

# Maine

Through Year Assessment

## GRADE 6 MATH

### PRACTICE TESTS

Standards Aligned Problem Solving  
For Comprehensive Assessment Programs



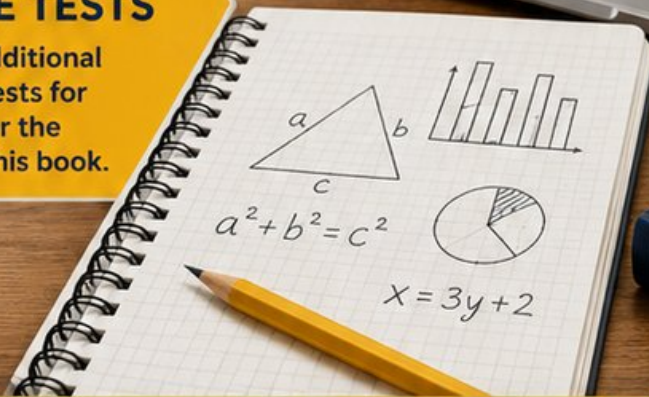
#### 5 PRINTED TESTS

- ✓ Full-Length Practice Tests
- ✓ Realistic Questions
- ✓ Answer Key & Explanations



#### + 2 ONLINE TESTS

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

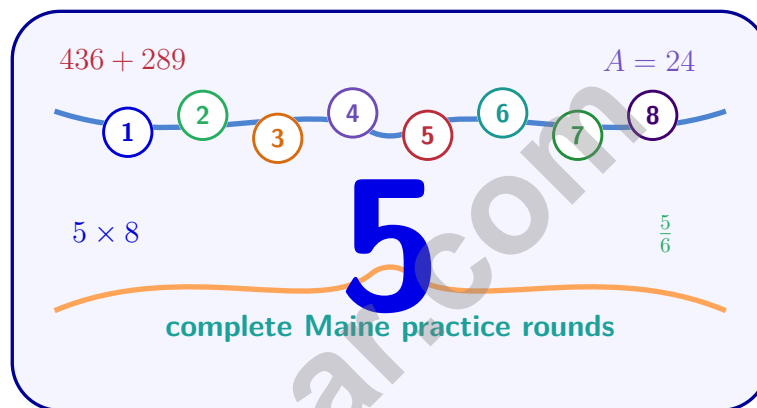


PREPARE • PRACTICE • SUCCEED



# 5 Maine Through Year Assessment Grade 6 Math Practice Tests

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



Five 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!

Eight focused rounds using through-year coastal clarity

This book gives you five 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 five-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?

Eight Through Year Assessment tests, 320 questions, and a full review path

Part	What You Will Practice
Tests 1–2	Foundation rounds for ratios, rational numbers, operations, and careful reading.
Tests 3–4	Skill-building rounds with expressions, equations, geometry, data, and problem models.
Test 5	Final stamina round 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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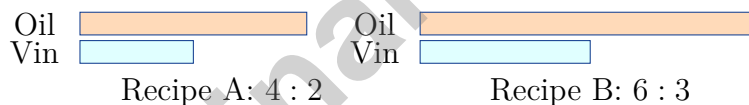


6) A farmer has chickens and ducks in a part-to-part ratio of 6 : 4. If the farmer has 18 chickens, how many ducks does he have?

- A. 27 ducks                       C. 6 ducks  
 B. 24 ducks                       D. 12 ducks

7) A spinner is divided into 5 equal sections. The probability of spinning a particular color is  $\frac{1}{5}$  or 20%. If the spinner is spun 100 times, about how many times would you expect to land on that color?

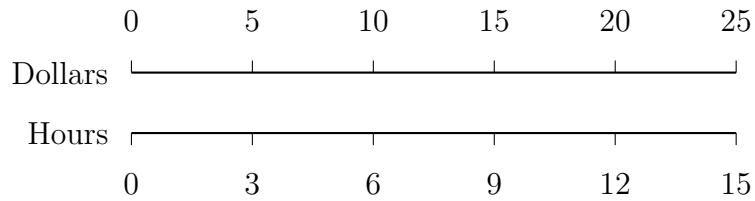
8) Two recipes use olive oil and vinegar. The diagram shows the two recipes side by side.



Which statement is true?

- A. Recipe A has an oil-to-vinegar ratio of 4 : 3.                       C. Recipe B has an oil-to-vinegar ratio of 3 : 6.  
 B. The recipes cannot be compared using ratios.                       D. Both recipes have the same oil-to-vinegar ratio.





9)

Based on the double number line, what is the rate in dollars per hour?

- A.  $\frac{5}{3}$  dollars per hour
- B.  $\frac{3}{5}$  dollars per hour
- C. 5 dollars per hour
- D. 15 dollars per hour

10) A juice company sells juice in two sizes. A 48-ounce bottle costs \$8.00. A 64-ounce bottle costs \$9.60. Which is the better value per ounce?

- A. 48-oz at \$0.17/oz
- B. 48-oz at \$0.15/oz
- C. 64-oz at \$0.15/oz
- D. 64-oz at \$0.17/oz

11) A swimming pool needs chlorine. The ratio of chlorine to water is 2 to 50. Complete the table:

Chlorine (oz)	Water (gal)
2	50
4	100
6	?

- A. 120
- B. 150
- C. 180
- D. 200



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1) Use the GCF to factor  $52 + 39$ . (Hint: GCF is 13)

A.  $13(4 + 3)$

C.  $13(52 + 39)$

B.  $13(4 + 39)$

D.  $13(4 \times 3)$

2) A community center asks: “How many times per month do people use the fitness equipment?”

Which describes the relationship between the population and a sample in this scenario?

 A. The population is all people in the community; the sample is the people surveyed. C. There is no sample in a statistical question. B. The population is all people surveyed; the sample is all people in the community. D. The population and sample are the same thing.

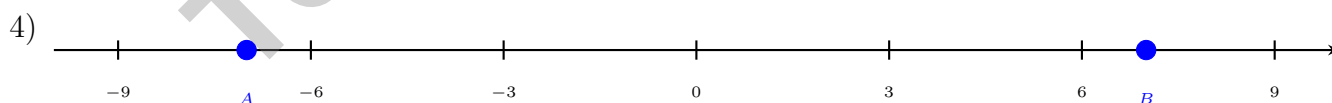
3) A jar contains 8 chocolate chip cookies and 2 oatmeal cookies. If you pick one cookie at random, what is the probability you pick an oatmeal cookie?

A.  $\frac{1}{5}$

C.  $\frac{2}{8}$

B.  $\frac{1}{4}$

D.  $\frac{4}{5}$



On a number line, point  $A$  is at  $-7$  and point  $B$  is at  $7$ . What is the distance between them?



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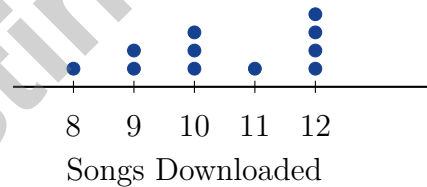
1) The table below shows the number of books donated each week to a library.

Weeks	1	2	3	4
Total Books	25	50	75	100

How many books are donated per week?

- A. 20 books per week
  - B. 35 books per week
  - C. 30 books per week
  - D. 25 books per week
- 2) For the ordered data 3, 5, 7, 9, 11, 13, 15, which statement correctly identifies Q1 and Q3?

- A. Q1 = 5, Q3 = 13
  - B. Q1 = 7, Q3 = 11
  - C. Q1 = 3, Q3 = 15
  - D. Q1 = 5, Q3 = 11
- 3) A dot plot shows the number of songs each student downloaded: 8, 9, 9, 10, 10, 10, 11, 12, 12, 12, 12. What is the range of this data?



- A. 2
- B. 3
- C. 4
- D. 5



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4) A spinner has 8 equal sections. Two sections are red, three are blue, and three are green. What is the probability of spinning green?

A.  $\frac{1}{8}$

B.  $\frac{1}{4}$

C.  $\frac{3}{8}$

D.  $\frac{5}{8}$

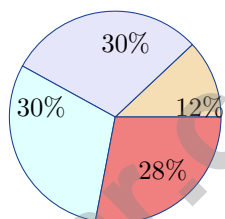
5) A 3-digit number has a stem-and-leaf representation with stem 23 and leaf 5. What is the number?

A. 235

B. 325

C. 253

D. 52



6)

In a circle graph, if a section has a central angle of  $43.2^\circ$ , what percent does it represent?

A. 12%

B. 15%

C. 18%

D. 20%

7) A team recorded the number of goals scored in each game of a season: 2, 3, 1, 4, 2, 3, 3, 2, 5, 3.

If you created a dot plot with this data, at which value would you see the MOST dots?

A. 1 goal

B. 2 goals

C. 3 goals

D. 5 goals



## 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.**



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## Maine Practice Test Answers and Explanations

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

### Practice Test 1 Answers and Explanations

- 1) **Choice C is correct.** **(6.EE.B.8)**  $x < 10$  includes all numbers less than 10 but excludes 10 itself. The largest value NOT in the solution is 10.
- 2) **Choice C is correct.** **(6.NS.A.1)**  $\frac{3}{10} \times 5 = \frac{15}{10} = \frac{3}{2}$ .
- 3) **Choice D is correct.** **(6.RP.A.3d)** After 4 days:  $5 \times 4 = 20$  mL taken. Remaining:  $30 - 20 = 10$  mL. Convert:  $10 \div 1000 = 0.01$  liters.
- 4) **Choice B is correct.** **(6.QR.EA.1)** Net income:  $\$3000 - \$400 - \$150 - \$100 = \$2350$ .
- 5) **Choice A is correct.** **(6.NS.C.7b)**  $-2.1 < -1.9 < 0.5$ . Negatives come before positives; among negatives, more negative is less.
- 6) **Choice D is correct.** **(6.RP.A.3)** The 6 chicken parts represent 18 chickens, so one part is  $18 \div 6 = 3$ . Ducks are 4 parts, and  $4 \times 3 = 12$  ducks.
- 7) **The correct answer is 20.** **(6.NS.C.7b)** Expected number of spins =  $0.2 \times 100 = 20$  times.
- 8) **Choice D is correct.** **(6.RP.A.3)** Recipe A has 4 : 2, which simplifies to 2 : 1. Recipe B has 6 : 3, which also simplifies to 2 : 1, so the recipes have the same oil-to-vinegar ratio.
- 9) **Choice A is correct.** **(6.RP.A.2)** From the double number line, 3 hours corresponds to 5 dollars. The rate is  $5 \div 3 = \frac{5}{3}$  dollars per hour.
- 10) **Choice C is correct.** **(6.RP.A.3c)** 48-oz:  $\$8.00 \div 48 \approx \$0.167/\text{oz}$ . 64-oz:  $\$9.60 \div 64 = \$0.15/\text{oz}$ . The 64-oz bottle has the better (lower) unit price.
- 11) **Choice B is correct.** **(6.RP.A.3)** The ratio is 2 : 50 or 1 : 25. For 6 oz of chlorine:  $6 \times 25 = 150$  gallons.
- 12) **Choice A is correct.** **(6.RP.A.3a)** The unit rate is  $\frac{45}{1} = 45$  miles per hour. Since the ratio is constant ( $\frac{90}{2} = 45$ ,  $\frac{135}{3} = 45$ ), the relationship is proportional. A proportional relationship through the origin has all ratios equal.
- 13) **Choice D is correct.** **(6.RP.A.3c)** Multiply the decimal by 100:  $0.72 \times 100 = 72\%$ .
- 14) **Choice C is correct.** **(6.RP.A.3c)**  $\frac{88}{100} = 0.88 = 88\%$ .
- 15) **Choice A is correct.** **(6.RP.A.3)** 6 : 9 simplifies by dividing both by 3:  $6 \div 3 = 2$  and  $9 \div 3 = 3$ , giving 2 : 3.
- 16) **Choice B is correct.** **(6.EE.C.9)** For constant  $k = 2.5$ :  $y/x = 2.5$ . When  $x = 6$ :  $y/6 = 2.5$ , so  $y = 6 \times 2.5 = 15$ .
- 17) **Choice C is correct.** **(6.AR.EA.2)** Emergency and Car:  $(22\% + 16\%) = 38\%$  of  $\$5000 = 0.38 \times 5000 = \$1900$ .
- 18) **Choice C is correct.** **(6.RP.A.3)** Multiply:  $2.5 \times 6 = 15$  feet.
- 19) **The correct answer is A statistical question anticipates variability and is answered by collecting data..** **(6.SP.A.1)** Options B and C are correct: statistical questions expect varied answers and require data collection. Option A is wrong (statistical questions do NOT have single answers). Option D is irrelevant (statistical questions can be about unfamiliar topics). Option E partially overlaps with B and C but is less precise.
- 20) **Choice A is correct.** **(6.NS.B.2)** The long division shows  $16 \times 216 = 3,456$ , so the quotient is exactly 216 with no remainder.
- 21) **Choice B is correct.** **(6.NS.B.3)** Work left to right:  $8.9 - 3.4 = 5.5$ , then  $5.5 - 1.2 = 4.3$ .
- 22) **Choice A is correct.** **(6.NS.B.4)** The student confused the larger number with the GCF. Factors of 18: 1, 2, 3, 6, 9, 18. Factors of 24: 1, 2, 3, 4, 6, 8, 12, 24. Common: 1, 2, 3, 6. GCF is 6, not 24.
- 23) **Choice B is correct.** **(6.NS.B.4)** GCF of 35 and 49 is 7. So  $35 + 49 = 7(5 + 7)$ . Only Choice B uses the GCF and whole numbers.
- 24) **Choice C is correct.** **(6.NS.C.6c)** In decimal form:  $-\frac{7}{10} = -0.7$ ,  $-\frac{3}{4} = -0.75$ ,  $-\frac{2}{3} \approx -0.667$ . So  $-0.75 < -0.7 < -0.667$ , placing  $-0.7$  between these two values.
- 25) **Choice C is correct.** **(6.NS.C.8)** Quadrants I, II, and IV have at least one positive coordinate. Only Quadrant III (where both coordinates are negative) does not.



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Star Player Pep Talk

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## Hi, Star Player!

◇ 5 practice tests. Every one of them was a chance to grow. You took every chance. That's why you're a math star today! ◇

★ **Star players know:** confidence comes from practice. You can't fake it. You build it. You built yours over 5 tests. It's real now! ★

### Star Player Stats

- **Practice:** OFF THE CHARTS!
- **Skills:** BROAD! You can do many problem types.
- **Toughness:** HIGH! You don't quit on hard problems.
- **Game Plan:** READY! You know your strategies.

**Star tip:** on test day, take it one play at a time. One problem. Then the next. You will earn your stars!

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 Coach

# PRACTICE MORE. ACHIEVE MORE.

This book provides **5 full-length Math practice tests** designed to help Grade 6 students strengthen their skills, build confidence, and excel on standardized assessments.

Each test is carefully crafted to reflect the latest standards and covers a wide range of math topics with realistic questions and detailed answer explanations.



#### BUILD CONFIDENCE

Practice builds familiarity and reduces test anxiety.



#### IMPROVE ACCURACY

Sharpen skills and avoid common mistakes.



#### ACHIEVE SUCCESS

Consistent practice leads to greater results.

## WHAT'S INSIDE?



#### 5 Full-Length Practice Tests

Realistic tests designed to mirror actual exam conditions.



#### Realistic Questions

A variety of question types to strengthen problem-solving skills.



#### Answer Keys & Explanations

Detailed solutions to help students learn and improve.



#### Performance Tracking

Track progress and identify areas that need improvement.



#### Comprehensive Coverage

All essential topics aligned with Grade 6 math standards.



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