

3 Illinois IAR Grade 6 Math Practice Tests

Full-Length Test Prep with Detailed Answer Explanations

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Published by View Math Education

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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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⚡ 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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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:

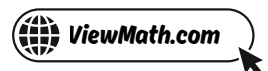
My goal for the real test:

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!

★ Practice Test 1	2
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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 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



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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



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



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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?

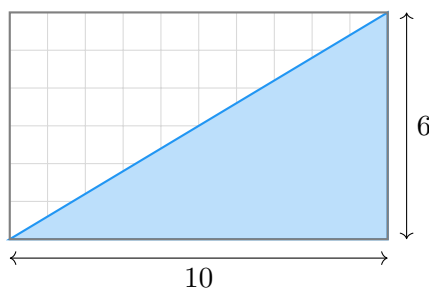
(A) Closed circle (filled in)

(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:



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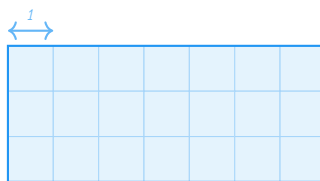


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21. A trapezoid has bases 3 cm and 7 cm and height 10 cm. What is the area?



(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



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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



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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.



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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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