

4 Virginia SOL

GRADE
6
MATH

PRACTICE TESTS

Standards Aligned Problem Solving
For Comprehensive Assessment Programs

4

**PRINTED
TESTS**



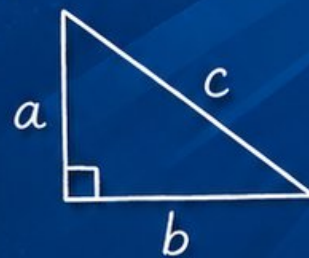
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**ONLINE
TESTS**



- ✓ Build Confidence
- ✓ Master Key Math Skills
- ✓ Answer Explanations for Every Question
- ✓ Test-Taking Strategies That Work

$$2x + 5 = 21$$
$$x = 8$$



$$\frac{3}{4} + \frac{1}{2} = \frac{5}{4}$$



**USE THESE TWO
ADDITIONAL ONLINE
PRACTICE TESTS**

**FOR EXTRA REVIEW AFTER
THE PRINTED TESTS
IN THIS BOOK.**

4 Virginia SOL Grade 6 Math Practice Tests

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



Four 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.

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Welcome, Virginia Math Explorer!

Four focused rounds using commonwealth-ready math practice

This book gives you four 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 four-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?

Four SOL tests, 160 questions, and a full review path

| Part | What You Will Practice |
|--------------|--|
| Tests 1–2 | Foundation rounds for ratios, rational numbers, operations, and careful reading. |
| Tests 3–4 | Skill-building and final stamina rounds with expressions, equations, geometry, data, and problem models. |
| 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

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1) Solve for x : $\frac{x}{4} = 6$

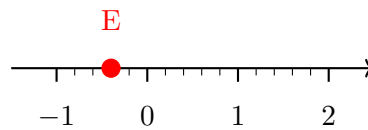
A. $x = 1.5$

C. $x = 24$

B. $x = 10$

D. $x = 2.4$

2) The number line below has tick marks at fifths. What is the coordinate of point E?



A. $-\frac{3}{5}$

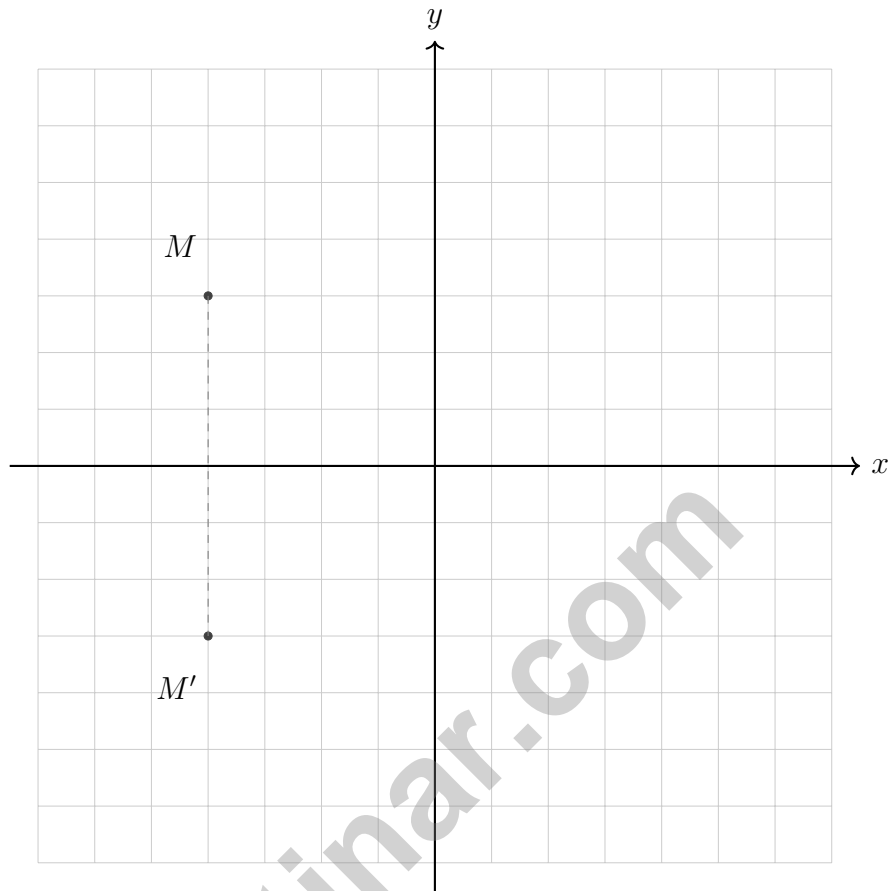
C. $-\frac{1}{5}$

B. $\frac{1}{5}$

D. $-\frac{2}{5}$



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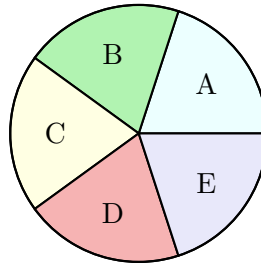


3)

Points M and M' are shown above. Across which axis were these points reflected?

- A. Across the x -axis
- B. Across the y -axis
- C. Across both axes
- D. They are not reflections





5)

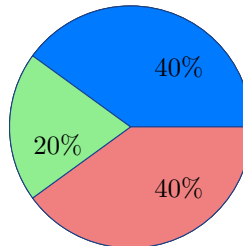
A spinner has 5 equal sections labeled A, B, C, D, and E. What is the probability of spinning A?

- A. $\frac{1}{5}$
- B. $\frac{2}{5}$

- C. $\frac{1}{3}$
- D. $\frac{1}{2}$

6) A student writes the following from a stem-and-leaf plot: "Stem 3 has leaves 1, 2, 4, 5, so the values are 31, 32, 34, 35." Is this interpretation correct?

- A. Yes, the interpretation is correct
- B. No; the stems should be ordered first
- C. No; the leaves should represent a different place value
- D. No; there is no error



7)

A circle graph shows the results of a survey with 300 students. One section is 20%. How many students are in this section?

- A. 20
- B. 60

- C. 80
- D. 100



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& answers

1) What is the coefficient of m in the expression $m + 5n + 2$?

A. 0

C. 5

B. 1

D. 2

2) A water bottle contains $\frac{5}{6}$ liter. How many $\frac{1}{12}$ -liter cups can be filled?

A. 5

C. 10

B. 8

D. 12

3) A student buys snacks for \$3.45, \$2.20, and \$4.85. What is the total cost?

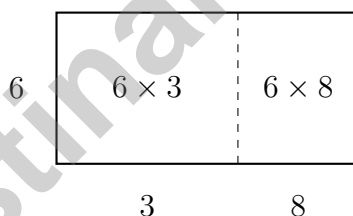
A. \$10.50

C. \$10.40

B. \$9.65

D. \$11.50

4) An area model is shown below. Which factored expression does it represent?



A. $6(3 + 8) = 66$

C. $(6 + 3)(6 + 8) = 154$

B. $3(6 + 8) = 42$

D. $6(3 \times 8) = 144$

5) An underwater cable is installed at an elevation of -250 meters. A nearby cliff rises to an elevation of 180 meters. How much higher is the cliff than the cable?

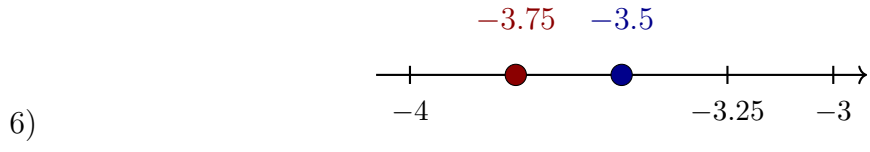
A. 70 meters

C. 180 meters

B. 250 meters

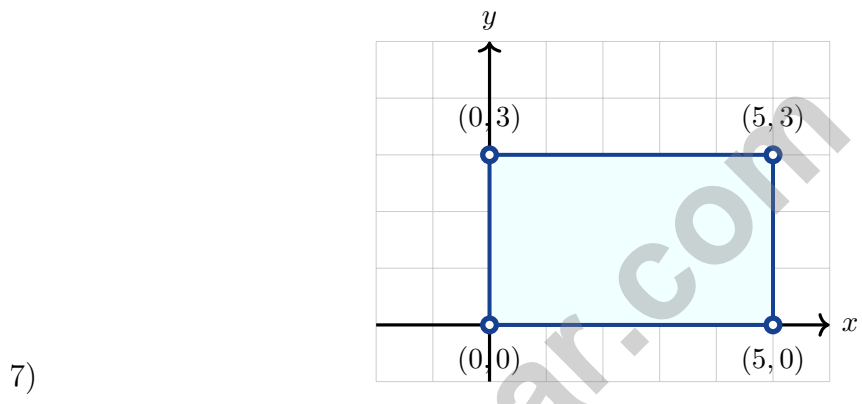
D. 430 meters





Which point is further left?

- A. -3.5
- B. -3.75
- C. They are the same distance
- D. Cannot determine



A rectangle has vertices at $(0, 0)$, $(5, 0)$, $(5, 3)$, and $(0, 3)$. What is the perimeter?

- A. 8 units
- B. 15 units
- C. 16 units
- D. 18 units

8)

| Problem | Sign | Result |
|--------------------|------|--------|
| $6 \times (-9)$ | ? | -54 |
| $(-8) \times (-8)$ | ? | 64 |

What signs complete the table correctly?

- A. Negative; Positive
- B. Positive; Negative
- C. Negative; Negative
- D. Positive; Positive



Scan me!
For more practice
& answers

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.



Scan me!
For more practice
& answers

Virginia Practice Test Answers and Explanations

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

Practice Test 1 Answers and Explanations

- Choice C is correct.** **(6.PFA.3)** Multiply both sides by 4: $x = 6 \times 4 = 24$.
- Choice D is correct.** **(6.NS.1)** Point E is two fifth-marks to the left of 0, which is $-\frac{2}{5}$ or -0.4 .
- Choice A is correct.** **(6.MG.3)** Point M is at $(-4, 3)$ and M' is at $(-4, -3)$. They have the same x -coordinate but opposite y -coordinates, indicating reflection across the x -axis.
- Choice D is correct.** **(6.PFA.2)** The lowest elevation is the most negative: $-120 < -50 < 0 < 800$. Canyon at -120 m is lowest.
- Choice C is correct.** **(6.MG.3)** Distance on map: $|12 - 4| = 8$ units. Actual distance: $8 \times 250 = 2000$ meters.
- Choice B is correct.** **(6.CE.2)** Negative times positive equals negative: $(-6) \times 5 = -30$. Check: divide both sides by -6 to get $? = \frac{-30}{-6} = 5$.
- Choice D is correct.** **(6.PFA.2)** $V = 8 \times 6 \times 5 = 48 \times 5 = 240 \text{ in}^3$.
- Choice A is correct.** **(6.MG.3)** Three vertices form a triangle, which is a three-sided polygon.
- Choice A is correct.** **(6.MG.3)** Area of a parallelogram = base \times height = $6 \times 5 = 30$ square units.
- Choice A is correct.** **(6.MG.1)** $SA = 2(15)(10) + 2(15)H + 2(10)H = 300 + 50H$. Since $550 = 300 + 50H$, $250 = 50H$, so $H = 5$ cm.
- Choice A is correct.** **(6.MG.3)** Translate: $(4, 5) \rightarrow (4 - 3, 5 + 2) = (1, 7)$.
- Choice A is correct.** **(6.PFA.4)** Surplus is $\$300 - \$180 = \$120$. As percent: $\$120 \div \$300 = 0.40 = 40\%$.
- Choice B is correct.** **(6.CE.2)** $4,368 \div 21 = 208$. Verify: $21 \times 208 = 4,368$.
- Choice A is correct.** **(6.CE.2)** $3 - 8 = 3 + (-8) = -5$. Rewrite subtraction as adding the opposite.
- Choice C is correct.** **(6.CE.2)** Adding a score increase to a negative score: $-150 + 200 = 50$ points.
- Choice D is correct.** **(6.PFA.4)** If 2 cups of flour go with 3 eggs, then 6 eggs is twice as many, so you need $2 \times 2 = 4$ cups of flour.
- The correct answer is 37.5%.** **(6.NS.1)** $\frac{3}{8} = 0.375$, and $0.375 \times 100 = 37.5\%$.
- Choice B is correct.** **(6.MG.1)** A debit card draws directly from her bank account, reducing the balance by the purchase amount. Credit cards defer payment (she borrows); interest is earned on savings, not debit purchases; and balances don't increase from purchases.
- Choice C is correct.** **(6.PFA.2)** Multiply: $2.5 \text{ cm} \times 4 = 10 \text{ cm}$.
- The correct answer is The constant of proportionality is 4, and the cost per unit is \$4.** **(6.MG.3)** A is correct because $k = \frac{8}{2} = 4$. B is correct because the cost per unit is \$4. The equation is $y = 4x$, so Choice C is false; Choice D is false because the graph passes through $(0, 0)$; Choice E gives the wrong unit rate.
- Choice C is correct.** **(6.CE.1)** Rewrite the division as multiplication by flipping $\frac{1}{3} : \frac{5}{6} \times \frac{3}{1} = \frac{15}{6}$. Simplify $\frac{15}{6}$ to $\frac{5}{2}$ (or mixed form $2\frac{1}{2}$).
- Choice C is correct.** **(6.PFA.4)** Subtract: $0.5 - 0.3 = 0.2 \text{ L}$.
- The correct answer is 60.** **(6.CE.1)** Markup is 50% of $\$40 = 0.50 \times 40 = \20 . Selling price is $\$40 + \$20 = \$60$.
- Choice B is correct.** **(6.NS.2)** Common factors shared by 32 and 48 are 1, 2, 4, 8, and 16; the greatest is 16. (You can also peel out matching prime factors: both have four factors of 2 in common.)
- Choice A is correct.** **(6.CE.1)** Distributive property: $12(1 + 4) = 12 \cdot 1 + 12 \cdot 4 = 12 + 48 = 60$. Choice A shows the expanded form.
- Choice D is correct.** **(6.PFA.2)** The distance between -4 and 4 is $4 - (-4) = 4 + 4 = 8$ units. These two numbers are 8 units apart on a number line.



Star Player Pep Talk

Hi, Star Player!

◇ 4 practice tests. Every one of them was a chance to grow. You took every chance. That's why you're a math star today! ◇

★ **Star players know:** confidence comes from practice. You can't fake it. You build it. You built yours over 4 tests. It's real now! ★

Star Player Stats

- **Practice:** OFF THE CHARTS!
- **Skills:** BROAD! You can do many problem types.
- **Toughness:** HIGH! You don't quit on hard problems.
- **Game Plan:** READY! You know your strategies.

Star tip: on test day, take it one play at a time. One problem. Then the next. You will earn your stars!

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

Jay Daie

Your Math Coach

PRACTICE TODAY. SUCCEED TOMORROW!

This book includes 4 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:

4 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
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