

8

South Carolina

SC READY

GRADE 7

MATH

PRACTICE TESTS



**Standards Aligned
Problem Solving**

For Comprehensive
Assessment Programs



8 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 SKILLS



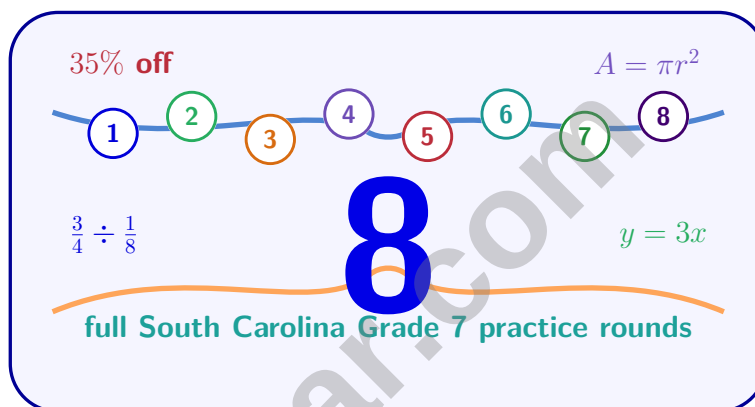
THINK SMARTER



BE TEST-READY

8 South Carolina SC READY Grade 7 Math Practice Tests

A fresh pass through South Carolina Grade 7 percent models, rational operations, expressions, geometry, data, and probability



Eight 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!

Eight focused rounds for sharper SC READY math thinking

This book gives you eight 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

An eight-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?

Eight SC READY tests, 320 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 7–8	Statistics, probability, mixed review, stamina, and choosing efficient strategies.
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 polling company uses a phone directory to call residents and ask about voting intentions. What bias might this method have?

- ☐ A. Neither; it is a random sample ☐ C. Only calls during evening hours
☐ B. Excludes people with unlisted phone numbers and cell-phone-only users ☐ D. Leads respondents to lie about their voting plans

2) A runner can run at most 15 miles in 2 hours. What is the maximum speed (in mph)?

- ☐ A. $2s \leq 15$ ☐ C. $s \geq 15$
☐ B. $s \leq 7.5$ ☐ D. $2s > 15$

3) What should go in the blank: $\frac{23}{40} = 0.5_?$

- ☐ A. 0.523 ☐ C. 0.58
☐ B. 0.57 ☐ D. 0.575

4) A stock investment grows from \$5,000 to \$5,500 in one year. What is the percentage growth?

5) Starting with \$600, an account earns 8% annual compound interest. How much interest is earned after 3 years?



- 6) A tank contains $\frac{7}{8}$ of its maximum capacity. If the maximum is 64 gallons, how many gallons are in the tank?
- ☐ A. 49 gallons ☐ C. 63 gallons
☐ B. 56 gallons ☐ D. 72 gallons
- 7) Evaluate $-3(x - 2)$ when $x = 5$.
- ☐ A. 9 ☐ C. 21
☐ B. -9 ☐ D. -21
- 8) Which expression is NOT equal to y^6 ?
- ☐ A. $y^3 \cdot y^3$ ☐ C. $\frac{y^{10}}{y^4}$
☐ B. $(y^2)^3$ ☐ D. $y^2 \cdot y^3$
- 9) A store owner ordered boxes of inventory. Each box costs \$7, and there is a \$23 shipping fee. If the total cost is \$114, which equation represents b , the number of boxes ordered?
- ☐ A. $7b + 23 = 114$ ☐ C. $b + 7 + 23 = 114$
☐ B. $23b + 7 = 114$ ☐ D. $7(b + 23) = 114$
- 10) Solve: $2(x + 4) = 16$
- ☐ A. $x = 4$ ☐ C. $x = 8$
☐ B. $x = 6$ ☐ D. $x = 10$
- 11) Between which two consecutive integers does $\sqrt{40}$ lie? (Write your answer in the form “between a and b ”)



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12) Which scale would make the drawing *larger* than the actual object?

☐ A. 1 in : 10 ft

☐ C. 2 in : 1 ft

☐ B. 1 in : 5 ft

☐ D. 1 in : 100 ft

13) The radius of a red blood cell is 2.75×10^{-6} cm. What is this in standard form?

☐ A. 0.00000275 cm

☐ C. 2,750,000 cm

☐ B. 0.000000275 cm

☐ D. 27,500,000 cm

14) Which is equivalent to $(6v + 2) + (3v - 8)$?

☐ A. $9v - 6$

☐ C. $9v + 10$

☐ B. $3v - 6$

☐ D. $9v - 10$

15) Solve for x : $2(x + 6) = 20$

☐ A. $x = 2$

☐ C. $x = 6$

☐ B. $x = 4$

☐ D. $x = 8$

16) Solve: $2x + 8 = 24$

☐ A. $x = 6$

☐ C. $x = 10$

☐ B. $x = 8$

☐ D. $x = 12$

17) A delivery route has elevation changes: down 150 feet, up 220 feet, down 85 feet, up 60 feet. What is the net elevation change (in feet)?



- 1) Two fair spinners are used. Spinner 1 has 4 equal sections, and Spinner 2 has 3 equal sections. A student incorrectly calculates $4 + 3 = 7$ total outcomes instead of multiplying. Why is addition wrong in this context?
- ☐ A. Addition counts outcomes within one spinner, not combinations across spinners
- ☐ B. The spinners are not fair
- ☐ C. There are only 12 outcomes, not 7
- ☐ D. The total is actually 7, and multiplication is unnecessary
- 2) A fitness app charges \$4.99 per month and a one-time premium unlock for \$9.99. Which equation gives total cost C for m months?
- ☐ A. $C = 9.99m + 4.99$
- ☐ B. $C = 4.99 + 9.99m$
- ☐ C. $C = (4.99 + 9.99)m$
- ☐ D. $C = 4.99m + 9.99$
- 3) A student got $(5e + 2) + (3e - 7) = 8e - 5$. Is this correct?
- ☐ A. Yes, the work is correct
- ☐ B. No, the constant term is wrong; should be $8e - 5$ not $8e + 5$
- ☐ C. No, the e terms were not combined correctly
- ☐ D. No, the answer should be $8e + 5$
- 4) The circumference of a circle is 50.24 meters. Using $\pi \approx 3.14$, find the diameter.



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5) What is $(-2) \times (-3) + (-1)$?

☐ A. -7

☐ C. 5

☐ B. -5

☐ D. 7

6) Two basketball teams' free-throw percentages over 10 games are shown below.

Team	Mean	MAD
Tigers	75%	8%
Sharks	72%	4%

Based on this data, which statement is most accurate?

☐ A. The Sharks are more reliable free-throw shooters

☐ C. The Sharks score more points overall

☐ B. The Tigers never miss a free throw

☐ D. Both teams have the same consistency

7) A circle graph shows the breakdown of how students spend their day: Sleep 33%, School 25%, Homework 17%, Recreation 15%, Other 10%. If a student sleeps 8 hours, how many hours does the student spend in school (assuming the percentages hold)?

☐ A. 4 hours

☐ C. 8 hours

☐ B. 6 hours

☐ D. 10 hours

8) A cylindrical water tank has a radius of 2.5 meters and a height of 8 meters. Find the volume of the tank in cubic meters. Use $\pi \approx 3.14$.



- 1) A car travels at a constant speed of 55 miles per hour. Which equation relates distance d (miles) to time t (hours)?

☐ A. $d = t + 55$

☐ C. $d = \frac{55}{t}$

☐ B. $d = \frac{t}{55}$

☐ D. $d = 55t$

- 2) Two supplementary angles are in the ratio 7 : 8. What is the measure of the smaller angle?

☐ A. 84°

☐ C. 96°

☐ B. 90°

☐ D. 92°

- 3) A living room measures 18 feet by 14 feet. On a floor plan with scale $\frac{1}{2}$ inch to 4 feet, what is the area of the room on the floor plan in square inches?

- 4) Two spinners, each with sections A, B, C in equal parts, are spun. How many outcomes are in the sample space?

☐ A. 3

☐ C. 9

☐ B. 6

☐ D. 12

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



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6) A stem-and-leaf plot represents time (in minutes) spent studying:

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

If the goal is to study at least 35 minutes, how many students fell short?

☐ A. 4

☐ C. 6

☐ B. 5

☐ D. 7

7) Which statement describes an event with probability 1?

☐ A. Drawing a red card from a shuffled deck

☐ C. Flipping a coin and getting heads

☐ B. Picking a number from 1 to 10 that is less than 11

☐ D. Rolling a number greater than 6 on a standard die

8) Evaluate: $9 - (-4)$

☐ A. 5

☐ C. -5

☐ B. -13

☐ D. 13

9) Use a chip model to represent $-4 + (-2)$. How many chips of each type remain?



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 B is correct.** **(7.SP.1-7.SP.4)** Phone directories only include people with listed landline numbers, which excludes people with unlisted numbers and younger voters who use only cell phones. This coverage bias makes the sample unrepresentative of all voters in the area.
- 2) **Choice B is correct.** **(7.EE.4b)** Distance = speed $\times$ time. $s \times 2 \leq 15$, so $s \leq 7.5$ mph.
- 3) **Choice D is correct.** **(7.NS.2d)** Divide $23 \div 40 = 0.575$. Since $40 = 2^3 \times 5$, it terminates in three decimal places.
- 4) **The correct answer is 10%.** **(7.RP.3)** Percentage growth = $(\$5,500 - \$5,000) \div \$5,000 = \$500 \div \$5,000 = 0.10 = 10\%$.
- 5) **The correct answer is \$155.83.** **(7.RP.3)** Final balance: $600(1.08)^3 = 600 \times 1.2597 = 755.83$. Interest earned: $755.83 - 600 = 155.83$.
- 6) **Choice B is correct.** **(7.NS.1-7.NS.3)** $\frac{7}{8} \times 64 = 7 \times 8 = 56$ gallons.
- 7) **Choice B is correct.** **(7.EE.1-7.EE.2)** Substitute: $-3(5 - 2) = -3(3) = -9$.
- 8) **Choice D is correct.** **(7.EE.1-7.EE.2)** Check: A is $y^3 \cdot y^3 = y^6$ ✓; B is $(y^2)^3 = y^6$ ✓; C is $\frac{y^{10}}{y^4} = y^6$ ✓; D is $y^2 \cdot y^3 = y^5$ ✗.
- 9) **Choice A is correct.** **(7.EE.4a)** Cost per box (\$7b) plus fixed shipping (\$23) equals total (\$114). Equation: $7b + 23 = 114$, so $b = 13$.
- 10) **Choice A is correct.** **(7.EE.3-7.EE.4)** Divide by 2: $x + 4 = 8$. Subtract 4: $x = 4$.
- 11) **The correct answer is (6, 7).** **(7.NS.1-7.NS.3)** $6^2 = 36$ and $7^2 = 49$. Since $36 < 40 < 49$, the answer is between 6 and 7.
- 12) **Choice C is correct.** **(7.G.1-7.G.5)** In scale 2 in : 1 ft, one foot in reality becomes 2 inches in the drawing, making the drawing larger than the object. All others make the drawing smaller.
- 13) **Choice A is correct.** **(7.NS.1-7.NS.3)** $2.75 \times 10^{-6} = 0.00000275$. Move decimal 6 places left.
- 14) **Choice A is correct.** **(7.EE.1-7.EE.2)** Combine: $(6v + 3v) + (2 - 8) = 9v - 6$.
- 15) **Choice B is correct.** **(7.EE.4a)** Distribute: $2x + 12 = 20$. Subtract 12: $2x = 8$. Divide by 2: $x = 4$. (Distractor A: dividing only the right side; Distractor C: forgetting to divide by 2; Distractor D: arithmetic error in final step.)
- 16) **Choice B is correct.** **(7.EE.3-7.EE.4)** Subtract 8: $2x = 16$. Divide by 2: $x = 8$.
- 17) **The correct answer is 45.** **(7.NS.1-7.NS.3)** Net change = $-150 + 220 - 85 + 60 = 45$ feet.
- 18) **Choice A is correct.** **(7.NS.2)** $(2 \times 3) \times (-5) = 6 \times (-5) = -30$. Positive times negative is negative.
- 19) **The correct answer is B,D.** **(7.NS.1-7.NS.3)** B: $-33 + 33 = 0$ (opposites sum to zero). D: $-100 + 100 = 0$ (opposites sum to zero). A: $20 + (-10) = 10$ (not zero). C: $14 + (-7) = 7$ (not zero).
- 20) **Choice A is correct.** **(7.EE.1-7.EE.2)** $\gcd(12, 18) = 6$, so $12m + 18n = 6(2m + 3n)$.
- 21) **Choice B is correct.** **(7.SP.5-7.SP.8)** There are 4 Kings in 52 cards, so $P(\text{King}) = \frac{4}{52} = \frac{1}{13}$.
- 22) **Choice C is correct.** **(7.RP.3)** Total cost = $30 + (45 \times 6) = 30 + 270 = \300 .
- 23) **Choice B is correct.** **(7.G.4-7.G.6)** Rectangle: $4 \times 6 = 24 \text{ ft}^2$. Semicircle (radius 2): $\frac{1}{2} \times 3.14 \times 4 = 6.28 \text{ ft}^2$. Total: $24 + 6.28 = 30.28 \text{ ft}^2$.
- 24) **Choice B is correct.** **(7.SP.1-7.SP.4)** Values ≥ 30 : 30, 32, 33, 35, 37, 41, 48 from stems 3 and 4. Total: 7 values.
- 25) **Choice D is correct.** **(7.RP.1-7.RP.3)** Apples: $5 \times \$0.60 = \3.00 . Oranges: $3 \times \$1.20 = \3.60 . Total: $\$3.00 + \$3.60 = \$6.60$.
- 26) **Choice A is correct.** **(7.G.4-7.G.6)** Volume of first = $25 \times 4 = 100 \text{ cm}^3$. Volume of second = $25 \times 8 = 200 \text{ cm}^3$. Difference = $200 - 100 = 100 \text{ cm}^3$.
- 27) **Choice A is correct.** **(7.G.1-7.G.5)** $5^2 + 12^2 = 25 + 144 = 169 = 13^2$ ✓. This is the 5-12-13 Pythagorean triple.
- 28) **Choice B is correct.** **(7.G.1-7.G.5)** When constructing a right triangle with a known right angle, hypotenuse, and one leg, the RHS condition guarantees a unique triangle. This is a special case applicable only to right triangles.
- 29) **Choice B is correct.** **(7.SP.1-7.SP.4)** $\frac{45}{120} = \frac{x}{840}$. Reduce to $\frac{3}{8} = \frac{x}{840} \Rightarrow x = 315$.
- 30) **Choice D is correct.** **(7.RP.1-7.RP.3)** Store A: $\frac{2}{1/2} = 2 \times 2 = 4$ dollars/lb. Store B: $\frac{3}{2/3} = 3 \times \frac{3}{2} = 4.5$ dollars/lb. Store A is cheaper.



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You Are Building Test Stamina

Hi, Stamina Builder!

◇ This wide-ranging book gave you eight serious Grade 7 practice tests, so you had repeated chances to build accuracy, pacing, and confidence. Completing practice tests builds more than math knowledge. It builds the focus needed to think clearly for a long stretch. ◇

★ **Remember this:** That stamina matters. On real test day, calm pacing can be just as important as remembering a formula. ★

Stamina Skills

- **Breathe:** Reset before a difficult page.
- **Pace:** Do not spend too long in one place.
- **Return:** Come back to skipped questions with fresh eyes.
- **Finish Strong:** Use the last minutes to check.

Grade 7 test-day tip: Practice a simple reset: pause, breathe, reread, then choose your next step.

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

Jay Daie

Your Test-Stamina Coach

PRACTICE TODAY. SUCCEED TOMORROW!

This book includes **8** 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:

8 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
- ✓ 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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SOLVE
CONFIDENTLY



SUCCEED
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