

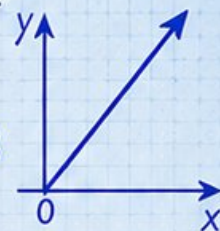
# 3 Alabama ACAP

GRADE  
**6**  
MATH

## PRACTICE TESTS

Standards Aligned Problem Solving  
For Comprehensive Assessment Programs

$$y = 2x + 3$$



$$\frac{3}{5} + \frac{2}{10} = \frac{8}{10} = \frac{4}{5}$$

$$36\% \text{ of } 150 = ?$$



**3** | PRINTED  
TESTS



**2** | ONLINE  
TESTS



Build  
Confidence



Master Key  
Math Skills



Answer Explanations  
for Every Question



Test-Taking  
Strategies That Work

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

# 3 Alabama ACAP Grade 6 Math Practice Tests

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



Three 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**



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# Welcome, Alabama Math Explorer!

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

This book gives you three 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 three-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?

Three ACAP tests, 120 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.
Test 3	Final stamina round for expressions, equations, geometry, data, problem models, and mixed review.
Answer Pages	Compact keys and explanations that show why each answer works.

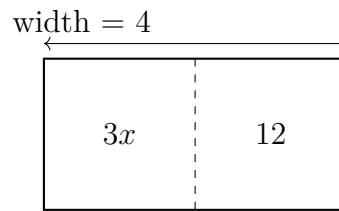
The tests are mixed on purpose. Steady southern problem solving means recognizing the skill even when the next question changes topic.



Scan me!  
For more practice  
& answers

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1)

The area model shows  $4(3x + 12)$  split into two rectangles. Which expression is equivalent?

- A.  $12x + 48$ 
 C.  $7x + 16$   
 B.  $3x + 12$ 
 D.  $12x + 12$

2) A recipe calls for 3.5 cups of flour. If you are making double the recipe, how much flour do you need?

- A. 1.75 cups
  C. 7 cups  
 B. 5.5 cups
  D. 7.5 cups

3) The table shows the cost of parking at a garage.

<b>Hours Parked</b>	1	2	3	4
<b>Cost (\$)</b>	5	10	15	20

Which statement is correct?

- A. Hours parked is the dependent variable
  C. The rate is \$5 per hour  
 B. Cost is the independent variable
  D. The equation is  $h = 5c$



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- 4) A smoothie recipe uses strawberries and bananas in a 5 : 3 ratio. If the recipe calls for 15 strawberries, how many bananas should be added?

- 5) A printer produces pages at a constant rate. The graph passes through (4, 240) and the origin. What is the value of pages when minutes = 1?

- A. 40 pages per minute                       C. 60 pages per minute  
 B. 50 pages per minute                       D. 80 pages per minute

- 6) On a test, Maria answered 27 out of 30 questions correctly. What percent is this (to the nearest whole percent)?

- A. 85%     C. 95%  
 B. 90%     D. 100%

- 7) A recipe calls for \$12 worth of ingredients. The ingredients are on sale for 25% off. How much will the ingredients cost?

- A. \$3     C. \$9  
 B. \$6     D. \$12

- 8) A recipe for 4 servings uses 2 cups of rice. How much rice is needed for 10 servings?

- A. 4 cups     C. 5 cups  
 B. 4.5 cups     D. 6 cups



9) A road is 5 kilometers long. How many meters long is the road? (Use 1 kilometer = 1000 meters.)

- A. 500 meters                       C. 50,000 meters  
 B. 5000 meters                       D. 5 meters

10) A bank account starts with \$1000 and earns 5% simple interest per year. After how many years will the account have earned \$250 in interest?

- A. 3 years                                   C. 6 years  
 B. 4 years                                   D. 5 years

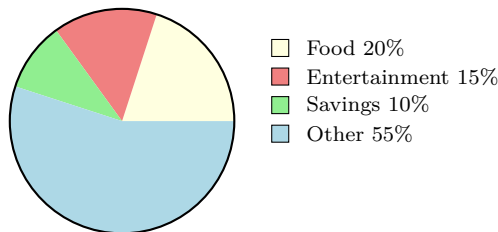
11) A table shows the relationship between the number of items purchased and the total cost.

<b>Items</b>	2	4	6	8
<b>Cost (\$)</b>	10	20	30	40

What is the constant of proportionality?

- A.  $\frac{10}{2} = 5$                                    C.  $\frac{4}{20} = 0.2$   
 B.  $\frac{2}{10} = 0.2$                                    D.  $\frac{30}{8} = 3.75$

12) Tyrone earns \$80 per week. His budget allocates 20% for food, 15% for entertainment, and 10% for savings. How much does he spend on food?

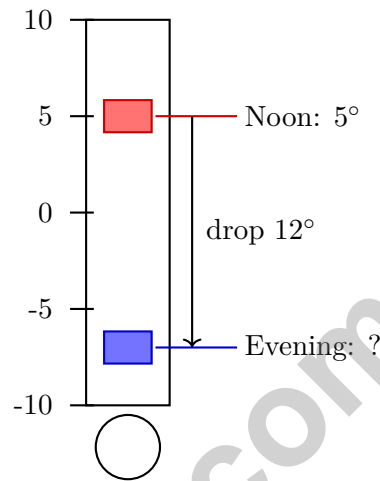


- A. \$16     C. \$8  
 B. \$12     D. \$20



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& answers

- 1) The temperature at noon was  $5^{\circ}\text{C}$ . By evening, it dropped  $12^{\circ}\text{C}$ . Use the thermometer to find the evening temperature.



- A.  $7^{\circ}\text{C}$ 
 C.  $17^{\circ}\text{C}$   
 B.  $-17^{\circ}\text{C}$ 
 D.  $-7^{\circ}\text{C}$
- 2) A circle has a diameter of 20 cm. What is its approximate area using  $\pi \approx 3.14$ ?
- A.  $62.8 \text{ cm}^2$ 
 C.  $314 \text{ cm}^2$   
 B.  $125.6 \text{ cm}^2$ 
 D.  $1256 \text{ cm}^2$
- 3) A student rewrites a non-statistical question to make it statistical. Which is the BEST rewrite?

Original: "How old is my teacher?"

- A. How old are the teachers at our school?  
 B. In what year was my teacher born?  
 C. How many teachers are there?  
 D. What is the average age of all teachers in the United States?



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& answers



1) For the data set 3, 7, 4, 9, 2, 8, 5, arrange in order: 2, 3, 4, 5, 7, 8, 9. The median is 5 and the upper quartile is 8. What is the lower quartile?

A. 2

C. 4

B. 5

D. 3

2) On a number line from 0 to 3 divided into tenths, point P is at 1.4 and point Q is at 2.8. What is the distance between points P and Q?

3) The point (4, 2) is reflected across the  $y$ -axis. What is the new  $x$ -coordinate?

4) A chocolate box has length 5 in, width 3 in, and height  $\frac{1}{2}$  in. What is its volume?

A.  $4.5 \text{ in}^3$

C.  $15 \text{ in}^3$

B.  $7.5 \text{ in}^3$

D.  $30 \text{ in}^3$

5) A rectangle has vertices at (3, 2), (8, 2), (8, 6), and (3, 6). If a point is at (8, 2), which vertex is diagonally opposite?

A. (3, 6)

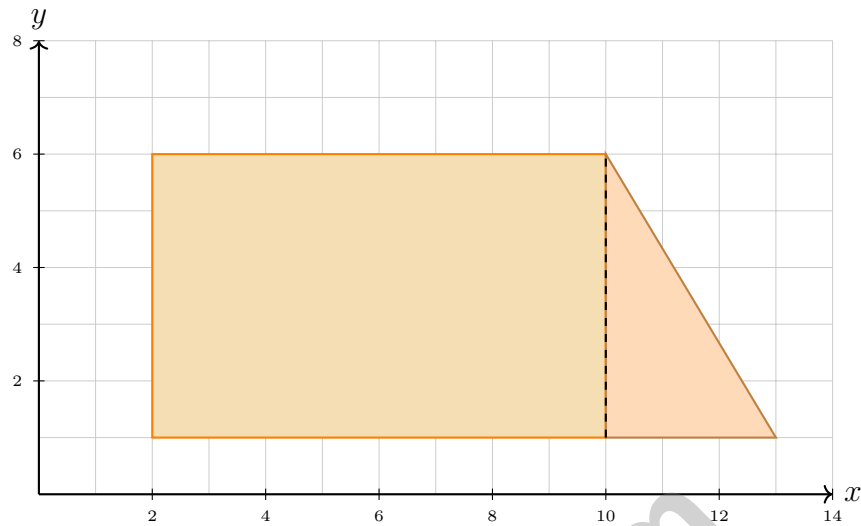
C. (8, 6)

B. (3, 2)

D. (8, 2)



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6)

A composite figure consists of a rectangle and a triangle. The rectangle has corners at  $(2, 1)$ ,  $(10, 1)$ ,  $(10, 6)$ , and  $(2, 6)$ . The triangle has vertices at  $(10, 1)$ ,  $(13, 1)$ , and  $(10, 6)$ . What is the total area?

- A. 52 square units       C. 62 square units  
 B. 68 square units       D. 47.5 square units

7) In the net of a triangular prism, how many rectangles are there?

- A. 1       C. 3  
 B. 2       D. 6



**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 three printed ACAP tests with patient, steady, and ready for the next challenge habits.

### Practice Test 1 Answers and Explanations

- 1) **Choice A is correct.** (6.16) Area model: left rectangle is  $4 \times 3x = 12x$ ; right rectangle is  $4 \times 12 = 48$ . Total:  $12x + 48$ .
- 2) **Choice C is correct.** (6.6) Double means multiply by 2:  $3.5 \times 2 = 7$  cups.
- 3) **Choice C is correct.** (6.21) Hours parked (independent) determines cost (dependent). Cost increases by \$5 for each additional hour. The equation is  $c = 5h$ .
- 4) **The correct answer is 9.** (6.1) Strawberries are the 5-part amount. Since  $15 \div 5 = 3$ , each part is 3, and bananas are 3 parts:  $3 \times 3 = 9$ .
- 5) **Choice C is correct.** (6.11) The unit rate is  $\frac{240 \text{ pages}}{4 \text{ minutes}} = 60$  pages per minute. When the x-value is 1 minute, the y-value is 60 pages.
- 6) **Choice B is correct.** (6.3)  $\frac{27}{30} = 0.9 = 90\%$ .
- 7) **Choice C is correct.** (6.18) 25% of \$12 =  $0.25 \times 12 = \$3$ . New cost is  $\$12 - \$3 = \$9$ .
- 8) **Choice C is correct.** (6.3) Unit rate:  $2 \div 4 = 0.5$  cups per serving. For 10 servings:  $0.5 \times 10 = 5$  cups.
- 9) **Choice B is correct.** (6.3) Multiply:  $5 \times 1000 = 5000$  meters.
- 10) **Choice D is correct.** (6.9) Using  $I = P \times r \times t$ :  $\$250 = \$1000 \times 0.05 \times t \Rightarrow \$250 = \$50 \times t \Rightarrow t = 5$  years.
- 11) **Choice A is correct.** (6.1) The constant of proportionality is  $k = \frac{\text{cost}}{\text{items}} = \frac{10}{2} = \frac{20}{4} = \frac{30}{6} = \frac{40}{8} = 5$ . The cost is \$5 per item.
- 12) **Choice A is correct.** (6.23) Food budget is 20% of \$80:  $0.20 \times 80 = \$16$ .
- 13) **Choice A is correct.** (6.1) Drawing 1:  $5 \times 2 = 10$  m and  $4 \times 2 = 8$  m. Drawing 2:  $10 \times 1 = 10$  m and  $8 \times 1 = 8$  m. Same field.
- 14) **Choice B is correct.** (6.4) You are counting how many  $\frac{1}{4}$ -cup servings fit inside 2 cups—that's a division problem:  $2 \div \frac{1}{4}$ . Rewrite as  $2 \times 4$ , which equals 8 servings.
- 15) **Choice A is correct.** (6.5)  $5,625 \div 45 = 125$ . Verify:  $45 \times 125 = 5,625$ .
- 16) **Choice C is correct.** (6.8) Factors of 28: 1, 2, 4, 7, 14, 28. Factors of 42: 1, 2, 3, 6, 7, 14, 21, 42. Common factors: 1, 2, 7, 14. GCF is 14.
- 17) **Choice A is correct.** (6.7) Distributive property:  $12(1 + 4) = 12 \cdot 1 + 12 \cdot 4 = 12 + 48 = 60$ . Choice A shows the expanded form.
- 18) **The correct answer is Girls to boys is 10 : 15 = 2 : 3 (Choice A is correct). Boys to total is 15 : 25 = 3 : 5 (Choice B is correct).** (6.21) Choice A is correct because girls to boys is 10 : 15, which simplifies to 2 : 3. Choice B is correct because boys to total is 15 : 25, which simplifies to 3 : 5. The other choices either flip the order, swap which group is named first, or use the wrong total (10 girls out of 25 students is 2 : 5, not 1 : 3).
- 19) **Choice C is correct.** (6.9) Ordering from least to greatest:  $-8 < -3 < 0$ . Choice C is the only set in correct order.
- 20) **Choice D is correct.** (6.13) A:  $|-6| = 6$ . B: opposite of  $-6$  is 6. C:  $|6| = 6$ . D: opposite of 6 is  $-6$ . Options A, B, C all equal 6; D equals  $-6$ .
- 21) **The correct answer is 40 miles per hour.** (6.2) Divide distance by time:  $360 \div 9 = 40$  miles per hour.
- 22) **The correct answer is 30 mph.** (6.14)  $45 \div \frac{3}{2} = 45 \times \frac{2}{3} = 30$  miles per hour.
- 23) **Choice D is correct.** (6.10) Point Q is located at the half-tick between  $-2$  and  $-1$ , which is  $-1\frac{1}{2}$ .
- 24) **Choice A is correct.** (6.25) Reflecting across the  $y$ -axis flips the  $x$ -coordinate to its opposite, giving  $(-a, b)$ .
- 25) **Choice D is correct.** (6.13) From greatest to least: positive values first ( $1.2 > 0.5$ ), then zero, then negative values ( $-1.2 > -1.5$ ).
- 26) **Choice B is correct.** (6.25) The bottom side goes from  $(0, 0)$  to  $(4, 0)$ :  $|4 - 0| = 4$  units.



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## Author's Note

### From a Friend Who Believes in You

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#### Hi, Friend!

◇ I just want to say something important: I am proud of you. You did 3 full practice tests. That takes time, hard work, and heart. ◇

★ **Friendly truth:** a test is just one part of your math journey. You are SO much more than a score. The work you did is the real win! ★

#### What I Want You to Know

- **You are smart.** Every test you finished proves it.
- **You are brave.** You tried hard problems.
- **You are growing.** Mistakes taught you new things.
- **You are ready.** The skills are inside you.

**One more thing:** on test day, take a deep breath. Smile. Remember that someone (me!) believes in you. You can do this!

If you want to share something or ask a question, please email me at [jay@testinar.com](mailto:jay@testinar.com).

**Jay Daie**

Your Math Friend

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# PRACTICE TODAY. SUCCEED TOMORROW!

This book includes 3 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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- 3 Full-Length Printed Tests
  - 2 Online Practice Tests
-  Detailed Answer Explanations

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- ✓ Data Analysis
- ✓ Measurement & Conversions
- ✓ And More!



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