

3 North Carolina NC EOG Grade 6 Math Practice Tests

Full-Length Test Prep with Detailed Answer Explanations

Dr. A. Nazari

Copyright © 2026 Dr. A. Nazari

Published by View Math Education

ViewMath.com

All rights reserved. No part of this publication may be reproduced, distributed, or transmitted in any form or by any means, including photocopying, recording, or other electronic or mechanical methods, without the prior written permission of the author, except in the case of brief quotations embodied in critical reviews and certain other noncommercial uses permitted by copyright law, including Section 107 or 108 of the 1976 United States Copyright Act.

The information in this book is distributed on an “as is” basis, without warranty. While every precaution has been taken in the preparation of this work, neither the author nor the publisher shall have any liability to any person or entity with respect to any loss or damage caused or alleged to be caused directly or indirectly by the information contained in this book.

Copyright © 2026

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!”



Find more at
[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!”



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



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:

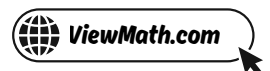
My goal for the real test:

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

PREVIEW



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





★ Table of Contents ★

Here's what we'll explore together!

★ Practice Test 1	2
-------------------------	---



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 20-ounce bottle of shampoo costs \$5.00 and a 32-ounce bottle costs \$7.04. Which bottle has the lower unit price?

Your Answer:

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

Your Answer:

4. A ratio graph passes through $(4, 10)$ and the origin. List two other points on this line.

Your Answer:

5. What is 15% of 60?

(A) 9

(B) 15

(C) 45

(D) 6

6. Convert 156 inches to feet.

(A) 11

(B) 12

(C) 13

(D) 14



Get Online



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



7. A student solved $\frac{3}{5} \div \frac{2}{9}$ and got $\frac{6}{45}$. What mistake did the student make?

- (A) The student forgot to simplify the answer (B) The student multiplied without using the reciprocal
- (C) The student flipped the first fraction instead of the second (D) The student added the fractions

8. Which is the best estimate for $3,612 \div 6$?

- (A) 60 (B) 602
- (C) 600 (D) 6,000

9. On a number line, is -6 to the left or to the right of -2 ? Which number is less?

Your Answer:

10. Order the following from **least** to **greatest** absolute value: -2 , 7 , -5 , 1 .

- (A) -5 , -2 , 1 , 7 (B) 1 , -2 , -5 , 7
- (C) 7 , -5 , -2 , 1 (D) -2 , 1 , 7 , -5

11. Pedro says $4 + 6 \times 3 = 30$. Maya says the answer is 22. Who is correct?

- (A) Pedro (B) Maya
- (C) Both are correct (D) Neither is correct



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



12. Which expression represents "6 more than half of a number n "?

(A) $6 + 2n$

(B) $\frac{n + 6}{2}$

(C) $\frac{n}{2} + 6$

(D) $n + 3$

13. Which of the following is a factor of the term $9x$?

(A) $9 + x$

(B) $9x$

(C) x

(D) $9 - x$

14. Which value of x makes $x^2 + 1 = 26$?

(A) $x = 4$

(B) $x = 5$

(C) $x = 6$

(D) $x = 12$

15. Which pair of expressions are NOT equivalent?

(A) $3x + 5x$ and $8x$

(B) $2(a + 4)$ and $2a + 8$

(C) $6y - 2y$ and $4y$

(D) $3x + 2x$ and $5x^2$

16. In the formula $d = 60t$, what could d and t represent?

(A) $d = \text{days}$, $t = \text{hours}$

(B) $d = \text{distance in miles}$, $t = \text{time in hours}$

(C) $d = \text{dollars}$, $t = \text{tax rate}$

(D) $d = \text{degrees}$, $t = \text{temperature}$



Get Online



Find more at
ViewMath.com/Grade6



17. Solve: $\frac{m}{4} = 7$

(A) $m = 3$

(B) $m = 11$

(C) $m = 28$

(D) $m = 47$

18. How many solutions does the inequality $x < 10$ have?

(A) 9

(B) 10

(C) 0

(D) Infinitely many

19. When graphing $x > 4$ on a number line, what kind of circle goes at 4?

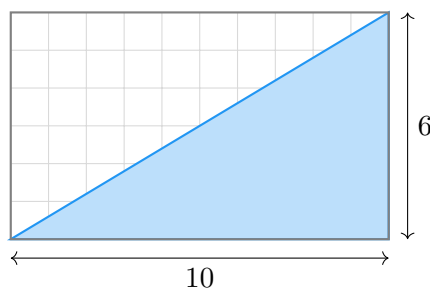
(A) Closed circle (filled in)

(B) Open circle (not filled in)

(C) No circle — just an arrow

(D) A square

20. A triangle is formed by cutting a 10×6 rectangle along its diagonal, as shown below. What is the area of the shaded triangle?



Your Answer:



Get Online

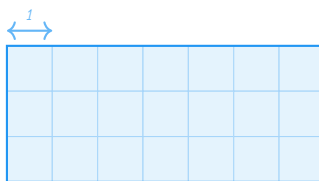


Find more at
[ViewMath.com/Grade6](https://www.viewmath.com/Grade6)



 **ViewMath.com**

21. A trapezoid has bases 3 cm and 7 cm and height 10 cm. What is the area?



(A) 70 cm^2

(B) 21 cm^2

(C) 100 cm^2

(D) 50 cm^2

22. A box is 8 in long, 6 in wide, and 3 in tall. What is its volume?

(A) 17 in^3

(B) 144 in^3

(C) 48 in^3

(D) 180 in^3

23. Lee says the distance between $(-3, 5)$ and $(4, 5)$ is 1 unit. What mistake did Lee make?

(A) He subtracted incorrectly: $4 - 3 = 1$ instead of $4 - (-3) = 7$.

(B) He added the x -coordinates instead of subtracting.

(C) He used the y -coordinates instead of the x -coordinates.

(D) He divided by 2.

24. A rectangle on the coordinate plane has an area of 56 square units. Its length is 8 units. What is the width?

(A) 6 units

(B) 7 units

(C) 8 units

(D) 48 units



Get Online



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



25. Which of the following is a statistical question?

- (A) What year was the school built? (B) What is the name of our principal?
- (C) How many minutes does each student exercise per day? (D) How many continents are there?

26. Data: 30, 32, 33, 33, 34, 35, 36. What is the shape of this data?

- (A) Skewed to the left (B) Skewed to the right
- (C) Roughly symmetric (D) Has a large gap in the middle

27. The mean of five numbers is 20. What is the sum of the five numbers?

- (A) 4 (B) 25
- (C) 80 (D) 100

28. A dot plot of daily steps shows: 3000 (1 dot), 4000 (2 dots), 5000 (6 dots), 6000 (4 dots), 7000 (2 dots). What is the most common number of steps?

Your Answer:

29. Data (in order): 3, 5, 7, 9, 11, 13, 15. What is the median?

- (A) 7 (B) 9
- (C) 11 (D) 13



Get Online



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



 **ViewMath.com**

30. Two data sets overlap significantly on a dot plot. What does this overlap suggest?

- (A) The two groups are clearly different.
- (B) The two groups are similar and hard to distinguish.
- (C) One group has outliers.
- (D) The data is skewed.



Get Online



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



★ *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*

Available on Amazon and Teachers Pay Teachers

 Visit us at [ViewMath.com](https://www.viewmath.com) for free resources and more books!