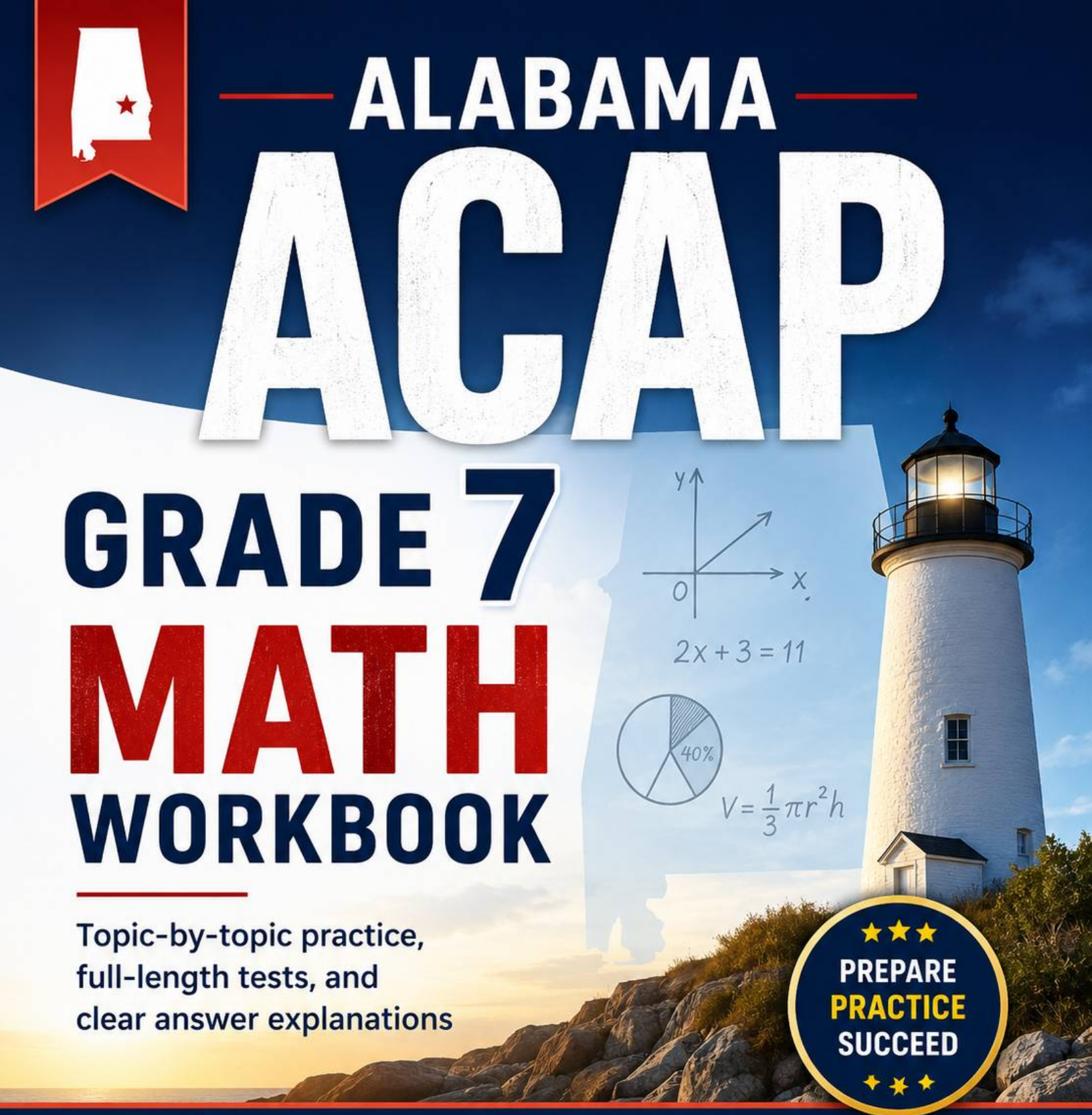
ALABAMA ACAP

GRADE 7 MATH WORKBOOK



Topic-by-topic practice, full-length tests, and clear answer explanations

PREPARE
PRACTICE
SUCCEED

TOPIC-BY-TOPIC PRACTICE
Build skills and strengthen concepts

FULL-LENGTH TESTS
Realistic practice to build confidence

CLEAR ANSWER EXPLANATIONS
Understand every step and improve

Alabama Comprehensive Assessment Program

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Grade 7

Math Workbook

Topic-by-topic practice, full-length tests, and clear answer explanations

7

Built for steady Grade 7 progress

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79 Topic Worksheets

2 Full-Length Tests

Answer Explanations



Reza Nazari

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7.18 Construct geometric shapes (freehand, using a ruler and a protractor, and using technology), given a written description or measurement constraints with an emphasis on constructing triangles from three measures of angles or sides, noticing when the conditions determine a unique triangle, more than one triangle, or no triangle

7.19 Describe the two-dimensional figures created by slicing three-dimensional figures into plane sections

7.20 Explain the relationships among circumference, diameter, area, and radius of a circle to demonstrate understanding of formulas for the area and circumference of a circle

7.21 Use facts about supplementary, complementary, vertical, and adjacent angles in multi-step problems to write and solve simple equations for an unknown angle in a figure

7.22 Solve real-world and mathematical problems involving area, volume, and surface area of two- and three-dimensional objects composed of triangles, quadrilaterals, polygons, cubes, and right rectangular prisms

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CHAPTER

1

Integers and Absolute Value

1. Understanding Integers and the Number Line — 7.4.a, 7.4.b
2. Absolute Value — 7.4.d
3. Comparing and Ordering Integers — 7.4.d
4. Adding Integers — 7.4.b
5. Subtracting Integers — 7.4.c
6. Multiplying Integers — 7.4.e
7. Dividing Integers — 7.4.f

✎ Practice Problems

Find each quotient.

1. $(-42) \div 7 =$ _____

2. $54 \div (-9) =$ _____

3. $(-64) \div (-8) =$ _____

4. $(-30) \div 6 =$ _____

5. $56 \div (-7) =$ _____

6. $(-36) \div (-4) =$ _____

7. $(-21) \div 3 =$ _____

8. $(-90) \div (-9) =$ _____

9. $(-72) \div 8 =$ _____

10. $(-48) \div (-6) =$ _____

11. $(-99) \div 11 =$ _____

12. $(-132) \div (-12) =$ _____

13. $(-60) \div 5 =$ _____

14. $(-84) \div (-7) =$ _____

15. $(-108) \div 9 =$ _____

16. An investment fund lost a total of \$1,440 over 12 equal monthly periods. Write a division expression for the average monthly change in value, and evaluate it. If that loss rate continues for 5 more months, write a multiplication expression for the additional loss and evaluate it.

_____

17. In a science lab, a tank of water is cooled at a steady rate. Its temperature drops 168 degrees Fahrenheit over 14 *min*. Write a division expression for the rate of temperature change in degrees per minute and evaluate it. If the experiment then runs for a total of 21 *min* at the same rate, what integer represents the total temperature change? _____

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Chapter 1 Answer Key — Integers and Absolute Value

Understanding Integers and the Number Line

1) 12
2) 9
3) −5
4) 3
5) 28
6) −15
7) 7
8) 21
9) −2
10) 30
11) 37
12) −6
13) −18
14) 4
15) 50
16) Priya −7, Marcus +4; Priya wins by 11 strokes.
17) Low −15°F; pre-dawn −24°F; change 39°F.

Absolute Value

1) 11
2) 19
3) −9
4) 42
5) −16
6) 0
7) 27
8) −30
9) 53
10) 0
11) 21
12) 35
13) 16
14) 11
15) 5
16) Sub B is closer; it is 175 ft closer.
17) Owes $71; change $18.

Comparing and Ordering Integers

1) <
2) >
3) >
4) <
5) =
6) >
7) <
8) =
9) =
10) <
11) <
12) >
13) >
14) =
15) >
16) Order $-24 < -19 < -6 < 7 < 11$; best 11, worst −24; range 35.
17) Jellyfish, tuna, shark, whale; whale is 145 ft deeper.

Adding Integers

1) −13
2) −6
3) −12
4) −23
5) 0
6) −14
7) 15
8) −11
9) 6
10) −22
11) −15
12) −1
13) −50
14) −5
15) −7
16) Ahead by 1 yard.
17) Owes $6.

Subtracting Integers

1) −5
2) −14
3) −7
4) 18
5) −5
6) 7
7) −27
8) 16
9) 0
10) −20
11) 42
12) 6
13) −15
14) 10
15) −18
16) Gain of 41°F.
17) Descended 250 ft; new depth −435 ft.

Multiplying Integers

1) −40
2) 56
3) −54
4) 44
5) −108
6) 64
7) −42
8) −27
9) 60
10) −45
11) −52
12) 84
13) 1
14) −1
15) −27
16) Lost $105.
17) Earned 54; lost −55; net −1 pt.

Dividing Integers

1) −6
2) −6
3) 8
4) −5
5) −8
6) 9
7) −7
8) 10
9) −9
10) 8
11) −9
12) 11
13) −12
14) 12
15) −12
16) Average −$120/month; additional loss −$600.
17) Rate −12°F/min; total change −252°F.

Worked explanations begin on page: 191

Full worked explanations for Chapter 1 appear in the back matter.

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