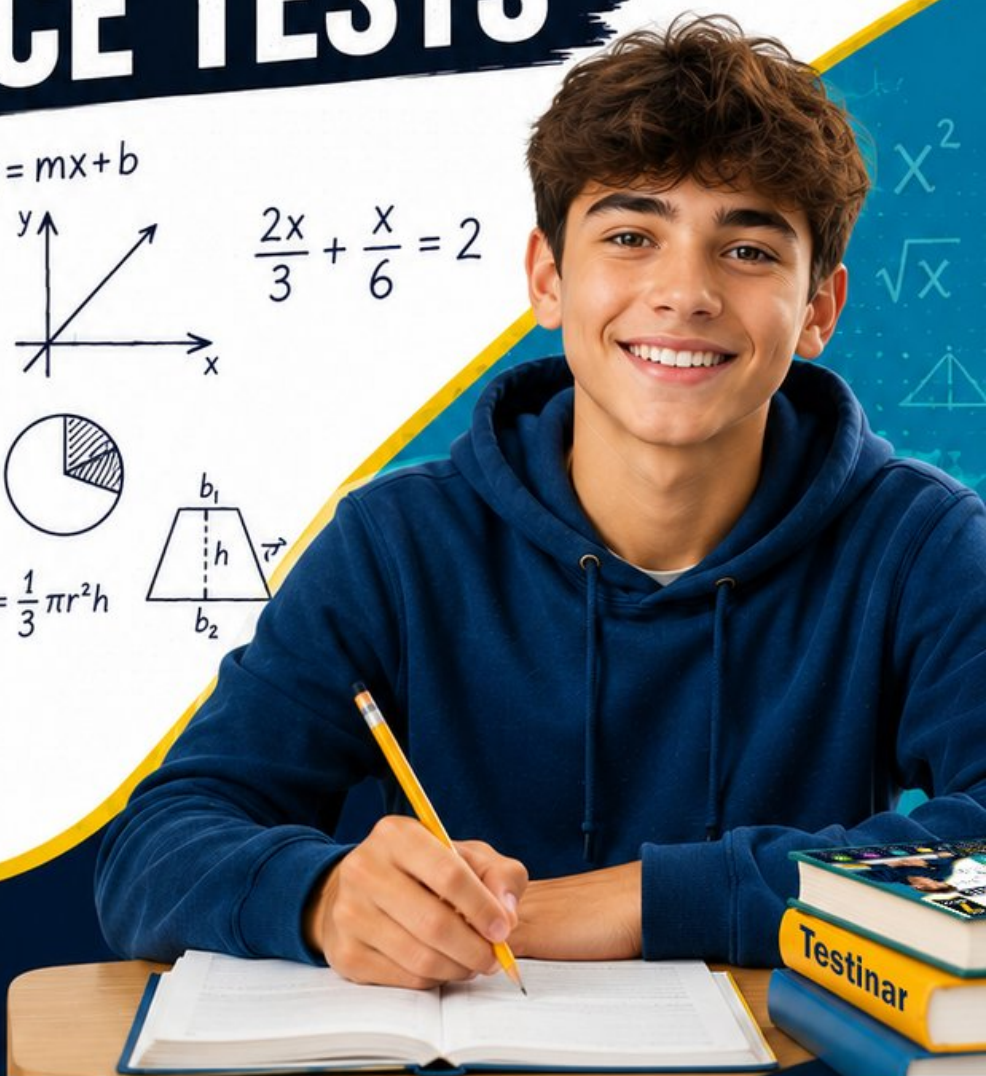
Strengthen
Math Skills



Detailed Answers
& Explanations



Improve Test
Performance



4 South Carolina SC READY Grade 7 Math Practice Tests

South Carolina Standards Practice with Keys and Clear Solutions



Four complete 40-question Grade 7 SC READY 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, South Carolina Grade 7 Problem Solver!

Four focused rounds for sharper SC READY math thinking

This book gives you four full Grade 7 SC READY 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 South Carolina 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.

South Carolina 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 SC READY 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.



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& answers

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1) A tailor cuts 4 identical outfits using $\frac{8}{3}$ yards of fabric. How many yards of fabric per outfit?

☐ A. $\frac{1}{3}$ yard per outfit

☐ C. 2 yards per outfit

☐ B. $\frac{3}{2}$ yards per outfit

☐ D. $\frac{2}{3}$ yard per outfit

2) A coach asks, “How typical is the temperature variation during our outdoor practices?” Which statistic best answers this?

☐ A. Median

☐ C. MAD or IQR

☐ B. Mode

☐ D. Minimum temperature

3) A line graph shows the growth of a plant over 8 weeks (height in cm): Week 1: 5, Week 2: 7, Week 3: 9, Week 4: 11, Week 5: 12, Week 6: 13, Week 7: 14, Week 8: 14.5. Based on this trend, which prediction is most reasonable for Week 9?

☐ A. 15 cm

☐ C. 10 cm

☐ B. 14 cm

☐ D. 20 cm

4) A six-sided die has the faces labeled 1, 1, 2, 4, 5, 6 (one face shows 1 twice and there is no 3). Each face is equally likely. What is the probability of rolling a 1 or 2?

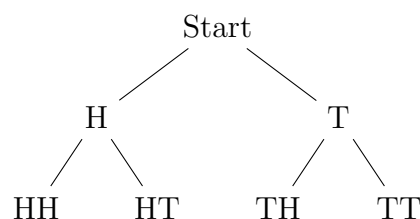
☐ A. $\frac{1}{2}$

☐ C. $\frac{1}{4}$

☐ B. $\frac{2}{6}$

☐ D. $\frac{4}{6}$

5) Two coins are flipped. Which tree diagram shows all possible outcomes?



☐ A. 2 outcomes only

☐ C. 4 outcomes

☐ B. 3 outcomes

☐ D. 8 outcomes



- 6) A dot plot shows cholesterol levels (in mg/dL) for two age groups. Group 1 (Ages 30–40): 160, 165, 165, 170, 170, 170, 175, 180 mg/dL; Group 2 (Ages 50–60): 140, 160, 190, 210, 230, 240 mg/dL. What is the key difference?

- ☐ A. Group 1 is more concentrated; Group 2 is more spread out
- ☐ B. Group 2 has lower cholesterol overall
- ☐ C. Both groups have identical levels
- ☐ D. Group 1 always has higher cholesterol
- 7) A business has a loss of \$55 (represented as -55). To break even, what signed number must be added to the loss?

- 8) A card is drawn from a standard deck. What is the probability of drawing a king OR a queen?

- ☐ A. $\frac{4}{52}$
- ☐ B. $\frac{2}{13}$
- ☐ C. $\frac{2}{52}$
- ☐ D. $\frac{1}{26}$
- 9) Simplify $(-2) \times 3 \times (-\frac{1}{3})$.



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- 10) A game uses a spinner divided into 8 equal sections. The spinner was spun 800 times. One section appeared 85 times. Comparing the experimental and theoretical probabilities, which statement is true?

- ☐ A. Both equal $\frac{1}{8}$.
☐ B. Experimental is $\frac{85}{800}$; theoretical is $\frac{1}{8}$.
☐ C. Experimental is higher than theoretical.
☐ D. Theoretical is higher than experimental.

- 11) A stem-and-leaf plot shows:

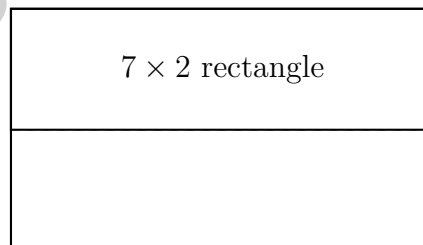
Stem	Leaves
30	2, 5, 8
31	1, 4, 7
32	0, 3, 6, 9

How many three-digit values are between 305 and 315 (inclusive)?

- ☐ A. 1
☐ B. 2
☐ C. 3
☐ D. 4

7×2 rectangle

Area ?



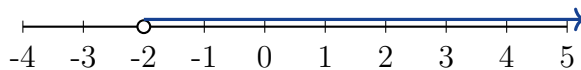
- 12)

A composite figure made of two rectangles stacked vertically (both 7 units wide and 2 units tall) is shown above. What is the total area?

- ☐ A. 14 sq units
☐ B. 18 sq units
☐ C. 24 sq units
☐ D. 28 sq units



1) What is the inequality shown on this number line?



☐ A. $x \geq -2$

☐ C. $x < -2$

☐ B. $x > -2$

☐ D. $x \leq -2$

2) Arrange these products from smallest to largest: $(-3) \times 4$, $(-2) \times (-5)$, 1×6 , $(-4) \times (-2)$.

☐ A. $(-3) \times 4, (-2) \times (-5), 1 \times 6, (-4) \times (-2)$

☐ C. $(-2) \times (-5), (-4) \times (-2), 1 \times 6, (-3) \times 4$

☐ B. $(-3) \times 4, 1 \times 6, (-2) \times (-5), (-4) \times (-2)$

☐ D. $(-3) \times 4, (-2) \times (-5), (-4) \times (-2), 1 \times 6$

3) Which is the best estimate for $\sqrt{120}$?

☐ A. 10

☐ C. 11

☐ B. 10.5

☐ D. 12

4) Which of the following shows that $0.9p = p - 0.1p$?

☐ A. Factoring: $p - 0.1p = p(1 - 0.1) = 0.9p$

☐ C. Combining fractions: $0.9 + 0.1 = 1$

☐ D. All operations are equivalent

☐ B. Distribution: $0.1(p - p) = 0$

5) A student is making a scale model. The scale is 1 inch = 4 feet. The actual length is 16 feet. The student finds the model length by multiplying: $16 \times 4 = 64$ inches. Is this correct?

☐ A. Yes, the calculation is correct

☐ C. No; the correct answer is 2 inches

☐ B. No; the correct answer is 8 inches

☐ D. No; the correct answer is 4 inches

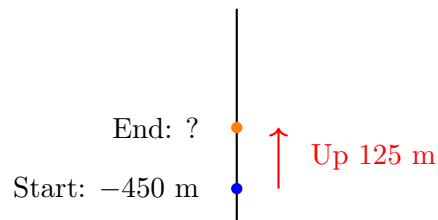


- 6) A hiker starts at an elevation of 500 feet and descends 750 feet. What is the hiker's final elevation? (Represent descent as a negative change.)

- 7) Temperature drops 20 degrees from 10 degrees. Express the drop (change) as a signed number.

- ☐ A. 20 (ignores the direction of change) ☐ D. -20 (correct; drop is negative change)
☐ B. 30 (adds instead of subtracts)
☐ C. -10 (starting temperature)
- 8) 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.
- 9) A submarine is at a depth of -450 meters. It ascends (moves up) 125 meters. What is its new depth?



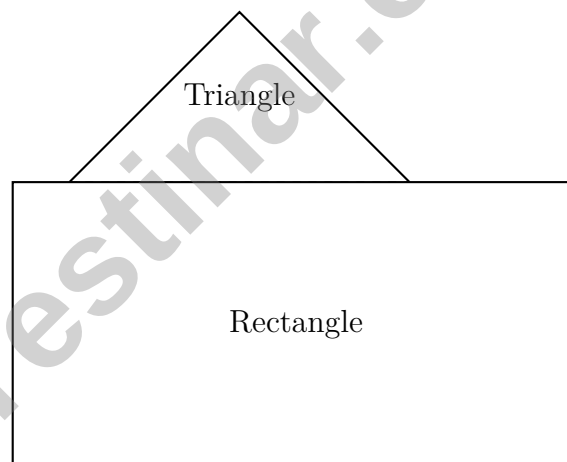
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1) A stock loses 15 points. Express this as a signed number.

- ☐ A. -15 (correct; loss is negative) ☐ C. 15 (ignores the loss/negative direction)
☐ B. 0 (no change) ☐ D. -30 (double the loss)

2) Two histograms show daily temperature (in degrees Fahrenheit) over a month for City A and City B. City A's temperatures cluster at $70\text{--}75$ degrees (range 5 degrees). City B's temperatures span $50\text{--}90$ degrees (range 40 degrees). Where do the distributions overlap?

- ☐ A. City A has more variable temperatures ☐ C. Distributions overlap at $70\text{--}75$ degrees; City A is more consistent
☐ B. City B is always hotter than City A ☐ D. City B never reaches City A's temperature



3)

A composite figure shows a house shape: a rectangle ($10\text{ units} \times 5\text{ units}$) 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



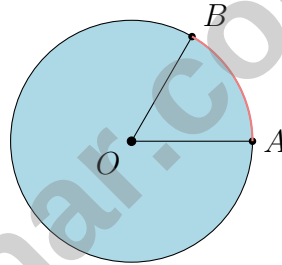
- 4) A rectangular prism has a volume of 360 in^3 . If the length is 10 inches and the width is 6 inches, what is the height?

☐ A. 3 in
☐ B. 6 in
☐ C. 9 in
☐ D. 12 in

- 5) A rectangle is inscribed in a circle. One side is 8 cm and an adjacent side is 6 cm. Is there a unique rectangle that satisfies these conditions?

☐ A. Yes, exactly one
☐ B. No, infinitely many
☐ C. No, but there are exactly two
☐ D. No rectangle fits these conditions

- 6) In the circle below, which region is a sector?



☐ A. The arc AB
☐ B. The region bounded by OA , arc AB , and OB
☐ C. The chord AB
☐ D. The center O

- 7) Simplify: $\frac{1}{2}a + \frac{1}{4}a$

☐ A. $\frac{1}{8}a$
☐ B. $\frac{1}{6}a$
☐ C. $\frac{3}{4}a$
☐ D. $\frac{2}{6}a$



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South Carolina SC READY 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 South Carolina SC READY 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) Unit rate: $\frac{8/3}{4} = \frac{8}{3} \times \frac{1}{4} = \frac{8}{12} = \frac{2}{3}$ yard per outfit.
- 2) **Choice C is correct.** (7.SP.1-7.SP.4) The coach is asking about variation, not center. MAD (average deviation from mean) and IQR (middle 50% spread) both measure variability. Median, mode, and min don't measure spread.
- 3) **Choice A is correct.** (7.SP.1-7.SP.4) The plant grows about 2 cm/week initially, then slows to 0.5 cm/week. Continuing the slowing trend suggests growth of 0.5 cm more, giving $14.5 + 0.5 = 15$ cm.
- 4) **Choice A is correct.** (7.SP.5-7.SP.8) Faces showing 1 or 2: 3 (two 1s and one 2). $P(1 \text{ or } 2) = \frac{3}{6} = \frac{1}{2}$.
- 5) **Choice C is correct.** (7.SP.5-7.SP.8) The tree shows all branches: HH, HT, TH, TT. That is 4 equally likely outcomes.
- 6) **Choice A is correct.** (7.SP.3) Group 1 clusters at 165–175 mg/dL (range 20). Group 2 spans 140–240 mg/dL (range 100), showing much greater spread and variability.
- 7) **The correct answer is 55.** (7.NS.1-7.NS.3) To cancel out the loss of -55 , you add its opposite, which is $+55$. Then $-55 + 55 = 0$ (break even).
- 8) **Choice B is correct.** (7.SP.5-7.SP.8) King OR Queen: $P(\text{King}) + P(\text{Queen}) = \frac{4}{52} + \frac{4}{52} = \frac{8}{52} = \frac{2}{13}$ (mutually exclusive).
- 9) **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.
- 10) **Choice B is correct.** (7.SP.6) Experimental: $\frac{85}{800} \approx 0.106$. Theoretical: $\frac{1}{8} = 0.125$. The experimental probability came from the observed data.
- 11) **Choice C is correct.** (7.SP.1-7.SP.4) Values in range: 305, 308, 311 (from stems 30 and 31, leaves 5, 8, 1). That's 3 values.
- 12) **Choice D is correct.** (7.G.4-7.G.6) Decompose into two rectangles: First rectangle $7 \times 2 = 14$ sq units. Second rectangle $7 \times 2 = 14$ sq units. Add them: $14 + 14 = 28$ sq units.
- 13) **Choice B is correct.** (7.G.4-7.G.6) Volume of a rectangular prism is length $\times$ width $\times$ height, so $12 \times 5 \times 3 = 180 \text{ cm}^3$.
- 14) **Choice A is correct.** (7.G.1-7.G.5) A right isosceles triangle has a 90° angle and two equal legs. The two acute angles are each $(180 - 90)/2 = 45^\circ$.
- 15) **Choice C is correct.** (7.G.4-7.G.6) Diameter is twice the radius: $2 \times 5 = 10$ inches.
- 16) **Choice B is correct.** (7.SP.5-7.SP.8) An even chance means equally likely to happen or not, which is $P = 0.5 = 50\%$.
- 17) **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.
- 18) **Choice B is correct.** (7.G.1-7.G.5) Two sides and the included angle uniquely determine a triangle by the SAS (Side–Angle–Side) condition. Exactly one triangle can be constructed.
- 19) **Choice C is correct.** (7.SP.1-7.SP.4) $\frac{35}{105} = \frac{x}{3150}$. Reduce: $\frac{1}{3} = \frac{x}{3150} \Rightarrow x = 1050$.
- 20) **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 : $-7 - (-4) = -7 + 4 = -3$.
- 21) **The correct answer is A,D.** (7.RP.1-7.RP.3) A and D are unit rates because each gives a price per single unit of weight. Option B is a distance, and option C is a total count.
- 22) **Choice B is correct.** (7.SP.1-7.SP.4) 50% of $360^\circ = 0.50 \times 360^\circ = 180^\circ$.
- 23) **Choice D is correct.** (7.RP.1-7.RP.3) Convert to common units: 120 feet = 1440 inches. Scale = $6 : 1440 = 1 : 240$. Student forgot unit conversion.
- 24) **The correct answer is \$120.** (7.EE.1-7.EE.2) Both $200 - 0.4(200)$ and $200(1 - 0.4)$ simplify to $200(0.6) = 120$. A 40% discount leaves 60% of the original price.
- 25) **Choice C is correct.** (7.RP.3) 50% is half; half of 200 is 100.
- 26) **Choice D is correct.** (7.RP.1-7.RP.3) For $y = 5x$, substituting $x = 3$ gives $y = 5 \times 3 = 15$. So $(3, 15)$ lies on the line. The student made an error in their calculation or reasoning.
- 27) **Choice D is correct.** (7.RP.1-7.RP.3) Each row: $6/2 = 3$, $12/4 = 3$, $18/6 = 3$, $24/8 = 3$. Constant ratio of 3 dollars per notebook.



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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.



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