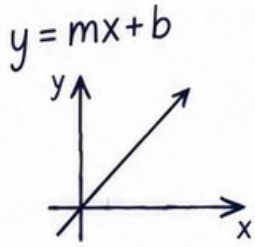
4 Wisconsin Forward Exam

GRADE 7 MATH

PRACTICE TESTS

Standards Aligned
Problem Solving
For Comprehensive
Assessment Programs



$$\frac{2x}{3} + \frac{x}{6} = 2$$

$$V = \frac{1}{3}\pi r^2 h$$

4 PRINTED TESTS

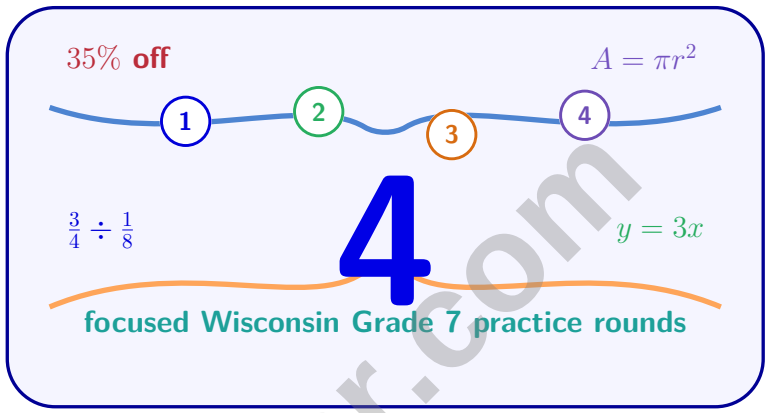
2 ONLINE TESTS

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

- Build Confidence
- Strengthen Math Skills
- Detailed Answers & Explanations
- Improve Test Performance

4 Wisconsin Forward Exam Grade 7 Math Practice Tests

Standards Practice for Wisconsin with Complete Answer Support



Four complete 40-question Grade 7 Forward Exam practice rounds with proportional relationships, percents, rational numbers, expressions, equations, geometry, statistics, probability, answer keys, and clear explanations for every item.

Jay Daie and Reza Nazari

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Welcome, Wisconsin Grade 7 Problem Solver!

Four focused rounds for sharper Forward Exam math thinking

This book gives you four full Grade 7 Forward Exam math practice tests. Each round is built to help you notice structure, compare quantities, use proportional reasoning, handle rational numbers, and explain your thinking with care.

Your Wisconsin Practice Promise

I will read every question carefully, choose a strategy that fits, write enough work to prove my answer, and use corrections as training for the next test.

How to Use This Book

A four-session plan for confident Grade 7 review

1. **Warm up with the review pages.** Notice the big ideas before starting the tests.
2. **Complete one test at a time.** Treat each 40-question round like a real practice session.
3. **Show your reasoning.** Jot a proportion, equation, diagram, number line, or quick estimate when it helps.
4. **Correct actively.** Rework missed items before reading the explanation.
5. **Choose the next target.** After each test, name one skill and one habit to improve.

Wisconsin review rhythm: Work a test, score it, study your misses, then come back ready for the next round with one clear goal.

What Is Inside?

Four Forward Exam tests, 160 questions, and a focused review path

Part	What You Will Practice
Tests 1–2	Proportional relationships, unit rates, percents, rational-number operations, and careful reading.
Tests 3–4	Expressions, equations, inequalities, scale drawings, geometry, data, probability, and multi-step problem solving.
Answer Pages	Compact keys and explanations that show why each answer works.

The tests are mixed on purpose. Grade 7 success means recognizing which idea is being tested even when the next question changes format.

Table of Contents

1) Two dot plots show the time (in minutes) students spend on homework. Group X: 25, 30, 30, 35, 35, 35, 40, 40, 45 minutes; Group Y: 15, 20, 35, 40, 50, 55 minutes. Which group's homework time is most predictable?

☐ A. Group X (clusters around 35 minutes)
☐ B. Group Y (spreads from 15 to 55 minutes)
☐ C. Both groups have the same pattern
☐ D. Group Y (longer homework time on average)

2) A student calculated the area of a circle with radius 5 cm using $\pi = 3$ instead of $\pi \approx 3.14$. How much less than the correct answer was the student's result?

☐ A. 0.7 cm^2
☐ B. 3.5 cm^2
☐ C. 7 cm^2
☐ D. 14 cm^2

3) The weights (in pounds) of two dog breeds are recorded:

Breed A	Breed B
45, 48, 46, 47, 49	35, 50, 42, 55, 38

Which breed has more consistent weight?

☐ A. Breed A (mean 47, smaller spread)
☐ B. Breed B (larger sample size)
☐ C. Both have equal consistency
☐ D. Cannot determine from the data

4) A histogram shows the age distribution of volunteers at a community center. The interval 40–50 years has a frequency of 18. If there are 120 total volunteers, what percentage are in the 40–50 age range?

☐ A. 12.5%
☐ B. 15%
☐ C. 18%
☐ D. 40%

5) A bag contains 24 stickers: 9 star stickers, 7 heart stickers, and 8 smiley-face stickers. If one sticker is drawn at random, what is the probability it is a star or heart?

☐ A. $\frac{9}{24}$
☐ B. $\frac{7}{24}$
☐ C. $\frac{16}{24}$
☐ D. $\frac{1}{3}$

6) A letter is randomly selected from the word CAT, and a coin is flipped. Which table correctly represents the sample space?

	H	T
C	CH	CT
A	AH	AT
T	TH	TT

☐ A. 3 outcomes
☐ B. 4 outcomes
☐ C. 5 outcomes
☐ D. 6 outcomes

7) A fair die is rolled and a fair coin is flipped. What is the probability of rolling a 5 AND flipping heads?

☐ A. $\frac{1}{12}$
☐ B. $\frac{1}{6}$
☐ C. $\frac{1}{8}$
☐ D. $\frac{5}{12}$

8) A researcher flipped three coins 160 times and recorded how many came up heads each time:

Heads Count	0	1	2	3
Frequency	22	56	62	20

What is the experimental probability of getting exactly 2 heads?

☐ A. $\frac{2}{3}$
☐ B. $\frac{62}{160}$
☐ C. 0.31
☐ D. 0.39

9) An irregular hexagon can be split into three rectangles: (4 m × 2 m), (3 m × 2 m), and (2 m × 2 m). What is the total area?

☐ A. 18 m^2
☐ B. 20 m^2
☐ C. 22 m^2
☐ D. 24 m^2

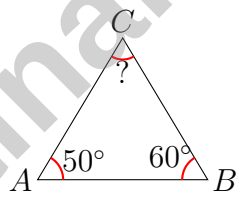
10) A student creates a stem-and-leaf plot with stems $6, 7, 8$ and counts 3 leaves under each stem. What is the total number of data points?

☐ A. 3
☐ B. 6
☐ C. 9
☐ D. 10

11) A triangular prism has a right-triangular base with legs 8 m and 9 m, and the prism has a depth of 5 m. What is the volume?

☐ A. 90 m^3
☐ B. 108 m^3
☐ C. 180 m^3
☐ D. 360 m^3

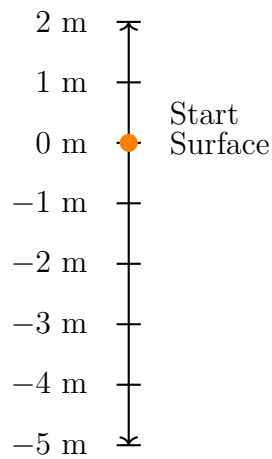
12)



Two angles of a triangle are 50° and 60°. What is the third angle?

☐ A. 70°
☐ B. 110°
☐ C. 30°
☐ D. 180°

1) Use the number line. A diver starts at the surface (0 m). She descends 3.5 m, then ascends 1.2 m. What is her position?



☐ A. −4.7 m
☐ B. −2.3 m
☐ C. 2.3 m
☐ D. 4.7 m

2) What is $\sqrt{144}$ minus $\sqrt{64}$?

☐ A. 2
☐ B. 4
☐ C. 6
☐ D. 8

3) Account balance was −$45 (overdrawn). After a deposit of $100, what is the new balance?

4) Which factorization shows why $6x - 9 = 3(2x - 3)$?

☐ A. The GCF of $6x$ and 9 is 3
☐ B. 6 and 9 are both divisible by 2
☐ C. $2x$ is a common term
☐ D. We subtract the smaller from the larger

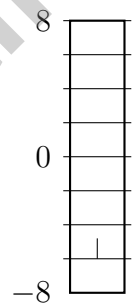
5) Complete the sign rule: When you multiply a negative number by a negative number, the product is _____.

☐ A. negative
☐ B. positive
☐ C. zero
☐ D. undefined

6) A recipe for lemonade uses 2 cups lemon juice and 8 cups water. Which statement is true?

☐ A. The ratio of lemon to water is 1 : 3
☐ B. The ratio of lemon to water is 1 : 4
☐ C. For every 3 cups of lemon, there are 12 cups of water
☐ D. The ratio of water to lemon is 3 : 1

7) A thermometer shows -8 degrees. Which temperature is the opposite change?



Current: $-8°$

☐ A. 0 degrees
☐ B. 4 degrees
☐ C. -16 degrees
☐ D. 8 degrees

1) What is $-\frac{2}{5} \times (-10)$?

☐ A. -4
☐ B. -20
☐ C. 4
☐ D. 20

2) A composite figure consists of three rectangles stacked horizontally: 5 m × 3 m, 5 m × 3 m, and 5 m × 3 m. What is the total area?

☐ A. 15 m^2
☐ B. 30 m^2
☐ C. 35 m^2
☐ D. 45 m^2

3) A stem-and-leaf plot represents time (in minutes) spent studying:

Stem	Leaves
2	0, 5, 8, 9
3	2, 5, 8
4	1, 7

If the goal is to study at least 35 minutes, how many students fell short?

☐ A. 4
☐ B. 5
☐ C. 6
☐ D. 7

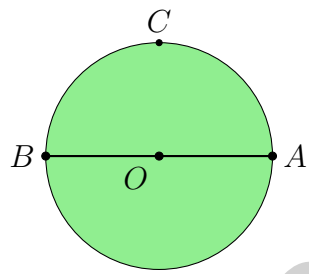
4) A rectangular prism with a square base has a base perimeter of 20 cm and a height of 8 cm. What is the volume? (Hint: find the side length of the square first.)

☐ A. 100 cm^3
☐ B. 160 cm^3
☐ C. 200 cm^3
☐ D. 400 cm^3

5) Two sides of a triangle are 6 cm and 14 cm. If the third side is a whole number, how many possible triangles can be drawn?

☐ A. 9
☐ B. 11
☐ C. 13
☐ D. Infinitely many

6) In the circle below, use the diagram to identify the segment.



The segment from B to A is:

☐ A. A radius
☐ B. A diameter
☐ C. An arc
☐ D. A sector

7) A triangular prism has a right triangular base with legs 6 in and 8 in (hypotenuse 10 in). The prism is 12 in long. What is the surface area?

☐ A. 216 in^2
☐ B. 288 in^2
☐ C. 336 in^2
☐ D. 420 in^2

8) A spinner with 5 equal sections is used to simulate an event. After 100 spins, the results show that one section appears 12 times, another appears 18 times, another appears 22 times, another appears 26 times, and the last appears 22 times. Which section's result deviates most from its theoretical probability?

☐ A. The section appearing 12 times
☐ B. The section appearing 18 times
☐ C. The section appearing 22 times
☐ D. The section appearing 26 times

Wisconsin Forward Exam Grade 7 Practice Test Answer Keys

How to use this section with a Grade 7 student:

1. check the answer first and circle any item that needs another look
2. retry the problem with fresh work before reading the explanation
3. write one short lesson learned from each missed or guessed item

A strong review routine turns every correction into a sharper plan for the next Wisconsin Forward Exam practice test.

Practice Test Answers and Explanations

Practice Test 1 Answers and Explanations

1) **Choice A is correct.** 7.SP.3 Group X's data concentrates at 30–40 minutes with a clear peak at 35, making it predictable. Group Y spreads across 15–55 minutes, making individual homework times unpredictable.
2) **Choice B is correct.** 7.G.4-7.G.6 Correct: $3.14 \times 25 = 78.5$ cm^2. Student: $3 \times 25 = 75$ cm^2. Difference: $78.5 - 75 = 3.5$ cm^2.
3) **Choice A is correct.** 7.SP.1-7.SP.4 Breed A ranges from 45–49 (range = 4), while Breed B ranges 35–55 (range = 20). Smaller range indicates greater consistency.
4) **Choice B is correct.** 7.SP.1-7.SP.4 $\frac{18}{120} = \frac{3}{20} = 0.15 = 15\%$.
5) **Choice C is correct.** 7.SP.5-7.SP.8 Star or heart $= 9 + 7 = 16$. $P(\text{star or heart}) = \frac{16}{24} = \frac{2}{3}$.
6) **Choice D is correct.** 7.SP.5-7.SP.8 The table shows 3 rows (letters: C, A, T) and 2 columns (coin: H, T), giving $3 \times 2 = 6$ outcomes.
7) **Choice A is correct.** 7.SP.5-7.SP.8 $P(5) \cdot P(\text{heads}) = \frac{1}{6} \cdot \frac{1}{2} = \frac{1}{12}$.
8) **Choice B is correct.** 7.SP.6 Getting exactly 2 heads occurred 62 times in 160 trials. Experimental probability $= \frac{62}{160} = 0.3875 \approx 0.39$.
9) **Choice A is correct.** 7.G.4-7.G.6 Rectangle 1: $4 \times 2 = 8$ m^2. Rectangle 2: $3 \times 2 = 6$ m^2. Rectangle 3: $2 \times 2 = 4$ m^2. Total: $8 + 6 + 4 = 18$ m^2.
10) **Choice C is correct.** 7.SP.1-7.SP.4 Total data points $= 3 + 3 + 3 = 9$.
11) **Choice C is correct.** 7.G.4-7.G.6 Base area $= \frac{1}{2} \times 8 \times 9 = 36$ m^2. Volume $= 36 \times 5 = 180$ m^3.
12) **Choice A is correct.** 7.G.1-7.G.5 The sum of angles in a triangle is 180°. Third angle $= 180° - 50° - 60° = 70°$.
13) **Choice C is correct.** 7.G.4-7.G.6 Diameter is twice the radius: $2 \times 5 = 10$ inches.
14) **The correct answer is** 16 . 7.NS.1-7.NS.3 The change is final minus initial: $8 - (-8) = 8 + 8 = 16$ degrees.
15) **Choice A is correct.** 7.SP.5-7.SP.8 A very small probability (close to 0) means the event is unlikely. 0.05 is the smallest value.
16) **Choice C is correct.** 7.G.1-7.G.5 With one side and one angle, we have insufficient information. Adding a second side gives SAS; adding a second angle gives ASA. Either approach uniquely determines the triangle.
17) **Choice C is correct.** 7.SP.1-7.SP.4 Morning: $\frac{45}{60} = 0.75$ or 75%. Afternoon: $\frac{54}{72} = 0.75$ or 75%. Both show equal proportions.
18) **Choice D is correct.** 7.RP.3 Sale price = original $\times 0.60$. So $36 = \text{original} \times 0.60$, giving original $= 36 \div 0.60 = \$60$.
19) **The correct answer is** -1 . 7.NS.2 Total change: $(-1.2) \times 5 = -6$ degrees. Final temperature: $5 + (-6) = -1°$C.
20) **Choice D is correct.** 7.RP.3 Each year adds \$50 interest on principal of \$1000: rate $= \frac{50}{1000} = 0.05 = 5\%$.
21) **The correct answer is B,C.** 7.RP.1-7.RP.3 Option B: cost $= 1.50 \times$ pounds (proportional, of form $y = kx$). Option C: distance = speed $\times$ time (proportional). Option A is a general trend but not a strict proportional relationship. Option D: height does not scale proportionally with age (growth rates vary).
22) **Choice D is correct.** 7.NS.1-7.NS.3 $4 - 10 = 4 + (-10) = -6$.
23) **Choice A is correct.** 7.SP.1-7.SP.4 $75 \div 500 \times 100 = 0.15 \times 100 = 15\%$.
24) **Choice C is correct.** 7.RP.1-7.RP.3 Unit rate is $\$120 \div 10 = \$12$ per book. For 15 books: $15 \times \$12 = \$180$.
25) **Choice D is correct.** 7.RP.1-7.RP.3 The ratio is $\frac{2}{5} : \frac{3}{5} = 2 : 3$.
26) **Choice D is correct.** 7.RP.1-7.RP.3 Production is 12 pounds per square meter. Total tomatoes equal 12 times the area: $t = 12g$.
27) **Choice C is correct.** 7.RP.3 Set up the proportion $\frac{35}{100} = \frac{x}{280}$. Cross-multiply: $35 \times 280 = 100x$, giving $x = 98$.
28) **The correct answer is** 13 . 7.NS.1-7.NS.3 Since the area is 169, the side length is $\sqrt{169} = 13$ units.
29) **Choice A is correct.** 7.SP.5-7.SP.8 Odd cards: $1, 3, 5$. $P(\text{first odd}) = \frac{3}{6} = \frac{1}{2}$. Given first is odd, $P(\text{second odd}) = \frac{2}{5}$. So $P(\text{both}) = \frac{1}{2} \times \frac{2}{5} = \frac{1}{5}$.
30) **Choice C is correct.** 7.RP.3 Usage fee $= 0.05 \times 10000 = \$500$. Total $= 300 + 500 = \$1,300$.

Hi, Stamina Builder!

◇ This carefully paced book gave you four steady Grade 7 practice tests, so you had repeated chances to build accuracy, pacing, and confidence. Completing practice tests builds more than math knowledge. It builds the focus needed to think clearly for a long stretch. ◇

⋆ **Remember this:** That stamina matters. On real test day, calm pacing can be just as important as remembering a formula. ⋆

Stamina Skills

- **Breathe:** Reset before a difficult page.
- **Pace:** Do not spend too long in one place.
- **Return:** Come back to skipped questions with fresh eyes.
- **Finish Strong:** Use the last minutes to check.

Grade 7 test-day tip: Practice a simple reset: pause, breathe, reread, then choose your next step.

If you want to share something or ask a question, please email me at jay@testinar.com.

Jay Daie

Your Test-Stamina Coach

PRACTICE TODAY. SUCCEED TOMORROW!

This book includes 4 full-length Math practice tests and 2 online tests to help Grade 7 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:

- 4 Full-Length Printed Tests
- 2 Online Practice Tests
- Detailed Answers & 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

Build Confidence
Practice regularly to feel prepared and test-ready.

Strengthen Math Skills
Develop key math concepts and problem solving abilities.

Improve Understanding
Learn with clear explanations and step-by-step solutions.

Test Confidence
Familiarize with test formats and improve accuracy and speed.

Boost Performance
Apply your knowledge and achieve your best score!

TOPICS COVERED

- Ratios & Proportions
- The Number System
- Expressions & Equations
- Geometry
- Percents & Decimals
- Statistics & Probability
- Data Analysis
- Measurement & Conversions
- Algebraic Thinking
- And More!

2 ONLINE TESTS

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

2 EXTRA ONLINE TEST ACCESS CODE IS INSIDE THE BOOK!

Don't lose it—your extra practice and success start here!

VISIT TESTINAR.COM/MATH7

FOR MORE PRACTICE TESTS AND LEARNING RESOURCES.

PRACTICE REGULARLY | STAY FOCUSED | SOLVE CONFIDENTLY | SUCCEED BRIGHTLY