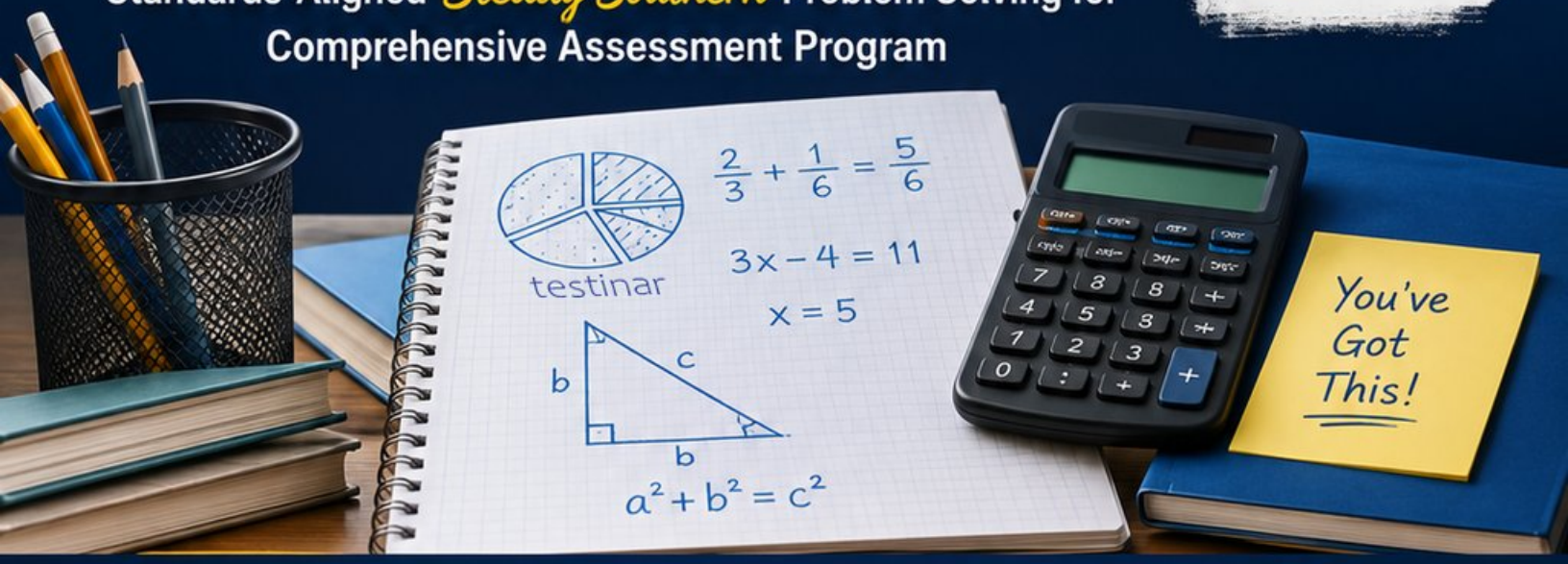
8 Alabama ACAP

8 PRINTED TESTS + 2 ONLINE TESTS

GRADE 6 MATH PRACTICE 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

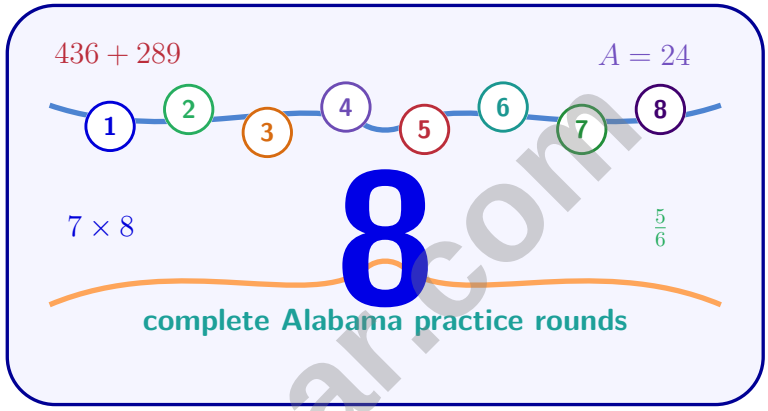
REALISTIC TESTS & QUESTION TYPES

STRENGTHEN MATH SKILLS

REVIEW, PRACTICE, AND IMPROVE

8 Alabama ACAP Grade 6 Math Practice Tests

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



Eight 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.

Jay Daie and Reza Nazari

Copyright ©

Testinar Inc

Published by Testinar Inc

Testinar.com

Welcome, Alabama Math Explorer!

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

This book gives you eight 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.

How to Use This Book

An eight-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?

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

Part	What You Will Practice
Tests 1–3	Warm-up 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 southern problem solving means recognizing the skill even when the next question changes topic.

Table of Contents

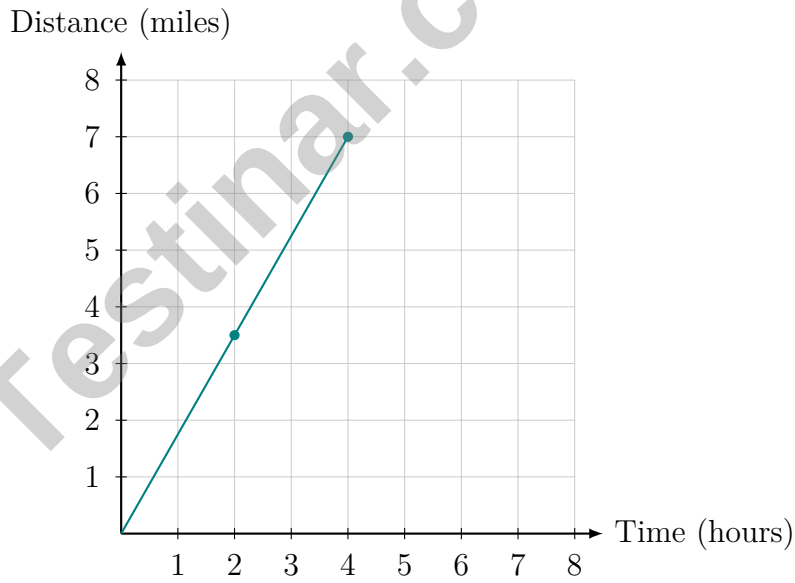
1)

Quantity	Cost ($)
2	14
4	28
6	42
9	y

The table shows a proportional relationship between quantity and cost. What is the value of y?

☐ A. 56
☐ B. 63
☐ C. 49
☐ D. 51

2) The graph below represents the distance a train travels over time.



What is the train's speed?

☐ A. 1.5 miles per hour
☐ B. 3.5 miles per hour
☐ C. 2 miles per hour
☐ D. 1.75 miles per hour

3) A parallelogram has a slanted side of 8 cm, a base of 12 cm, and a height of 5 cm. What is the area?

☐ A. 25 cm^2
☐ B. 40 cm^2
☐ C. 60 cm^2
☐ D. 96 cm^2

4) A test score improves from 70 to 84. What is the percent increase?

☐ A. 15%
☐ B. 18%
☐ C. 25%
☐ D. 20%

5) A graph shows distance (in kilometers) versus time (in hours). The line passes through $(0, 0)$ and $(2, 120)$. What is the speed in kilometers per hour?

☐ A. 60 km/h
☐ B. 120 km/h
☐ C. 2 km/h
☐ D. 240 km/h

6) A teen has \$200 and plans to allocate 50% to savings, 30% to entertainment, and the remainder to miscellaneous. How much is allocated to miscellaneous?

☐ A. \$40
☐ B. \$30
☐ C. \$20
☐ D. \$50

7) A submarine is -120 feet (below sea level). It ascends 45 feet. What is its new elevation?

☐ A. -165 feet
☐ B. -75 feet
☐ C. 75 feet
☐ D. 165 feet

8) Evaluate: $10^2 \div 5 + 3$

- ☐ A. 20
- ☐ B. 27
- ☐ C. 30
- ☐ D. 23

9) Write an expression for "the sum of half of a number q and 3".

- ☐ A. $\dfrac{q+3}{2}$
- ☐ B. $q + \dfrac{3}{2}$
- ☐ C. $\dfrac{q}{2+3}$
- ☐ D. $\dfrac{q}{2} + 3$

10) Evaluate $\frac{6+2p}{4}$ when $p = 5$.

- ☐ A. 2.5
- ☐ B. 3
- ☐ C. 4
- ☐ D. 5

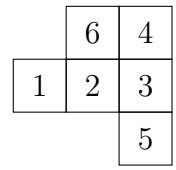
11) On a number line, what does a closed circle indicate?

- ☐ A. The value is excluded from the solution
- ☐ B. The inequality uses $>$ or $<$
- ☐ C. Only that single value is a solution
- ☐ D. The value is included in the solution

12) Which formula correctly finds the area of a triangle?

- ☐ A. $A = b + h$
- ☐ B. $A = 2bh$
- ☐ C. $A = \dfrac{1}{2}bh$
- ☐ D. $A = bh$

13) A cube net shows 6 unit squares. When folded, which pair of faces are opposite each other?

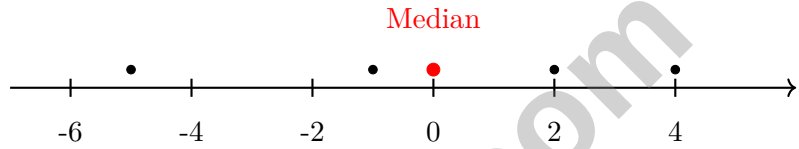


- ☐ A. 1 and 3
- ☐ B. 2 and 5
- ☐ C. 3 and 4
- ☐ D. 1 and 6

1) A worker divided 5,610 by 15 and got 374. Which statement correctly evaluates the worker's answer?

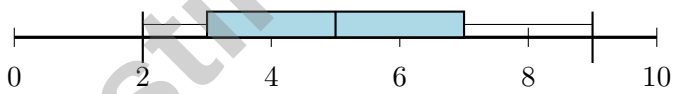
☐ A. The answer is correct; $15 \times 374 = 5{,}610$.
☐ B. The answer is wrong; the correct quotient is 374 remainder 0.
☐ C. The quotient should be 373 with remainder 15.
☐ D. The answer is wrong; the correct quotient is 375.

2) Order the values and find the median: $-5, 2, -1, 4, 0$.



☐ A. -5
☐ B. -1
☐ C. 0
☐ D. 2

3) Use the box plot below to find the median:



☐ A. 2
☐ B. 3
☐ C. 5
☐ D. 7

4) Two classes' quiz scores (out of 20) have median of 16 but different ranges: Class X range = 8, Class Y range = 12. Which had more consistent performance?

☐ A. Class X
☐ B. Class Y
☐ C. Both equally consistent
☐ D. Cannot determine

5) A stem-and-leaf plot of student test scores is given:

Stem	Leaf
6	5, 8
7	1, 3, 4, 6, 9
8	0, 2, 5, 7
9	1, 4, 8

What is the mode of the test scores?

☐ A. 70
☐ B. 74
☐ C. 80
☐ D. No single mode

6) A class collected data on rainfall (in inches) for each day of the week. Which display would BEST show if certain days had significantly more or less rain than others?

☐ A. Pie chart divided by day
☐ B. Line graph connecting consecutive days
☐ C. Dot plot of individual measurements
☐ D. Bar graph with one bar per day

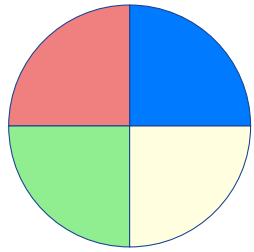
7) A river's water level was -2 feet (below normal). After heavy rain, it rose 5 feet. What is the new level relative to normal?

☐ A. -7 feet
☐ B. -3 feet
☐ C. 3 feet
☐ D. 7 feet

8) Evaluate: $15 - 3 \times 2 + 4$

☐ A. 8
☐ B. 9
☐ C. 13
☐ D. 16

1)



If a circle graph is divided into 4 equal sections, how many degrees is each central angle?

☐ A. 90°
☐ B. 72°
☐ C. 60°
☐ D. 120°

2) Evaluate: $(5+1)^2 \div 3 + 4$

☐ A. 8
☐ B. 16
☐ C. 20
☐ D. 36

3) Which expression matches "the product of 2 and the difference of a number r and 5"?

☐ A. $2r - 5$
☐ B. $(2 - r)(5)$
☐ C. $2 - r - 5$
☐ D. $2(r - 5)$

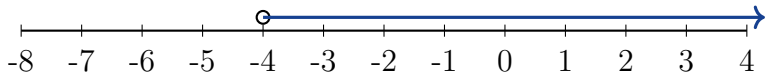
4) Evaluate $3(x - 2) + 4$ when $x = \frac{2}{3}$.

☐ A. 0
☐ B. 2
☐ C. 4
☐ D. 6

5) The speed limit on the highway is no more than 65 miles per hour. Which inequality represents the allowed speed s?

☐ A. $s > 65$
☐ B. $s \leq 65$
☐ C. $s \geq 65$
☐ D. $s = 65$

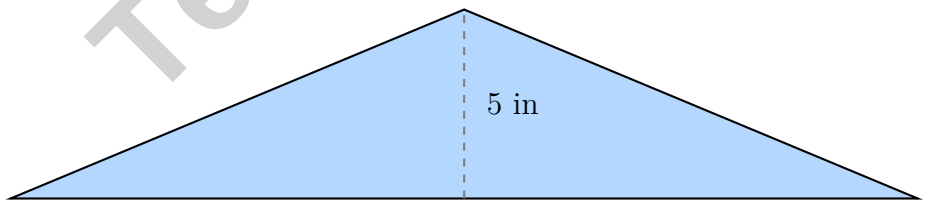
6) Which number line represents the inequality $x > -4$?



☐ A. Closed circle at -4, arrow right
☐ B. Closed circle at -4, arrow left
☐ C. Open circle at -4, arrow left
☐ D. Open circle at -4, arrow right

7) A factory produces 240 widgets in 8 hours. At this rate, how many widgets will it produce in 20 hours?

8) An isosceles triangle has a base of 24 inches and equal legs. A perpendicular from the apex to the base measures 5 inches. What is the area?



☐ A. 29 in^2
☐ B. 48 in^2
☐ C. 120 in^2
☐ D. 60 in^2

Alabama ACAP Practice Test Answer Keys

How to use this section with a Grade 6 student:

1. check the answer first
2. mark questions to try again
3. rework the problem before reading the full explanation

A calm correction routine turns every missed item into useful practice.

Practice Test Answers and Explanations

Practice Test 1 Answers and Explanations

1) **Choice B is correct.** 6.13 The cost per quantity is $14 \div 2 = 7$ per unit. For 9 units: $y = 9 \times 7 = 63$ dollars.
2) **Choice D is correct.** 6.21 Using points $(2, 3.5)$ and $(4, 7)$: slope $= \frac{7-3.5}{4-2} = \frac{3.5}{2} = 1.75$ miles per hour.
3) **Choice C is correct.** 6.26 Area = base × height $= 12 \times 5 = 60$ cm^2. The slanted side is irrelevant.
4) **Choice D is correct.** 6.18 Increase is $84 - 70 = 14$. Percent increase is $\frac{14}{70} = 0.20 = 20\%$.
5) **Choice A is correct.** 6.1 Speed $= \frac{\text{distance}}{\text{time}} = \frac{120 \text{ km}}{2 \text{ h}} = 60$ km/h. The line passes through the origin, confirming a proportional relationship.
6) **Choice A is correct.** 6.23 Miscellaneous: $100\% - 50\% - 30\% = 20\%$ of $\$200 = 0.20 \times 200 = \$40$.
7) **Choice B is correct.** 6.21 Ascending means the elevation increases: $-120 + 45 = -75$ feet.
8) **Choice D is correct.** 6.14 First, compute the exponent: $10^2 = 100$. Then divide: $100 \div 5 = 20$. Finally add: $20 + 3 = 23$.
9) **Choice D is correct.** 6.16 "Half of a number q" is $\frac{q}{2}$. "The sum of $\frac{q}{2}$ and 3" is $\frac{q}{2} + 3$.
10) **Choice C is correct.** 6.15 Substitute $p = 5$: $\frac{6+2(5)}{4} = \frac{6+10}{4} = \frac{16}{4} = 4$.
11) **Choice D is correct.** 6.13 A closed (filled) circle shows that the boundary value is included in the solution set, corresponding to $\leq$ or $\geq$ inequalities.
12) **Choice C is correct.** 6.26 The area formula for any triangle is $A = \frac{1}{2}bh$, where b is base and h is height.
13) **Choice B is correct.** 6.27 In this cross-pattern net, square 3 is at the center, with 2 to its left, 4 above, and 5 below. When folded, 2 and 5 (which are on opposite sides of 3 in the net) end up on opposite faces of the cube.
14) **The correct answer is** 18. 6.18 Add 4 to both sides: $x = 14 + 4 = 18$. The inverse of subtracting 4 is adding 4.
15) **Choice A is correct.** 6.25 Translate left: $3 - 2 = 1$. Translate up: $1 + 3 = 4$. So $N' = (1, 4)$.
16) **Choice A is correct.** 6.23 Without 200: sum $= 5 + 7 + 8 + 9 + 10 = 39$, mean $= 39/5 = 7.8$. Decrease: $39.83 - 7.8 = 32.03$. The outlier dramatically pulled the mean up.
17) **Choice B is correct.** 6.24 The data has a single peak in the center with equal frequencies decreasing on both sides, characteristic of a symmetric distribution.
18) **Choice C is correct.** 6.4 Outcomes: HH, HT, TH, TT. Total outcomes $= 2 \times 2 = 4$.
19) **The correct answer is** $0.45 = \frac{45}{100} = \frac{9}{20}$; $75\% = \frac{75}{100} = \frac{3}{4}$. 6.3 A is correct: $0.45 = \frac{9}{20}$ (both equal 45 out of 100). C is correct: $75\% = \frac{3}{4}$ (both equal 75 out of 100). B is wrong: $\frac{1}{2} = 50\%$, not 40%. D is wrong: $\frac{1}{5} = 20\%$, not 25%. E is wrong: $0.33 \approx 33\%$ but $\frac{1}{3} \approx 33.\overline{3}\%$ (not exact).
20) **Choice C is correct.** 6.4 40% of 250 is $0.40 \times 250 = 100$ students.
21) **Choice D is correct.** 6.2 First find the unit rate: $840 \div 7 = 120$ packages per hour. Then multiply by 10 hours: $120 \times 10 = 1200$ packages.
22) **Choice B is correct.** 6.14 Line A: $240 \div 4 = 60$ pages/min. Line B: $300 \div 6 = 50$ pages/min. Line A is faster at 60 pages per minute.
23) **Choice D is correct.** 6.3 Rows 1, 2, 3 all follow 1 : 3: $5 : 15 = 1 : 3$, $7 : 21 = 1 : 3$, $10 : 30 = 1 : 3$. Row 4: $12 : 37 \neq 1 : 3$ (would need 12 : 36). Row 4 is incorrect.
24) **Choice C is correct.** 6.11 The ratios are: $\frac{65}{1} = 65$, $\frac{75}{2} = 37.5$, $\frac{85}{3} \approx 28.3$. The ratios are different, so this is not a proportional relationship. The line does not pass through the origin $(0, 0)$, which is required for proportionality.
25) **Choice B is correct.** 6.9 Net income: $\$3000 - \$400 - \$150 - \$100 = \$2350$.
26) **The correct answer is** 0.75. 6.8 $3 \div 4 = 0.75$.
27) **The correct answer is** 24. 6.25 Side length = 6 units. Perimeter $= 4 \times 6 = 24$ units.
28) **Choice A is correct.** 6.6 Multiply both by 10: $54 \div 6 = 9$.

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