

3 Virginia SOL Grade 6 Math Practice Tests

Full-Length Test Prep with Detailed Answer Explanations

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QUICK SPRINT

3 Practice Tests

⚡ *Fast, Focused, Effective.* ⚡

Ready to find out how prepared you are?

*These **3 quick practice tests** are your fast track to confidence. Each one covers every Grade 6 topic — ratios, integers, expressions, geometry, and statistics.*

🕒 *See exactly where you stand*

🕒 *Zero in on what needs work*

🕒 *Build real confidence, fast!*

Grab a pencil and let's sprint!

“ *Three tests is all it takes to know your strengths and sharpen your weak spots!* ”

How to Use This Book

Three tests. Three steps. One powerful result.

What's Inside

- **3 Full-Length Practice Tests** — every Grade 6 math topic in each test: ratios, integers, expressions, geometry, statistics.
- **Complete Answer Key** — detailed explanations so you understand why, not just what.
- **Formula Reference Sheet** — key formulas at your fingertips.
- **Sprint Scorecard** — track your scores and see your growth!

Your 3-Step Sprint Plan

Step 1: The Warm-Up (Test 1)

Take Test 1 with **no timer**. This is your diagnostic sprint — find out what you already know and what needs work. Check every answer afterward and note the topics you missed.



Step 2: The Practice Run (Test 2)

Set a timer for **60 minutes**. Focus on the tricky topics from Test 1. This is where you build speed and accuracy.



Step 3: Race Day (Test 3)

Full test conditions: timed, quiet room, no peeking. Treat this like the real thing. Compare your score with Test 1 and see how far you've come!

 **Multiple Choice**

Choose the best answer from A–D. Not sure?
Eliminate an obvious wrong answer first — it
narrows your odds fast!

 **Open Response**

Show every step of your work. Even if your
final answer isn't perfect, clear reasoning earns
credit!



Sprint Coach: "Space your three tests a few days apart. Use the break to review what tripped you up. That's the secret to a strong finish line!"



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[ViewMath.com/Grade6](https://www.viewmath.com/Grade6)



⚡ 3 Power Moves for Test Day ⚡

Simple strategies that make a big difference

⚡ Power Move 1: Read Like a Detective

💡 Pro Tip

Watch out for words like "NOT", "LEAST", and "GREATEST" — they change everything!

1. Read the **whole** question before looking at answers.
2. **Circle** key numbers and important words.
3. **Underline** what the question is actually asking.

⚡ Power Move 2: Work Smart, Not Fast

1. **Answer easy questions first.** Skim through and grab every point you can.
2. **Mark the tough ones** with a star ★ and come back later.
3. **Show your work** — even on multiple choice. Writing steps prevents silly mistakes.
4. **Estimate first.** Does your answer make sense? If you got 5,000 for a question about percentages of 50, something's off!

⚡ Power Move 3: Check Before You're Done

Finished? Don't hand it in yet!

- | | |
|---------------------------------|-------------------------------------|
| ✔ Re-read any starred questions | ✔ Make sure no question is blank |
| ✔ Check your decimal points | ✔ Recheck fraction simplification |
| ✔ Verify negative signs | ✔ Confirm units in geometry answers |

 **Common Grade 6 Traps**

- ✗ Mixing up **ratios** and **rates**
- ✗ Forgetting integer **sign rules**
- ✗ Wrong **order of operations**
- ✗ Confusing **area** and **perimeter**
- ✗ Misreading **coordinate axes**
- ✗ Forgetting to **simplify**



“Three power moves might sound simple, but the students who use them consistently **always** outperform those who don't. Master these and you're already ahead!”



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 [ViewMath.com](https://www.viewmath.com)



Gear Up!

Everything you need before you start each test



Sharpened Pencils

Two is better than one!



Good Eraser

Clean corrections matter



Scratch Paper

For working out steps



A Quiet Spot

Focus is your superpower



A Timer

Start using on Test 2



Confidence

You've got this!

OK to Use

- ✓ Pencils and erasers
- ✓ Blank scratch paper
- ✓ The formula reference in this book
- ✓ A ruler (for geometry questions)

Not Allowed

- ✗ Calculators
- ✗ Phones, tablets, or computers
- ✗ Notes, textbooks, or study guides
- ✗ Help from anyone else

For Parents & Teachers

- Space the 3 tests **several days apart** so there's time to review mistakes in between.
- Let your child take Test 1 untimed to build comfort with the format.
- After each test, sit together with the Answer Key. Focus on **understanding the reasoning**, not just the score.
- If a topic keeps coming up as a weak spot, pair this book with our **Grade 6 Math Study Guide** for deeper review.

Formula Reference Sheet

Area Formulas

Rectangle $A = l \times w$

Parallelogram $A = b \times h$

Triangle $A = \frac{1}{2} \times b \times h$

Trapezoid $A = \frac{1}{2}(b_1 + b_2) \times h$

Volume

Rectangular $V = l \times w \times h$

Prism

Surface Area

Find the area of each face, then add them all up.

Rectangular Prism:

$$SA = 2lw + 2lh + 2wh$$

Order of Operations

P Parentheses first

E Exponents

M/D Multiply & Divide (left to right)

A/S Add & Subtract (left to right)

Ratios & Percents

Ratio: $a : b$ or $\frac{a}{b}$

Unit rate: amount per 1 unit

Percent: a ratio out of 100

$$\text{Part} = \text{Percent} \times \text{Whole}$$

Integers & Absolute Value

Integers:

$\dots, -3, -2, -1, 0, 1, 2, 3, \dots$

$$|-5| = 5 \quad |5| = 5$$

Absolute value = distance from 0

Expressions & Equations

Exponent: $3^4 = 3 \times 3 \times 3 \times 3 = 81$

Variable: a letter that stands for a number

Equation: two expressions joined by =

Inequality: uses $<$, $>$, \leq , \geq

Coordinate Plane

Ordered pair: (x, y)

x-axis: horizontal **y-axis:** vertical

Origin: $(0, 0)$

Four quadrants (I, II, III, IV)

Statistics

Mean: sum of values \div count

Median: middle value (sorted)

Range: max $-$ min

My Sprint Scorecard

Track your speed and accuracy across all 3 tests!

Name: _____

 Test	 Date	 Score	 Feeling
 1	_____	____ / ____	
 2	_____	____ / ____	
 3	_____	____ / ____	

My Sprint Review

My strongest topic:

The topic I need to practice most:

How my score changed from Test 1 to Test 3:

My goal for the real test:

Three sprints, three chances to improve. Every point forward is a win!

PREVIEW



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★ *Table of Contents* ★

Here's what we'll explore together!

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Let's learn and have fun!

PREVIEW



PRACTICE TEST

1

Practice Test 1

 30 Questions

Before You Start

- ✓ *Read each question carefully before choosing your answer.*
- ✓ *Show your work on scratch paper when you need to.*
- ✓ *Skip hard questions and come back to them later.*
- ✓ *Check your answers when you're done.*
- ✓ *Take your time — there's no rush!*

★ *You've Got This!* ★

Do your best and show what you know!



1. Write a sentence using the phrase "for every" to describe the ratio 9 : 2.

Your Answer:

2. A bus uses 7 gallons of gas for every 42 miles. How many gallons does it need for 120 miles?

Your Answer:

3. A graph shows points (2, 8) and (5, 20). Verify that these represent the same ratio.

Your Answer:

4. 20% of what number is 16?

Your Answer:

5. A ribbon is $\frac{3}{4}$ yard long. You cut pieces that are each $\frac{1}{8}$ yard. How many pieces can you cut?

(A) 6

(B) $\frac{3}{32}$

(C) 4

(D) 8

6. Emma walks 1.25 miles to school and the same distance home. She does this 5 days a week. How many miles does she walk in one week?

(A) 6.25

(B) 12.5

(C) 10.25

(D) 13.5



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12. Evaluate $10 - 2(k - 1)$ when $k = 4$.

(A) 2

(B) 4

(C) 6

(D) 14

13. Simplify: $5(2m + 3)$

(A) $7m + 3$

(B) $10m + 3$

(C) $10m + 15$

(D) $7m + 8$

14. A school has s students and wants to form teams of 6. Which expression gives the number of teams?

(A) $6s$

(B) $s + 6$

(C) $s \div 6$

(D) $s - 6$

15. A movie is rated PG-13, meaning you must be over 13 to watch without a parent. Which inequality represents ages that can watch without a parent?

(A) $a < 13$

(B) $a > 13$

(C) $a \leq 13$

(D) $a = 13$

16. Which inequality has a graph where $x = -4$ is in the shaded region but $x = -2$ is NOT?

(A) $x > -3$

(B) $x < -3$

(C) $x \geq -3$

(D) $x \leq -3$



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17. A triangle has base 14 m and height 8 m. What is its area?

- (A) 112 m^2 (B) 22 m^2
(C) 44 m^2 (D) 56 m^2

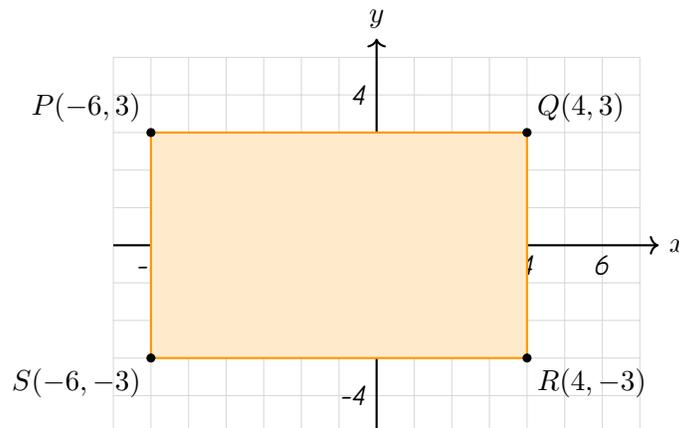
18. A trapezoid has an area of 60 in^2 , bases of 8 in and 12 in. What is the height?

- (A) 3 in (B) 5 in
(C) 6 in (D) 10 in

19. What is the volume of a rectangular prism with length 5 cm, width 3 cm, and height 4 cm?

- (A) 12 cm^3 (B) 60 cm^3
(C) 30 cm^3 (D) 94 cm^3

20. Find the perimeter of the rectangle shown below. Then reflect vertex P across the y -axis and give the coordinates of P' .



Your Answer:



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21. A square has vertices $(-2, -2)$, $(4, -2)$, $(4, 4)$, and $(-2, 4)$. What is the area?

- (A) 24 square units (B) 36 square units
(C) 12 square units (D) 16 square units

22. What is a net?

- (A) A 3D shape made of cubes (B) A flat pattern that folds into a 3D shape
(C) The volume of a rectangular prism (D) A grid used to measure area

23. A point on the y -axis at $(0, 5)$ is reflected across the y -axis. Where does it land?

- (A) $(0, -5)$ (B) $(5, 0)$
(C) $(0, 5)$ — it stays in the same place (D) $(-5, 0)$

24. What is the area of a circle with radius 9 m? Use $\pi \approx 3.14$.

- (A) 28.26 m^2 (B) 56.52 m^2
(C) 254.34 m^2 (D) 508.68 m^2

25. Data: 2, 3, 4, 5, 100. The mean is 22.8. Why is the mean much higher than most of the values?

- (A) There are only 5 values. (B) The median is too low.
(C) The outlier 100 pulls the mean up. (D) The values are all positive.



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26. What does a small IQR tell you about a data set?

- (A) The data values are far apart. (B) The middle 50% of the data is spread over a wide range.
- (C) The middle 50% of the data is clustered close together. (D) The data has many outliers.

27. A data set has two values that each appear 4 times, and no other value appears more than 3 times. How many modes does this data set have?

- (A) 0 (B) 1
- (C) 2 (D) 4

28. Data: 4, 8, 10, 12, 14, 16, 100. Find the mean and median. Which measure better represents a typical value? Why?

Your Answer:

29. A bag contains 3 red marbles, 5 blue marbles, and 2 green marbles. What is the probability of randomly drawing a red marble?

- (A) $\frac{3}{7}$ (B) $\frac{3}{10}$
- (C) $\frac{1}{3}$ (D) $\frac{5}{10}$

30. A circle graph shows favorite colors: Red 30%, Blue 25%, Green 20%, Yellow 15%, Purple 10%. What percent of people chose either Red or Blue?

- (A) 25% (B) 30%
- (C) 45% (D) 55%



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★ *End of Practice Test 1* ★

Great job finishing the test!

 *My Score*

I got _____ out of 30 questions right.

*Check your answers in the **Answer Key** at the back of the book.*

 *Review any questions you missed. That's how we learn!*

THANK YOU

Enjoyed This Preview?

Get the Full Book!

This preview shows just a small sample of what's inside.

The complete book includes:

- ✓ *All chapters and topics*
- ✓ *Hundreds of practice problems*
- ✓ *Complete answer key with explanations*
- ✓ *Colorful visuals and step-by-step examples*
- ✓ *Reference sheets and progress trackers*

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