

6

LOUISIANA LEAP

GRADE

7

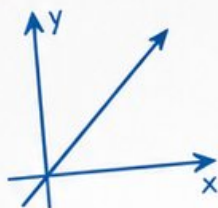
MATH

PRACTICE TESTS



Standards Aligned
Problem Solving For
Comprehensive
Assessment Programs

$$y = mx + b$$



$$2(x - 3) = 4x + 6$$

6 PRINTED TESTS



2 ONLINE TESTS



USE THESE TWO
**ADDITIONAL ONLINE
PRACTICE TESTS**
FOR EXTRA REVIEW AFTER
THE PRINTED TESTS
IN THIS BOOK.



Build
Confidence



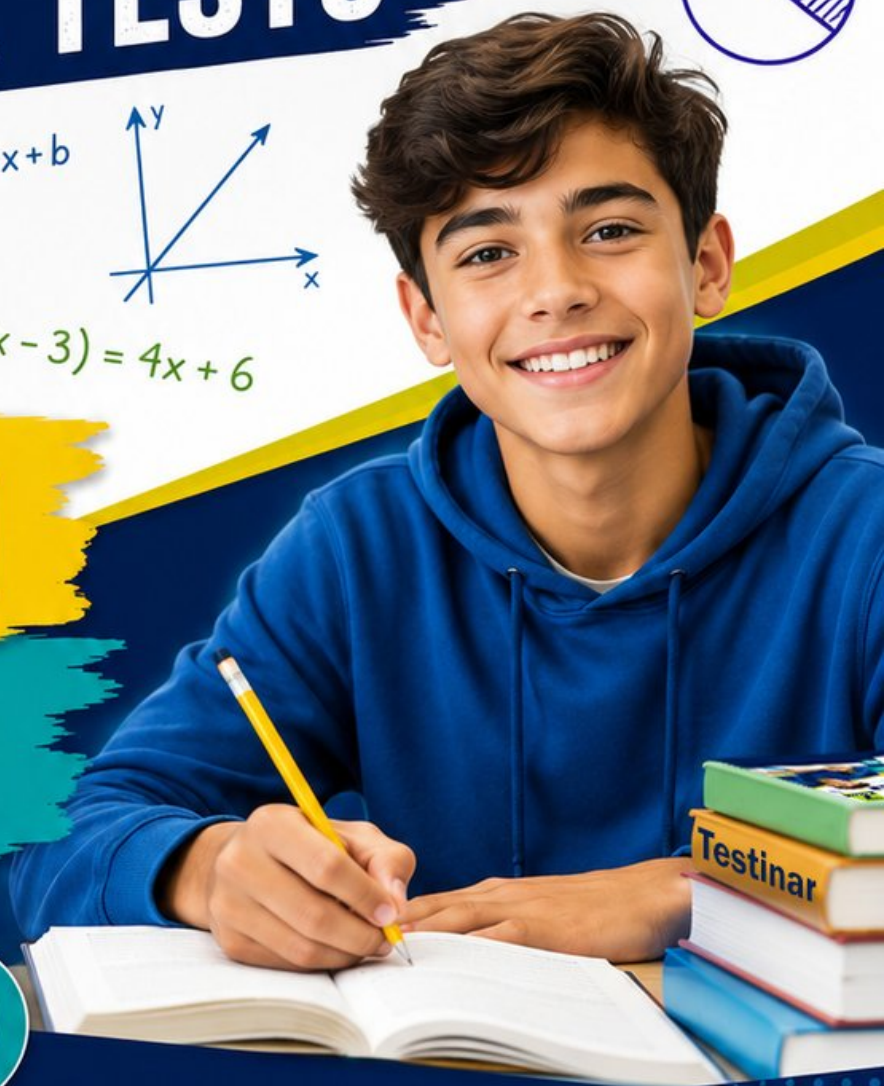
Strengthen
Math Skills



Detailed Answers
& Explanations



Improve Test
Performance



6 Louisiana LEAP Grade 7 Math Practice Tests

Standards-Aligned Practice with Review, Answer Keys, and Explanations



Six complete 40-question Grade 7 LEAP practice rounds with proportional relationships, percents, rational numbers, expressions, equations, geometry, statistics, probability, answer keys, and clear explanations for every item.

Jay Daie and Reza Nazari



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Welcome, Louisiana Grade 7 Problem Solver!

Six focused rounds for sharper LEAP math thinking

This book gives you six full Grade 7 LEAP math practice tests. Each round is built to help you notice structure, compare quantities, use proportional reasoning, handle rational numbers, and explain your thinking with care.

Your Louisiana Practice Promise

I will read every question carefully, choose a strategy that fits, write enough work to prove my answer, and use corrections as training for the next test.

Read

Model

Verify

How to Use This Book

A six-session plan for confident Grade 7 review

1. **Warm up with the review pages.** Notice the big ideas before starting the tests.
2. **Complete one test at a time.** Treat each 40-question round like a real practice session.
3. **Show your reasoning.** Jot a proportion, equation, diagram, number line, or quick estimate when it helps.
4. **Correct actively.** Rework missed items before reading the explanation.
5. **Choose the next target.** After each test, name one skill and one habit to improve.

Louisiana review rhythm: Work a test, score it, study your misses, then come back ready for the next round with one clear goal.



What Is Inside?

Six LEAP tests, 240 questions, and a complete review path

Part	What You Will Practice
Tests 1–3	Proportional relationships, unit rates, percents, rational-number operations, and careful reading.
Tests 4–6	Expressions, equations, inequalities, scale drawings, geometry, and multi-step problem solving.
Answer Pages	Compact keys and explanations that show why each answer works.

The tests are mixed on purpose. Grade 7 success means recognizing which idea is being tested even when the next question changes format.



Scan me!
For more practice
& answers

Table of Contents

★ Practice Test 1	_____	15
★ Practice Test 2	_____	29
★ Practice Test 3	_____	43
★ Practice Test 4	_____	56
★ Practice Test 5	_____	71
★ Practice Test 6	_____	84
Practice Test Answer Keys	_____	98
Practice Test Answers and Explanations	_____	102

- 1) A circle graph shows the distribution of pets owned by households in a neighborhood. Dogs account for 40% of the 80 households surveyed. How many households own dogs?

☐ A. 20

☐ C. 48

☐ B. 32

☐ D. 64

- 2) Find x using the step-by-step table:

Step	Equation
Original	$3x + 5 = 20$
Subtract 5	$3x = 15$
Divide by 3	$x = ?$

☐ A. $x = 3$
☐ C. $x = 9$
☐ B. $x = 5$
☐ D. $x = 15$

- 3) A store advertises “Save 30% on all winter coats!” If a coat originally costs \$120, what is the sale price?

☐ A. \$36

☐ C. \$90

☐ B. \$150

☐ D. \$84

- 4) Two sides of a triangle measure 7 cm and 10 cm. The angle between them is 60° . How many distinct triangles can be drawn?

☐ A. 0

☐ C. 2

☐ B. 1

☐ D. Infinitely many


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- 5) A researcher runs two independent simulations of the same event. Simulation 1 uses 100 trials and estimates probability 0.48. Simulation 2 uses 500 trials and estimates probability 0.52. Which simulation is likely to be a more reliable estimate of the true probability?
- ☐ A. Simulation 1, because it has fewer trials ☐ C. Simulation 2, because it has more trials
- ☐ B. Simulation 1, because the estimate is closer to 0.50 ☐ D. Both are equally reliable
- 6) A museum posts a survey on its website for visitors to complete. What is the PRIMARY limitation of this method?
- ☐ A. The survey is too long ☐ C. It requires payment from visitors
- ☐ B. It excludes non-internet users and creates voluntary response bias ☐ D. It uses systematic random sampling
- 7) A circle has a diameter of 18 meters. Which step is correct to find the area?
- ☐ A. First find $r = 9$ m, then compute $A = \pi \times 9$ ☐ C. Use $A = \pi \times 18$ directly
- ☐ B. First find $r = 9$ m, then compute $A = \pi \times 9^2$ ☐ D. Use $A = \pi \times 18^2$ directly
- 8) A cylinder has a radius of 3 m and a height of 5 m. What is its volume? Use $\pi \approx 3.14$.
- ☐ A. 47.1 m^3 ☐ C. 141.3 m^3
- ☐ B. 94.2 m^3 ☐ D. 235.5 m^3



- 9) A teacher recorded the number of minutes students spent on homework:

Class	Median	Range
Period 1	35 min	20 min
Period 2	35 min	60 min

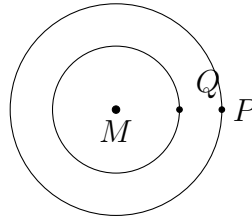
Which class has more variable homework times?

- ☐ A. Period 1
 ☐ D. The data does not support comparison
- ☐ B. Period 2
- ☐ C. Both are equally variable
- 10) A stem-and-leaf plot represents math test scores. The back-to-back format compares two classes: Class A (left) and Class B (right). If Class B's stem 8 shows leaves 0, 2, 5, 7, 9 on the right, what scores does this represent?
- ☐ A. 80, 82, 85, 87, 89
 ☐ C. 8, 2, 5, 7, 9
- ☐ B. 08, 02, 05, 07, 09
 ☐ D. 88, 82, 85, 87, 89
- 11) A fair six-sided die is rolled once. What is the probability of rolling a number greater than 4?
- ☐ A. $\frac{1}{6}$
☐ C. $\frac{1}{2}$
- ☐ B. $\frac{1}{3}$
☐ D. $\frac{2}{3}$
- 12) Two spinners are spun. The first spinner has sections labeled 1, 2, and 3. The second spinner has sections labeled A and B. How many outcomes are in the sample space?
- ☐ A. 5
 ☐ C. 8
- ☐ B. 6
 ☐ D. 9



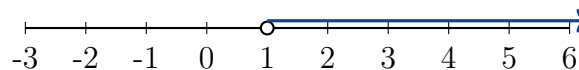
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- 1) Two concentric circles (circles with the same center) are drawn. Which point is the center of both circles?



- ☐ A. P
☐ C. M
☐ B. Q
☐ D. Cannot be determined
- 2) A student receives a paycheck stub showing an error. The gross pay is listed as \$1 200, taxes withheld are \$180, but the net pay shows \$1 100 instead of the correct amount. Which error occurred?
- ☐ A. Net pay is correct; no error exists ☐ D. An additional \$20 deduction was not listed
☐ B. Tax withholding should be \$100
☐ C. Gross pay should be \$1 280
- 3) Dataset M has range 8 and Dataset N has range 40. What is the ratio of N's range to M's range?

- 4) Which inequality matches this number line?



- ☐ A. $x \leq 1$
☐ C. $x > 1$
☐ B. $x \geq 1$
☐ D. $x < 1$



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5) A compound event simulation uses a spinner with 5 equal sections. The spinner is spun twice, and “success” is defined as “both spins land on the same section.” How many successful outcomes are there in the sample space?

- ☐ A. 5
☐ B. 10

- ☐ C. 15
☐ D. 25

6) Two spinners are spun. Spinner 1 has sections A, B, C (equally likely). Spinner 2 has sections 1, 2 (equally likely). What is the probability of landing on B and 1?

- ☐ A. $\frac{1}{6}$
☐ B. $\frac{1}{5}$

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

7) What is $P(A \text{ and } B)$ if event A has probability $\frac{1}{3}$ and event B has probability $\frac{1}{4}$, and the events are independent?

- ☐ A. $\frac{1}{7}$
☐ B. $\frac{2}{7}$

- ☐ C. $\frac{1}{12}$
☐ D. $\frac{7}{12}$

8) A weather report analyzed 365 days of data. It rained on 78 days. What is the experimental probability that it will rain on any given day, based on this data?

- ☐ A. 0.17
☐ B. 0.21

- ☐ C. 0.31
☐ D. 0.78

9) **Fabric Length Estimates (Yards)**

Project	Estimate	Actual
Dress	3	3.6

What is the percent error for the fabric estimate?

- ☐ A. 83.3%
☐ B. 0.6%

- ☐ C. 20%
☐ D. 16.7%



1) Which expression is NOT equal to y^6 ?

☐ A. $y^3 \cdot y^3$

☐ B. $(y^2)^3$

☐ C. $\frac{y^{10}}{y^4}$

☐ D. $y^2 \cdot y^3$

2) A circle has an area of 78.5 square inches. What is its radius? Use $\pi \approx 3.14$.

☐ A. 2.5 inches

☐ B. 5 inches

☐ C. 10 inches

☐ D. 25 inches

3) Triangle ABC has sides 13 cm, 5 cm, and 12 cm. Compute $13^2 - (5^2 + 12^2)$.

4) A consultant charges clients a base rate of \$100 per hour plus a 10% project management fee on the total billable hours. For a 10-hour project, what is the total cost?

5) A cylinder with a fixed volume of 100 cubic inches will have a greater height if the radius is:

☐ A. Smaller

☐ B. Larger

☐ C. The height is independent of radius

☐ D. The height and radius are always equal



- 6) The temperature is 5°C and drops 1.2 degrees per hour for 5 hours. What is the final temperature?

- 7) A researcher compares test-retest reliability of two assessments:

Assessment	Mean Difference	MAD of Differences
Test A	0.5	1.2
Test B	0.8	0.3

Which assessment is more reliable?

- ☐ A. Test A (larger MAD means more precision)
- ☐ B. Test B (smaller MAD indicates consistent retest results)
- ☐ C. Both are equally reliable
- ☐ D. Cannot determine from this data
- 8) A histogram shows the distribution of test scores for two classes with the same mean (80) but different shapes: Class A is symmetric (bell-shaped), Class B is right-skewed (tail on right). What does this tell you about variability?
- ☐ A. Class A has higher variability
- ☐ B. Class B has higher variability
- ☐ C. You cannot determine variability from shape alone
- ☐ D. Both classes have the same variability



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Louisiana LEAP Grade 7 Practice Test Answer Keys**How to use this section with a Grade 7 student:**

1. check the answer first and circle any item that needs another look
2. retry the problem with fresh work before reading the explanation
3. write one short lesson learned from each missed or guessed item

A strong review routine turns every correction into a sharper plan for the next Louisiana LEAP practice test.

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Practice Test Answers and Explanations

Practice Test 1 Answers and Explanations

- 1) **Choice B is correct.** (7.SP.1-7.SP.4) 40% of $80 = 0.40 \times 80 = 32$ households.
- 2) **Choice B is correct.** (7.EE.3-7.EE.4) From the table, $3x = 15$, so dividing both sides by 3 gives $x = 5$.
- 3) **Choice D is correct.** (7.RP.3) Savings = $30\% \times \$120 = \36 . Sale price = $\$120 - \$36 = \$84$.
- 4) **Choice B is correct.** (7.G.1-7.G.5) When two sides and the angle between them are given, exactly one triangle can be constructed (up to congruence).
- 5) **Choice C is correct.** (7.SP.5-7.SP.8) Larger sample sizes reduce the effect of random variation and produce more stable estimates. The 500-trial simulation is more reliable.
- 6) **Choice B is correct.** (7.SP.1-7.SP.4) Online surveys miss non-internet users and only attract interested respondents who choose to complete the survey, introducing coverage bias and voluntary response bias.
- 7) **Choice B is correct.** (7.G.4-7.G.6) Must divide diameter by 2 to get radius, then square: $A = \pi r^2$.
- 8) **Choice C is correct.** (7.G.4-7.G.6) Volume of a cylinder = $\pi r^2 h \approx 3.14 \times 3^2 \times 5 = 3.14 \times 9 \times 5 = 141.3 \text{ m}^3$.
- 9) **Choice B is correct.** (7.SP.1-7.SP.4) Period 2 has a range of 60 minutes, much larger than Period 1's range of 20 minutes, indicating more variability in homework times.
- 10) **Choice A is correct.** (7.SP.1-7.SP.4) In a stem-and-leaf plot, stem 8 with leaves 0, 2, 5, 7, 9 represents 80, 82, 85, 87, 89.
- 11) **Choice B is correct.** (7.SP.5-7.SP.8) Favorable outcomes: 5, 6 (two outcomes). Total outcomes: 6. $P(>4) = \frac{2}{6} = \frac{1}{3}$.
- 12) **Choice B is correct.** (7.SP.5-7.SP.8) First spinner: 3 outcomes; second spinner: 2 outcomes. Total: $3 \times 2 = 6$ outcomes.
- 13) **Choice D is correct.** (7.SP.5-7.SP.8) $P(\text{GG}) = \frac{5}{10} \cdot \frac{4}{9} = \frac{20}{90}$. $P(\text{GP}) = \frac{5}{10} \cdot \frac{3}{9} = \frac{15}{90}$. $P(\text{OG}) = \frac{2}{10} \cdot \frac{5}{9} = \frac{10}{90}$. $P(\text{PP}) = \frac{3}{10} \cdot \frac{2}{9} = \frac{6}{90}$. Green-green is largest.
- 14) **Choice B is correct.** (7.SP.6) Face 3: $\frac{79}{500} = 0.158$. Theoretical: $\frac{1}{6} \approx 0.167$. Difference: $|0.158 - 0.167| \approx 0.009$, smallest among all faces.
- 15) **The correct answer is $\frac{139}{6}$.** (7.G.1-7.G.5) Vertical angles are equal. Adjacent angles are supplementary: $(6z - 3) + 44 = 180$. Simplify: $6z + 41 = 180$. Solve: $6z = 139$, so $z \approx 23.17$.
- 16) **Choice D is correct.** (7.SP.5-7.SP.8) Probability must be between 0 and 1 (inclusive). $1.01 > 1$, so it is invalid.
- 17) **Choice D is correct.** (7.SP.1-7.SP.4) Larger random samples provide more reliable estimates of population proportions because they reduce sampling variability and represent the population more completely.
- 18) **The correct answer is $(6, -4)$.** (7.G.1-7.G.5) The translation vector is found by subtracting the starting point from the ending point: $(4, -1) - (-2, 3) = (4 - (-2), -1 - 3) = (4 + 2, -4) = (6, -4)$.
- 19) **The correct answer is A, C.** (7.G.1-7.G.5) A: Two triangles with the same three side lengths are congruent by SSS. C: Two triangles with two equal sides and an equal included angle are congruent by SAS. B is incorrect because AAA determines similarity, not congruence (triangles can be different sizes). D is incorrect because two angles and two separate sides (not necessarily properly positioned) do not guarantee congruence.
- 20) **Choice D is correct.** (7.RP.3) Estimate A: $\frac{|68-72|}{72} \times 100\% \approx 5.6\%$. Estimate B: $\frac{|75-72|}{72} \times 100\% \approx 4.2\%$. Estimate B has smaller error.
- 21) **Choice A is correct.** (7.EE.1-7.EE.2) Distribute $\frac{2}{3}$: $\frac{2}{3}(6a) + \frac{2}{3}(9) = 4a + 6$.
- 22) **The correct answer is 15.** (7.G.1-7.G.5) Scale factor = $\frac{10}{4} = 2.5$. New height = $6 \times 2.5 = 15$ inches.
- 23) **Choice D is correct.** (7.RP.1-7.RP.3) Actual dimensions now: $(4 \times 2) \text{ m}$ by $(3 \times 2) \text{ m} = 8 \text{ m}$ by 6 m . To show as 4 cm by 3 cm: $8 \div 4 = 2 \text{ m per cm}$, or $1 \text{ cm} : 4 \text{ m}$ (doubling the real dimensions doubles the scale).
- 24) **Choice D is correct.** (7.RP.3) $I = Prt = 800 \times 0.05 \times 3 = \120 .
- 25) **Choice D is correct.** (7.NS.1b) New altitude = $35000 + (-2000) = 33000$ feet. The plane's altitude decreased by 2000 feet.
- 26) **Choice D is correct.** (7.NS.1-7.NS.3) $0 - 5 = 0 + (-5) = -5$. Subtracting 5 from 0 gives -5 .
- 27) **Choice A is correct.** (7.EE.1-7.EE.2) GCF of 14 and 21 is 7. The second term has no variable factor.
- 28) **Choice C is correct.** (7.RP.3) $\frac{15}{50} = \frac{3}{10} = 0.30 = 30\%$.



Hi, Persistent Problem Solver!

◇ Some Grade 7 questions ask you to hold several ideas in your mind at once. That can feel hard, and that is exactly why practice matters. ◇

★ **Remember this:** You showed persistence by continuing through the set. That habit is powerful because difficult problems often open after one more good attempt. You practiced across 6 full Grade 7 practice tests, and that repeated effort matters. ★

Persistence Tools

- **Try a Smaller Case:** Use an easier number to see the pattern.
- **Draw It:** Make the situation visible.
- **Restate It:** Say the question in your own words.
- **Check One Step:** Fix the first unclear place.

Grade 7 test-day tip: When stuck, do not restart everything. Find the first step you trust, then rebuild from there.

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

Jay Daie

Your Persistence Coach

PRACTICE TODAY. SUCCEED TOMORROW!

This book includes **6** full-length Math practice tests and **2** online tests to help Grade 7 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:

6 Full-Length Printed Tests

2 Online Practice Tests

 Detailed Answers & 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



Build Confidence

Practice regularly to feel prepared and test-ready.



Strengthen Math Skills

Develop key math concepts and problem solving abilities.



Improve Understanding

Learn with clear explanations and step-by-step solutions.



Test Confidence

Familiarize with test formats and improve accuracy and speed.



Boost Performance

Apply your knowledge and achieve your best score!

TOPICS COVERED

- ✓ Ratios & Proportions
- ✓ The Number System
- ✓ Expressions & Equations
- ✓ Geometry
- ✓ Percents & Decimals
- ✓ Statistics & Probability
- ✓ Data Analysis
- ✓ Measurement & Conversions
- ✓ Algebraic Thinking
- ✓ And More!



2 ONLINE TESTS

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



2 EXTRA ONLINE TEST ACCESS CODE IS INSIDE THE BOOK!

Don't lose it—your extra practice and success start here!



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