

4 Alabama ACAP

GRADE
6
MATH

PRACTICE TESTS

Standards Aligned Problem Solving
For Comprehensive Assessment Programs

4

**PRINTED
TESTS**



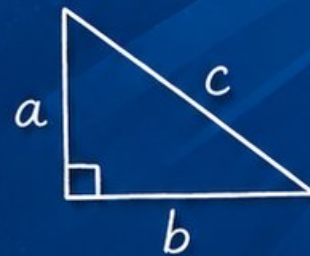
2

**ONLINE
TESTS**



- ✓ Build Confidence
- ✓ Master Key Math Skills
- ✓ Answer Explanations for Every Question
- ✓ Test-Taking Strategies That Work

$$2x + 5 = 21$$
$$x = 8$$



$$\frac{3}{4} + \frac{1}{2} = \frac{5}{4}$$



**USE THESE TWO
ADDITIONAL ONLINE
PRACTICE TESTS**

**FOR EXTRA REVIEW AFTER
THE PRINTED TESTS
IN THIS BOOK.**

4 Alabama ACAP Grade 6 Math Practice Tests

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



Four complete 40-question Grade 6 practice rounds for ACAP, with ratios, rational numbers, expressions, equations, geometry, statistics, answer keys, and clear explanations for every item.

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Welcome, Alabama Math Explorer!

Four steady rounds on a Gulf Coast-to-hills math trail

This book gives you four full Grade 6 practice tests for ACAP. Each round uses river bridges, pine woods, and Gulf Coast routes as a fresh mental backdrop while you read closely, choose a smart strategy, show your work, and check whether your answer makes sense.

Your Alabama Practice Promise

Read the question like a map, then prove each step. I will slow down for the question, circle what matters, solve one step at a time, and use mistakes as clues for getting stronger.

Read

Plan

Check

How to Use This Book

A four-session routine for steady Southern problem solving

1. **Preview the skills.** Read the quick review pages before the first test.
2. **Take one test at a time.** Work in a quiet place and answer all 40 questions.
3. **Mark your confidence.** Put a small star beside problems you solved with a strong plan.
4. **Check, then retry.** For missed questions, try the problem again before reading the explanation.
5. **Track your next move.** Use the growth log to name one habit and one skill for the next test.

Alabama review rhythm: Test one day, correct carefully the next day, then return for the next round when your corrections feel clear.



What Is Inside?

Four ACAP tests, 160 questions, and a full review path

Part	What You Will Practice
Tests 1–2	Warm-up rounds for ratios, rational numbers, operations, and careful reading.
Tests 3–4	Skill-building and final stamina rounds with expressions, equations, geometry, data, and problem models.
Answer Pages	Compact keys and explanations that show why each answer works.

The tests are mixed on purpose. Steady southern problem solving means recognizing the skill even when the next question changes topic.



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& answers

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1) Factor $8 + 12$ using the GCF.

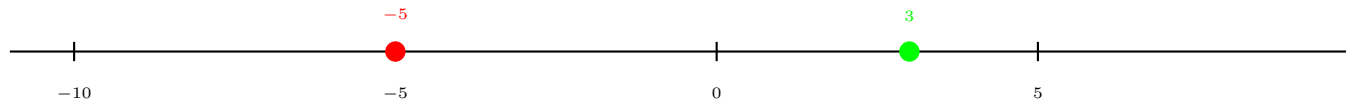
A. $2(4 + 6)$

C. $3(2.67 + 4)$

B. $4(2 + 3)$

D. $8(1 + 1.5)$

2)



Which number has a greater absolute value, -5 or 3 ?

 A. -5 because it is negative C. -5 because $|-5| = 5$ and $5 > 3$ B. 3 because it is smaller D. They are equal

3) On a number line, point R is at $-\frac{1}{4}$ and point S is at $\frac{3}{4}$. What is the distance between points R and S?

A. $\frac{1}{4}$

C. 1

B. $\frac{1}{2}$

D. $\frac{7}{4}$

4) A student mistakenly plotted $(4, -3)$ in Quadrant III. What is the correct quadrant for this point?

 A. Quadrant I C. Quadrant III B. Quadrant II D. Quadrant IV

5) Which statement is false?

A. $-9 < -5$

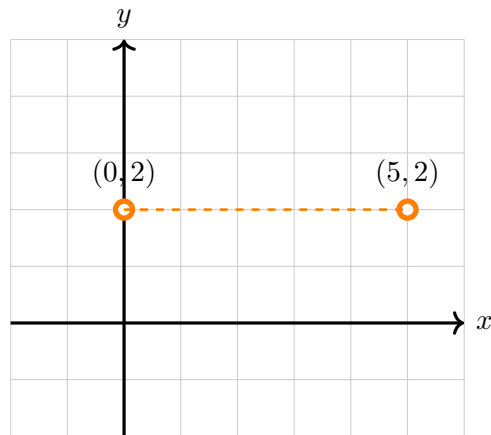
C. $-0.5 < 0.5$

B. $-2.5 > -3.5$

D. $-7 > -3$



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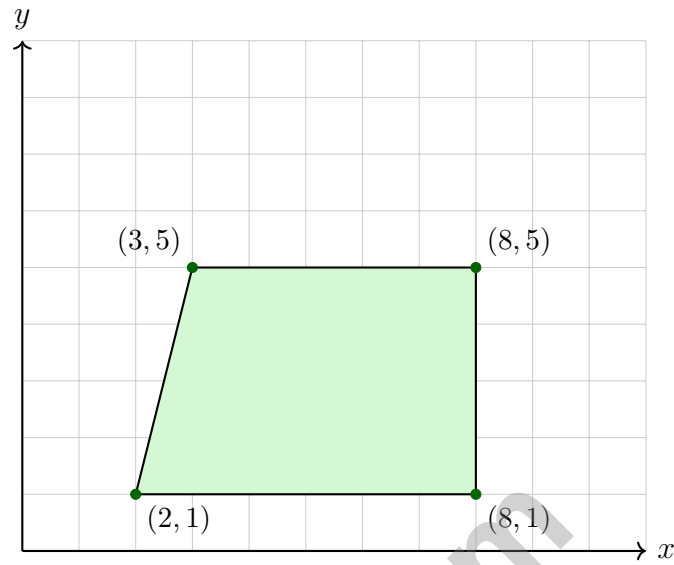
6)

What is the distance from $(0, 2)$ to $(5, 2)$?

 A. 3 units C. 5 units B. 4 units D. 6 units

7) A rectangular prism has volume $\frac{80}{3}$ cm³, length $\frac{10}{3}$ cm, and width 4 cm. What is its height?

 A. 1 cm C. 3 cm B. 4 cm D. 2 cm



8)

The right-hand side of this trapezoid is the vertical segment from (8, 1) to (8, 5).
What is its length?

- A. 4 units
 B. 5 units

- C. 6 units
 D. 7 units



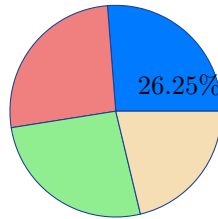
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- 1) On a number line, point X is at -3.5 and point Y is at 1.5 . What is the distance between points X and Y?
- A. 2 C. 6
 B. 3 D. 5
- 2) Read the question: “What is the temperature in my room right now?” Why is this NOT a statistical question?
- A. It does not mention many people. D. It has one fixed answer at one moment in time.
 B. It is asked too quickly.
 C. Temperature is hard to measure.
- 3) A dataset has 10 values. The smallest and largest values are removed, leaving 8 values. Which statement is always true?
- A. The new range is smaller C. The new mean is lower
 B. The new median is higher D. The new IQR must change
- 4) A box of candies has 30 pieces: 10 red, 8 green, 7 yellow, and 5 blue. If one piece is selected at random, what is the probability it is yellow?
- A. $\frac{1}{6}$ C. $\frac{1}{3}$
 B. $\frac{2}{5}$ D. $\frac{7}{30}$
- 5) A dataset has values: 112, 115, 118, 121, 124, 125. Using a 2-digit stem (like 11 and 12), how many leaves are in stem 12?
- A. 1 C. 3
 B. 2 D. 4



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- 6) The data set is: 5, 8, 10, 12, 15, 18, 20, 22, 25, 28. Find the interquartile range (IQR).
Hint: $Q1 = 10$, $Q3 = 23$.



7)

A store sold 640 items. The circle graph shows 26.25% were on sale. How many items were on sale?

- A. 168 C. 174
 B. 156 D. 188
- 8) When would a circle graph be INAPPROPRIATE for displaying data?
- A. Showing what fraction of a pizza is pepperoni C. Tracking daily temperature changes across a week
 B. Comparing monthly expenses that sum to a budget D. Showing budget allocation to different departments
- 9) Which of the following phrases BEST describes a rate?
- A. Comparing two quantities with the same units C. Adding two quantities together
 B. Comparing two quantities with different units D. Counting the total of objects in a group



- 1) A student graphed the ratio of cats to dogs as (cats, dogs). For the point (2, 5), the correct constant of proportionality is $\frac{5}{2} = 2.5$. The student wrote $\frac{2}{5} = 0.4$ instead. What did this error represent?
- A. The student divided the x-value by the y-value instead of the y-value by the x-value
- B. The student forgot to simplify the fraction
- C. The student found $\frac{5}{2}$ instead of $\frac{2}{5}$
- D. The student changed the point to (5, 2)
- 2) Which pair shows equivalent expressions for dividing $\frac{4}{5}$ by $\frac{2}{3}$?
- A. $\frac{4}{5} \times \frac{2}{3}$ and $\frac{8}{15}$
- B. $\frac{4}{5} \div \frac{2}{3}$ and $\frac{12}{10}$
- C. $\frac{4}{5} \times \frac{3}{2}$ and $\frac{12}{10}$
- D. $\frac{2}{3} \times \frac{4}{5}$ and $\frac{6}{20}$
- 3) Mika used long division to solve $4,284 \div 22$ and got 194 remainder 16. Is Mika's answer correct?
- A. Yes, it is correct.
- B. No; the quotient is 195.
- C. No; the remainder is 14.
- D. No; the answer is 194 remainder 2.
- 4) What is the GCF of 24 and 60?
- A. 6
- B. 12
- C. 24
- D. 60



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- 5) A city's elevation is 150 feet. A nearby underground parking garage is at an elevation of -45 feet. What is the total distance between them vertically?
- A. 105 feet C. 195 feet
 B. 150 feet D. 45 feet
- 6) Find $|0|$.
- A. 0 C. 1
 B. -1 D. Undefined
- 7) What is the x -coordinate of any point on the positive y -axis?
- A. Any positive number C. Zero
 B. Any negative number D. One
- 8) On a city map, a fire station is at $(4, 6)$ and a hospital is at $(12, 6)$. The map scale is 1 unit = 250 meters. What is the distance between them in meters?
- A. 1500 m C. 2000 m
 B. 1750 m D. 2250 m
- 9) A rectangular prism has a square base with side lengths of 4 cm and a height of 5 cm. What is the volume?
- A. 32 cm^3 C. 64 cm^3
 B. 40 cm^3 D. 80 cm^3
- 10) A horizontal line segment goes from $(2, 7)$ to $(10, 7)$. What is its length?
- A. 6 units C. 8 units
 B. 7 units D. 9 units



Alabama ACAP Practice Test Answer Keys

How to use this Alabama ACAP 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 Southern problem solving
3. rework the problem before reading the full explanation, using this reminder: Use each problem as a trail marker: read carefully, plan clearly, and check before moving on.

A calm Alabama correction routine turns every missed item into useful practice. Test one day, correct carefully the next day, then begin the next round when your notes feel clear.



Alabama Practice Test Answers and Explanations

Review the four printed ACAP tests with patient, steady, and ready for the next challenge habits.

Practice Test 1 Answers and Explanations

- 1) **Choice B is correct.** (6.7) GCF of 8 and 12 is 4. So $8 + 12 = 4(2 + 3)$. Choice A uses 2 (a common factor but not greatest); Choices C and D include decimals, violating whole-number arithmetic.
- 2) **Choice C is correct.** (6.13) Compare absolute values: $|-5| = 5$ and $|3| = 3$. Since $5 > 3$, the number -5 has the greater absolute value.
- 3) **Choice C is correct.** (6.10) Distance $= \frac{3}{4} - (-\frac{1}{4}) = \frac{3}{4} + \frac{1}{4} = \frac{4}{4} = 1$.
- 4) **Choice D is correct.** (6.25) The point $(4, -3)$ has a positive x -coordinate and negative y -coordinate, placing it in Quadrant IV (lower right). The student likely confused the quadrants.
- 5) **Choice D is correct.** (6.13) A is true ($-9 < -5$). B is true ($-2.5 > -3.5$). C is true ($-0.5 < 0.5$). D is false: $-7 < -3$, not greater.
- 6) **Choice C is correct.** (6.25) Same y -coordinate (2): $|5 - 0| = 5$ units.
- 7) **Choice D is correct.** (6.28) $\frac{80}{3} = \frac{10}{3} \times 4 \times H = \frac{40}{3} \times H$, so $H = 2$ cm.
- 8) **Choice A is correct.** (6.25) The right side runs vertically from $(8, 1)$ up to $(8, 5)$. Its length is the difference of y -values: $|5 - 1| = 4$ units.
- 9) **Choice B is correct.** (6.26) Width: $6 - 2 = 4$ units. Height: $6 - 2 = 4$ units. Area $= 4 \times 4 = 16$ square units.
- 10) **Choice C is correct.** (6.27) Lateral surface area $=$ perimeter \times height $= (6 + 7 + 7) \times 9 = 20 \times 9 = 180$ cm².
- 11) **Choice A is correct.** (6.25) Translate: $(5, 4) \rightarrow (5 - 2, 4 + 1) = (3, 5)$.
- 12) **Choice D is correct.** (6.13) $-3 + (-6) = -9$; $-12 + 3 = -9$; $5 + (-14) = -9$. All three expressions equal -9 .
- 13) **Choice D is correct.** (6.16) Distribute: $10(2y + 1) = 10 \cdot 2y + 10 \cdot 1 = 20y + 10$.
- 14) **Choice A is correct.** (6.21) Calories burned $= 8 \times$ minutes. Check: $10 \text{ min} \rightarrow 8(10) = 80$ calories; $20 \text{ min} \rightarrow 8(20) = 160$ calories.
- 15) **The correct answer is 25%.** (6.3) $\frac{50}{200} = \frac{25}{100} = 25\%$ (divide both by 2).
- 16) **Choice C is correct.** (6.23) The median is 38. Excluding the median, the lower half is 5, 12, 25, so $Q_1 = 12$. The upper half is 42, 55, 68, so $Q_3 = 55$. The IQR is $55 - 12 = 43$.
- 17) **The correct answer is 60.** (6.18) Markup is 50% of $\$40 = 0.50 \times 40 = \20 . Selling price is $\$40 + \$20 = \$60$.
- 18) **Choice B is correct.** (6.9) Account 1: $I = \$500 \times 0.03 \times 3 = \45 . Account 2: $I = \$500 \times 0.04 \times 2 = \40 . Difference: $\$45 - \$40 = \$5$, with Account 1 earning more.
- 19) **Choice D is correct.** (6.1) For $y = 6x$: when $x = 4$, $y = 6(4) = 24$, not 25. The point should be $(4, 24)$.
- 20) **The correct answer is The unit rate is 25 items per hour, and the y-value when $x = 1$ is 25.** (6.11) A is correct because $50 \div 2 = 25$ items per hour. D is correct because when $x = 1$, $y = 25$. Choice B is false for a proportional relationship, Choice C should be $y = 25x$, and Choice E is false.
- 21) **Choice D is correct.** (6.23) If 15% of salary is $\$180$, then salary $= \$180 \div 0.15 = \1200 .
- 22) **Choice B is correct.** (6.1) Divide: $16 \text{ m} \div 8 \text{ cm} = 2 \text{ m per cm}$. Scale is $1 \text{ cm} = 2 \text{ m}$.
- 23) **Choice B is correct.** (6.4) Invert $\frac{4}{5}$ to $\frac{5}{4}$, then multiply: $\frac{2}{3} \times \frac{5}{4} = \frac{10}{12}$. That reduces nicely to $\frac{5}{6}$.
- 24) **The correct answer is 200.** (6.3) Distance $=$ Rate \times Time $= 80 \times 2.5 = 200$ miles.
- 25) **Choice B is correct.** (6.5) $7,280 \div 35 = 208$ remainder 4. Check: $35 \times 208 + 4 = 7,280$.
- 26) **Choice D is correct.** (6.8) This is a GCF problem. The GCF of 35 and 49 is 7. So they can make 7 rows with 5 tomato and 7 pepper plants per row.
- 27) **Choice B is correct.** (6.9) Below sea level is represented by a negative integer. A depth of 25 meters below sea level is -25 meters.



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Hi, Math Athlete!

◇ 4 practice tests done! That's serious training. Your math muscles are strong. You are in great shape for the big test. ◇

★ **Trainers know:** muscle memory is real. The more you practice, the more your brain knows what to do without thinking. You built that muscle memory! ★

Athlete Performance

- **Endurance:** TOP! You can finish a long test.
- **Strength:** STRONG! You handle hard problems.
- **Speed:** JUST RIGHT! You don't rush.
- **Recovery:** GOOD! You bounce back from tough questions.

Trainer tip: on test day, drink water, breathe deeply, and warm up with the easier questions first. Your training will carry you the rest of the way!

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

Jay Daie

Your Math Trainer

PRACTICE TODAY. SUCCEED TOMORROW!

This book includes 4 full-length Math practice tests and 2 online tests to help Grade 6 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.

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Printed Tests

2 Online Practice
Tests

 Detailed Answer
Explanations

 **MORE PRACTICE.
GREATER RESULTS.**

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

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Stronger Math Skills

Build a solid foundation through targeted practice and review.



Better Problem Solving

Develop logical thinking and effective solution strategies.



Deeper Understanding

Reinforce key concepts with clear explanations and meaningful practice.



Test Confidence

Familiarize with test formats and improve accuracy and speed.



Achieve Success

Build confidence and perform your best on test day.

TOPICS COVERED

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



2 ONLINE TESTS

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