

# 9

# Alabama

## ACAP

# GRADE 5 MATHEMATICS PRACTICE TESTS

Full-Length Standards-Aligned Practice  
for Strong Math Performance

$$A = l \times w$$

$$x^2 + 3x - 4 = 0$$

$$y = 2x + 1$$



**9**  
FULL-LENGTH  
PRACTICE  
TESTS

$$2,345 \times 6 = 14,070$$



$$\frac{3}{4} + \frac{1}{8} = \frac{7}{8}$$

$$7.2 \div 0.8 = 9$$



$$(12 + 8) \div 4 = 5$$



Build Confidence



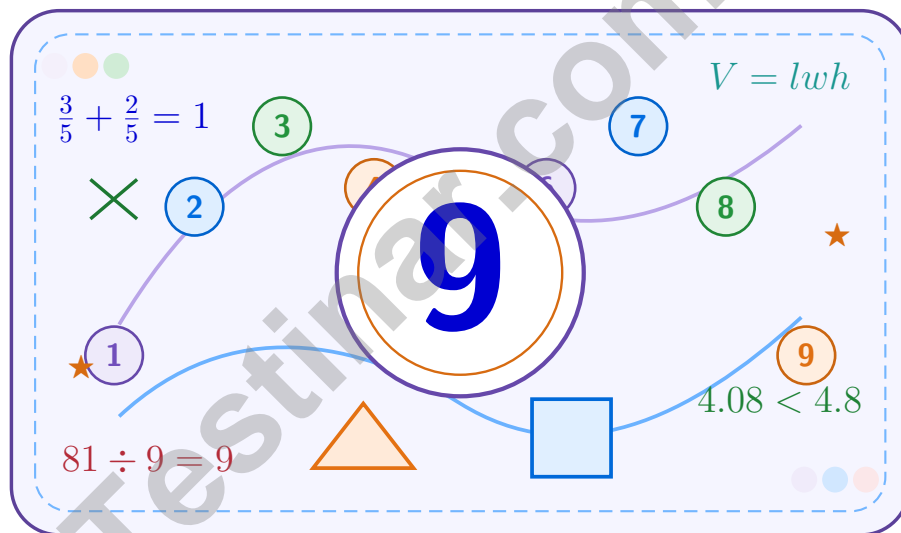
Improve Math Skills



Achieve Success

# 9 Alabama ACAP Grade 5 Math Practice Tests

*A nine-step confidence climb with clear review, smart strategy, and practice that gets stronger every round*



**Nine full tests, focused skill boosters, and student-friendly support from start to finish for Grade 5 mathematicians who want to climb higher.**

**Jay Daie and Reza Nazari**



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# Welcome to the Confidence Climb

This book is here to help you practice with purpose and rise step by step

## To the Grade 5 Mathematician

This practice book is a place to think, try, fix, and grow. You do not have to be perfect on the first question or the first test. What matters most is careful effort, clear work, and learning from each round of practice.

Use these nine tests like stepping-stones. Take one test at a time, check your answers honestly, and notice which skills need more attention. Small improvements add up fast.

### Try

Give each problem your best thinking.

### Check

Study mistakes and learn what happened.

### Rise

Bring that lesson into the next round.

**A strong habit for every page:** read carefully, estimate when it helps, show your steps, and keep going even when a question feels tricky. That is how steady math confidence is built.

# How to Use This Book

A simple practice routine that turns nine tests into steady growth

## A Nine-Session Climb Map

Session	Mission Focus
1	Take Test 1; review place value and operation slips.
2	Take Test 2; keep work neat and easy to read.
3	Take Test 3; give extra time to fractions and decimals.
4	Take Test 4; slow down on word problems and units.
5	Take Test 5; compare scores and habits with earlier rounds.
6	Take Test 6; notice which habits are now automatic.
7	Take Test 7; explain open-ended answers clearly.
8	Take Test 8; review topics that still need attention.
9	Take Test 9; finish with calm, careful, confident work.

### Step 1: Warm Up

**Start with the quick review.**  
Spend a few minutes refreshing the ideas before you start a test.

### Step 2: Take the Test

**Take one full practice test.**  
Work in a quiet space and let accuracy matter more than speed.

### Step 3: Study the Pattern

**Check your work honestly.**  
Circle missed questions and notice patterns in the mistakes.

### Step 4: Learn, Then Retry

**Read the explanation and try again.**  
Learning happens after the test too. Fixing mistakes is one of the smartest parts of practice.



Scan me

# Test Overview

## What this practice book helps students do

These practice tests are designed to help Grade 5 students get comfortable with the kind of thinking used on the Alabama ACAP. The goal is bigger than only getting answers right. Students are practicing how to read closely, choose a strategy, solve carefully, and explain their work when needed.

### Selected-Response Questions

Students solve the problem and choose the best answer. Estimating first and crossing out weak choices can save time and points.

### Constructed-Response Questions

Students show their thinking, steps, models, or explanations. Even when unsure, writing what they know can help organize the problem.

### Grade 5 Skills You Will Practice Often

- place value, comparing numbers, and rounding
- multi-digit addition, subtraction, multiplication, and division
- fractions, decimals, and mixed numbers
- perimeter, area, volume, and measurement conversions
- coordinate points, patterns, graphs, and tables
- geometry and multi-step word problems

**What strong work looks like:** the answer is correct, the steps are clear, the labels or units are included, and the final result makes sense.



# Table of Contents

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## Grade 5 Mathematics Reference Materials

### PERIMETER AND AREA

Perimeter of Rectangle  $P = 2l + 2w$  or  $P = 2(l + w)$

Area of Rectangle  $A = l \times w$

Area of Triangle  $A = \frac{1}{2} \times b \times h$

Volume of Rectangular Prism  $V = l \times w \times h$

### LENGTH

#### Customary

1 foot (ft) = 12 inches (in.)

1 yard (yd) = 3 feet (ft)

1 yard (yd) = 36 inches (in.)

#### Metric

1 meter (m) = 100 centimeters (cm)

1 centimeter (cm) = 10 millimeters (mm)

1 kilometer (km) = 1,000 meters (m)

### CAPACITY

#### Customary

1 cup (c) = 8 fluid ounces (fl oz)

1 pint (pt) = 2 cups (c)

1 quart (qt) = 2 pints (pt)

1 gallon (gal) = 4 quarts (qt)

#### Metric

1 liter (L) = 1,000 milliliters (mL)

### WEIGHT AND MASS

#### Customary

1 pound (lb) = 16 ounces (oz)

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### TIME

1 minute (min) = 60 seconds (sec)    1 week = 7 days

1 hour (hr) = 60 minutes (min)    1 year = 12 months

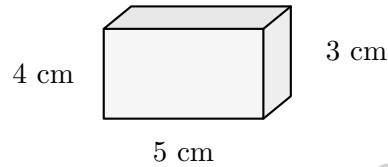
1 day = 24 hours (hr)    1 year = 52 weeks



1) Rule: the output is 3 times the input. For input 4, what is the ordered pair?

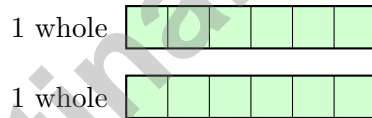
- A. (4, 8)                       C. (4, 12)  
 B. (4, 16)                     D. (4, 4)

2) A rectangular prism has a length of 5 cm, width of 4 cm, and height of 3 cm. What is the volume?



- A.  $12 \text{ cm}^3$                        C.  $48 \text{ cm}^3$   
 B.  $30 \text{ cm}^3$                      D.  $60 \text{ cm}^3$

3) The model shows 2 wholes, with each whole cut into pieces of size  $\frac{1}{6}$ . How many pieces of size  $\frac{1}{6}$  are there in all?



2 wholes, each cut into pieces of size  $\frac{1}{6}$

- A. 12                               C. 6  
 B. 8                               D. 2

4) Section A is  $4\frac{2}{3}$  m, Section B is  $3\frac{1}{3}$  m. Total?

- A. 7 m                               C. 8 m  
 B.  $7\frac{1}{3}$  m                           D.  $8\frac{1}{3}$  m



- 5) Pattern: odd numbers 1, 3, 5, 7, ... What is the 20th odd number?
- A. 37                                       C. 40  
 B. 39                                       D. 41
- 6) "Multiply 8 by the difference of 14 and 5." Which expression is this?
- A.  $8 \times 14 - 5$                                        C.  $8 \times (14 - 5)$   
 B.  $(8 - 14) \times 5$                                        D.  $14 \times 5 - 8$
- 7) Compare:  $65 \times 10^2$  vs.  $650 \times 10$ . Which is greater?
- A.  $65 \times 10^2$  is greater                                       C. They are equal  
 B.  $650 \times 10$  is greater                                       D. Cannot be determined
- 8) Two students solve  $2.7 \times 100$ . Student X says 27. Student Y says 270. Who is correct?
- A. Student X                                       C. Both  
 B. Student Y                                       D. Neither
- 9) How many zeros are in the product of  $50 \times 80$ ?
- A. 2     C. 4  
 B. 5     D. 3
- 10) Estimate:  $6.8 \times 4.9$ . Which is the best estimate?
- A. 20     C. 30  
 B. 25     D. 35



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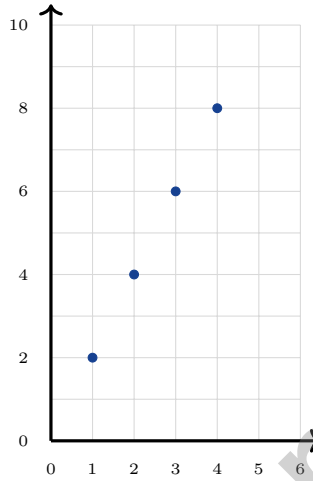
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1) Which statement is true about the pattern (1, 2), (2, 4), (3, 6), (4, 8)?



- A. The  $y$ -value is always half the  $x$ -value.
- B. The  $y$ -value increases by 1 each time.
- C. The  $x$ -value is always greater than the  $y$ -value.
- D. The  $y$ -value is always twice the  $x$ -value.

2) An order of office supplies includes pens at \$2.25 per dozen and pencils at \$1.75 per dozen. If you order 4 dozen pens and 3 dozen pencils, what is the total cost?

Item	Price per Dozen	Quantity
Pens	\$2.25	4 dozen
Pencils	\$1.75	3 dozen
<b>Total</b>		?

- A. \$14.25
- B. \$13.50
- C. \$15.00
- D. \$16.00



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1)

$40 \times 10$ $= 400$	$3 \times 10$ $= 30$
$40 \times 10$ $= 400$	$3 \times 10$ $= 30$

This area model shows the partial products for  $43 \times 20$ . What is the total?

- A. 820                       C. 880  
 B. 860                       D. 900

2) A rectangular prism is built from unit cubes. It is 4 cubes long, 3 wide, and 2 tall. How many cubes total?

*Record your answer in the space provided.*

3) A craft project uses  $\frac{1}{4}$  meter of ribbon. The ribbon is cut into 3 equal pieces. How long is each piece?

- A.  $\frac{1}{12}$  meter                       C.  $\frac{1}{1}$  meter  
 B.  $\frac{3}{4}$  meter                         D.  $\frac{1}{7}$  meter

4) A triangle has sides of length 5 cm, 5 cm, and 7 cm. What type of triangle is this based on its sides?

- A. Equilateral triangle                       C. Scalene triangle  
 B. Isosceles triangle                         D. Right triangle



## Practice Test Answer Keys

### How to use this section:

1. check your answer
2. circle missed questions
3. rework them before reading the explanation

**Good correction habits build strong Alabama scores.**

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## Practice Test Answers and Explanations

### Practice Test 1 Answers and Explanations

- 1) **Choice C is correct.** (5.20) The rule says to multiply the input by 3. For input 4,  $3 \times 4 = 12$ , so the ordered pair is (4, 12).
- 2) **Choice D is correct.** (5.20) Volume = length  $\times$  width  $\times$  height =  $5 \times 4 \times 3 = 60 \text{ cm}^3$ .
- 3) **Choice A is correct.** (5.14) Each whole contains 6 pieces of size  $\frac{1}{6}$ . With 2 wholes, there are  $2 \times 6 = 12$  pieces.
- 4) **Choice C is correct.** (5.10) Add:  $4\frac{2}{3} + 3\frac{1}{3} = 8$ .
- 5) **Choice B is correct.** (5.10) Odd numbers increase by 2 each time. The 10th odd number is 19, so the 20th odd number is 20 more: 39.
- 6) **Choice C is correct.** (5.2) Difference:  $(14 - 5) = 9$ ; multiply by 8:  $8 \times 9 = 72$ .
- 7) **Choice C is correct.** (5.12)  $65 \times 10^2 = 65 \times 100 = 6500$  and  $650 \times 10 = 6500$ . Both equal 6500.
- 8) **Choice B is correct.** (5.3)  $2.7 \times 100 = 270$  (move decimal 2 places right). Student Y is correct.
- 9) **Choice D is correct.** (5.3) The nonzero parts give  $5 \times 8 = 40$ , which already ends in one zero. Then the two factor zeros make 4,000, so the product has 3 zeros.
- 10) **Choice D is correct.** (5.3) Round  $6.8 \approx 7$  and  $4.9 \approx 5$ . Then  $7 \times 5 = 35$ .
- 11) **Choice B is correct.** (5.8) The base area is  $20 \times 4 = 80$  square centimeters. Since  $400 \div 80 = 5$ , the height is 5 cm.
- 12) **The correct answer is 48.** (5.18) There are 8 cubes in each row and 3 rows per layer, so each layer has 24 cubes. Two layers make  $24 \times 2 = 48$  cubes.
- 13) **Choice C is correct.** (5.18) In 2.907, the digit 7 is in the third place after the decimal point, making it the thousandths place.
- 14) **The correct answer is 96.** (5.3) Inside brackets:  $15 - 7 = 8$  and  $4 \times 2 = 8$ , so  $8 + 8 = 16$ . Then  $6 \times 16 = 96$ .
- 15) **Choice C is correct.** (5.1) The decimal 0.09 has a 0 in the tenths place and a 9 in the hundredths place, so it reads as "nine hundredths".
- 16) **Choice D is correct.** (5.4) 0.51 is only 0.01 away from 0.5, closer than the others.
- 17) **Choice A is correct.** (5.12)  $\frac{1}{5} \div 3 = \frac{1}{5} \times \frac{1}{3} = \frac{1}{15}$ .
- 18) **Choice A is correct.** (5.9) Equivalent fractions are made by multiplying or dividing the numerator and denominator by the same nonzero number.  $\frac{3 \div 3}{6 \div 3} = \frac{1}{2}$ .
- 19) **Choice C is correct.** (5.14) A sixth-box kit means 6 kits per full box.  $15 \div \frac{1}{6} = 15 \times 6 = 90$  kits.
- 20) **The correct answer is  $\frac{1}{6} \div 3 = n$ .** (5.14) The one-sixth piece is shared among 3 children, so divide by 3. Accept equivalent division equations; the final value  $\frac{1}{18}$  may be included if the equation is shown.
- 21) **Choices A, B are correct.** (5.14) A is true because 3 copies of (6 + 4) can be written as 2 copies plus 1 more copy. B is true because 10 groups of 7 are greater than 10 groups of 7 - 1. C adds an extra 9, and D leaves out one group of 5.
- 22) **Choice A is correct.** (5.18) Area =  $\frac{3}{4} \times \frac{2}{5} = \frac{6}{20}$  square meters, and  $\frac{6}{20} = \frac{3}{10}$  square meters.
- 23) **Choice B is correct.** (5.5) The hundredths place is 7. The thousandths place is 8. Since  $8 \geq 5$ , round up from 7 to 8. So 5.678 rounds to 5.68.
- 24) **The correct answer is 18.** (5.5) Multiples of 6: 6, 12, 18, ... Multiples of 9: 9, 18, ... LCD is 18.
- 25) **Choice B is correct.** (5.9) Total sheets divided by sheets per student:  $3,600 \div 100 = 36$  students.
- 26) **Choice B is correct.** (5.3) When you multiply by a fraction less than 1, the result is smaller. Since  $\frac{2}{3} < 1$ , we have  $8 \times \frac{2}{3} < 8$ . Therefore, 8 is larger.
- 27) **Choice D is correct.** (5.13) A square has four right angles, so it is a rectangle. It also has four equal sides, so it is a rhombus. Therefore, it belongs in the overlap of Rectangle and Rhombus.
- 28) **Choice B is correct.** (5.3) Multiplying by 100 moves the decimal two places right. Starting at 6.73, that gives 673.
- 29) **Choice A is correct.** (5.12)  $\frac{3}{4} \times \frac{4}{5} = \frac{12}{20} = \frac{3}{5}$  acre.
- 30) **Choice A is correct.** (5.12) Student A correctly applies the distributive property:  $14 \times 16 = 14 \times (10 + 6) = 140 + 84 = 224$ . Student B made an error; the correct product is 224, not 124.



**Dear Math Champion,**

◇ Look at what you did. 9 full practice tests. Hundreds of math problems. Every one of them strengthened your mind. You walked into this prep series as a learner, and you are walking out as a math athlete who knows how to compete. ◇

★ **What champions know:** talent is helpful, but training is everything. You trained. You showed up. You did the work. That is why your skills are sharp today. ★

**Champion's Skill Card**

- **Focus:** MAXED OUT! You can lock onto a problem and stay there.
- **Speed:** CALIBRATED! You move quickly without rushing.
- **Accuracy:** HIGH! You catch your own mistakes.
- **Mindset:** CHAMPION-LEVEL! You believe in your skills.

**Final champion tip:** on test day, walk in like you have trained for it—because you have. Sit down. Breathe. Read carefully. Work steadily. Check confidently. You will be amazed at how prepared you actually are.

If you want to share a proud moment or ask a question, please email me at [jay@testinar.com](mailto:jay@testinar.com). I'd love to hear from you!

**Jay Daie**

Your Math Coaches (Champion-in-Training)

# PRACTICE MORE. ACHIEVE MORE.

Give your child the edge they need to excel in **Grade 5 Math!** This book includes **9 full-length** practice tests designed to build confidence, sharpen skills, and improve test performance.

# 9

**FULL-LENGTH  
PRACTICE  
TESTS**

- ✓ Realistic.
- ✓ Rigorous.
- ✓ Results-Driven.

More practice today for a **stronger** tomorrow.



## THIS BOOK HELPS YOUR CHILD:



### Build Confidence

Familiar, focused practice reduces anxiety and boosts self-belief.



### Strengthen Skills

Reinforces key math concepts through high-quality, standards-aligned questions.



### Improve Test Readiness

Full-length tests help students understand test format, pacing, and question types.



### Track Progress

Identify strengths and target areas with purposeful practice.



### Achieve Success

Better preparation leads to higher scores and bright futures.

## COVERS ALL ESSENTIAL TOPICS

- ✓ Whole Numbers & Operations
- ✓ Fractions & Decimals
- ✓ Algebraic Thinking
- ✓ Geometry
- ✓ Measurement & Data
- ✓ Graphing & Data Analysis
- ✓ Number Patterns
- ✓ Word Problems
- ✓ Ratio & Proportion
- ✓ Perimeter, Area & Volume
- ✓ And More!



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