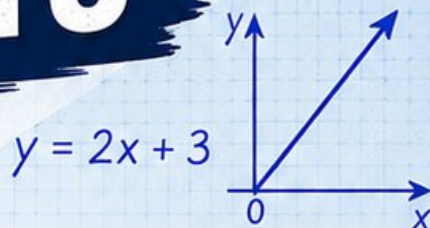


3 Virginia SOL

GRADE
6
MATH

PRACTICE TESTS

Standards Aligned Problem Solving
For Comprehensive Assessment Programs



$$\frac{3}{5} + \frac{2}{10} = \frac{8}{10} = \frac{4}{5}$$

$36\% \text{ of } 150 = ?$



3 | PRINTED TESTS



2 | ONLINE TESTS



Build Confidence



Master Key Math Skills



Answer Explanations for Every Question

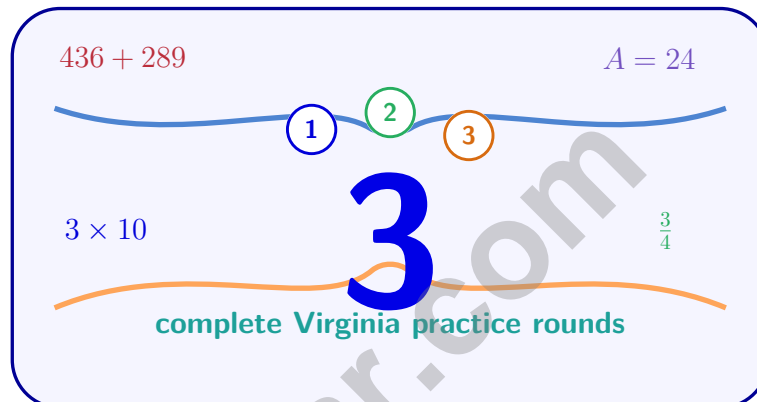


Test-Taking Strategies That Work

USE THESE TWO
**ADDITIONAL ONLINE
PRACTICE TESTS**
FOR EXTRA REVIEW AFTER
THE PRINTED TESTS
IN THIS BOOK.

3 Virginia SOL Grade 6 Math Practice Tests

Standards-Aligned Commonwealth-Ready Math Practice for Standards of Learning



Three complete 40-question Grade 6 practice rounds for SOL, built for commonwealth-ready math practice with ratios, rational numbers, expressions, equations, geometry, statistics, answer keys, and clear explanations for every item.

Jay Daie and Reza Nazari



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Welcome, Virginia Math Explorer!

Three focused rounds using commonwealth-ready math practice

This book gives you three full Grade 6 practice tests for SOL. Each round uses historic routes, mountain views, and careful solution checks as a fresh mental backdrop while you read closely, choose a smart strategy, show your work, and check whether your answer makes sense.

Your Virginia Practice Promise

Build the answer with evidence: identify the skill, show the work, and verify the result.

Read

Plan

Check

How to Use This Book

A three-session routine for commonwealth-ready math practice

1. **Preview the skills.** Scan the quick review pages before beginning the first round.
2. **Work in order.** Take one 40-question test at a time in a quiet place.
3. **Mark confidence.** Put a small star beside problems where your plan felt strong.
4. **Correct actively.** Retry missed items before reading the full explanation.
5. **Plan the next round.** Use the growth log to choose one habit and one skill to practice.

Virginia review rhythm: Take one round, review the reasoning, and use the next test to improve precision.



What Is Inside?

Three SOL tests, 120 questions, and a full review path

Part	What You Will Practice
Tests 1–2	Foundation rounds for ratios, rational numbers, operations, and careful reading.
Test 3	Final stamina round for expressions, equations, geometry, data, problem models, and mixed review.
Answer Pages	Compact keys and explanations that show why each answer works.

The tests are mixed on purpose. Commonwealth-ready math practice means recognizing the skill even when the next question changes topic, changes format, or asks for an explanation.



Scan me!
For more practice
& answers

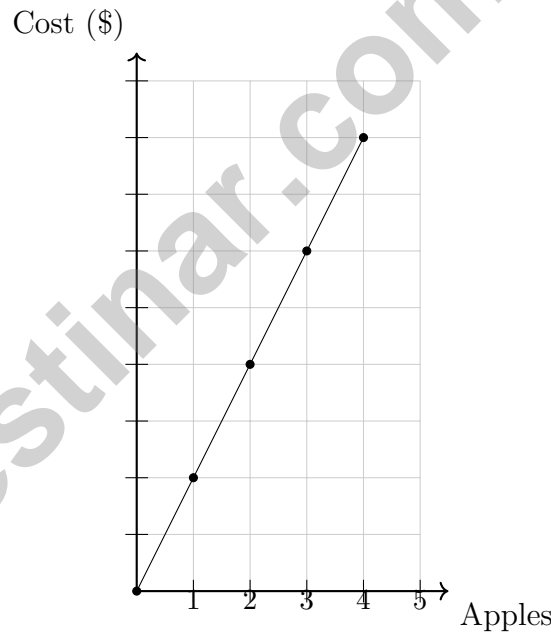
Table of Contents

★ Practice Test 1	_____	13
★ Practice Test 2	_____	29
★ Practice Test 3	_____	45
Practice Test Answer Keys	_____	64
Practice Test Answers and Explanations	_____	67

1) A worker divided 5,610 by 15 and got 374. Which statement correctly evaluates the worker's answer?

- A. The answer is correct; $15 \times 374 = 5,610$.
- B. The answer is wrong; the correct quotient is 374 remainder 0.
- C. The quotient should be 373 with remainder 15.
- D. The answer is wrong; the correct quotient is 375.

2) A fruit stand sells apples for \$2 each. Maria buys 1, 2, 3, and 4 apples. Which graph correctly shows the total cost?



- A. The graph correctly shows the relationship
- B. The line should not pass through the origin
- C. The line should have a different unit rate
- D. The graph should start at (0, 2)



Scan me!
For more practice & answers

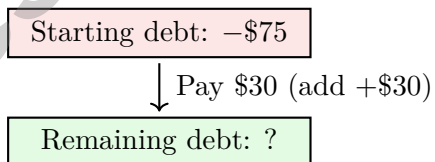
- 3) A smoothie recipe uses strawberries and bananas in a 5 : 3 ratio. If the recipe calls for 15 strawberries, how many bananas should be added?

4)

Category	Amount (\$)
Rent	1200
Food	400
Utilities	250
Entertainment	150

Based on the table, what is the total monthly budget?

- A. \$1400 C. \$2000
 B. \$1650 D. \$2200
- 5) A debt of \$75 is represented as $-\$75$. If the debt is paid down by \$30, what is the remaining debt?



- A. $-\$105$ C. \$45
 B. $-\$45$ D. \$105

- 6) A ratio table shows the relationship between pages read and time in minutes.

Time (minutes)	Pages Read
10	5
20	10
30	15

If the ratio remains constant, what is the y-value when the x-value (time) is 50 minutes?

- A. 20 pages C. 35 pages
 B. 40 pages D. 25 pages
- 7) A delivery truck travels 360 miles in 9 hours. Find the unit rate in miles per hour.

- 8) A soccer team won 80% of its games. Which decimal represents this percent?

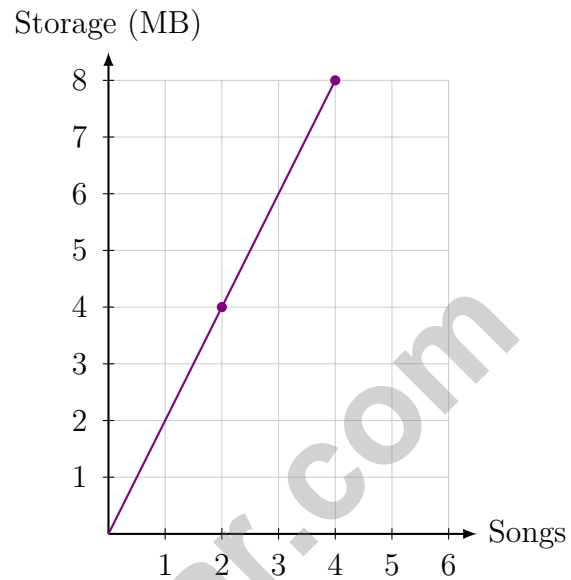
- A. 0.008 C. 8.0
 B. 0.80 D. 80.0
- 9) A bike's price decreases from \$250 to \$200. What is the percent decrease?

- A. 15% C. 25%
 B. 50% D. 20%



Scan me!
For more practice
& answers

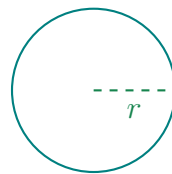
- 1) The graph below shows the relationship between number of songs downloaded and total storage used.



How much storage does each song use?

- A. 1 MB per song C. 4 MB per song
 B. 2 MB per song D. 8 MB per song

Circle: $r = 9$ ft



2)

A circle has a radius of 9 feet. Using $\pi \approx 3.14$, which is closest to the area?

- A. 56.52 ft² C. 254.34 ft²
 B. 113.04 ft² D. 508.68 ft²



Scan me!
For more practice
& answers

- 3) A trapezoid has vertices at $(1, 1)$, $(9, 1)$, $(8, 5)$, and $(2, 5)$. What is the length of the bottom base?

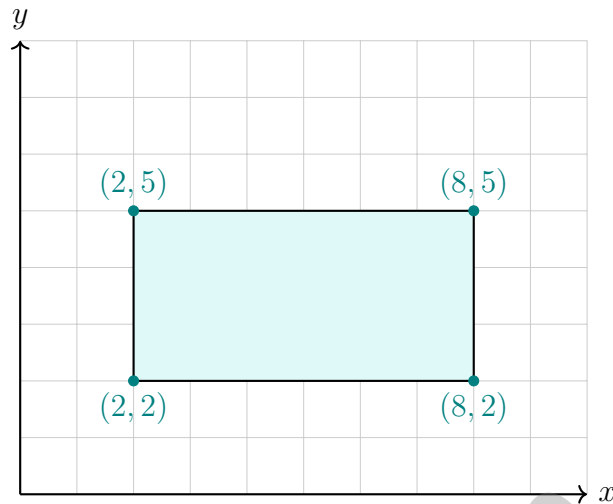
- 4) Which question would you answer by collecting data?
- A. What is 5×6 ? C. What are the favorite colors of students in my grade?
- B. How many planets are in our solar system? D. What is the freezing point of water?
- 5) A data set has a median of 50 and a mean of 45. What does this suggest?
- A. The data is skewed right C. The data is symmetric
- B. The data is bimodal D. The data is skewed left
- 6) Find the mean of 20, 30, 40, 50.
- A. 30 C. 40
- B. 35 D. 45
- 7) A gym tracks weekly visitor counts: 120, 135, 128, 142, 151, 140, 130. When ordered: 120, 128, 130, 135, 140, 142, 151. Find the interquartile range.
- A. 12 C. 15
- B. 31 D. 14



- 1) A weather report shows: Day 1 temperature change -5° F, Day 2 change $+8^{\circ}$ F, Day 3 change -6° F. If the starting temperature was 32° F, what is the final temperature?
- A. 23° F C. 35° F
 B. 29° F D. 51° F
- 2) A shipping container is 10 m long, 4 m wide, and 3 m high. How much volume does it have?
- A. 17 m^3 C. 60 m^3
 B. 30 m^3 D. 120 m^3
- 3) The point $(4, 2)$ is reflected across the y -axis. What is the new x -coordinate?



Scan me!
For more practice
& answers



4)

What is the perimeter of this rectangle?

 A. 18 units C. 12 units B. 16 units D. 22 units

5) A coordinate plane shows a rectangle with vertices at $(1, 2)$, $(7, 2)$, $(7, 8)$, and $(1, 8)$.

What is the area of the rectangle?

 A. 30 square units C. 42 square units B. 48 square units D. 36 square units

Virginia SOL Practice Test Answer Keys

How to use this Virginia SOL answer section with a Grade 6 student:

1. check the answer first, then write one quick reason the choice is correct
2. mark questions to try again, especially the skills that feel connected to commonwealth-ready math practice
3. rework the problem before reading the full explanation, using this reminder:
Build the answer with evidence: identify the skill, show the work, and verify the result.

A calm Virginia correction routine turns every missed item into useful practice. Take one round, review the reasoning, and use the next test to improve precision.



Virginia Practice Test Answers and Explanations

Review the three printed SOL tests with prepared, precise, and ready for the next challenge habits.

Practice Test 1 Answers and Explanations

- 1) **Choice A is correct.** **(6.CE.2)** Verification: $15 \times 374 = 5,610$. The worker's answer is correct with no error.
- 2) **Choice A is correct.** **(6.PFA.2)** For apples at \$2 each, the equation is $c = 2a$. The graph passes through $(0, 0)$, $(1, 2)$, $(2, 4)$, $(3, 6)$, and $(4, 8)$, representing a proportional relationship with a unit rate of \$2 per apple.
- 3) **The correct answer is 9.** **(6.PFA.4)** Strawberries are the 5-part amount. Since $15 \div 5 = 3$, each part is 3, and bananas are 3 parts: $3 \times 3 = 9$.
- 4) **Choice C is correct.** **(6.PFA.4)** Total: $\$1200 + \$400 + \$250 + \$150 = \$2000$.
- 5) **Choice B is correct.** **(6.CE.2)** Starting debt: -75 . Payment of 30: $-75 + 30 = -45$. Remaining debt is \$45.
- 6) **Choice D is correct.** **(6.MG.3)** Pick the unit rate that matches the question. Since the y-axis is pages and the x-axis is minutes, the unit rate is $\frac{\text{pages}}{\text{minutes}} = \frac{5}{10} = 0.5$ pages per minute. In 50 minutes, the student reads $50 \times 0.5 = 25$ pages. (You can also reason: 10 minutes per 5 pages means 2 minutes per page, so $50 \div 2 = 25$ pages.)
- 7) **The correct answer is 40 miles per hour.** **(6.PFA.2)** Divide distance by time: $360 \div 9 = 40$ miles per hour.
- 8) **Choice B is correct.** **(6.NS.1)** $80\% = \frac{80}{100} = 0.80$.
- 9) **Choice D is correct.** **(6.CE.1)** Decrease is $\$250 - \$200 = \$50$. Percent decrease is $\frac{50}{250} = 0.20 = 20\%$.
- 10) **Choice C is correct.** **(6.NS.3)** Unit price: $12 \div \frac{3}{4} = 12 \times \frac{4}{3} = 16$ dollars per pound.
- 11) **Choice D is correct.** **(6.CE.2)** The ratio is 1 yard = 3 feet. Multiply both sides by 3: 3 yards = 9 feet.
- 12) **Choice B is correct.** **(6.MG.1)** Net worth = Assets - Debts = $\$1200 - \$300 = \$900$.
- 13) **Choice C is correct.** **(6.PFA.2)** Multiply: $5 \times 2 = 10$ feet.
- 14) **Choice B is correct.** **(6.CE.1)** $\frac{6}{7} \times \frac{3}{2} = \frac{18}{14} = \frac{9}{7}$.
- 15) **Choice A is correct.** **(6.PFA.4)** Align the decimal points. In the tenths place, 6 is smaller than 8, so regroup one whole as ten tenths: the 5 becomes 4 and the tenths become 16. Then $16 - 8 = 8$ tenths, $4 - 3 = 1$ one, and $2 - 1 = 1$ ten, so the result is 11.8.
- 16) **Choice D is correct.** **(6.NS.2)** Factors of 20: 1, 2, 4, 5, 10, 20. Factors of 30: 1, 2, 3, 5, 6, 10, 15, 30. Common factors: 1, 2, 5, 10. GCF is 10.
- 17) **Choice B is correct.** **(6.CE.1)** $5(2 + 8) = 5 \cdot 2 + 5 \cdot 8 = 10 + 40 = 50$. Only Choice B shows the correct expansion via the distributive property.
- 18) **The correct answer is \$1.50.** **(6.MG.1)** $\$9 \div 6 = \1.50 per muffin. Accept 1.5 as equivalent.
- 19) **Choice B is correct.** **(6.PFA.2)** A gain represents an increase or positive change. Gaining 18 dollars is written as the positive integer 18.
- 20) **The correct answer is Girls to boys is 10 : 15 = 2 : 3 (Choice A is correct). Boys to total is 15 : 25 = 3 : 5 (Choice B is correct)..** **(6.PFA.2)** Choice A is correct because girls to boys is 10 : 15, which simplifies to 2 : 3. Choice B is correct because boys to total is 15 : 25, which simplifies to 3 : 5. The other choices either flip the order, swap which group is named first, or use the wrong total (10 girls out of 25 students is 2 : 5, not 1 : 3).
- 21) **Choice A is correct.** **(6.PFA.4)** $|-10| = 10$ because absolute value is distance from zero.
- 22) **Choice D is correct.** **(6.NS.1)** Statement D is false. -1.5 is actually LESS than -1.4 (further to the left on the number line). The others are all true.
- 23) **Choice B is correct.** **(6.MG.3)** Points P at $(3, 5)$ and Q at $(-3, 5)$ both have $y = 5$. They share the same horizontal line but are in different quadrants (I and II).
- 24) **Choice C is correct.** **(6.PFA.2)** $P = -2$ and $Q = 2$. Distance = $2 - (-2) = 4$ units.
- 25) **Choice C is correct.** **(6.MG.3)** Distance on map: $|9 - 3| = 6$ units. Actual trail length: $6 \times 150 = 900$ meters.
- 26) **Choice D is correct.** **(6.CE.2)** Negative divided by positive is negative: $\frac{-45}{5} = -9$.



Scan me!
For more practice
& answers

Math Detective at Work

Hi, Math Detective!

◇ You did such a great job! You finished 3 tests like a real detective. You found the clues, used your tools, and solved the math. ◇

★ **Detectives know:** good work takes time. You took your time. You looked carefully. You found the answers! ★

Your Detective Skills

- **Sharp Eyes:** You notice the small details.
- **Smart Plans:** You pick the right way to solve.
- **Brave Heart:** You try even when it's tricky.
- **Steady Work:** You finish what you start.

Detective tip: on test day, look carefully at each problem. Underline important words. Then solve like the detective you are!

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

Jay Daie

Your Math Detective Helper

PRACTICE TODAY. SUCCEED TOMORROW!

This book includes 3 full-length Math practice tests and 2 online tests to help Grade 6 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 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 & Rates
- ✓ The Number System
- ✓ Expressions & Equations
- ✓ Geometry
- ✓ Fractions & Decimals
- ✓ Percents
- ✓ Statistics & Probability
- ✓ Data Analysis
- ✓ Measurement & Conversions
- ✓ And More!



2 ONLINE TESTS

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



VISIT [TESTINAR.COM/MATH6](https://www.testinar.com/math6)
FOR MORE PRACTICE TESTS
AND LEARNING RESOURCES



PRACTICE
REGULARLY



STAY
FOCUSED



SOLVE
CONFIDENTLY



SUCCEED
BRIGHTLY

PREPARE TODAY. **SUCCEED TOMORROW!**