

9 Wisconsin

Forward Exam

GRADE 7

MATH

PRACTICE TESTS

Standards Aligned Problem Solving
For Comprehensive Assessment Programs

Program



9 PRINTED TESTS



2 ONLINE TESTS



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



BUILT FOR ACAP
Standards-Aligned



**STRENGTHEN
SKILLS**



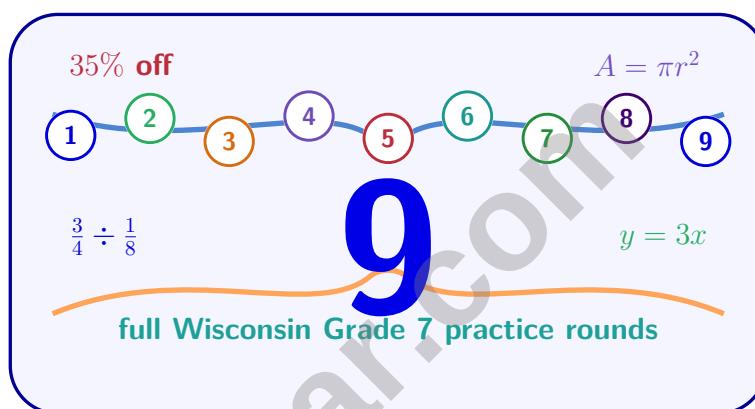
**SHARPEN
THINKING**



BE TEST-READY
Improve Performance

9 Wisconsin Forward Exam Grade 7 Math Practice Tests

*Standards-Aligned Wisconsin Practice for Proportional Reasoning, Expressions, Geometry,
Statistics, and Probability*



Nine 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!

Nine focused rounds for sharper Forward Exam math thinking

This book gives you nine 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.

Read

Model

Verify

How to Use This Book

A nine-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?

Nine Forward Exam tests, 360 questions, and a complete review path

Part	What You Will Practice
Tests 1–3	Proportional relationships, unit rates, percents, rational-number operations, and careful reading.
Tests 4–6	Expressions, equations, inequalities, scale drawings, geometry, and multi-step problem solving.
Tests 7–9	Statistics, probability, mixed review, stamina, and choosing efficient strategies.
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.



Scan me!
For more practice
& answers

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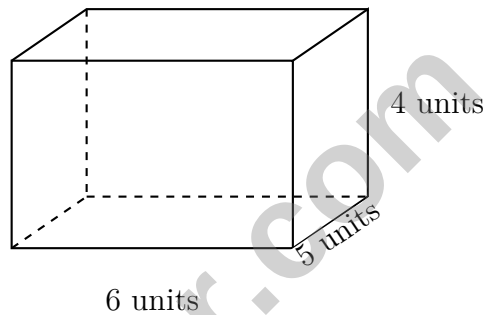
- 1) Explain why division is NOT commutative: Why is $12 \div 3$ different from $3 \div 12$?
- ☐ A. Division order does not matter; both equal 4
- ☐ B. Division order matters; $12 \div 3 = 4$ but $3 \div 12 = 0.25$
- ☐ C. One is positive, the other is negative
- ☐ D. Division is always commutative
- 2) A fitness center charges a \$30 enrollment fee and \$45 per month. What is the total cost for 6 months of membership?
- ☐ A. \$240
- ☐ B. \$270
- ☐ C. \$300
- ☐ D. \$330
- 3) A stem-and-leaf plot has stem 3 with leaves 2, 5, 7, 8. Which values does this represent?
- ☐ A. 23, 35, 37, 38
- ☐ B. 32, 35, 37, 38
- ☐ C. 2, 5, 7, 8
- ☐ D. 3.2, 3.5, 3.7, 3.8
- 4) A toss of two dice together was repeated 360 times. The number of times the sum was 7 was recorded as 58 times. What is the experimental probability of rolling a sum of 7?

Outcomes that make a sum of 7					
16	25	34	43	52	61
(1, 6)	(2, 5)	(3, 4)	(4, 3)	(5, 2)	(6, 1)

- ☐ A. $\frac{1}{6}$
- ☐ B. $\frac{58}{360}$
- ☐ C. 0.16
- ☐ D. $\frac{7}{360}$



- 5) A bag contains red and blue marbles. A simulation draws a marble, records the color (red), and replaces it. This is repeated 400 times, and red is drawn 284 times. Based on this simulation, what is the estimated probability of drawing a red marble? (Express as a decimal.)



- 6) The rectangular prism shown has dimensions as labeled. What is its volume in cubic units?
- ☐ A. 15 cubic units ☐ C. 120 cubic units
☐ B. 60 cubic units ☐ D. 240 cubic units
- 7) A circle has a diameter of 24 cm. What is half the radius?
- ☐ A. 3 cm ☐ C. 12 cm
☐ B. 6 cm ☐ D. 24 cm



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8) An investment of \$3000 earns \$270 in simple interest over 2 years. What is the annual interest rate?

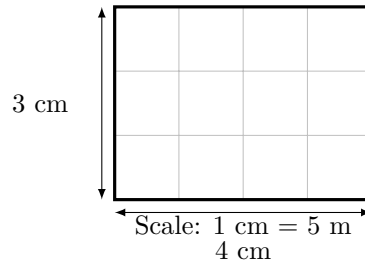
☐ A. 3%

☐ C. 5%

☐ B. 9%

☐ D. 4.5%

Room Floor Plan (scale model)



9)

According to the scale, what are the actual dimensions of this rectangular room?

☐ A. 10 m $\times$ 20 m

☐ C. 12 m $\times$ 15 m

☐ B. 4 m $\times$ 3 m

☐ D. 20 m $\times$ 15 m

10) In a sample of 140 workers, 35 work the night shift. The company employs 4200 people. How many workers are expected to work the night shift?



1) A savings account earns 6% simple interest. Which statement best explains the benefit of starting to save early?

- ☐ A. Early saving guarantees no losses on investments
- ☐ B. Interest rates are always higher for younger people
- ☐ C. Early savers never need to work again
- ☐ D. More time allows interest to accumulate on a larger balance

2) A delivery service charges \$4.50 base fee plus \$1.25 per mile. What is the cost to deliver a package 12 miles away?

3) Which is the simplest form of $-6 - (-4)$?

- ☐ A. -10
- ☐ B. 10
- ☐ C. 2
- ☐ D. -2

4) A smoothie recipe uses 2 cups of berries for every 3 cups of yogurt. If you use 8 cups of berries, how many cups of yogurt do you need?

- ☐ A. 10 cups
- ☐ B. 16 cups
- ☐ C. 14 cups
- ☐ D. 12 cups

5) A student claims: $\frac{-4}{5} \div \frac{2}{3} = \frac{-8}{15}$ because “you multiply the numerators and denominators.” What is the correct quotient?



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6) A truck hauls $1\frac{1}{4}$ tons of cargo in $\frac{1}{3}$ hour. A train hauls $2\frac{1}{2}$ tons in $\frac{2}{3}$ hour. Which vehicle has the higher rate of cargo transport?

☐ A. Truck at $\frac{15}{4}$ tons/hr

☐ C. Truck at $\frac{5}{12}$ tons/hr

☐ B. Train at $\frac{15}{4}$ tons/hr

☐ D. They transport at the same rate

7) An online store charges a flat \$5.99 for shipping plus \$2.50 per item. Is the total cost proportional to the number of items?

☐ A. Yes, the equation is $C = 2.50n + 5.99$

☐ C. Yes, the constant is 2.50

☐ B. No, because the equation $C = 2.50n + 5.99$ includes both multiplication and addition

☐ D. No, because there is a constant term (\$5.99)

8) A water pump fills a tank at a constant rate. The table shows the gallons of water (w) pumped over time (t) in minutes.

Time (minutes)	Water (gallons)
2	16
4	32
6	48

What is the constant of proportionality?

☐ A. 4 gallons/min

☐ C. 16 gallons/min

☐ B. 6 gallons/min

☐ D. 8 gallons/min



1) What is $\sqrt{81}$?

☐ A. 8

☐ B. 9

☐ C. 10

☐ D. 11

2) Solve: $\frac{x}{6} + 1 = 3$

☐ A. $x = 4$

☐ B. $x = 12$

☐ C. $x = 18$

☐ D. $x = 24$

3) Solve for x : $-4(x - 5) = 4$

☐ A. $x = 3$

☐ B. $x = 4$

☐ C. $x = 5$

☐ D. $x = 6$

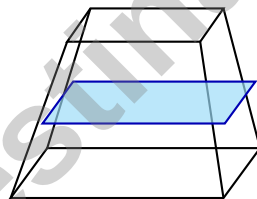
4) A scale drawing has a scale of 1 cm : 5 cm. What is the scale factor?

☐ A. 1

☐ B. 2

☐ C. 5

☐ D. 10



mid-height square slice

5)

A frustum of a square pyramid has a lower base of 4×4 cm, an upper base of 2×2 cm, and a height of 3 cm. A horizontal plane cuts through the frustum halfway between the bases. What is the side length of the square cross-section?

☐ A. 2 cm

☐ B. 2.5 cm

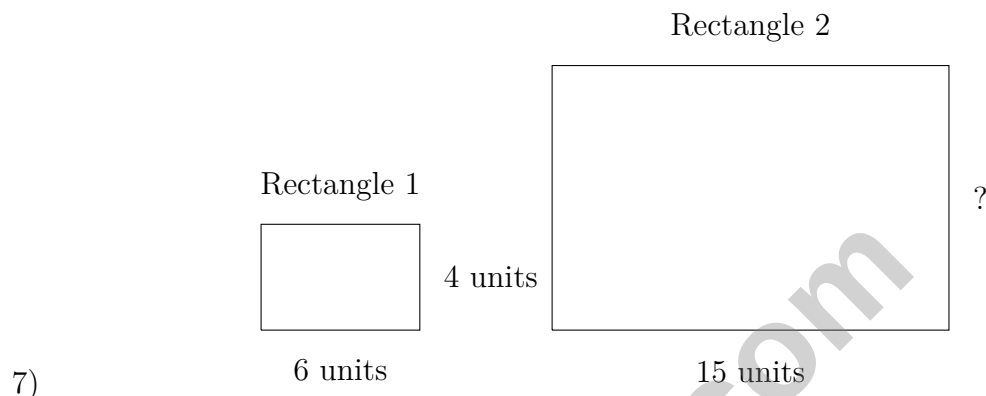
☐ C. 3 cm

☐ D. 3.5 cm



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& answers

- 6) An angle and its supplement are in the ratio 2 : 7. What is the measure of the supplement?

☐ A. 140° ☐ C. 40° ☐ B. 80° ☐ D. 160° 

Two similar rectangles are shown. The first has dimensions 6 units by 4 units. The second has a length of 15 units. What is the width of the second rectangle?

☐ A. 8 units☐ C. 10 units☐ B. 9 units☐ D. 12 units

- 8) If $a + (-a) = 0$, and $a = 27$, what is the value of $-a$?



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.

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Practice Test Answers and Explanations

Practice Test 1 Answers and Explanations

- 1) **Choice B is correct.** (7.NS.1-7.NS.3) $12 \div 3 = 4$ but $3 \div 12 = \frac{1}{4} = 0.25$. Division is **not commutative**: changing the order changes the result. This is different from addition and multiplication.
- 2) **Choice C is correct.** (7.RP.3) Total cost = $30 + (45 \times 6) = 30 + 270 = \300 .
- 3) **Choice B is correct.** (7.SP.1-7.SP.4) Each leaf combines with its stem: stem 3 + leaf 2 = 32, stem 3 + leaf 5 = 35, etc.
- 4) **Choice B is correct.** (7.SP.6) Experimental probability = $\frac{58}{360} \approx 0.161$. Note that the theoretical probability of rolling a sum of 7 is $\frac{6}{36} = \frac{1}{6} \approx 0.167$, which is very close to the experimental result.
- 5) **The correct answer is 0.71.** (7.SP.5-7.SP.8) Relative frequency: $\frac{284}{400} = 0.71$.
- 6) **Choice C is correct.** (7.G.4-7.G.6) $V = 6 \times 4 \times 5 = 120$ cubic units.
- 7) **Choice B is correct.** (7.G.4-7.G.6) Radius is $\frac{24}{2} = 12$ cm. Half the radius is $\frac{12}{2} = 6$ cm.
- 8) **Choice D is correct.** (7.RP.3) $270 = 3000 \times r \times 2 \Rightarrow 270 = 6000r \Rightarrow r = 0.045 = 4.5\%$.
- 9) **Choice D is correct.** (7.RP.1-7.RP.3) Using the scale 1 cm = 5 m: width is $4 \times 5 = 20$ m; height is $3 \times 5 = 15$ m.
- 10) **The correct answer is 1050.** (7.SP.1-7.SP.4) $\frac{35}{140} = \frac{x}{4200}$. Reduce: $\frac{1}{4} = \frac{x}{4200} \Rightarrow x = 1050$.
- 11) **Choice D is correct.** (7.RP.3) 30% of 100 is $0.30 \times 100 = 30$.
- 12) **Choice C is correct.** (7.RP.3) Actual discount amount = $125 - 100 = \$25$. Percent = $(25/125) \times 100 = 20\%$. (Not the intended 25% off).
- 13) **Choice C is correct.** (7.EE.4b) "At least" means $\geq$ (greater than or equal to). So $n + 6 \geq 15$.
- 14) **Choice D is correct.** (7.RP.1-7.RP.3) Graph 1 passes through origin (0, 0) with slope $k = 1$. Graph 2 has y -intercept 3, so not proportional.
- 15) **Choice C is correct.** (7.RP.3) Find 55% of 200 using the proportion $\frac{55}{100} = \frac{x}{200}$. Cross-multiply: $x = 110$.
- 16) **Choice C is correct.** (7.NS.1-7.NS.3) $-75 + 120 = 45$ dollars.
- 17) **Choice A is correct.** (7.EE.1-7.EE.2) Distribute the negative: $-8d + 3 - 4d + 7 = (-8d - 4d) + (3 + 7) = -12d + 10$.
- 18) **The correct answer is 0.** (7.G.1-7.G.5) Compute $81 + 144 - 225 = 0$. This confirms the side lengths satisfy the Pythagorean relationship, forming a right triangle.
- 19) **Choice D is correct.** (7.G.1-7.G.5) The scale factor from the left trapezoid to the right trapezoid is $\frac{5.6}{4} = 1.4$. The corresponding right side is 8.4 cm, so the missing left side is $8.4 \div 1.4 = 6$ cm.
- 20) **The correct answer is A, C.** (7.G.4-7.G.6) Option A is correct (60 m^2). Option C is correct (18 m^2). The true total is $60 + 18 = 78 \text{ m}^2$, so D and
- 21) **Choice B is correct.** (7.SP.1-7.SP.4) Season 2 has higher Q1 (65 vs. 60), median (76 vs. 72), and Q3 (88 vs. 85). The entire distribution shifted higher, with consistent spacing (IQR 23 for both), indicating uniform improvement.
- 22) **Choice C is correct.** (7.SP.5-7.SP.8) Non-red: $10 + 8 = 18$. $P(\text{not red}) = \frac{18}{30} = \frac{3}{5}$.
- 23) **Choice D is correct.** (7.RP.1-7.RP.3) Cost per pencil = $\frac{1/2}{8} = \frac{1}{2} \times \frac{1}{8} = \frac{1}{16} = 0.0625$ dollars.
- 24) **Choice D is correct.** (7.RP.1-7.RP.3) Cost equals price per item times number of items. Here $T = 0.50n$.
- 25) **Choice C is correct.** (7.RP.3) Other expenses = $(100 - 50 - 20 - 15)\% = 15\%$ of $\$3,600 = 0.15 \times 3600 = \540 .
- 26) **Choice B is correct.** (7.EE.1-7.EE.2) After a 10% markup: 1.1c. Then a 10% discount on that: $0.9(1.1c) = 0.99c$. The operations don't cancel.
- 27) **Choice C is correct.** (7.EE.4a) Distribute: $10x - 5 = 45$. Add 5: $10x = 50$. Divide by 10: $x = 5$.
- 28) **Choice D is correct.** (7.SP.5-7.SP.8) Option D: $0.4 + 0.4 + 0.3 = 1.1 \neq 1$, so it is not valid. All other options sum to 1.
- 29) **Choice D is correct.** (7.NS.2) Negative times negative equals positive. $-7 \times (-3) = 21$.
- 30) **Choice D is correct.** (7.NS.1-7.NS.3) Side length: $s = \sqrt{256} = 16$ meters. Perimeter = $4s = 4(16) = 64$ meters.
- 31) **The correct answer is 8.33%.** (7.RP.3) Percent error = $\frac{|55000 - 60000|}{60000} \times 100\% = \frac{5000}{60000} \times 100\% \approx 8.33\%$.



Hi, Confident Learner!

◇ This high-stamina book gave you nine substantial Grade 7 practice tests, so you had repeated chances to build accuracy, pacing, and confidence. Grade 7 math can feel big because it brings together rational numbers, expressions, equations, geometry, probability, and data. ◇

★ **Remember this:** But big topics become manageable when you practice one skill at a time. That is what you have been doing with every test in this book. ★

Confidence Builders

- **Know the Goal:** Identify what the question asks.
- **Use Vocabulary:** Math words point to math actions.
- **Show Work:** Give yourself something to check.
- **Celebrate Effort:** Practice is proof that you are moving.

Grade 7 test-day tip: When reviewing, do not only mark wrong answers. Write one sentence about what you learned from each one.

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

Jay Daie

Your Confidence Coach

PRACTICE TODAY. SUCCEED TOMORROW!

This book includes **9** 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:

9 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 & 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!

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BRIGHTLY