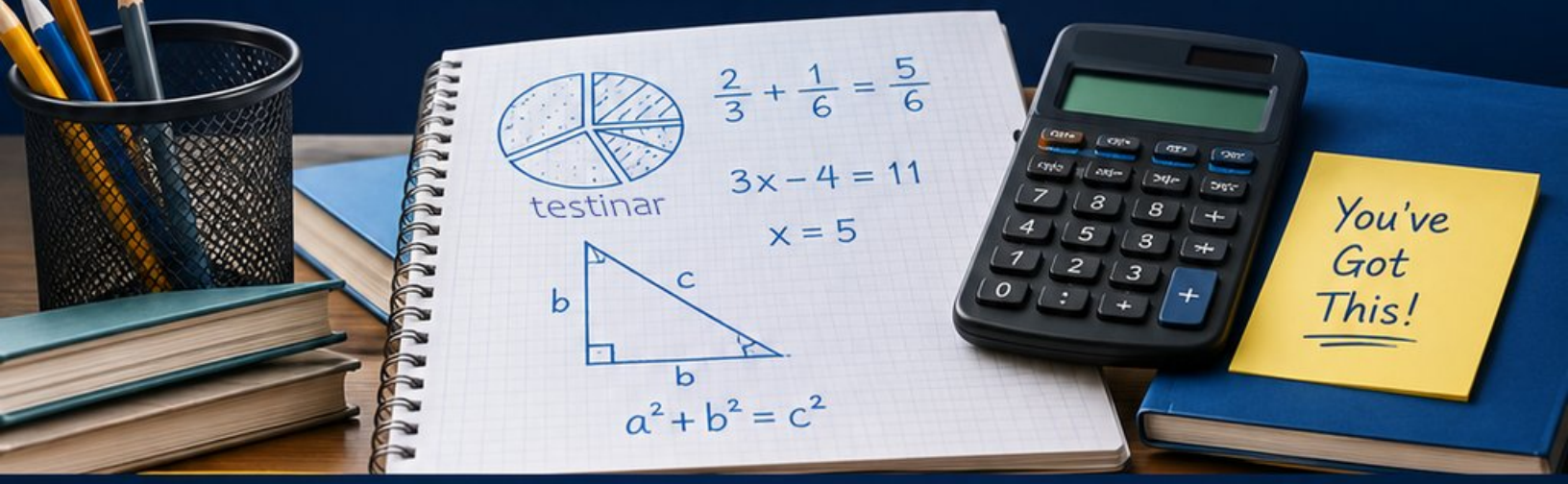
8 Indiana ILEARN

GRADE 6 MATH PRACTICE TESTS

8 PRINTED TESTS + 2 ONLINE TESTS

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

Standards-Aligned *Steady Southern* Problem Solving for Comprehensive Assessment Program



BUILT FOR ACAP SUCCESS

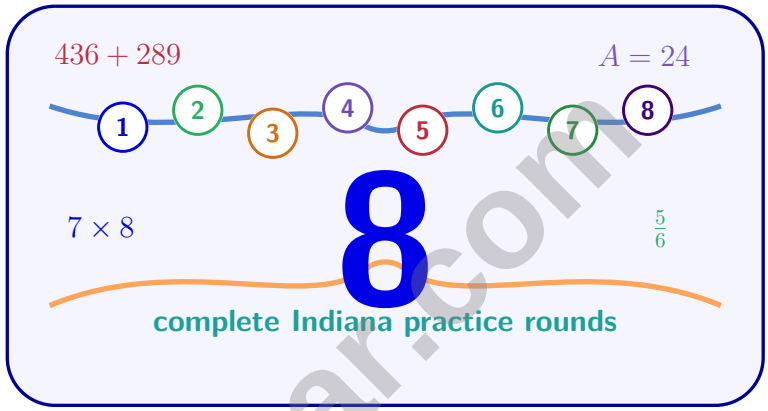
REALISTIC TESTS & QUESTION TYPES

STRENGTHEN MATH SKILLS

REVIEW, PRACTICE, AND IMPROVE

8 Indiana ILEARN Grade 6 Math Practice Tests

Standards-Aligned Steady Hoosier Practice for Indiana Learning Evaluation Assessment Readiness Network



Eight complete 40-question Grade 6 practice rounds for ILEARN, built for steady Hoosier 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, Indiana Math Explorer!

Eight focused rounds using steady Hoosier practice

This book gives you eight full Grade 6 practice tests for ILEARN. Each round uses quiet fields, town roads, and clean problem-solving steps as a fresh mental backdrop while you read closely, choose a smart strategy, show your work, and check whether your answer makes sense.

Your Indiana Practice Promise

Work with purpose: read fully, solve neatly, and explain why the answer makes sense.

How to Use This Book

A eight-session routine for steady Hoosier practice

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

Indiana review rhythm: Treat each test as a practice lap, then tune one habit before the next start.

What Is Inside?

Eight ILEARN tests, 320 questions, and a full review path

Part	What You Will Practice
Tests 1–3	Foundation rounds for ratios, rational numbers, operations, and careful reading.
Tests 4–6	Skill-building rounds with expressions, equations, geometry, data, and problem models.
Tests 7–8	Final stamina rounds for mixed review, neat work, and flexible strategy choices.
Answer Pages	Compact keys and explanations that show why each answer works.

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

Table of Contents

1) A restaurant sells t tacos per day. Which expression represents the total number of tacos sold in 7 days?

☐ A. $t + 7$
☐ B. $\frac{t}{7}$
☐ C. $t - 7$
☐ D. $7t$

2) A temperature must be at most 32°F to freeze. Which inequality represents this?

☐ A. $T > 32$
☐ B. $T \geq 32$
☐ C. $T < 32$
☐ D. $T \leq 32$

3) A triangle has a base of 18 feet. If its area is 63 ft^2, what is the height?

☐ A. 3.5 ft
☐ B. 14 ft
☐ C. 10.5 ft
☐ D. 7 ft

4) If the temperature at noon was 12°C and it dropped 20°C by midnight, what was the temperature at midnight?

☐ A. 32°C
☐ B. 20°C
☐ C. 8°C
☐ D. −8°C

5) Solve for x: $x - 4 = 14$.

6) A thermometer shows three temperatures: $-5°F$, $-8°F$, and $2°F$. Order them from coldest to warmest.

☐ A. $-5,\ -8,\ 2$
☐ B. $2,\ -5,\ -8$
☐ C. $-8,\ -5,\ 2$
☐ D. $-8,\ 2,\ -5$

7) A hiker starts at elevation 1,200 feet and climbs to 1,850 feet. What is the change in elevation?

☐ A. 650 feet
☐ B. −650 feet
☐ C. 3,050 feet
☐ D. 1,200 feet

8) A trapezoid has bases of 12 cm and 8 cm with a height of 5 cm. What is the area?

9) A mine shaft entrance is at sea level (0 meters). A tunnel goes down to −450 meters. How deep is the tunnel?

☐ A. 450 meters
☐ B. −450 meters
☐ C. 225 meters
☐ D. −225 meters

10) A student says the coefficient of x in $x + 5$ is 0 because there is no number in front of x. Is this correct?

☐ A. Yes, when no number is written, the coefficient is 0.
☐ B. No, when no number is written, the coefficient is 1.
☐ C. No, the coefficient is the constant 5.
☐ D. Yes, but only if x appears at the end.

11) Evaluate $a + b - c$ when $a = -5$, $b = 3$, and $c = -2$.

☐ A. -10
☐ B. 6
☐ C. 4
☐ D. 0

12) Simplify $9c - 4c + c$.

☐ A. $5c$
☐ B. $14c$
☐ C. $8c$
☐ D. $6c$

13) A thermometer reads a temperature no greater than 32 degrees. Which phrase does NOT describe this situation?

☐ A. The temperature is at most 32 degrees
☐ B. The temperature is 32 degrees or less
☐ C. The temperature is below 32 degrees
☐ D. The temperature does not exceed 32 degrees

14) In the equation $y = 5x + 2$, which quantity changes as x increases?

☐ A. The slope
☐ B. The y-intercept
☐ C. The value of y
☐ D. The value of 5

15) A rectangular aquarium has length 10 inches, width 6 inches, and height 8 inches. Calculate its volume in cubic inches.

1) The table below shows a proportional relationship between distance and time. What is the missing value?

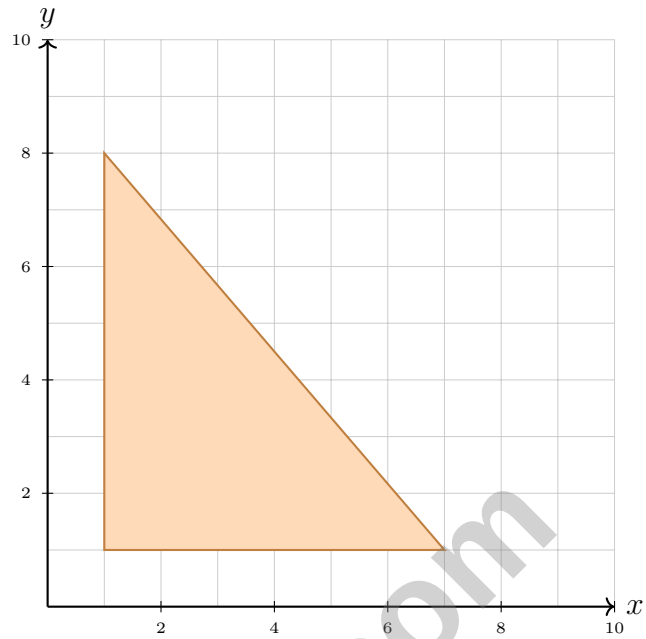
Time (hours)	2	4	6
Distance (miles)	90	180	?

☐ A. 240
☐ B. 260
☐ C. 270
☐ D. 300

2) A scientist wants to study the sleeping habits of sixth graders. She surveyed 50 sixth graders. What is true about this study?

☐ A. The population is all 50 sixth graders surveyed.
☐ B. Both the population and sample are all sixth graders in the world.
☐ C. The population is the 50 sixth graders; there is no sample.
☐ D. The sample is the 50 sixth graders surveyed.

3)



A right triangle has vertices at $(1, 1)$, $(7, 1)$, and $(1, 8)$. What is its area in square units?

☐ A. 18 square units
☐ B. 28 square units
☐ C. 24 square units
☐ D. 21 square units

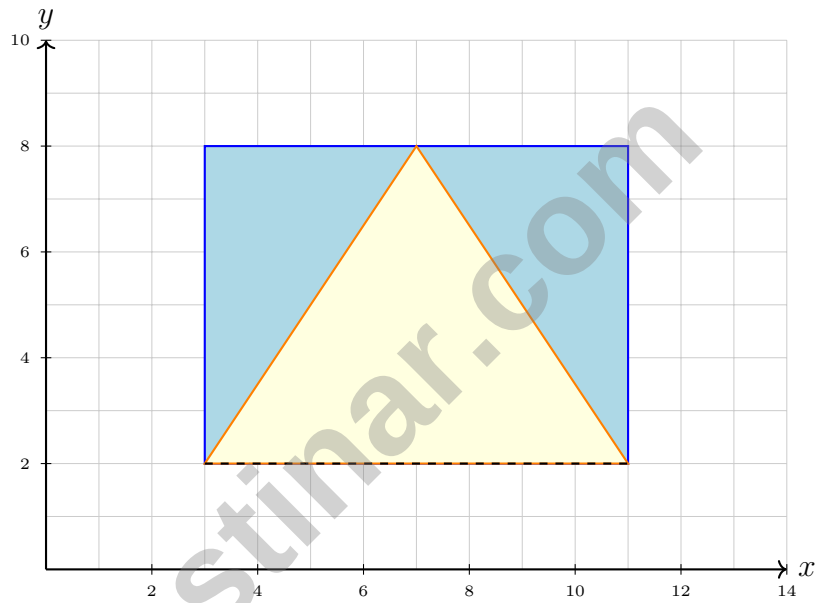
4) A circular mural has a radius of 4 meters. A student calculates the area as $\pi \times 4 \approx 12.56$ m^2. What error did the student make?

☐ A. Forgot to use π
☐ B. Used the wrong value of π
☐ C. Used πr instead of πr^2
☐ D. Doubled the radius

1) Which statement correctly identifies the height of a parallelogram?

☐ A. The height is the length of one of the slanted sides.
☐ B. The height is the perpendicular distance between two parallel sides.
☐ C. The height is the same as the longer base.
☐ D. The height is always equal to one side length.

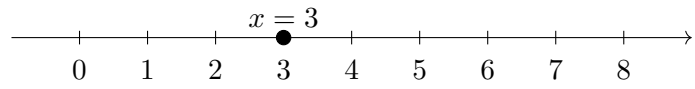
2)



A composite figure consists of a rectangle and a triangle. The rectangle has vertices at $(3, 2)$, $(11, 2)$, $(11, 8)$, and $(3, 8)$. The triangle sits on top with vertices at $(3, 8)$, $(11, 8)$, and $(7, 12)$ (height extends to 12). What is the total area? (Note: Triangle height is 4 units above the rectangle.)

☐ A. 48 square units
☐ B. 52 square units
☐ C. 64 square units
☐ D. 60 square units

3)



Which number is less than x?

☐ A. 4
☐ B. 5
☐ C. 1
☐ D. 6

4) Which statement is FALSE?

☐ A. $-5 + (-4) = -1$
☐ B. $6 - (-2) = 8$
☐ C. $-3 + 8 = 5$
☐ D. $-7 - (-3) = -4$

5) Evaluate $\frac{x}{2} + \frac{y}{3}$ when $x = 8$ and $y = 9$.

☐ A. 5
☐ B. 9
☐ C. 8
☐ D. 7

6) Which inequality correctly matches "fewer than 20 items"?

☐ A. $i \geq 20$
☐ B. $i < 20$
☐ C. $i \leq 20$
☐ D. $i > 20$

7) Which of the following is a dependent variable in the context: "A student reads at a rate of 15 pages per hour"?

☐ A. Time spent reading
☐ B. Pages read
☐ C. Reading speed
☐ D. Type of book

Indiana ILEARN Practice Test Answer Keys

How to use this Indiana ILEARN 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 steady Hoosier practice
3. rework the problem before reading the full explanation, using this reminder: Work with purpose: read fully, solve neatly, and explain why the answer makes sense.

A calm Indiana correction routine turns every missed item into useful practice. Treat each test as a practice lap, then tune one habit before the next start.

Indiana Practice Test Answers and Explanations

Review the eight printed ILEARN tests with steady, prepared, and ready to keep improving habits.

Practice Test 1 Answers and Explanations

1) **Choice D is correct.** 6.RP.5 Multiply the number of tacos per day by 7 days: $7t$.
2) **Choice D is correct.** 6.AF.4 "At most" means "less than or equal to," so the inequality is $T \leq 32$.
3) **Choice D is correct.** 6.GM.3 $63 = \frac{1}{2} \times 18 \times h \Rightarrow h = 7$ ft.
4) **Choice D is correct.** 6.NS.1 A drop of 20°C means we subtract 20 from the starting temperature: $12 - 20 = -8$°C.
5) **The correct answer is** 18. 6.AF.2 Add 4 to both sides: $x = 14 + 4 = 18$. The inverse of subtracting 4 is adding 4.
6) **Choice C is correct.** 6.NS.3 From coldest to warmest: $-8 < -5 < 2$.
7) **Choice A is correct.** 6.NS.3 Change in elevation: $1{,}850 - 1{,}200 = 650$ feet.
8) **The correct answer is** 50. 6.GM.3 Area $= \frac{1}{2}(12 + 8) \times 5 = \frac{1}{2}(20)(5) = 50$ cm^2.
9) **Choice A is correct.** 6.GM.2 Depth (as a positive distance) from sea level to the tunnel: $0 - (-450) = 450$ meters.
10) **Choice B is correct.** 6.AF.1 When a variable has no visible coefficient, it is understood to be 1 (i.e., $x = 1x$). The coefficient is never 0 unless the term is absent.
11) **Choice D is correct.** 6.AF.1 Substitute: $-5 + 3 - (-2) = -5 + 3 + 2 = 0$.
12) **Choice D is correct.** 6.NS.7 Combine like terms: $(9 - 4 + 1)c = 6c$.
13) **Choice C is correct.** 6.AF.4 "No greater than 32" means $t \leq 32$, which includes 32 itself. But "below 32" means $t < 32$, excluding 32, so C is not correct.
14) **Choice C is correct.** 6.RP.5 As x increases, the value of $5x$ increases, which causes $y = 5x + 2$ to increase. The slope 5 and intercept 2 are constants.
15) **The correct answer is** 480. 6.GM.4 $V = 10 \times 6 \times 8 = 480$ in^3.
16) **Choice B is correct.** 6.GM.3 In a 1-2-3-4 horizontal line with extensions above 2 and 3, face 1 is at one end. When folded, face 4 (at the opposite end) becomes the bottom of the cube. Faces 5 and 6 (the extensions) become side faces.
17) **Choice B is correct.** 6.DS.2 The data set is $1, 3, 3, 5, 7, 9$. Maximum $= 9$, minimum $= 1$. Range $= 9 - 1 = 8$.
18) **Choice D is correct.** 6.DS.2 For large data sets, histograms group data into bins, making patterns easier to see. Dot plots would be crowded with many individual dots, making visualization difficult.
19) **The correct answer is** 35% **of** $\$40 = 0.35 \times 40 = \$14$ **(discount); Sale price is** $\$40 - \$14 = \$26$**. Choices A and B are correct..** 6.AF.1 Discount: 35% of $\$40 = 0.35 \times 40 = \$14$, so choice A is correct. Sale price: $\$40 - \$14 = \$26$, so choice B is correct. Choice C ($28) and choice D ($25) are incorrect discount/price combinations. Choice E ($35) confuses the percent with the original price and is incorrect.
20) **Choice A is correct.** 6.DS.2 Range = Max − Min $= 175 - 140 = 35$ cm.
21) **Choice D is correct.** 6.RP.4 The average for afternoon (30) is higher than for morning (25). However, we cannot say all afternoon classes reach 30 or that morning is always smaller (individual days may vary).
22) **Choice C is correct.** 6.RP.2 Simplify the tricky choice: 6 : 8 becomes 3 : 4, not 2 : 3. The other choices all match 2 : 3 in ratio or fraction form.
23) **Choice B is correct.** 6.RP.2 $\$120 \div 12 = \$10$ per month.
24) **Choice B is correct.** 6.RP.1 To convert a decimal to a percent, multiply by 100 (or move the decimal two places right). $0.58 \times 100 = 58\%$.
25) **Choice A is correct.** 6.RP.4 Multiply: $3.5 \times 15 = 52.5$ miles.
26) **Choice B is correct.** 6.AF.5 A point on the y-axis between Quadrants I (upper right) and II (upper left) must have $x = 0$ and positive y. The point $(0, 4)$ satisfies these conditions.
27) **Choice B is correct.** 6.NS.5 First, evaluate the exponent: $3^2 = 9$. Then multiply: $2 \times 9 = 18$. Finally add: $8 + 18 = 26$.

Hi, Curious Scientist!

◇ 8 tests. So many experiments! You tested ideas. You watched what worked. You learned a lot. That's how scientists work—and how you work! ◇

⋆ **Scientists know:** mistakes are facts, not failures. Every problem you missed taught you something. You used those facts to do better next time. ⋆

Lab Results

- **Hypothesis:** CONFIRMED! Practice makes you better.
- **Method:** STRONG! You try, watch, and adjust.
- **Data:** CAREFUL! You read and copy numbers right.
- **Conclusion:** READY! You can do this test.

Scientist tip: on test day, stay curious. Ask, "What is this asking?" Then experiment with your math tools. You will find the answer!

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

Jay Daie

Your Math Scientist

MASTER MATH. ACE YOUR TESTS.

This Grade 6 Math Practice Tests book is designed to help students build confidence, strengthen math skills, and excel on comprehensive assessments.

With 8 full-length printed tests and 2 online tests, this resource provides realistic practice, a variety of question types, and detailed answer explanations to help students achieve their best.

Perfect for classroom use, homework, test preparation, and extra practice at home.

8 PRINTED TESTS

+

2 ONLINE TESTS

PERFECT FOR

- Classroom Practice
- Homework & Review
- Independent Learning
- Test Preparation
- Skill Reinforcement
- Building Confidence

PRACTICE TODAY. SUCCEED TOMORROW.

WHAT STUDENTS WILL GAIN

Stronger Math Skills
Build a solid foundation through targeted practice and review.

Better Problem Solving
Develop logical thinking and effective solution strategies.

Understand Key Concepts
Reinforce important math ideas aligned with standards.

Test Confidence
Get familiar with test formats and improve accuracy.

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

Extra online practice to reinforce learning and build confidence.

MORE PRACTICE. GREATER RESULTS.

Give your child the tools needed to develop strong math skills, confidence, and a positive attitude toward learning.

8 FULL-LENGTH PRACTICE TESTS

2 ONLINE PRACTICE TESTS

DETAILED ANSWER EXPLANATIONS