

9

South Carolina

SC READY

GRADE 7

MATH

PRACTICE TESTS

Standards Aligned Problem Solving
For Comprehensive Assessment Programs

Program



9

**PRINTED
TESTS**

+



2

**ONLINE
TESTS**



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



BUILT FOR ACAP
Standards-Aligned



**STRENGTHEN
SKILLS**



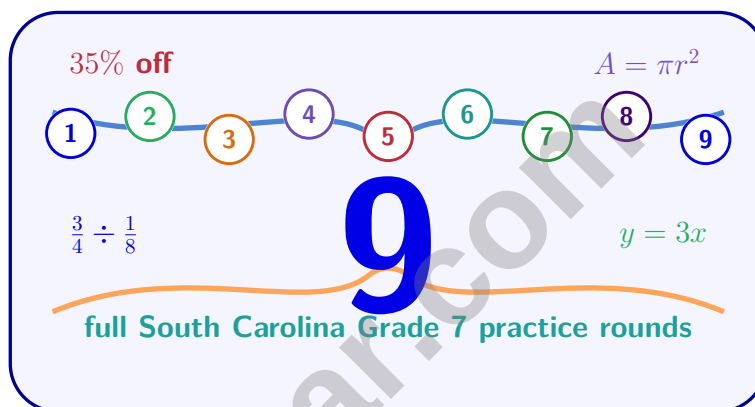
**SHARPEN
THINKING**



BE TEST-READY
Improve Performance

9 South Carolina SC READY Grade 7 Math Practice Tests

Standards-Aligned South Carolina Practice for Proportional Reasoning, Expressions, Geometry, Statistics, and Probability



Nine 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!

Nine focused rounds for sharper SC READY math thinking

This book gives you nine 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 nine-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?

Nine SC READY tests, 360 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.
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 bag contains only red and blue marbles. A marble is drawn 150 times with replacement. Red appears 84 times. Based on this experiment, which is the best estimate of the probability of drawing a red marble on the next draw?

☐ A. 0.44☐ C. 0.56☐ B. 0.50☐ D. 0.84

- 2) A fair coin is flipped 200 times in a simulation. The theoretical probability of getting heads is 0.5. Approximately how many times would you expect to see heads?

- 3) Two box plots show salaries (in thousands of dollars) for two companies. Company P: Min 30, Q1 40, Median 50, Q3 65, Max 90; Company Q: Min 35, Q1 42, Median 48, Q3 60, Max 85. Which company has higher salaries overall?

☐ A. Company P (higher median and Q3)☐ C. Both companies pay equally☐ D. Company Q (higher maximum)☐ B. Company Q (higher minimum)

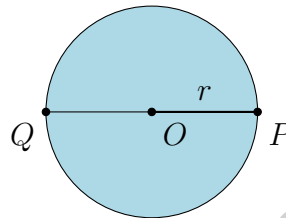
- 4) A beauty salon stylist earns \$100 in commission on \$250 in hair service sales. What is the commission rate?

☐ A. 25%☐ C. 35%☐ B. 30%☐ D. 40%

- 5) A rectangular prism has a base area of 24 square inches and a height of 6 inches. Find the volume.

- ☐ A. 288 in^3
☐ C. 72 in^3
☐ B. 144 in^3
☐ D. 30 in^3

- 6) The diagram below shows a circle with center O .



Which line segment is the radius of the circle?

- ☐ A. OP
☐ C. PQ
☐ B. OQ
☐ D. QP

7)

Scenario	Principal	Annual Rate	Years
Account 1	\$1000	6%	2
Account 2	\$1200	4%	2

Which account earns more interest, and by how much?

- ☐ A. Account 1 by \$20
 ☐ C. Account 1 by \$24
☐ B. Account 2 by \$20
 ☐ D. Both earn the same

- 8) A survey finds that 84 out of 300 people prefer brand X. What percent is this?

- ☐ A. 20%
 ☐ C. 28%
☐ B. 24%
 ☐ D. 32%



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- 9) A scale model of a bridge has a ratio of 1 : 500 (model to real). If the real bridge is 150 meters long, how long is the model in centimeters?
- ☐ A. 3 cm ☐ C. 300 cm
☐ B. 3000 cm ☐ D. 30 cm
- 10) The additive inverse (opposite) of -14 is which value?
- ☐ A. 14 ☐ C. 0
☐ B. -14 ☐ D. $\frac{1}{14}$
- 11) A painter completes $\frac{2}{3}$ of a room in $\frac{1}{5}$ hour. At this rate, how many rooms will the painter complete in 1 hour?
- ☐ A. $\frac{2}{15}$ room ☐ C. 1 room
☐ B. $\frac{3}{5}$ room ☐ D. $\frac{10}{3}$ rooms
- 12) A recipe calls for $\frac{1}{2}$ cup of flour for every $\frac{1}{4}$ cup of sugar. Which ratio represents the proportional relationship?
- ☐ A. 1 : 2 ☐ C. 4 : 1
☐ B. 1 : 4 ☐ D. 2 : 1
- 13) If $\frac{7}{x} = \frac{35}{100}$, what is x ?



1) Express 24,000,000 in scientific notation.

☐ A. 2.4×10^6

☐ C. 24×10^7

☐ B. 2.4×10^7

☐ D. 2.4×10^8

2) You can buy 8 pencils for $\frac{1}{2}$ dollar. How much does one pencil cost?

☐ A. \$0.04

☐ C. \$0.08

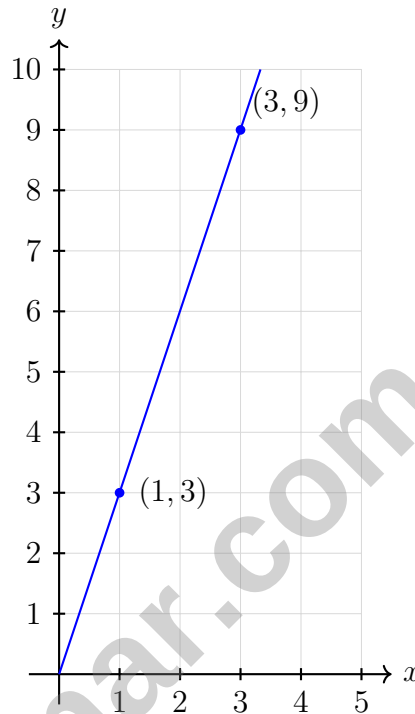
☐ B. \$0.16

☐ D. \$0.0625

3) A student claims: $\frac{-4}{5} \div \frac{2}{3} = \frac{-8}{15}$ because “you multiply the numerators and denominators.” What is the correct quotient?



- 4) A coordinate plane shows a line passing through $(1, 3)$ and $(3, 9)$. Does this line represent a proportional relationship?



- ☐ A. Cannot tell without more points ☐ C. Yes; constant slope is 3
- ☐ B. No; points are not at origin ☐ D. Yes; line passes through origin
- 5) The table shows the relationship between gallons of paint (g) and square feet painted (p).

Gallons	Square Feet
1	400
2	800

What is the value of k in the equation $p = kg$?

- ☐ A. 100 ☐ C. 200
- ☐ B. 800 ☐ D. 400



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1) Solve for x : $4(x - 3) = 12$

☐ A. $x = 0$

☐ C. $x = 6$

☐ B. $x = 3$

☐ D. $x = 9$

2) A blueprint uses a scale of $\frac{1}{4}$ inch : 1 foot. A door in the blueprint is $\frac{3}{4}$ inch tall. What is the actual height of the door?

☐ A. 1 foot

☐ C. 3 feet

☐ B. 2 feet

☐ D. 4 feet

3) A blueprint shows a room measuring 3 cm by 5 cm at a scale of 1 cm : 1 m. What are the actual room dimensions?

☐ A. 3 m by 5 m

☐ C. 1 m by 1.67 m

☐ B. 300 cm by 500 cm

☐ D. 6 m by 10 m

4) A triangular prism with an equilateral triangular base (side 5 cm) and height 10 cm is sliced parallel to its triangular base. What is the shape of the cross-section?

☐ A. Equilateral triangle

☐ C. Trapezoid

☐ B. Rectangle

☐ D. Irregular pentagon

5) If $\frac{a}{9} = \frac{8}{12}$, what is the value of a ?

☐ A. 5

☐ C. 7

☐ B. 6

☐ D. 10

6) A circular garden has a diameter of 20 feet. About how many square feet is the garden? Use $\pi \approx 3.14$.

☐ A. 62.8 ft^2

☐ C. 314 ft^2

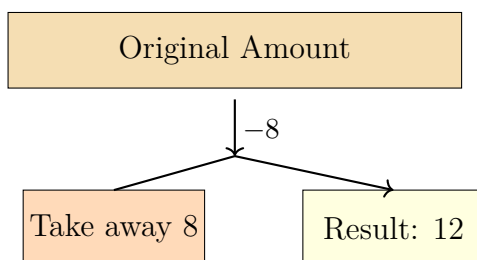
☐ B. 125.6 ft^2

☐ D. 1256 ft^2



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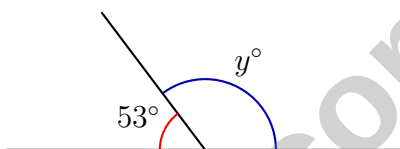
7)



Using the model, what is the original amount?

☐ A. 4☐ C. 20☐ B. 12☐ D. 24

8)



A ray extends upward from a point on a horizontal line. One angle is 53° and the other is y . These angles are supplementary. Find y .

☐ A. 53° ☐ C. 127° ☐ B. 90° ☐ D. 233°

9) What is the side length of a square with area 169 square units?



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 C is correct.** (7.SP.6) Experimental probability = $\frac{84}{150} = 0.56$. The relative frequency of drawing red guides our prediction for future draws.
- 2) **The correct answer is 100.** (7.SP.5-7.SP.8) Expected frequency: $0.5 \times 200 = 100$ times.
- 3) **Choice A is correct.** (7.SP.3) Company P's median (50) and Q3 (65) are both higher than Company Q's (48 and 60). These measures indicate Company P's typical and upper-quartile salaries are higher.
- 4) **Choice D is correct.** (7.RP.3) Commission rate = $\frac{100}{250} = 0.40 = 40\%$.
- 5) **Choice B is correct.** (7.G.4-7.G.6) $V = B \times h = 24 \times 6 = 144 \text{ in}^3$.
- 6) **Choice A is correct.** (7.G.4-7.G.6) The radius is any segment from the center to the circle. OP is labeled and is a radius.
- 7) **Choice C is correct.** (7.RP.3) Account 1: $I = 1000(0.06)(2) = \$120$. Account 2: $I = 1200(0.04)(2) = \$96$. Difference: $120 - 96 = \$24$.
- 8) **Choice C is correct.** (7.RP.3) $\frac{84}{300} = \frac{7}{25} = 0.28 = 28\%$.
- 9) **Choice D is correct.** (7.RP.1-7.RP.3) $150 \text{ m} = 15000 \text{ cm}$. Divide by scale: $15000 \div 500 = 30 \text{ cm}$.
- 10) **Choice A is correct.** (7.NS.1b) The additive inverse of -14 is the number that, when added to -14 , gives 0. That number is 14, since $-14 + 14 = 0$.
- 11) **Choice D is correct.** (7.RP.1-7.RP.3) Unit rate = $\frac{2/3}{1/5} = \frac{2}{3} \times 5 = \frac{10}{3}$ rooms per hour.
- 12) **Choice D is correct.** (7.RP.1-7.RP.3) Divide: $\frac{1/2}{1/4} = \frac{1}{2} \times \frac{4}{1} = 2$. For every 1 cup sugar, you need 2 cups flour.
- 13) **The correct answer is 20.** (7.RP.1-7.RP.3) Cross multiply: $7 \times 100 = 35 \times x$. So $700 = 35x$, giving $x = 20$.
- 14) **Choice D is correct.** (7.RP.3) Use the proportion $\frac{7}{20} = \frac{p}{100}$: $p = 35$. All three forms are equivalent: $0.35 = \frac{7}{20} = 35\%$.
- 15) **Choice A is correct.** (7.NS.1-7.NS.3) Net change = $-45 + 28 = -17 \text{ m}$ (17 meters lower than start).
- 16) **Choice B is correct.** (7.EE.4a) Activation fee is \$29.99 plus \$9.99 per month. Formula: $C = 9.99n + 29.99$.
- 17) **Choice C is correct.** (7.G.4-7.G.6) Circle 1: $A = 3.14 \times 25 = 78.5 \text{ ft}^2$. Circle 2: $A = 3.14 \times 100 = 314 \text{ ft}^2$. Ratio: $\frac{314}{78.5} = 4$.
- 18) **Choice C is correct.** (7.RP.3) Wants span from \$400 to \$1000, which is \$600 of \$2000 = $0.30 = 30\%$.
- 19) **The correct answer is A,C.** (7.G.4-7.G.6) Option A is correct (60 m^2). Option C is correct (18 m^2). The true total is $60 + 18 = 78 \text{ m}^2$, so D and
- 20) **Choice B is correct.** (7.NS.1-7.NS.3) $2 \times 2 = 4$, so $\sqrt{4} = 2$.
- 21) **Choice A is correct.** (7.EE.1-7.EE.2) Add all sides: $(\frac{1}{2}x + 1) + (x + 3) + (2x - 1) = (\frac{1}{2}x + x + 2x) + (1 + 3 - 1) = \frac{7}{2}x + 3$.
- 22) **Choice A is correct.** (7.EE.4a) Distribute: $8x + 8 = 72$. Subtract 8: $8x = 64$. Divide by 8: $x = 8$.
- 23) **The correct answer is 1600.** (7.SP.1-7.SP.4) Set up the proportion: $\frac{80}{250} = \frac{x}{5000}$. Solve: $x = \frac{80 \times 5000}{250} = 1600$.
- 24) **Choice C is correct.** (7.G.1-7.G.5) Complementary angles sum to 90° : $M = 90 - 36 = 54^\circ$.
- 25) **Choice A is correct.** (7.NS.2) Option A directly disproves the claim: negative times positive (-10) is smaller, not larger, than positive times positive (10). The products are equal in magnitude but opposite in sign, showing the claim is false. Options B, C, D also work but use less intuitive magnitudes.
- 26) **Choice A is correct.** (7.EE.1-7.EE.2) The diagram shows a discount reduces price from p to $0.9p$. This means $0.9p = p - 0.1p$, factoring as $p(1 - 0.1)$.
- 27) **Choice A is correct.** (7.SP.5-7.SP.8) Total students: $15 + 10 = 25$. Girls: 10. $P(\text{girl}) = \frac{10}{25} = 0.4$.
- 28) **Choice A is correct.** (7.SP.1-7.SP.4) For $n = 20$ (even), median is between positions $n/2 = 10$ and $n/2 + 1 = 11$.
- 29) **The correct answer is 0.** (7.G.1-7.G.5) Compute $169 - (25 + 144) = 0$. This indicates the triangle is a right triangle.
- 30) **Choice D is correct.** (7.RP.3) Tip: $0.15 \times 42.80 = \$6.42$.
- 31) **Choice B is correct.** (7.RP.3) With compound interest over 2 years: Final balance = $P(1 + r)^2$. Since $P = 1000$ and final = 3000 (tripled), the equation is $1000(1 + r)^2 = 3000$. (Note: A is wrong because it assumes 1 year; C is simple interest; D is not a compound formula.)



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Hi, Confident Learner!

◇ This high-stamina book gave you nine substantial Grade 7 practice tests, so you had repeated chances to build accuracy, pacing, and confidence. Grade 7 math can feel big because it brings together rational numbers, expressions, equations, geometry, probability, and data. ◇

★ **Remember this:** But big topics become manageable when you practice one skill at a time. That is what you have been doing with every test in this book. ★

Confidence Builders

- **Know the Goal:** Identify what the question asks.
- **Use Vocabulary:** Math words point to math actions.
- **Show Work:** Give yourself something to check.
- **Celebrate Effort:** Practice is proof that you are moving.

Grade 7 test-day tip: When reviewing, do not only mark wrong answers. Write one sentence about what you learned from each one.

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

Jay Daie

Your Confidence Coach

PRACTICE TODAY. SUCCEED TOMORROW!

This book includes **9** 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:

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2 Online Practice Tests

 Detailed Answer Explanations



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Give your child the tools to build strong math skills, confidence, and a positive attitude toward learning.

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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.

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