

# 8

# Arkansas

# ATLAS

## GRADE 6

# MATH

# PRACTICE TESTS

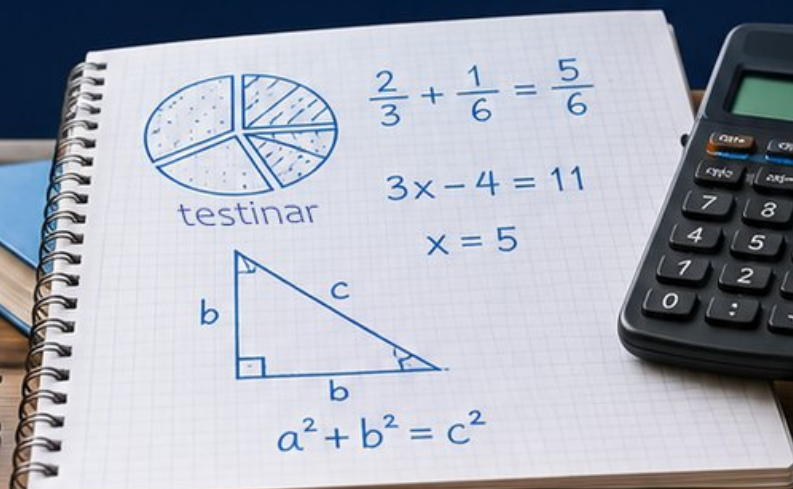
8  
PRINTED  
TESTS

+

2  
ONLINE  
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 Arkansas ATLAS Grade 6 Math Practice Tests

*Standards-Aligned River-Valley Review Habits for Arkansas Teaching & Learning Assessment System*



Eight complete 40-question Grade 6 practice rounds for ATLAS, built for river-valley review habits 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, Arkansas Math Explorer!

Eight focused rounds using river-valley review habits

This book gives you eight full Grade 6 practice tests for ATLAS. Each round uses Ozark paths, river bends, and careful number choices as a fresh mental backdrop while you read closely, choose a smart strategy, show your work, and check whether your answer makes sense.

## Your Arkansas Practice Promise

Slow the question down, organize the facts, and let each step explain the next one.

Read

Plan

Check

## How to Use This Book

A eight-session routine for river-valley review habits

1. **Preview the skills.** Scan the quick review pages before beginning the first round.
2. **Work in order.** Take one 40-question test at a time in a quiet place.
3. **Mark confidence.** Put a small star beside problems where your plan felt strong.
4. **Correct actively.** Retry missed items before reading the full explanation.
5. **Plan the next round.** Use the growth log to choose one habit and one skill to practice.

**Arkansas review rhythm:** Take a test, mark what felt strong, and use corrections as the bridge to the next round.



## What Is Inside?

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

Part	What You Will Practice
Tests 1–3	Foundation 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.

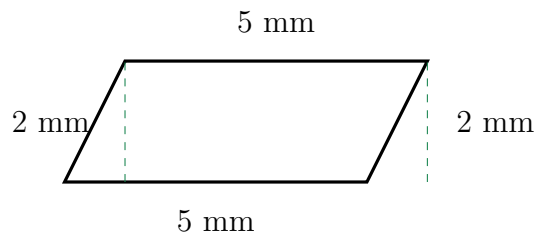
The tests are mixed on purpose. River-valley review habits means recognizing the skill even when the next question changes topic, changes format, or asks for an explanation.



Scan me!  
For more practice  
& answers

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1)

Find the area of the parallelogram shown above.

A.  $4 \text{ mm}^2$

C.  $10 \text{ mm}^2$

B.  $7 \text{ mm}^2$

D.  $14 \text{ mm}^2$

2) The distance  $d$  (in miles) traveled by a cyclist is related to time  $t$  (in hours) by the equation  $d = 20t$ . What does the number 20 represent in this context?

A. The cyclist's speed in miles per hour

C. The time in hours

B. The distance traveled

D. The total hours of cycling

3) Which point is on the negative  $y$ -axis?

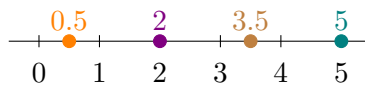
A.  $(0, -7)$

C.  $(7, 0)$

B.  $(-7, 0)$

D.  $(0, 7)$

4)



All shown numbers are in order. Which could be added between 2 and 3.5?

A. 1.5

C. 5.5

B. 3

D. 0.25



5) Compute:  $\frac{-36}{-6}$

A. 6

B. -6

C. -30

D. 30

6) Evaluate:  $(2 + 3)^2 - 5$

A. 10

B. 20

C. 25

D. 30

7) Which pair are unlike terms?

A.  $6x$  and  $2x$

B.  $7y$  and  $-3y$

C.  $4a$  and  $4b$

D.  $5n$  and  $n$

8) The area of a triangle is  $A = \frac{1}{2}bh$ . Find  $A$  when  $b = 6$  and  $h = 8$ .

A. 14

B. 96

C. 48

D. 24

9) Which expression is equivalent to  $4(3x + 2)$ ?

A.  $12x + 2$

B.  $7x + 6$

C.  $3x + 8$

D.  $12x + 8$

10) Which inequality correctly describes “no more than 12”?

A.  $x > 12$

B.  $x < 12$

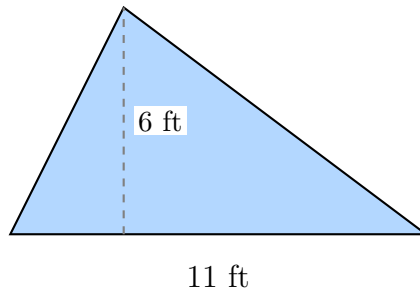
C.  $x \leq 12$

D.  $x \geq 12$

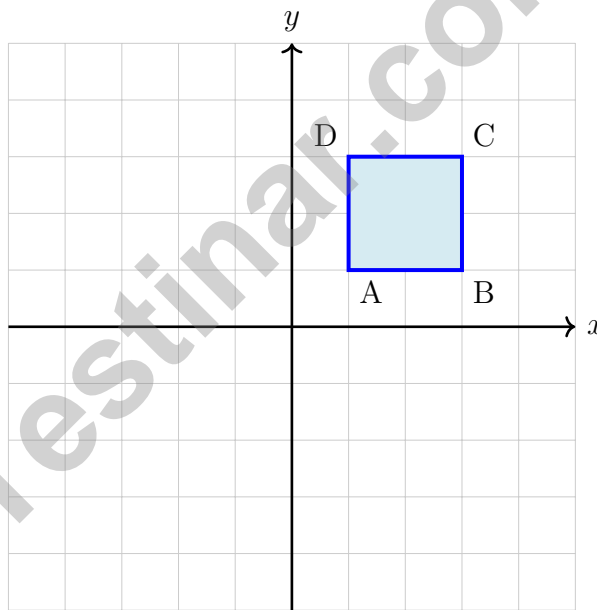


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For more practice  
& answers

- 11) A landscape architect designs a triangular garden bed. The base measures 11 feet and the height is 6 feet. What is the area available for planting?



- A.  $17 \text{ ft}^2$ 
 C.  $66 \text{ ft}^2$   
 B.  $33 \text{ ft}^2$ 
 D.  $132 \text{ ft}^2$



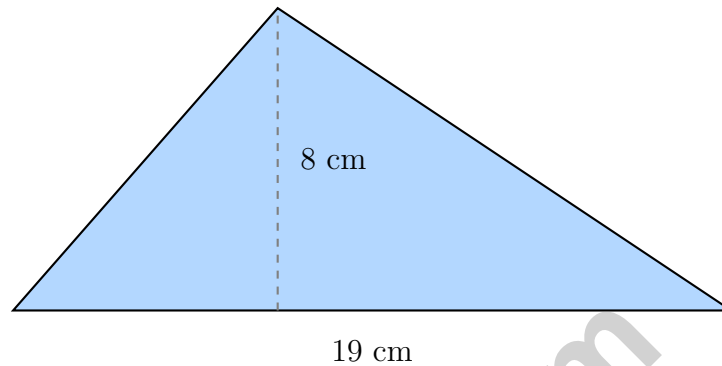
- 12)

A square  $ABCD$  has vertices at  $(1, 1)$ ,  $(3, 1)$ ,  $(3, 3)$ , and  $(1, 3)$ . If the square is translated 2 units left, which will be the image of vertex  $C$ ?

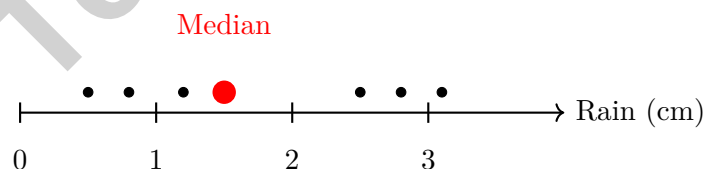
- A.  $(1, 3)$ 
 C.  $(1, 1)$   
 B.  $(3, 3)$ 
 D.  $(3, 1)$



- 1) An acute triangle has a base of 19 centimeters and a height of 8 centimeters. What is its area?



- A.  $27 \text{ cm}^2$                        C.  $76 \text{ cm}^2$   
 B.  $38 \text{ cm}^2$                        D.  $152 \text{ cm}^2$
- 2) What is the relationship between the circumference and the radius of a circle?
- A.  $C = \pi r$                        C.  $C = \pi r^2$   
 B.  $C = 2\pi r$                        D.  $C = r^2$
- 3) A dot plot shows rainfall (cm) for 7 days: 0.5, 0.8, 1.2, 1.5, 2.5, 2.8, 3.1. Which represents the median?



- A. 0.8                       C. 2.5  
 B. 1.9                       D. 1.5





1) The table below shows pairs of expressions. Which pair represents the same value?

	Expression 1	Expression 2
A.	$4(5 + 7)$	$20 + 27$
B.	$6(3 + 7)$	$18 + 42$
C.	$3(9 + 5)$	$27 + 10$
D.	$2(11 + 6)$	$22 + 11$

A. Choice A

C. Choice C

B. Choice B

D. Choice D

2) Which decimal is equivalent to  $-\frac{7}{10}$ ? Write your answer as a decimal.

3) Evaluate:  $\frac{32}{-4}$

A. 8

C. 28

B. -8

D. 36

4) Which expression represents “the sum of a number  $n$  and 7, divided by 2”?

A.  $\frac{n}{2} + 7$

C.  $2(n + 7)$

B.  $\frac{n + 7}{2}$

D.  $n + \frac{7}{2}$



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For more practice  
& answers

5) In the expression  $6a + 3b + 7$ , which is the constant term?

- A.  $6a$                        C.  $7$   
 B.  $3b$                        D.  $ab$

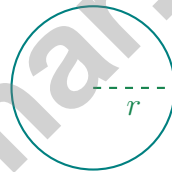
6) Which expression is equivalent to  $3(x + 2) + 2x$ ?

- A.  $5x + 6$                        C.  $3x + 6 + 2x$   
 B.  $5x + 2$                        D.  $6x + 2$

7) A coffee shop sells hot drinks only when the temperature is below  $75^\circ\text{F}$ . Which inequality represents when hot drinks are sold?

- A.  $T > 75$                        C.  $T \geq 75$   
 B.  $T < 75$                        D.  $T \leq 75$

Circle:  $r = 9$  ft



8)

A circle has a radius of 9 feet. Using  $\pi \approx 3.14$ , which is closest to the area?

- A.  $56.52 \text{ ft}^2$                        C.  $254.34 \text{ ft}^2$   
 B.  $113.04 \text{ ft}^2$                        D.  $508.68 \text{ ft}^2$

9) A teacher asks: “What is a typical shoe size for sixth graders?”

Which statement is true?

- A. This is not statistical because all sixth graders wear the same shoe size.     C. This is statistical because the teacher asked it.  
 B. This is non-statistical because it is about shoes.     D. This is statistical because shoe sizes vary among sixth graders.



## Arkansas ATLAS Practice Test Answer Keys

**How to use this Arkansas ATLAS 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 river-valley review habits
3. rework the problem before reading the full explanation, using this reminder:  
Slow the question down, organize the facts, and let each step explain the next one.

**A calm Arkansas correction routine turns every missed item into useful practice. Take a test, mark what felt strong, and use corrections as the bridge to the next round.**



Scan me!  
For more practice  
& answers

## Arkansas Practice Test Answers and Explanations

Review the eight printed ATLAS tests with steady, practical, and ready to keep improving habits.

### Practice Test 1 Answers and Explanations

- 1) **Choice C is correct.** **(6.GM.1)** Area = base  $\times$  height =  $5 \times 2 = 10 \text{ mm}^2$ .
- 2) **Choice A is correct.** **(6.ALG.2)** In the equation  $d = 20t$ , 20 is the constant rate of change (the speed), and  $t$  is the time.
- 3) **Choice A is correct.** **(6.GM.4)** Points on the  $y$ -axis have  $x = 0$ . For the negative  $y$ -axis, the  $y$ -coordinate must be negative, so  $(0, -7)$  is correct.
- 4) **Choice B is correct.** **(6.NCC.3)** 3 is between 2 and 3.5 since  $2 < 3 < 3.5$ .
- 5) **Choice A is correct.** **(6.NCC.10)** Negative divided by negative is positive:  $\frac{-36}{-6} = 6$ .
- 6) **Choice B is correct.** **(6.ALG.3)** First, work inside the parentheses:  $2 + 3 = 5$ . Then apply the exponent:  $5^2 = 25$ . Finally subtract:  $25 - 5 = 20$ .
- 7) **Choice C is correct.** **(6.ALG.2)**  $4a$  and  $4b$  have different variables ( $a$  vs.  $b$ ), so they are unlike terms.
- 8) **Choice D is correct.** **(6.ALG.3)** Substitute  $b = 6$  and  $h = 8$ :  $A = \frac{1}{2}(6)(8) = \frac{48}{2} = 24$  square units.
- 9) **Choice D is correct.** **(6.ALG.4)** Distribute:  $4(3x + 2) = 4 \cdot 3x + 4 \cdot 2 = 12x + 8$ .
- 10) **Choice C is correct.** **(6.NCC.3)** “No more than” means “less than or equal to,” so the inequality is  $x \leq 12$ .
- 11) **Choice B is correct.** **(6.GM.1)**  $A = \frac{1}{2} \times 11 \times 6 = 33 \text{ ft}^2$ .
- 12) **Choice A is correct.** **(6.GM.5)** Translating left subtracts from  $x$ :  $C(3, 3) \rightarrow C'(3 - 2, 3) = C'(1, 3)$ .
- 13) **Choice C is correct.** **(6.SP.9)** Question A asks about one dog (one answer). Question B asks about multiple dogs, whose weights vary, requiring data collection—making it statistical.
- 14) **Choice C is correct.** **(6.SP.5)** Range =  $\$45 - \$5 = \$40$ .
- 15) **Choice D is correct.** **(6.SP.9)** Mode: 64 in (5 dots) is correct. Total:  $1 + 3 + 5 + 4 + 2 = 15$  correct. Median: 8th value of 15 is 64 in, correct. False statement: students  $\geq 66$  in are  $4 + 2 = 6$  out of 15, which is 40%, not more than half.
- 16) **Choice B is correct.** **(6.NCC.5)** Using complementary events:  $P(\text{not rain}) = 1 - P(\text{rain}) = 1 - \frac{3}{5} = \frac{2}{5}$ .
- 17) **Choice D is correct.** **(6.NCC.5)**  $\frac{1}{3}$  of 450 is  $450 \div 3 = 150$  students.
- 18) **Choice D is correct.** **(6.PR.3)** A ratio is in simplest form when the two numbers have no common factor greater than 1. The numbers 5 and 7 share no common factor except 1, so  $5 : 7$  is already simplified.
- 19) **Choice D is correct.** **(6.PR.1)** Dogs are the 3-part amount. Since  $18 \div 3 = 6$ , each part is worth 6 animals, and cats are 2 parts:  $2 \times 6 = 12$ .
- 20) **Choice A is correct.** **(6.PR.3)** Divide sugar by cupcakes:  $3 \div 24 = \frac{3}{24} = \frac{1}{8}$  cup per cupcake.
- 21) **The correct answer is Equivalent-fraction divide and reciprocal multiply.** **(6.NCC.7)** B uses a common denominator so you are dividing same-size chunks:  $\frac{15}{18} \div \frac{6}{18} = \frac{15}{6} = \frac{5}{2}$ . C keeps  $\frac{5}{6}$  and multiplies by the reciprocal of  $\frac{3}{5}$ , which is  $\frac{5}{3}$ —that is  $\frac{5}{6} \times \frac{3}{1}$ , also simplifying to  $\frac{5}{2}$ . A never flips  $\frac{1}{3}$ , D mixes random numbers together, and E flips  $\frac{5}{6}$  instead of flipping the divisor.
- 22) **Choice B is correct.** **(6.PR.5)** Unit rate:  $\$12 \div 3 = \$4$  per latte. For 7 lattes:  $7 \times \$4 = \$28$ .
- 23) **Choice D is correct.** **(6.PR.4)** Table 1:  $3 : 4$  and  $6 : 8$  both equal  $3 : 4$  (simplified). Table 2:  $5 : 10 = 1 : 2$  (divide by 5) and  $10 : 20 = 1 : 2$  (divide by 10). The ratios are different:  $3 : 4 \neq 1 : 2$ .
- 24) **The correct answer is 60.** **(6.NCC.12, 6.NCC.13, 6.NCC.11)** This is an LCM problem. Find LCM of 20 and 30. Prime factors:  $20 = 2^2 \times 5$ ,  $30 = 2 \times 3 \times 5$ . LCM =  $2^2 \times 3 \times 5 = 60$  minutes.
- 25) **Choice D is correct.** **(6.PR.4)** The unit rate is  $8 \div 2 = 4$  oz per serving. Verify:  $12 \div 3 = 4$  oz per serving ✓;  $16 \div 4 = 4$  oz per serving ✓.



## Hi, Strong Climber!

◇ You climbed all 8 tests. One step at a time. That takes patience and grit. The view from the top is amazing because you earned it! ◇

★ **Mountain guides say:** steady steps win the climb. You climbed steady. You stayed strong. ★

### Climber's Skills

- **Strong Steps:** You move forward, problem by problem.
- **Steady Pace:** You don't rush. You don't stop.
- **Map Skills:** You read questions carefully.
- **Top of the Mountain:** You can finish a long test.

**Guide's tip:** on test day, take small breaths between problems. One foot, then the next. You'll reach the top!

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 Trail Guide

# 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
- ✓ Percents
- ✓ The Number System
- ✓ Statistics & Probability
- ✓ Expressions & Equations
- ✓ Data Analysis
- ✓ Geometry
- ✓ Measurement & Conversions
- ✓ Fractions & Decimals
- ✓ 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