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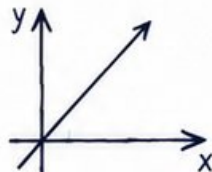
Louisiana LEAP

GRADE
7
MATH

PRACTICE TESTS

Standards Aligned
Problem Solving
For Comprehensive
Assessment Programs

$$y = mx + b$$



$$\frac{2x}{3} + \frac{x}{6} = 2$$



$$V = \frac{1}{3} \pi r^2 h$$

**4 PRINTED TESTS****2 ONLINE TESTS**

USE THESE TWO
**ADDITIONAL ONLINE
PRACTICE TESTS**

FOR EXTRA REVIEW AFTER
THE PRINTED TESTS
IN THIS BOOK.



Build
Confidence



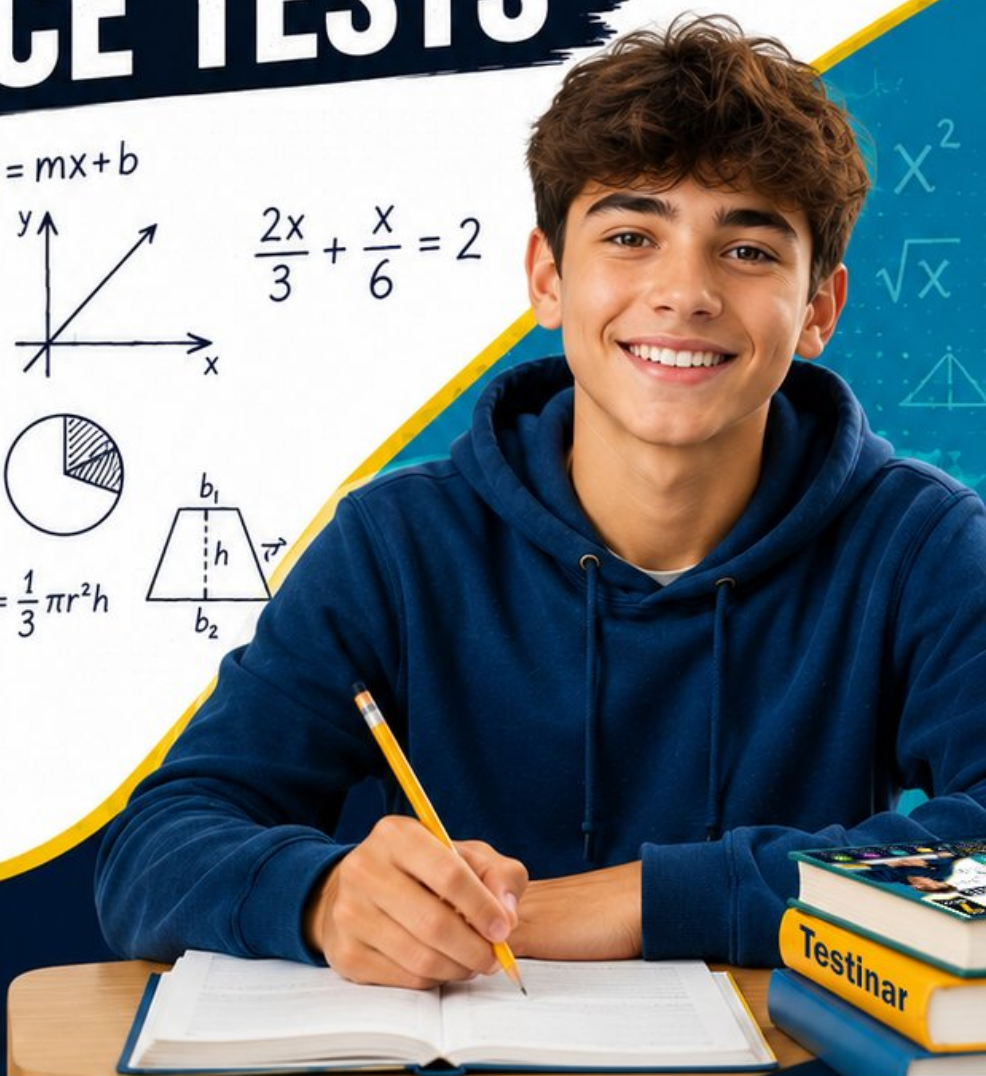
Strengthen
Math Skills



Detailed Answers
& Explanations



Improve Test
Performance



4 Louisiana LEAP Grade 7 Math Practice Tests

Four Practice Tests for Louisiana Skills, Strategy, and Review



Four 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!

Four focused rounds for sharper LEAP math thinking

This book gives you four 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 four-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?

Four LEAP tests, 160 questions, and a focused review path

Part	What You Will Practice
Tests 1–2	Proportional relationships, unit rates, percents, rational-number operations, and careful reading.
Tests 3–4	Expressions, equations, inequalities, scale drawings, geometry, data, probability, and multi-step problem solving.
Answer Pages	Compact keys and explanations that show why each answer works.

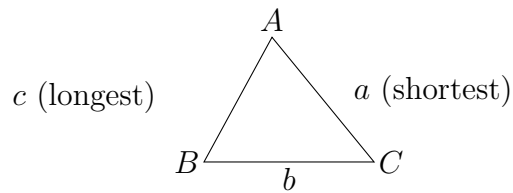
The tests are mixed on purpose. Grade 7 success means recognizing which idea is being tested even when the next question changes format.



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& answers

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1)

A scalene triangle has sides of length a , b , and c where $a < b < c$. Which inequality must be true?

☐ A. $a + b < c$

☐ C. $a + b > c$

☐ B. $a + b = c$

☐ D. $a - b > c$

2) Which circle has the largest area?

☐ A. Circle with radius 3 inches☐ C. Circle with diameter 8 inches☐ B. Circle with radius 4 inches☐ D. Circle with diameter 9 inches

3) A cylinder has a surface area formula $SA = 2\pi r^2 + 2\pi rh$. This can also be written as:

☐ A. $SA = 2\pi r(r + h)$

☐ C. $SA = 2\pi(r^2 + h^2)$

☐ B. $SA = \pi r(r + h)$

☐ D. $SA = \pi r(2r + h)$

4) If $a + (-a) = 0$, and $a = 27$, what is the value of $-a$?



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- 5) Two chemical batches' purity levels (percentages):

Batch	Q1	Q3	Median
Batch Alpha	88	94	91
Batch Beta	90	93	91.5

For consistent, high-purity production, which batch is superior?

- ☐ A. Batch Alpha (wider IQR shows diversity in purity)
 ☐ C. Both are identical
☐ B. Batch Beta (narrower IQR = tighter quality, higher Q1)
 ☐ D. Cannot determine without knowing
- 6) A dot plot shows quiz scores: 70 (one student), 75 (two students), 80 (four students), 85 (two students), 90 (one student). Which statement is correct?
- ☐ A. The median is 70
 ☐ C. The median is 85
☐ B. The median is 80
 ☐ D. The median is 90
- 7) A coin is tossed and a six-sided die is rolled. What is the probability of getting tails on the coin?
- ☐ A. $\frac{1}{6}$
☐ C. $\frac{1}{12}$
☐ B. $\frac{1}{2}$
☐ D. $\frac{2}{3}$
- 8) A diver descends 7.5 meters per minute. What is the total change in depth after 4 minutes?



- 9) A pizza place offers 3 types of crust, 6 sauce options, and 8 toppings. How many single-topping pizzas can be made?

☐ A. 17☐ B. 42☐ C. 72☐ D. 144

- 10) Estimate $\sqrt{130}$ to the nearest whole number.

- 11) Two dot plots display the number of glasses of water consumed per day by two fitness groups. Athletic Group: 6, 7, 7, 8, 8, 8, 8, 9 glasses; Casual Group: 2, 3, 4, 8, 9, 10 glasses. Which group shows more consistent hydration behavior?

☐ A. Athletic Group (centered at 8 glasses, range 3)☐ B. Casual Group (some very low values)☐ C. Both groups have identical patterns☐ D. Casual Group (includes higher values up to 10)

- 12) If the probability of rain on Monday is $\frac{1}{4}$ and the probability of rain on Tuesday is $\frac{1}{3}$, and these events are independent, what is the probability of NO rain on both days?

☐ A. $\frac{1}{6}$ ☐ B. $\frac{1}{12}$ ☐ C. $\frac{1}{7}$ ☐ D. $\frac{1}{2}$ 

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Error Analysis

A map has scale 1 inch : 5 miles.

Distance on map: 2 inches.

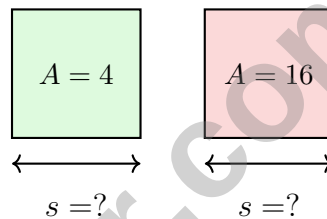
Student answer: Scale factor is $\frac{1}{5}$.

Actual distance: $\frac{2}{5} = 0.4$ miles.

1)

What is the student's error?

- ☐ A. Correct calculation.
 ☐ C. Divided instead of multiplying.
 ☐ B. Flipped the scale ratio (used 5 : 1 instead of 1 : 5).
 ☐ D. Forgot to convert units.



2)

Which square has the longer side?

- ☐ A. The left square (area = 4)
 ☐ C. They have equal sides
 ☐ B. The right square (area = 16)
 ☐ D. Cannot be determined

3) What is $-2(3 + 5)$?

- ☐ A. -16
 ☐ C. 1
 ☐ B. -6
 ☐ D. 16



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- 4) A smoothie recipe calls for 2 cups strawberries and $\frac{3}{4}$ cup yogurt. To make $\frac{2}{3}$ of the recipe, how much yogurt is needed?

☐ A. $\frac{1}{4}$ cup

☐ C. $\frac{1}{2}$ cup

☐ B. $\frac{1}{3}$ cup

☐ D. $\frac{2}{3}$ cup

- 5) A stock investment grows from \$5,000 to \$5,500 in one year. What is the percentage growth?

- 6) Which of the following is always true about a chord?

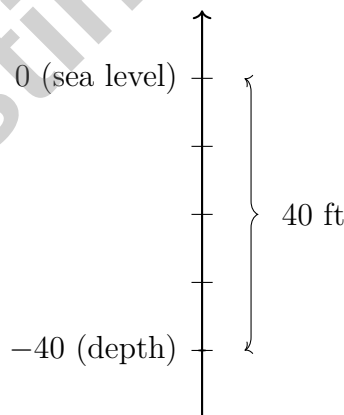
☐ A. It must pass through the center

☐ C. It is always shorter than the radius

☐ B. It has both endpoints on the circle

☐ D. It is parallel to a diameter

- 7) A scuba diver descends 40 feet below sea level. Which integer represents this depth?



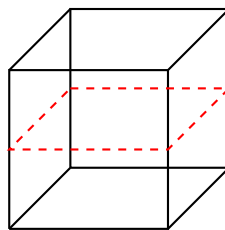
☐ A. 40 (ignores direction/below sea level)

☐ C. 0 (at sea level, not below)

☐ B. -80 (double the depth)

☐ D. -40 (correct; below is negative)





1)

A cube is sliced by a vertical plane parallel to one of its faces, passing through the center. What is the area of the cross-section if the cube has a side length of 4 cm?

☐ A. 8 cm^2
☐ C. 32 cm^2
☐ B. 16 cm^2
☐ D. 64 cm^2

2) Write the decimal $0.\overline{4}$ (where 4 repeats) as a fraction.

3) A student looks at two box plots comparing test scores and claims: “Class 1 always scores higher than Class 2 because Class 1’s median is higher.” What is the error in this reasoning?

☐ A. Higher median means higher average, not every individual score

☐ C. Class 2 always scores higher

☐ B. Medians are never comparable

☐ D. Box plots don’t show individual data points

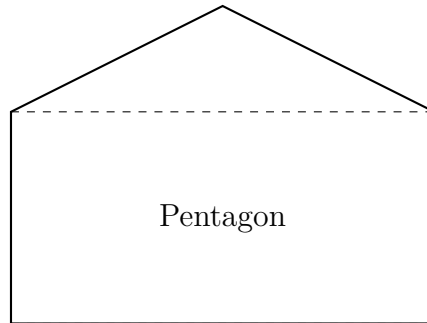
4) A dataset contains 24 values displayed in a stem-and-leaf plot. If the data is divided into lower and upper halves to find the interquartile range, how many values are in the upper half (excluding the median)?

☐ A. 10

☐ C. 12

☐ B. 11

☐ D. 13

5)

A pentagon-shaped field can be decomposed into a rectangle (base 8 units, height 4 units) and a triangle (base 8 units, height 2 units). What is the total area?

☐ A. 24 sq units☐ C. 40 sq units☐ B. 32 sq units☐ D. 48 sq units

6) A rectangular prism has a volume of 720 in^3 . The base is a square with side length 12 inches. What is the height?

☐ A. 5 in☐ C. 12 in☐ B. 6 in☐ D. 60 in

7) Three given side lengths are 4 cm, 5 cm, and 10 cm. How many distinct triangles can be formed?

☐ A. 0☐ C. 2☐ B. 1☐ D. Infinitely many

8) A refrigerator is set to maintain a temperature of -2°C . It drops $\frac{1}{4}^\circ\text{C}$ per hour. What will the temperature be after 8 hours?



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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 C is correct.** (7.G.1-7.G.5) By the Triangle Inequality, the sum of the two shorter sides must exceed the longest side.
- 2) **Choice D is correct.** (7.G.4-7.G.6) Circle D has $r = 4.5$ in, giving $A \approx 3.14 \times 20.25 \approx 63.6$ in², larger than all others.
- 3) **Choice A is correct.** (7.G.4-7.G.6) Factor out $2\pi r$ from $2\pi r^2 + 2\pi rh$ to get $2\pi r(r + h)$.
- 4) **The correct answer is -27.** (7.NS.1-7.NS.3) Since $a = 27$, the opposite (additive inverse) is $-a = -27$. We can verify: $27 + (-27) = 0$.
- 5) **Choice B is correct.** (7.SP.1-7.SP.4) Batch Alpha: IQR = $94 - 88 = 6$. Batch Beta: IQR = $93 - 90 = 3$. Batch Beta's smaller IQR (tighter middle 50%) and higher Q1 (90 vs. 88) indicate more consistently high-purity output.
- 6) **Choice B is correct.** (7.SP.1-7.SP.4) With 10 students total, the median is between the 5th and 6th values: positions 1 (70), 2-3 (75), 4-7 (80). The 5th and 6th values are both 80, so median = 80.
- 7) **Choice B is correct.** (7.SP.5-7.SP.8) The coin flip is independent of the die roll. $P(\text{tails}) = \frac{1}{2}$.
- 8) **The correct answer is -30.** (7.NS.2) Change per minute is -7.5 meters. After 4 minutes: $(-7.5) \times 4 = -30$ meters.
- 9) **Choice D is correct.** (7.SP.5-7.SP.8) By the counting principle: $3 \times 6 \times 8 = 144$ single-topping pizzas.
- 10) **The correct answer is 11.** (7.NS.1-7.NS.3) $11^2 = 121$ and $12^2 = 144$. Since 130 is very close to 121, $\sqrt{130} \approx 11.4$, which rounds to 11.
- 11) **Choice A is correct.** (7.SP.3) Athletic Group clusters tightly around 8 glasses with range 3 (6-9). Casual Group ranges from 2-10 (range 8) with uneven distribution, indicating less consistent hydration habits.
- 12) **Choice D is correct.** (7.SP.5-7.SP.8) $P(\text{no rain Mon}) = 1 - \frac{1}{4} = \frac{3}{4}$; $P(\text{no rain Tues}) = 1 - \frac{1}{3} = \frac{2}{3}$. Both: $\frac{3}{4} \cdot \frac{2}{3} = \frac{6}{12} = \frac{1}{2}$.
- 13) **Choice B is correct.** (7.SP.1-7.SP.4) After removing 49 from stem 4 and correcting to 94 in stem 9, the maximum becomes 107 (stem 10, leaf 7).
- 14) **Choice C is correct.** (7.SP.6) Experimental probability of heads: $\frac{42}{100} = 0.42$. Theoretical: 0.5. Difference: $|0.42 - 0.5| = 0.08$.
- 15) **Choice B is correct.** (7.G.4-7.G.6) True triangle area: $\frac{1}{2} \times 6 \times 3 = 9$ cm². Contractor's estimate: $\frac{1}{2} \times 6 \times 4 = 12$ cm². Overestimate: $12 - 9 = 3$ cm².
- 16) **Choice B is correct.** (7.G.4-7.G.6) Base area = $\frac{1}{2} \times 6 \times 5 = 15$ in². Volume = $15 \times 12 = 180$ in³.
- 17) **Choice A is correct.** (7.SP.5-7.SP.8) $\frac{1}{3} = 0.\overline{3} \approx 0.33$ when rounded to the nearest hundredth.
- 18) **Choice C is correct.** (7.SP.1-7.SP.4) $\frac{42}{150} = \frac{x}{500}$. Simplify: $\frac{7}{25} = \frac{x}{500} \Rightarrow x = 140$.
- 19) **The correct answer is B,C.** (7.RP.1-7.RP.3) Option B: cost = $1.50 \times$ pounds (proportional, of form $y = kx$). Option C: distance = speed $\times$ time (proportional). Option A is a general trend but not a strict proportional relationship. Option D: height does not scale proportionally with age (growth rates vary).
- 20) **Choice C is correct.** (7.NS.1-7.NS.3) The change is: final - initial = $-125 - (-50) = -125 + 50 = -75$ meters. The negative sign indicates she descended 75 meters deeper.
- 21) **Choice D is correct.** (7.RP.1-7.RP.3) Actual dimensions: $5 \times 4 = 20$ feet; $3 \times 4 = 12$ feet. Area = $20 \times 12 = 240$ sq ft.
- 22) **Choice C is correct.** (7.RP.3) 35% of 400 is $0.35 \times 400 = 140$.
- 23) **Choice C is correct.** (7.SP.1-7.SP.4) 36% of 2500 = $0.36 \times 2500 = 900$ customers.
- 24) **Choice D is correct.** (7.RP.1-7.RP.3) Unit rate from first pair: $\frac{2.40}{6} = 0.40$ \$ per egg. For cost \$1.20: number of eggs = $\frac{1.20}{0.40} = 3$ eggs.
- 25) **Choice D is correct.** (7.RP.1-7.RP.3) In $y = kx$, solve for k : $20 = k(4)$, so $k = \frac{20}{4} = 5$.
- 26) **Choice D is correct.** (7.RP.1-7.RP.3) From $y = 4x$, if $y = 32$, then $32 = 4x$, so $x = 32 \div 4 = 8$ grams.
- 27) **Choice C is correct.** (7.RP.3) Set up the proportion: $\frac{1}{4} = \frac{p}{100}$. Cross-multiply: $p = 25$, so $\frac{1}{4} = 0.25 = 25\%$.
- 28) **Choice D is correct.** (7.RP.1-7.RP.3) Rate is $\frac{960}{8} = 120$ pages per minute. So $p = 120m$.



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Hi, Grade 7 Math Star!

◇ You finished this practice set with real effort. Grade 7 math asks you to connect ideas, explain your thinking, and stay steady through multi-step problems. ◇

★ **Remember this:** Every page you completed helped build stronger habits: reading carefully, choosing a method, showing work, and checking whether the answer makes sense. You practiced across 4 full Grade 7 practice tests, and that repeated effort matters. ★

What You Built

- **Focus:** You stayed with challenging questions.
- **Accuracy:** You learned to slow down when details matter.
- **Reasoning:** You practiced explaining why a method works.
- **Readiness:** You are more prepared than when you started.

Grade 7 test-day tip: Before test day, review the questions that made you pause. Those are the best teachers.

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

Jay Daie

Your Grade 7 Math Friend

PRACTICE TODAY. SUCCEED TOMORROW!

This book includes **4** 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:

4 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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