

3

South Carolina

SC READY

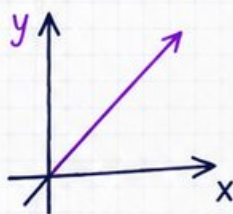
GRADE

7

MATH

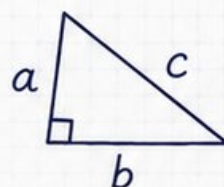
PRACTICE TESTS

✓ Standards Aligned
Problem Solving
For Comprehensive
Assessment Programs



$$y = mx + b$$

$$\frac{2}{3}x - \frac{4}{5} = \frac{1}{2}$$



$$3(x - 2) = 2x + 5$$



3 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



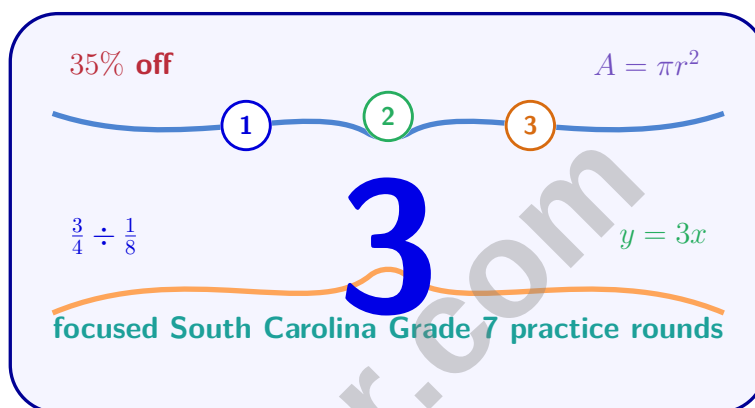
Detailed Answers
& Explanations



Improve Test
Performance

3 South Carolina SC READY Grade 7 Math Practice Tests

South Carolina Grade 7 Review Practice with Clear Explanations



Three 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!

Three focused rounds for sharper SC READY math thinking

This book gives you three 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 three-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?

Three SC READY tests, 120 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.
Test 3	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.

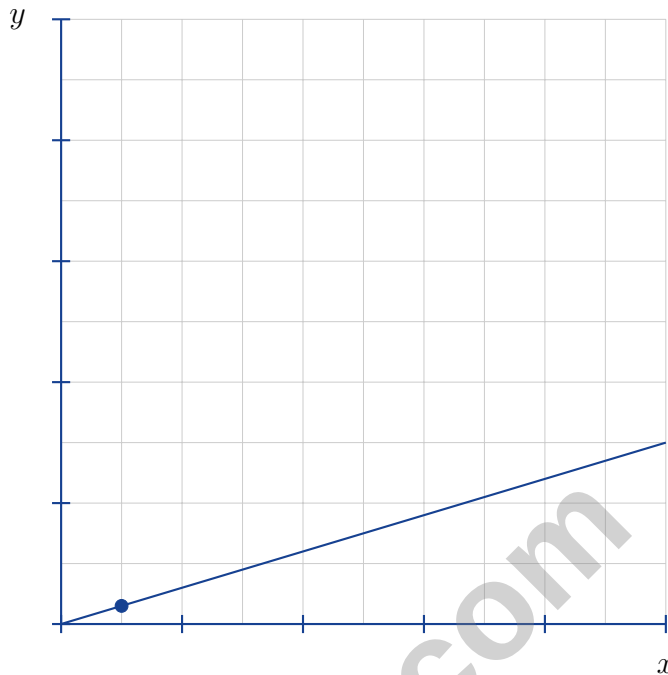
The tests are mixed on purpose. Grade 7 success means recognizing which idea is being tested even when the next question changes format.



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For more practice
& answers

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1)

Based on this graph of a proportional relationship, which statement is true?

- ☐ A. The line does not pass through the origin.
- ☐ B. When $x = 10$, $y = 5$.
- ☐ C. The equation is $y = 0.5x$.
- ☐ D. The unit rate is 0.3.

2) A mechanic estimated a car repair would take 3 hours but it took 4.5 hours. What is the percent error?

- ☐ A. 33.3%
- ☐ B. 50%
- ☐ C. 40%
- ☐ D. 66.7%



3) Expand: $\frac{3}{4}(4m - 8)$

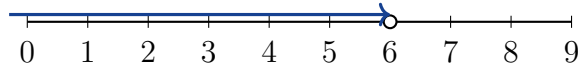
☐ A. $3m - 8$

☐ C. $4m - 6$

☐ B. $3m - 6$

☐ D. $12m - 8$

4) Which graph represents $w < 6$?



☐ A. Closed circle at 6 pointing right

☐ C. Closed circle at 6 pointing left

☐ B. Open circle at 6 pointing left

☐ D. Open circle at 6 pointing right

5) A phone case costs \$15 and is discounted by \$3. What is the percent discount?

☐ A. 10%

☐ C. 15%

☐ B. 25%

☐ D. 20%

6) A school fundraiser invests \$5000 to earn money for field trips. At 3.6% simple interest per year, how long (in months) will it take to earn \$180?

☐ A. 6 months

☐ C. 12 months

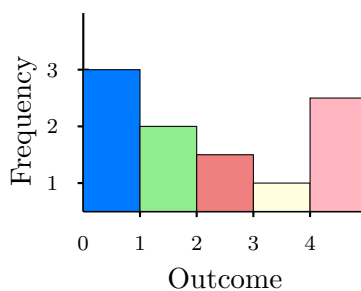
☐ B. 9 months

☐ D. 18 months



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7)

Based on the bar graph showing 100 simulation trials, what is the estimated probability of Outcome 1?

☐ A. 0.10☐ C. 0.25☐ B. 0.15☐ D. 0.30

8) A landscaper creates a scale model of a garden. The model shows a square garden with side length 5 inches. The actual garden has a side length of 25 feet. What is the scale?

☐ A. 1 : 5☐ C. 5 : 25☐ B. 1 : 120☐ D. 1 : 60

9)

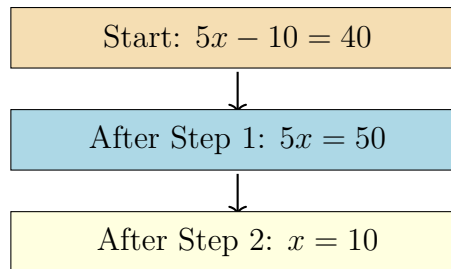
Percent grid: 40 squares shaded out of 50 total

The grid shows 40 shaded squares. What percent of the total is shaded?

☐ A. 70%☐ C. 80%☐ B. 75%☐ D. 85%

1) If a sector measures 288° , what percent of the circle does it represent?

- ☐ A. 72% ☐ C. 80%
☐ B. 75% ☐ D. 88%



2)

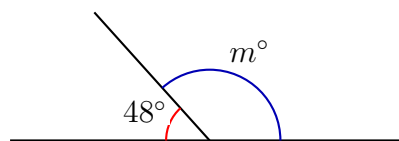
What operation was used in Step 1?

- ☐ A. Add 10 ☐ C. Multiply by 10
☐ B. Subtract 10 ☐ D. Divide by 10

3) A rectangular patio measuring 18 m by 24 m is drawn at scale 1 cm : 2 m. The drawing is then enlarged so the new scale becomes 1 cm : 1 m. By what factor does the perimeter on the drawing increase?

- ☐ A. 2 times ☐ C. $\sqrt{2}$ times
☐ B. 4 times ☐ D. $1/2$ times

4)



Two rays extend from a point on a line. The angle on the left is 48° and on the right is m . These form a linear pair. Find m .

- ☐ A. 48° ☐ C. 132°
☐ B. 90° ☐ D. 228°



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5) Which transformation moves the point $Q(-5, 2)$ to $Q'(5, 2)$?

- ☐ A. Translation by $(5, 0)$
☐ C. Reflection over the x -axis
☐ B. Reflection over the y -axis
 ☐ D. Rotation of 180° about the origin

6) A cylinder has a radius of 2 cm and a height of 9 cm. What is the total surface area?
Use $\pi \approx 3.14$.

- ☐ A. 88.36 cm^2
☐ C. 138.16 cm^2
☐ B. 112.6 cm^2
☐ D. 226.08 cm^2

7) A savings account has \$500. If the balance decreases by 12%, how much money is left in the account?

8) Which pair of samples demonstrates a population with both higher center and greater reliability?

- ☐ A. Mean 50, MAD 8 vs. Mean 52, MAD 12
 ☐ C. Mean 50, MAD 8 vs. Mean 55, MAD 4
☐ B. Mean 50, MAD 8 vs. Mean 45, MAD 3
 ☐ D. Mean 50, MAD 8 vs. Mean 50, MAD 2

9) A histogram displays the heights (in inches) of 40 seventh-graders. The intervals are 55–60, 60–65, 65–70, 70–75. The heights of the bars are 6, 14, 16, and 4. Which conclusion is valid?

- ☐ A. Most students are taller than 75 inches
 ☐ C. 75% of students are between 65 and 70
☐ B. Most students are between 60 and 70 inches
 ☐ D. The average height is 65 inches



1) Identify which term is not a like term with $3x$.

☐ A. $7x$

☐ C. x

☐ B. $-2x$

☐ D. $3x^2$

2)

Outcome	1	2	3	4
Probability	0.1	0.3	0.4	0.2

Find $P(1 \text{ or } 2)$.

☐ A. 0.4

☐ C. 0.1

☐ B. 0.3

☐ D. 0.7

3) A rental car company charges \$40 per day plus a 15% insurance premium on the daily rate. For a 5-day rental, what is the total cost?

☐ A. \$200

☐ C. \$250

☐ B. \$300

☐ D. \$230

4) A checking account has a monthly fee of \$10. If you maintain a minimum balance of \$1 000, the fee is waived. Carlos has \$850 in the account. How much more must he deposit to avoid the fee?

☐ A. \$100

☐ C. \$200

☐ B. \$250

☐ D. \$150

5) A savings account grows from \$600 to \$684 in one year with annual compound interest. What is the interest rate?

☐ A. 10%

☐ C. 14%

☐ B. 12%

☐ D. 15%



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6) A product's value increased from \$200 to \$275. What is the percent increase?

☐ A. 27.3%

☐ C. 75%

☐ B. 275%

☐ D. 37.5%

7) A proportional relationship has an equation $y = 2.2x$. What is the value of y when $x = 5$?

8) To create a simulation of selecting a random student from a class of 28 students, a researcher uses a die rolled 4 times. Is this an appropriate model?

☐ A. Yes, because a die can represent any number

☐ C. No, because the die produces at most 6 outcomes per roll

☐ B. Yes, because 4 rolls produce many different outcomes

☐ D. No, because the die does not produce equally likely outcomes for all values 1–28

9) A diver is 15 feet below sea level. She swims up 8 feet. How many feet below sea level is she now? (Represent below sea level as negative.)

☐ A. –23 feet

☐ C. 7 feet

☐ B. 23 feet

☐ D. –7 feet



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) The unit rate is read from the point (1, 0.3), which is 0.3. The equation is $y = 0.3x$. When $x = 10$, $y = 0.3 \times 10 = 3$, not 5. The line passes through the origin.
- 2) **Choice A is correct.** (7.RP.3) Percent error = $\frac{|3-4.5|}{4.5} \times 100\% = \frac{1.5}{4.5} \times 100\% \approx 33.3\%$.
- 3) **Choice B is correct.** (7.EE.1-7.EE.2) Distribute $\frac{3}{4}$: $\frac{3}{4}(4m) - \frac{3}{4}(8) = 3m - 6$.
- 4) **Choice B is correct.** (7.EE.4b) $w < 6$ is a strict inequality, so use an open circle at 6 with the arrow pointing left.
- 5) **Choice D is correct.** (7.RP.3) Discount percent = $\frac{3}{15} \times 100 = 20\%$.
- 6) **Choice C is correct.** (7.RP.3) $180 = 5000 \times 0.036 \times t \Rightarrow 180 = 180t \Rightarrow t = 1$ year. Convert to months: $1 \times 12 = 12$ months.
- 7) **Choice C is correct.** (7.SP.5-7.SP.8) From the bar graph, Outcome 1 appears 25 times out of 100 trials. Relative frequency = $\frac{25}{100} = 0.25$.
- 8) **Choice D is correct.** (7.RP.1-7.RP.3) Convert 25 feet to inches: $25 \times 12 = 300$ inches. Scale = $5 : 300 = 1 : 60$.
- 9) **Choice C is correct.** (7.RP.3) $\frac{40}{50} = \frac{4}{5} = 0.80 = 80\%$.
- 10) **Choice A is correct.** (7.NS.1b) Combine step-by-step: $-5 + 9 = 4$, then $4 + (-4) = 0$. The negatives and positives cancel out.
- 11) **The correct answer is 15.** (7.NS.1-7.NS.3) The temperature drop is $3 - (-12) = 3 + 12 = 15$ degrees.
- 12) **The correct answer is \$3.** (7.RP.1-7.RP.3) Store A costs $2 \div \frac{2}{5} = 5$ dollars per pound. Store B costs $2.25 \div \frac{3}{4} = 3$ dollars per pound, so the lower price is \$3.
- 13) **Choice A is correct.** (7.EE.1) x terms: $3x + 5x - 2x = (3 + 5 - 2)x = 6x$. y terms: $4y + y - 3y = (4 + 1 - 3)y = 2y$. Result: $6x + 2y$.
- 14) **Choice A is correct.** (7.EE.1-7.EE.2) GCF of 6 and 9 is 3. Both terms contain y . GCF is $3y$.
- 15) **Choice B is correct.** (7.EE.4b) Add 4: $3x \leq 15$. Divide by 3: $x \leq 5$.
- 16) **Choice C is correct.** (7.G.4-7.G.6) Two triangular bases: $2 \times \frac{1}{2}(6)(8) = 48 \text{ m}^2$. Three rectangular sides: $6 \times 9 = 54$, $8 \times 9 = 72$, $10 \times 9 = 90 \text{ m}^2$. Total: $48 + 54 + 72 + 90 = 264 \text{ m}^2$.
- 17) **Choice B is correct.** (7.NS.1-7.NS.3) Convert to common denominator 4: $3\frac{3}{4} - 1\frac{2}{4} = 2\frac{1}{4}$.
- 18) **Choice B is correct.** (7.NS.1-7.NS.3) Total volume = $\frac{3}{8} + \frac{5}{8} = \frac{8}{8} = 1$ liter.
- 19) **Choice C is correct.** (7.EE.1-7.EE.2) Pattern: when $x = 1$, $y = 5$; when $x = 2$, $y = 8$; when $x = 3$, $y = 11$. Each increase of 1 in x adds 3 to y . Check: $3(1) + 2 = 5$ ✓.
- 20) **Choice B is correct.** (7.EE.1-7.EE.2) Add all exponents: $x^2 \cdot x^7 \cdot x^3 = x^{2+7+3} = x^{12}$.
- 21) **The correct answer is 60.** (7.RP.1-7.RP.3) The unit rate is $300 \div 5 = 60$ miles per hour.
- 22) **The correct answer is C,D.** (7.SP.1-7.SP.4) The total amounts are not given, so A and B cannot be determined from the percentages alone. Region Y has 50% indoor and 50% outdoor use, so C is correct. Region Y's outdoor percentage (50%) is higher than Region X's outdoor percentage (40%), so D is correct.
- 23) **Choice C is correct.** (7.EE.3-7.EE.4) Add 2: $\frac{x}{3} = 6$. Multiply by 3: $x = 18$.
- 24) **Choice C is correct.** (7.G.1-7.G.5) Actual dimensions: 9 m $\times$ 6 m. Area: $9 \times 6 = 54 \text{ m}^2$. (Or: drawing area = 8.64 cm^2 , area scale factor = $(2.5)^2 = 6.25$, actual area = $8.64 \times 6.25 = 54 \text{ m}^2$).
- 25) **Choice B is correct.** (7.G.1-7.G.5) A horizontal plane parallel to the bases produces a circular cross-section with the same radius as the cylinder (3 cm). Area = $\pi r^2 = \pi(3)^2 = 9\pi \text{ cm}^2$.
- 26) **Choice C is correct.** (7.G.1-7.G.5) The vertical leg of the left triangle is 4 ft, and the right triangle's vertical leg is 3.2 ft. Scale factor = $\frac{3.2}{4} = 0.8$. The horizontal leg of the right triangle is $5 \times 0.8 = 4$ ft.
- 27) **Choice A is correct.** (7.G.4-7.G.6) $C = \pi d = \frac{22}{7} \times 10 = \frac{220}{7}$ in ≈ 31.4 in.
- 28) **Choice B is correct.** (7.G.4-7.G.6) From $A = \pi r^2$, we have $78.5 = 3.14 \times r^2$, so $r^2 = 25$ and $r = 5$ inches.
- 29) **Choice C is correct.** (7.SP.1-7.SP.4) Random selection from a complete population list ensures every member has equal chance of selection, minimizing bias.



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 3 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

PRACTICE TODAY. SUCCEED TOMORROW!

This book includes **3** 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:

3 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.



Detailed Answers & Explanations

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



Improve Test 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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