

# 3

# Maine

**Through Year Assessment**

GRADE

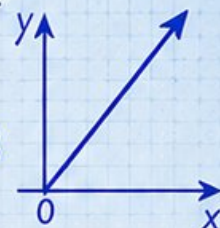
# 6

**MATH**

# PRACTICE TESTS

Standards Aligned Problem Solving  
For Comprehensive Assessment Programs

$$y = 2x + 3$$



$$\frac{3}{5} + \frac{2}{10} = \frac{8}{10} = \frac{4}{5}$$

$$36\% \text{ of } 150 = ?$$



**3** | PRINTED TESTS



**2** | ONLINE TESTS



Build Confidence



Master Key Math Skills



Answer Explanations for Every Question

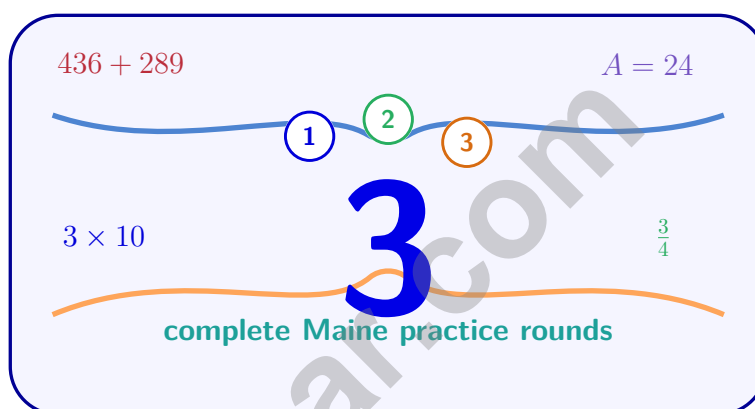


Test-Taking Strategies That Work

USE THESE TWO  
ADDITIONAL ONLINE  
PRACTICE TESTS  
FOR EXTRA REVIEW AFTER  
THE PRINTED TESTS  
IN THIS BOOK.

# 3 Maine Through Year Assessment Grade 6 Math Practice Tests

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



Three 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!

Three focused rounds using through-year coastal clarity

This book gives you three 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 three-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?

Three Through Year Assessment tests, 120 questions, and a full review path

Part	What You Will Practice
Tests 1–2	Foundation rounds for ratios, rational numbers, operations, and careful reading.
Test 3	Final stamina round for expressions, equations, geometry, data, problem models, and mixed review.
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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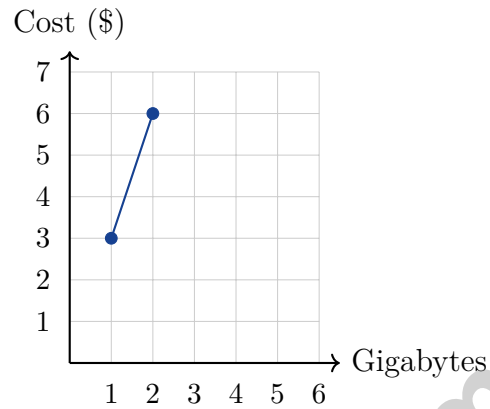
★ Practice Test 1	_____	15
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- 1) David has assets worth \$1200 (laptop, savings, bike). He has debts of \$300 (money owed to parents). What is his net worth?
- A. \$800                       C. \$1000  
 B. \$900                       D. \$1500
- 2) A bucket holds 4 quarts of water. How many pints is this? (Use 1 quart = 2 pints.)
- A. 2 pints                       C. 8 pints  
 B. 6 pints                       D. 12 pints
- 3) Evaluate:  $100 - 8 \times 5 + 2^3$
- A. 48                               C. 70  
 B. 60                               D. 68
- 4) A rectangle has area 35 square units. One dimension is 7 units. What is the perimeter?
- A. 18 units                       C. 28 units  
 B. 32 units                       D. 24 units



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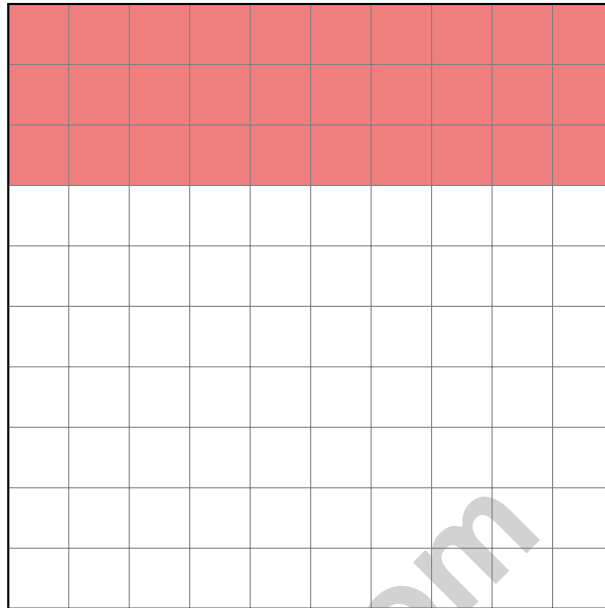
- 5) A cell phone plan charges a constant rate per gigabyte of data used. The graph below shows this relationship.



What does the point (1, 3) represent?

- A. 1 GB costs 3 dollars
- B. 3 GB costs 1 dollar
- C. 1 dollar buys 3 GB
- D. 1 GB costs 1 dollar
- 6) A clothing store stocks shirts and pants in a 3 : 2 ratio. If the store has 24 shirts, how many pants does it have?





7)

The grid shows what percent unshaded?

- A. 30%
- B. 70%
- C. 50%
- D. 20%

8) A machine produces 420 items in 7 hours. At this rate, how many items will the machine produce in 12 hours?



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4) If a distribution has  $Q1 = 40$ ,  $Q2$  (median)  $= 50$ , and  $Q3 = 55$ , what does this tell you about the data?

- A. The bottom half is spread out more than the top half
- B. The top half is spread out more than the bottom half
- C. The data is perfectly symmetric
- D. The data is bimodal

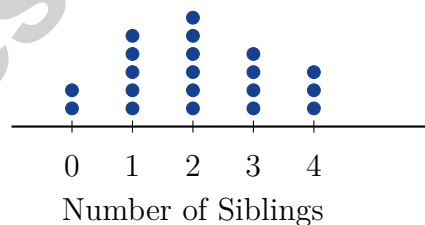
5) Which data set has the same mean and median?

- A. 1, 2, 3, 10
- B. 2, 4, 8, 10
- C. 1, 5, 9, 15
- D. 3, 5, 7, 9, 11

6) A recipe calls for between 200 mL and 300 mL of water. The range of acceptable volumes is:

- A. 50 mL
- B. 500 mL
- C. 200 mL
- D. 100 mL

7) A dot plot shows the number of siblings each student has. The distribution is: 0 siblings: 2 students; 1 sibling: 5 students; 2 siblings: 6 students; 3 siblings: 4 students; 4 siblings: 3 students. Which best describes the shape of this distribution?



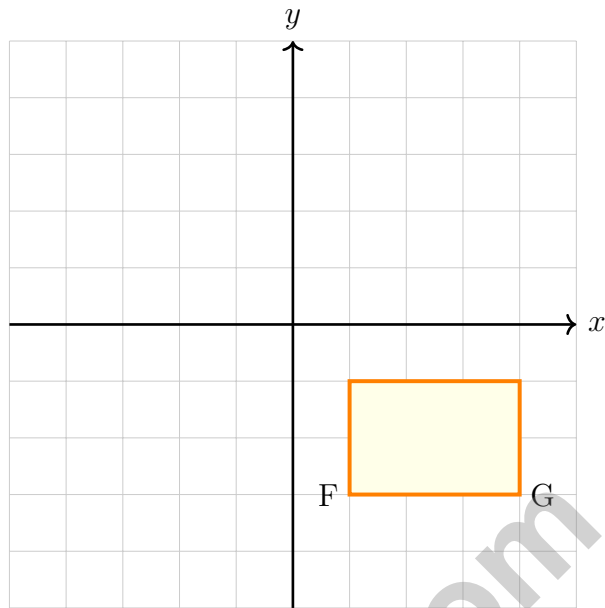
- A. Symmetric
- B. Skewed right
- C. Skewed left
- D. Bimodal



- 1) In the expression  $4x - 7$ , what does the variable  $x$  represent if the expression models “four times a number minus seven”?
- A. Four  C. The unknown number  
 B. Seven  D. The result
- 2) A trapezoid has bases of 20 m and 8 m with a height of 6 m. What is the area?
- A.  $28 \text{ m}^2$   C.  $84 \text{ m}^2$   
 B.  $56 \text{ m}^2$   D.  $168 \text{ m}^2$
- 3) A rectangular prism has volume 45 cubic inches. Its length is 6 inches and width is  $\frac{5}{2}$  inches. What is its height?
- A. 2 in  C. 5 in  
 B. 6 in  D. 3 in
- 4) A right triangle has base 10 units and height 8 units. What is its area?
- A. 40 square units  C. 50 square units  
 B. 45 square units  D. 80 square units
- 5) A square pyramid and a cube both have the same base dimensions. The cube has edge length 5 cm. The pyramid has the same square base ( $5 \times 5 \text{ cm}$ ) and slant height 4 cm. Which shape has the greater surface area?
- A. The cube  C. They have equal surface area  
 B. The pyramid  D. Cannot be determined



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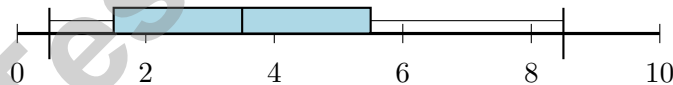


6)

A rectangle  $FGHJ$  has vertices at  $(1, -3)$ ,  $(4, -3)$ ,  $(4, -1)$ , and  $(1, -1)$ . If the rectangle is reflected over the  $x$ -axis, what will be the image of  $(1, -1)$ ?

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

7) Use the box plot to find  $Q_1$ :



- A. 0.5
- B. 8.5
- C. 3.5
- D. 1.5



## 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 three 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.QR.EA.1)** Net worth = Assets - Debts =  $\$1200 - \$300 = \$900$ .
- Choice C is correct.** **(6.RP.A.3d)** Multiply:  $4 \times 2 = 8$  pints.
- Choice D is correct.** **(6.EE.A.1)** Evaluate the exponent and multiplication before adding or subtracting:  $2^3 = 8$  and  $8 \times 5 = 40$ , so  $100 - 40 + 8 = 68$ .
- Choice D is correct.** **(6.G.A.3)** If area = 35 and one dimension is 7, then the other dimension is  $35 \div 7 = 5$  units. Perimeter =  $2(7 + 5) = 2(12) = 24$  units.
- Choice A is correct.** **(6.RP.A.3a)** On a graph with gigabytes on the x-axis and cost on the y-axis, the point (1, 3) means 1 gigabyte (x-value) costs \$3 dollars (y-value).
- The correct answer is 16.** **(6.RP.A.3)** Shirts are the 3-part amount. Since  $24 \div 3 = 8$ , each part is 8, and pants are 2 parts:  $2 \times 8 = 16$ .
- Choice B is correct.** **(6.RP.A.3c)** There are 30 shaded squares (rows 7-9), so  $100 - 30 = 70$  unshaded squares. That is 70%.
- The correct answer is 720 items.** **(6.RP.A.2)** First, find the unit rate:  $420 \div 7 = 60$  items per hour. Then multiply by 12 hours:  $60 \times 12 = 720$  items.
- Choice D is correct.** **(6.RP.A.3c)** Discount amount is  $\$1200 - \$900 = \$300$ . Percent discount is  $\frac{300}{1200} = \frac{1}{4} = 0.25 = 25\%$ .
- Choice D is correct.** **(6.RP.A.3)** Unit rate:  $1.50 \div 1 = 1.50$  dollars per pound. Verify:  $3 \div 2 = 1.50$  and  $4.50 \div 3 = 1.50$ .
- Choice A is correct.** **(6.EE.C.9)** Plan P: cost =  $8m$  (proportional, passes through origin). Plan Q: cost =  $20 + 3m$  (not proportional, has initial constant term).
- Choice B is correct.** **(6.AR.EA.2)** Discretionary:  $100\% - 60\% - 25\% = 15\%$ .
- Choice D is correct.** **(6.RP.A.3)** Actual dimensions:  $6 \times 5 = 30$  m and  $4 \times 5 = 20$  m. Area:  $30 \times 20 = 600$  sq m.
- Choice C is correct.** **(6.NS.A.1)**  $\frac{5}{6} \div \frac{1}{6} = \frac{5}{6} \times 6 = 5$ .
- Choice A is correct.** **(6.NS.B.2)** Following the long division steps:  $7,524 \div 44 = 171$  with no remainder. Verify:  $44 \times 171 = 7,524$ .
- Choice B is correct.** **(6.NS.B.3)** Multiply:  $1.5 \times 3 = 4.5$  cups of sugar.
- Choice D is correct.** **(6.NS.B.4)** This is a GCF problem. The GCF of 40 and 56 is 8. So they can make 8 boxes with 5 chocolate chip and 7 oatmeal cookies in each.
- The correct answer is  $4 : 6 = 2 : 3$  (dividing by 2) and  $4 : 6 = 8 : 12$  (multiplying by 2)..** **(6.RP.A.3)** Nice checking: Choice A works because  $4 : 6$  simplifies to  $2 : 3$ , and Choice B works because multiplying both parts of  $4 : 6$  by 2 gives  $8 : 12$ . The other choices change the relationship.
- Choice C is correct.** **(6.NS.B.4)** Factors of 10: 1, 2, 5, 10. Factors of 15: 1, 3, 5, 15. Common factors: 1, 5. The GCF is 5.
- Choice B is correct.** **(6.NS.C.5)** The difference in elevation is found by subtracting:  $3500 - (-800) = 3500 + 800 = 4300$  feet.
- Choice C is correct.** **(6.NS.C.7c)** Check each: A:  $2 = 2$  (equal). B:  $4 = 4$  (equal). C:  $3 \neq 5$  (NOT equal). D:  $6 = 6$  (equal).
- Choice A is correct.** **(6.NS.C.6c)**  $-\frac{5}{4} = -1.25$  is the least value, so it is farthest to the left (most negative).
- The correct answer is 30 mph.** **(6.RP.A.3c)**  $45 \div \frac{3}{2} = 45 \times \frac{2}{3} = 30$  miles per hour.
- Choice B is correct.** **(6.NS.C.8)** From the graph, the point in Quadrant II (upper left) is  $(-2, 4)$ , which has a negative x-coordinate and positive y-coordinate.
- Choice D is correct.** **(6.NS.C.7b)**  $M = 2$  and  $N = 7$ . Since  $2 < 7$ , we have  $M < N$ .
- Choice D is correct.** **(6.NS.C.8)** Length:  $|8 - 2| = 6$  units. Width:  $|3 - 1| = 2$  units. Perimeter:  $2(6 + 2) = 16$  units.



Scan me!  
For more practice  
& answers

## Hi, Hero!

◇ Once there was a Grade 6 student who took 3 practice tests. At first, the math was tricky. But this student kept showing up, kept trying, and kept learning. By the end, the student became a math hero. That hero is you! ◇

★ **Storytellers know:** every story has a hard middle. The hard middle is where heroes grow. You lived your hard middle. Your story ends with confidence! ★

### Your Hero Toolkit

- **Brave Heart:** You try hard problems.
- **Sharp Mind:** You think carefully before you act.
- **Steady Hand:** You write neatly and check.
- **Kind Spirit:** You are patient with yourself.

**Storyteller tip:** on test day, remember the hero you became. The chapters before today made you stronger. Now write your best chapter!

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 Storyteller

# PRACTICE TODAY. SUCCEED TOMORROW!

This book includes 3 full-length Math practice tests and 2 online tests to help Grade 6 students build confidence, strengthen skills, and excel on standardized assessments.

Each practice test is carefully crafted to reflect the latest standards and includes a variety of question types, realistic test conditions, and detailed answer explanations.

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

## THIS BOOK INCLUDES:

- 3 Full-Length Printed Tests
  - 2 Online Practice Tests
-  Detailed Answer Explanations

## MORE PRACTICE. GREATER RESULTS.

Give your child the tools to build strong math skills, confidence, and a positive attitude toward learning.

## WHAT YOU'LL 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 concepts with clear explanations and meaningful practice.



### Test Confidence

Familiarize with test formats and improve accuracy and speed.



### 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

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



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