

# 9

# Maine

## Through Year Assessment

GRADE

# 6

MATH

# PRACTICE TESTS

Standards-Aligned Review  
Mixed Practice & Answer Key



### 9 PRINTED TESTS

Realistic practice to build confidence and mastery



### DETAILED ANSWER EXPLANATIONS

Learn with step-by-step solutions



### FOCUSED & EFFECTIVE

Target key math skills with purposeful practice



### BUILD CONFIDENCE

Strengthen problem solving and test-taking skills



**9 PRINTED TESTS**  
**+2 ONLINE TESTS**

Use these two additional online practice tests for extra review after the printed tests in this book.

**PRACTICE TODAY.**  
**SUCCEED TOMORROW.**



PRACTICE



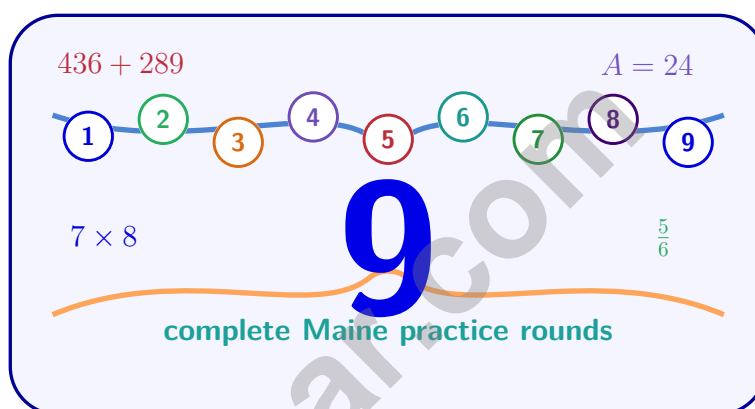
REVIEW



SUCCEED

# 9 Maine Through Year Assessment Grade 6 Math Practice Tests

*Standards-Aligned Through-Year Coastal Clarity for Maine Through Year Assessment*



Nine complete 40-question Grade 6 practice rounds for Through Year Assessment, built for through-year coastal clarity 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, Maine Math Explorer!

Nine focused rounds using through-year coastal clarity

This book gives you nine full Grade 6 practice tests for Through Year Assessment. Each round uses rocky coastlines, forest roads, and careful year-round review as a fresh mental backdrop while you read closely, choose a smart strategy, show your work, and check whether your answer makes sense.

## Your Maine Practice Promise

Anchor each answer in evidence: read labels, build the model, and verify the result.

Read

Plan

Check

## How to Use This Book

A nine-session routine for through-year coastal clarity

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.

**Maine review rhythm:** Use each test as a check-in, then let corrections guide the next review session.



## What Is Inside?

Nine Through Year Assessment tests, 360 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 7–9	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. Through-year coastal clarity means recognizing the skill even when the next question changes topic, changes format, or asks for an explanation.

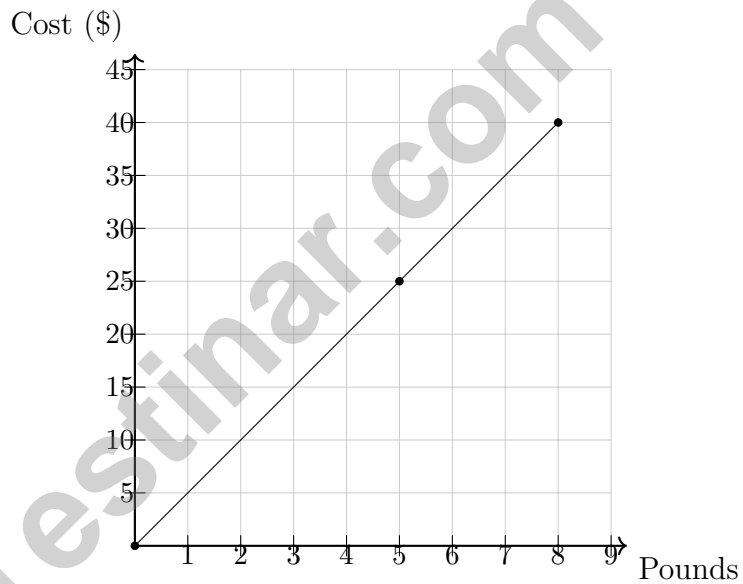


Scan me!  
For more practice  
& answers

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- 1) A deep-sea creature lives at an elevation of  $-5000$  meters. A high-altitude bird lives at an elevation of  $8000$  meters. What is the vertical distance between them?
- A. 3000 meters                       C. 5000 meters
- B. 13000 meters                       D. 8000 meters
- 2) A landscaper charges for grass seed by the pound. The cost for 5 pounds is \$25, and the cost for 8 pounds is \$40. Is the relationship between pounds of seed and cost proportional?



- A. Yes; cost always increases with amount                       C. Cannot determine from two points
- B. No; the ratios  $\$25/5$  lbs and  $\$40/8$  lbs are different                       D. Yes; both ratios equal \$5 per pound



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& answers

3) A toy dinosaur model is 10 cm tall. The scale is 1 cm = 0.8 m. How tall is the actual dinosaur?

A. 4 m

C. 8 m

B. 6 m

D. 10 m

4) A student incorrectly computed  $4.2 \times 0.5 = 2.10$  instead of 2.1. Which statement is true?

A. The student made an error; trailing zeros should be removed.

C. The decimal point is in the wrong place.

B. Both answers are equivalent in value.

D. The student forgot to multiply.

5) If a \$200 purchase has a \$30 discount applied, what is the percent discount?

6) If a number is  $x$  units to the left of zero on a number line, how can we express its distance from zero?

A.  $-x$

C. 0

B.  $x$

D.  $2x$

7) What is  $8,064 \div 42$ ?

A. 192

C. 204

B. 200

D. 212



8) A school is making care packages. They have 54 pencils and 72 erasers to distribute equally among students with no items left over. What is the greatest number of students who can receive a package?

A. 6

C. 18

B. 9

D. 27

9) Which fraction is equivalent to  $-0.75$ ?

A.  $-\frac{1}{4}$

C.  $-\frac{2}{3}$

B.  $-\frac{1}{2}$

D.  $-\frac{3}{4}$

10) Compare  $-4$  and  $-1$  using  $<$ ,  $>$ , or  $=$ . Which symbol belongs in the box?

$$-4 \square -1$$

A.  $<$

C.  $=$

B.  $>$

D. Cannot be determined

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

A. 8

C. 28

B.  $-8$

D. 36

12) Which shows the distributive property correctly applied to  $2(3x - 1)$ ?

A.  $2 \cdot 3x - 1$

C.  $2 \cdot 3x - 2 \cdot 1$

B.  $6x - 2$

D.  $3x - 2$



Scan me!  
For more practice  
& answers

1) Solve for  $x$ :  $x + 7 = 15$

A.  $x = 7$

C.  $x = 15$

B.  $x = 8$

D.  $x = 22$

2) A factory packages 480 items in 8 boxes. What is the unit rate in items per box?

3) 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.  $n + \frac{7}{2}$

4) A city’s elevation is 385 feet above sea level. A valley is at  $-215$  feet below sea level. What is the elevation difference between the city and the valley?

A. 170 feet

C. 600 feet

B. 385 feet

D.  $-215$  feet

5) A library receives 6,300 books to place on shelves that hold 48 books each. How many shelves are filled completely?

A. 130

C. 132

B. 131

D. 133



6) Expand  $10(3 + 9)$ .

A.  $30 + 90$

C.  $10 + 12$

B.  $30 + 9$

D.  $120$

7) If a point has coordinates  $(p, q)$  where  $p > 0$  and  $q < 0$ , in which quadrant(s) could it be located?

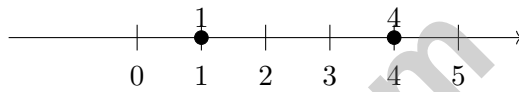
A. Quadrant I or III

C. Quadrant I only

B. Quadrant II or IV

D. Quadrant IV only

8)



If  $A = 1$  and  $B = 4$ , order  $-A$ ,  $-B$ , and  $0$ .

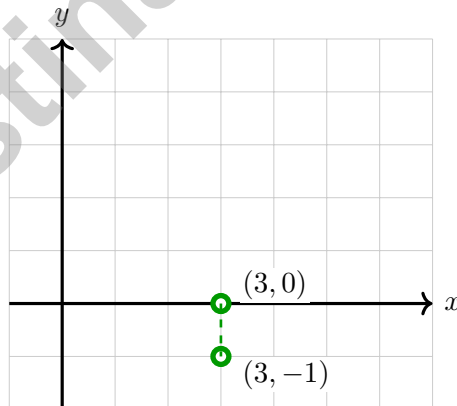
A.  $-B < -A < 0$

C.  $0 < -A < -B$

B.  $-A < -B < 0$

D.  $-B = -A$

9)



What is the distance between  $(3, 0)$  and  $(3, -1)$ ?

A. 0 units

C. 2 units

B. 1 unit

D. 3 units



Scan me!  
For more practice  
& answers

1) A map has a scale of  $1 \text{ cm} = 10 \text{ km}$ . A rectangular region on the map measures 4 cm by 6 cm. What is the area of the actual region?

A.  $240 \text{ km}^2$

C.  $2400 \text{ km}^2$

B.  $1200 \text{ km}^2$

D.  $4800 \text{ km}^2$

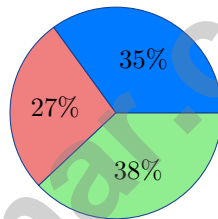
2) A box of candies has 30 pieces: 10 red, 8 green, 7 yellow, and 5 blue. If one piece is selected at random, what is the probability it is yellow?

A.  $\frac{1}{6}$

C.  $\frac{1}{3}$

B.  $\frac{2}{5}$

D.  $\frac{7}{30}$



3)

A clothing store has 720 items in inventory. The circle graph shows  $\frac{7}{20}$  are shirts. How many shirts are there?

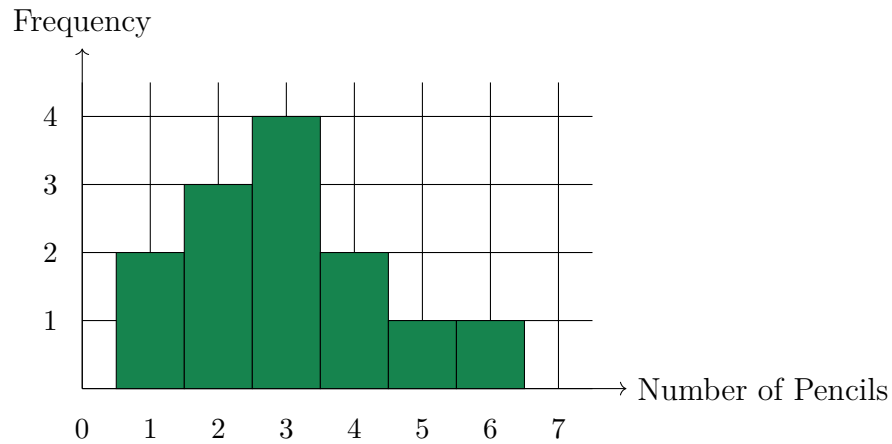
A. 252

C. 200

B. 216

D. 288





A class surveyed students about how many pencils they carry. The histogram shows the frequency distribution. How many students carry 2 pencils?

- A. 1 student
- B. 2 students
- C. 3 students
- D. 4 students



Scan me!  
For more practice  
& answers

## Maine Through Year Assessment Practice Test Answer Keys

**How to use this Maine Through Year Assessment 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 through-year coastal clarity
3. rework the problem before reading the full explanation, using this reminder:  
Anchor each answer in evidence: read labels, build the model, and verify the result.

**A calm Maine correction routine turns every missed item into useful practice. Use each test as a check-in, then let corrections guide the next review session.**



## Maine Practice Test Answers and Explanations

Review the nine printed Through Year Assessment tests with anchored, observant, and ready for the next checkpoint habits.

### Practice Test 1 Answers and Explanations

- Choice B is correct.** **(6.NS.C.5)** The distance is  $8000 - (-5000) = 8000 + 5000 = 13000$  meters.
- Choice D is correct.** **(6.EE.C.9)** Ratios:  $25/5 = 5$  and  $40/8 = 5$  dollars per pound. The constant ratio confirms a proportional relationship with equation  $c = 5p$ . The line passes through the origin.
- Choice C is correct.** **(6.RP.A.3)** Multiply the model height by the scale:  $10 \text{ cm} \times 0.8 \text{ m/cm} = 8 \text{ m}$ .
- Choice B is correct.** **(6.NS.B.3)**  $4.2 \times 0.5 = 2.1 = 2.10$ . They have the same value; trailing zeros do not change the decimal's worth.
- The correct answer is 15%.** **(6.RP.A.3c)** Percent discount is  $\frac{30}{200} = 0.15 = 15\%$ .
- Choice B is correct.** **(6.NS.C.7c)** Distance is a positive quantity. A number  $x$  units left of zero (at position  $-x$ ) has distance  $|-x| = x$  from zero.
- Choice A is correct.** **(6.NS.B.2)**  $8,064 \div 42 = 192$ . Check:  $42 \times 192 = 8,064$ .
- Choice C is correct.** **(6.NS.B.4)** Find GCF(54, 72). Factors of 54: 1, 2, 3, 6, 9, 18, 27, 54. Factors of 72: 1, 2, 3, 4, 6, 8, 9, 12, 18, 24, 36, 72. GCF is 18. Each student gets 3 pencils and 4 erasers.
- Choice D is correct.** **(6.NS.C.6c)** The decimal  $0.75 = \frac{75}{100} = \frac{3}{4}$ , so  $-0.75 = -\frac{3}{4}$ .
- Choice A is correct.** **(6.NS.C.7b)**  $-4$  is further left on a number line than  $-1$ , so  $-4$  is less than  $-1$ .
- Choice B is correct.** **(6.NS.B.3)** Positive divided by negative is negative:  $\frac{32}{-4} = -8$ .
- Choice C is correct.** **(6.EE.A.3)** The distributive property applies 2 to both terms:  $2(3x - 1) = 2 \cdot 3x - 2 \cdot 1 = 6x - 2$ .
- Choice B is correct.** **(6.EE.B.8)** The symbol  $\geq$  includes the boundary, so a closed circle is needed. The direction is correct (right for greater values).
- Choice B is correct.** **(6.G.A.1)**  $A = \frac{1}{2} \times 10 \times 5 = 25 \text{ m}^2$ .
- Choice A is correct.** **(6.G.A.1)** Area =  $\frac{1}{2}(14 + 10) \times 7 = \frac{1}{2}(24)(7) = 84 \text{ m}^2$ .
- Choice C is correct.** **(6.G.A.2)** Volume =  $L \times W \times H = 4 \times 3 \times 2.5 = 30 \text{ ft}^3$ .
- Choice D is correct.** **(6.G.A.1)** Side length:  $8 - 2 = 6$  units. Area of square =  $6^2 = 36$  square units.
- The correct answer is 12.** **(6.RP.A.3d)** Divide:  $96 \text{ fl oz} \div 8 \text{ fl oz/cup} = 12$  cups.
- Choice C is correct.** **(6.QR.EA.1)** Area =  $\pi r^2 \approx 3.14 \times 5^2 = 3.14 \times 25 = 78.5 \text{ m}^2$ .
- Choice C is correct.** **(6.SP.A.2)** Mean =  $\frac{2 + 4 + 6 + 8 + 30}{5} = 10$ . Median = 6 (middle value). Since  $10 > 6$ , the mean is greater than the median. The outlier 30 pulls the mean up.
- The correct answer is Housing and Food are correctly calculated.** **(6.AR.EA.2)** A: Housing is  $40\% \times 2500 = \$1000$ . Correct. B: Food is  $24\% \times 2500 = \$600$ . Correct. C: Utilities is  $10\% \times 2500 = \$250$ , not \$200. Incorrect. D: Transportation is  $12\% \times 2500 = \$300$ , not \$250. Incorrect. E: Savings is  $14\% \times 2500 = \$350$ , not \$400. Incorrect.
- Choice C is correct.** **(6.SP.B.4)** The median is shown by the line inside the box of the box plot.
- Choice A is correct.** **(6.SP.B.5)** IQR =  $35 - 20 = 15$ . Upper fence =  $Q3 + 1.5(\text{IQR}) = 35 + 22.5 = 57.5$ . Lower fence =  $Q1 - 1.5(\text{IQR}) = 20 - 22.5 = -2.5$ . Since 5 and 50 are within fences, no outliers.
- Choice A is correct.** **(6.NS.B.3)**  $-5 - (-4) = -5 + 4 = -1$ . Subtracting a negative means adding its opposite. Start at  $-5$ , move right 4 units to  $-1$ .
- Choice B is correct.** **(6.QR.EA.3)** Total:  $75 + (-120) + 45 = 75 - 120 + 45 = 120 - 120 = \$0$  (no gain or loss overall).
- Choice D is correct.** **(6.EE.A.2c)** Substitute:  $3(2 + 3) - 2 = 3(5) - 2 = 15 - 2 = 13$ .
- Choice A is correct.** **(6.EE.B.5)** Divide both sides by 5:  $x = 40 \div 5 = 8$ .
- Choice D is correct.** **(6.SP.A.1)** This is statistical because team members have different heights and you must collect data from multiple sources. The number of people or a team's fixed size does not prevent variability—different players still have different heights.



## Hi, Strong Climber!

◇ You climbed all 9 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

# PRACTICE MORE. ACHIEVE MORE.

This **Grade 6 Math Practice Tests** book is designed to help students strengthen their math skills, master important concepts, and build the confidence they need to excel on any test.

With 9 full-length printed tests and 2 online tests, students get the review, practice, and realistic test experience they need to improve accuracy, develop problem-solving abilities, and reach their full potential.

Perfect for classroom use, homework, test preparation, and extra practice at home.

## 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.



### Deeper Understanding

Reinforce key math concepts 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.



9 PRINTED  
PRACTICE TESTS



2 ONLINE  
PRACTICE TESTS



DETAILED ANSWER  
EXPLANATIONS