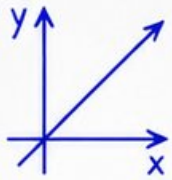
5 PRACTICE TESTS

South Carolina SC READY

GRADE 7 MATH

Standards Aligned
Problem Solving
For Comprehensive
Assessment Programs



$y = mx + b$

$\frac{2}{3} + \frac{1}{6} = \frac{5}{6}$

$V = \pi r^2 h$

5 PRINTED TESTS

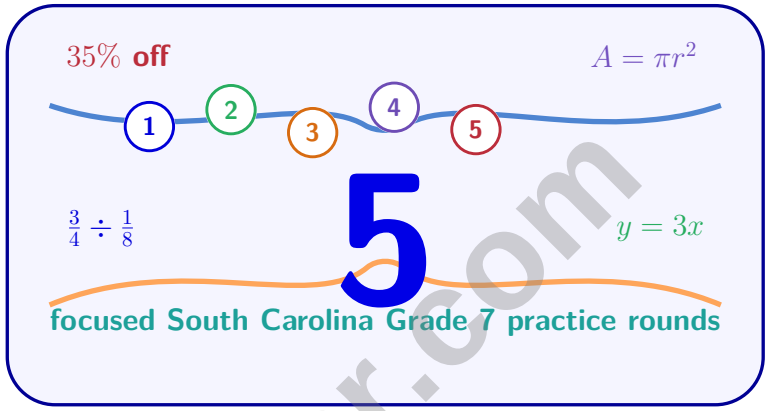
2 ONLINE TESTS

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

5 South Carolina SC READY Grade 7 Math Practice Tests

Grade 7 Math Practice for Review, Accuracy, and Test Confidence



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Five 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!

Five focused rounds for sharper SC READY math thinking

This book gives you five 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.

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How to Use This Book

A five-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.

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Scan me!
For more practice
& answers

What Is Inside?

Five SC READY tests, 200 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 3–5	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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1) A rental company charges \$25 per day for a kayak plus a \$15 equipment fee. The total bill is \$115. Which equation finds d, the number of days?

☐ A. $25d + 15 = 115$
☐ B. $25 + 15d = 115$
☐ C. $25(d + 15) = 115$
☐ D. $15d + 25 = 115$

2) Evaluate: $11 - (-6)$

☐ A. 5
☐ B. -17
☐ C. -5
☐ D. 17

3) What is the central angle for a sector representing 12.5% of a circle?

☐ A. 36°
☐ B. 45°
☐ C. 54°
☐ D. 72°

4) A lemonade stand charges \$0.75 per cup. What is the constant of proportionality for revenue per cup?

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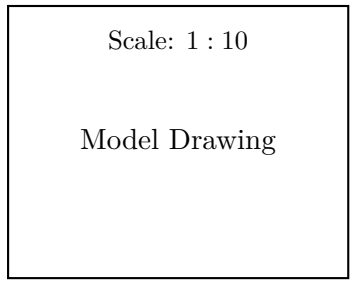

5 units ×4 units

5) If this model has a scale of 1 : 10, which statement about the actual object is true?

☐ A. It is 15 units ×14 units.
☐ B. It is 1.67 units ×1.33 units.
☐ C. The scale factor is 5.
☐ D. It is 50 units ×40 units.

6) If 25 is 10% of a number, what is the number?

☐ A. 150
☐ B. 200
☐ C. 250
☐ D. 300

7) Sophia had \$28 in her wallet. She spent \$35 on lunch. Write her account balance as an integer (assuming the wallet could go negative). What is her balance?

☐ A. \$ − 63
☐ B. \$63
☐ C. \$7
☐ D. \$ − 7

8) A machine produces $\frac{2}{3}$ box of items in $\frac{4}{9}$ hour. How many boxes per hour?

☐ A. $\frac{8}{27}$ box/hr
☐ B. $\frac{1}{6}$ box/hr
☐ C. $\frac{4}{6}$ box/hr
☐ D. $\frac{3}{2}$ boxes/hr

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9) Which of the following does NOT represent a proportional relationship?

☐ A. $y = 6x$
☐ B. $y = 0.5x$
☐ C. $y = x + 2$
☐ D. $y = \frac{3}{4}x$

10) Which expression has the greatest absolute value?

☐ A. $-2.3 + 1.5$
☐ B. $-5.8 - 0.2$
☐ C. $3.1 - 4.2$
☐ D. $-1.5 + 2.8$

11) A student incorrectly calculates $-12 + 8 \times 2$ as $(-12 + 8) \times 2 = -4 \times 2 = -8$. What is the correct answer?

☐ A. -8
☐ B. 4
☐ C. -16
☐ D. 8

12) Evaluate $2x^2 + 3$ when $x = 4$.

☐ A. 19
☐ B. 32
☐ C. 44
☐ D. 35

13) If y is proportional to x and $y = 20$ when $x = 4$, what is the constant of proportionality?

☐ A. $k = 80$
☐ B. $k = 4$
☐ C. $k = 20$
☐ D. $k = 5$

14) A recipe calls for $\frac{2}{5}$ cup of sugar. What percent of a whole cup is this?

☐ A. 20%
☐ B. 25%
☐ C. 40%
☐ D. 50%

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1) A triangular prism has a right-triangular base with legs 7 cm and 4 cm, and a depth of 9 cm. What is the volume?

☐ A. 20 cm^3
☐ B. 63 cm^3
☐ C. 126 cm^3
☐ D. 252 cm^3

2) A biology class conducted experiments. In 40 trials, 8 showed unexpected results. If the class conducts 200 trials total, about how many are expected to show unexpected results?

☐ A. 20
☐ B. 30
☐ C. 40
☐ D. 50

3) Jordan invests \$2000 at a simple interest rate of 3.5% per year for 5 years. How much interest will he earn?

☐ A. \$70
☐ B. \$175
☐ C. \$350
☐ D. \$700

4) Simplify $6p^2 + 2p - 3p^2 - 5p + 4p^2$, then evaluate when $p = 2$.

5) A photo costs \$0.50 each. If you buy n photos for a total cost of T dollars, which equation is correct?

☐ A. $n = 0.50T$
☐ B. $T = n + 0.50$
☐ C. $T = \frac{0.50}{n}$
☐ D. $T = 0.50n$

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6) A simulation models the probability of a customer making a purchase as $\frac{2}{5}$. Which of the following spinners would be most appropriate for this simulation?

☐ A. A spinner with 3 equal sections, 1 shaded
☐ B. A spinner with 5 equal sections, 2 shaded
☐ C. A spinner with 10 equal sections, 4 shaded
☐ D. A spinner with 5 equal sections, 3 shaded

7) A rental company charges \$25 per day. If a customer has a budget of at most \$200, what is the maximum number of days they can rent?

☐ A. $25d \geq 200$
☐ B. $d \geq 8$
☐ C. $d > 8$
☐ D. $d \leq 8$

8) What is the greatest common numerical factor of $14ab$ and $21a$?

9) A rectangular prism has length 16 in, width 8 in, and height 2 in. What is the surface area?

☐ A. 120 in^2
☐ B. 240 in^2
☐ C. 352 in^2
☐ D. 412 in^2

10) A student incorrectly found the scale factor as the reciprocal of the intended scale. If the correct scale is 3 : 1, what scale did the student use?

☐ A. 1 : 3
☐ B. 3 : 3
☐ C. 6 : 1
☐ D. 1 : 6

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1) A car travels 120 miles in 2 hours at a constant speed. What is the constant of proportionality (miles per hour)?

☐ A. 240 mph
☐ B. 90 mph
☐ C. 100 mph
☐ D. 60 mph

2) Which expression represents "the sum of a number d and 3, all divided by 2"?

☐ A. $\frac{d}{2} + 3$
☐ B. $\frac{d+3}{2}$
☐ C. $d + \frac{3}{2}$
☐ D. $2(d + 3)$

3) Simplify: $(x^3)^7$

☐ A. x^{10}
☐ B. x^{21}
☐ C. x^{49}
☐ D. x^{343}

4) Which situation matches the equation $2x + 7 = 21$?

☐ A. Two items costing \$2 each and a \$7 item total \$21.
☐ B. Seven items costing \$2 each and a \$7 tax total \$21.
☐ C. x is increased by 2, then by 7, to get 21.
☐ D. A number is doubled, then 7 is added, resulting in 21.

5) Solve: $2.5x + 1 = 6$

☐ A. $x = 1$
☐ B. $x = 2$
☐ C. $x = 3$
☐ D. $x = 4$

6) A map shows a park with a scale of 2 cm : 1 km. If the park on the map has an area of 8 cm^2, what is the actual area of the park in square kilometers?

☐ A. 2 km^2
☐ B. 4 km^2
☐ C. 8 km^2
☐ D. 16 km^2

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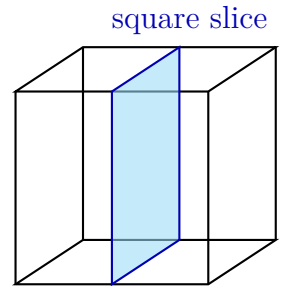
7)



A cube with side length 5 cm is sliced by a vertical plane parallel to a lateral face, passing through the center. What is the perimeter of the square cross-section?

☐ A. 10 cm
☐ B. 15 cm
☐ C. 20 cm
☐ D. 30 cm

8) A store sells 500 items. If $\frac{1}{10}$ are returned, how many items are kept?

☐ A. 50
☐ B. 250
☐ C. 450
☐ D. 490

9) What is $\frac{3}{4} \div \frac{1}{2}$?

☐ A. $\frac{3}{8}$
☐ B. $\frac{2}{3}$
☐ C. $\frac{3}{2}$
☐ D. 2

10) A car rental charges \$25 per day plus a \$15 insurance fee. If the total cost is \$140, for how many days was the car rented?

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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 A is correct.** 7.EE.4a Daily cost is \$25 per day plus \$15 equipment fee. Equation: $25d + 15 = 115$.
2) **Choice D is correct.** 7.NS.1-7.NS.3 $11 - (-6) = 11 + 6 = 17$.
3) **Choice B is correct.** 7.SP.1-7.SP.4 12.5% of $360° = 0.125 \times 360° = 45°$.
4) **The correct answer is** 0.75 **.** 7.RP.1-7.RP.3 Revenue is price per cup times cups sold, so the constant is 0.75.
5) **Choice D is correct.** 7.RP.1-7.RP.3 A scale of $1 : 10$ means each model unit represents 10 actual units. The actual dimensions are $5 \times 10 = 50$ units and $4 \times 10 = 40$ units.
6) **Choice C is correct.** 7.RP.3 If $25 = 0.10 \times n$, then $n = \frac{25}{0.10} = 250$.
7) **Choice D is correct.** 7.NS.1b Balance $= 28 + (-35) = -7$. She owes \$7 (or is short \$7).
8) **Choice D is correct.** 7.RP.1-7.RP.3 Unit rate: $\frac{\frac{2}{3}}{\frac{4}{9}} = \frac{2}{3} \times \frac{9}{4} = \frac{18}{12} = \frac{3}{2} = 1.5$ boxes/hr.
9) **Choice C is correct.** 7.RP.1-7.RP.3 Proportional relationships have the form $y = kx$ (passing through the origin). Option C has a $+2$ term, so it does not pass through $(0, 0)$ and is not proportional.
10) **Choice B is correct.** 7.NS.1-7.NS.3 Evaluate: A: $|-0.8| = 0.8$; B: $|-6| = 6$; C: $|-1.1| = 1.1$; D: $|1.3| = 1.3$. Greatest is B.
11) **Choice B is correct.** 7.NS.1-7.NS.3 Correct: $-12 + 8 \times 2 = -12 + 16 = 4$ (multiply first, then add). The student ignored order of operations.
12) **Choice D is correct.** 7.EE.1-7.EE.2 Substitute: $2(4)^2 + 3 = 2(16) + 3 = 32 + 3 = 35$.
13) **Choice D is correct.** 7.RP.1-7.RP.3 In $y = kx$, solve for k: $20 = k(4)$, so $k = \frac{20}{4} = 5$.
14) **Choice C is correct.** 7.RP.3 Set up the proportion: part/whole = percent/100, so $\frac{2}{5} = \frac{p}{100}$. Cross-multiply: $p = 40\%$.
15) **Choice D is correct.** 7.RP.3 Option 1 interest: $3\% \times \$1{,}000 = \$30$. Option 2 interest: $5\% \times \$1{,}000 = \$50$. Difference: $\$50 - \$30 = \$20$.
16) **Choice B is correct.** 7.NS.1-7.NS.3 Using multiplication as the inverse: $a = 4 \times (-3) = -12$.
17) **Choice C is correct.** 7.NS.2d Divide $21 \div 40 = 0.525$. Since $40 = 2^3 \times 5$, this terminates.
18) **Choice A is correct.** 7.NS.1-7.NS.3 Loss of \$12.50 per week for 5 weeks: $-12.50 \times 5 = -62.50$ dollars.
19) **Choice D is correct.** 7.NS.1-7.NS.3 $0.0056 = 5.6 \times 10^{-3}$ (proper form). Check: $56 \times 10^{-4} = 5.6 \times 10^{-3}$ (equiv.), $0.56 \times 10^{-2} = 5.6 \times 10^{-3}$ (equiv.), but $5.6 \times 10^{-2} = 0.056 \neq 0.0056$.
20) **The correct answer is A,C.** 7.SP.1-7.SP.4 Sample 1: $\frac{48}{200} = 0.24$; Sample 2: $\frac{36}{150} = 0.24$; Sample 3: $\frac{60}{250} = 0.24$. All are equal, so A is correct. These proportions can be used to estimate the full population (C). B is false (all equal), D is misleading, and E contradicts the actual data.
21) **Choice A is correct.** 7.NS.2 $0.4 \times 0.5 = 0.2$. Count total decimal places: $4 \times 5 = 20$, then place decimal to get $0.20 = 0.2$.
22) **The correct answer is** \$129.71 **.** 7.RP.3 Apply the 15% discount to get $140(0.85) = 119$. Then add 9% tax: $119(1.09) = 129.71$.
23) **Choice C is correct.** 7.NS.1-7.NS.3 Since $50 < 75$, we have $\sqrt{50} < \sqrt{75}$. Approximately $\sqrt{50} \approx 7.07$ and $\sqrt{75} \approx 8.66$.
24) **Choice B is correct.** 7.EE.1-7.EE.2 Three containers of x liters each can be written as $x + x + x$ or $3 \times x = 3x$. This multiplication form is the most efficient equivalent expression for repeated addition.
25) **Choice C is correct.** 7.SP.5-7.SP.8 W has 3 sections and X has 4 sections, so $P(W \text{ or } X) = \frac{3+4}{10} = \frac{7}{10}$.
26) **Choice B is correct.** 7.SP.3 Region Q's range is 12 inches (0–12) compared to Region P's 8 inches (1–9). Region Q also shows a larger gap from Q2 to Q3 (9–4=5) vs. Region P's (7–5=2), indicating greater variability.
27) **Choice D is correct.** 7.RP.3 If vendor keeps 80% of sales, then $0.80 \times \text{sales} = 2400$. Sales $= 2400 \div 0.80 = \$3{,}000$.
28) **Choice D is correct.** 7.RP.3 Good credit history allows lenders to offer lower interest rates, saving money on loans, mortgages, and credit cards.
29) **Choice C is correct.** 7.G.4-7.G.6 Decompose into two shapes: Rectangle area $= 8 \times 5 = 40$ ft^2; square area $= 3 \times 3 = 9$ ft^2. Add the areas: $40 + 9 = 49$ ft^2.

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Author's Note

A Page for Persistence

Hi, Persistent Problem Solver!

◇ Some Grade 7 questions ask you to hold several ideas in your mind at once. That can feel hard, and that is exactly why practice matters. ◇

⋆ **Remember this:** You showed persistence by continuing through the set. That habit is powerful because difficult problems often open after one more good attempt. You practiced across 5 full Grade 7 practice tests, and that repeated effort matters. ⋆

Persistence Tools

- **Try a Smaller Case:** Use an easier number to see the pattern.
- **Draw It:** Make the situation visible.
- **Restate It:** Say the question in your own words.
- **Check One Step:** Fix the first unclear place.

Grade 7 test-day tip: When stuck, do not restart everything. Find the first step you trust, then rebuild from there.

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

Jay Daie

Your Persistence Coach

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PRACTICE TODAY.
SUCCEED TOMORROW!

This book includes **5** 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:

- **5** 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!

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2 ONLINE TESTS

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

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