

8

Wisconsin

Forward Exam

GRADE 7

MATH

PRACTICE TESTS

✓ Standards Aligned
Problem Solving

For Comprehensive
Assessment Programs



8 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 SKILLS



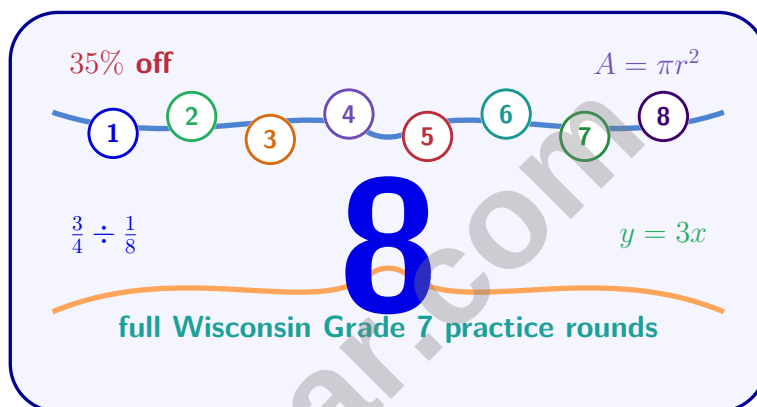
THINK SMARTER



BE TEST-READY

8 Wisconsin Forward Exam Grade 7 Math Practice Tests

A clear practice ladder through Wisconsin Grade 7 ratios, percents, rational numbers, expressions, geometry, statistics, and simulations



Eight 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!

Eight focused rounds for sharper Forward Exam math thinking

This book gives you eight 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

An eight-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?

Eight Forward Exam tests, 320 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 7–8	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.



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& answers

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- 1) A scientist measures a solution's volume as $\frac{7}{8}$ liter. She uses $\frac{1}{8}$ liter, then adds $\frac{3}{8}$ liter. What is the final volume?

☐ A. $\frac{3}{4}$ liter
☐ B. $\frac{9}{8}$ liters
☐ C. $\frac{1}{2}$ liter
☐ D. 1 liter

- 2) A temperature drops 1.2°C every 2 hours. How many degrees has it dropped after 10 hours?

☐ A. -2.4°C
☐ B. -6°C
☐ C. -12°C
☐ D. -8.8°C

- 3) Convert the following to scientific notation and identify its exponent: 6,800,000,000.

☐ A. Exponent is 8
☐ B. Exponent is 9
☐ C. Exponent is 10
☐ D. Exponent is 11

- 4) Simplify: 7^1

☐ A. 0
☐ B. 1
☐ C. 7
☐ D. 49

- 5) A student writes an equation for: "A phone plan costs \$40 monthly plus \$0.10 per text over the limit. After texts, the bill was \$50." The student writes: $40 + 0.10t = 50$. How would you check if t is reasonable?

☐ A. Solve: $0.10t = 10$, so $t = 100$ texts. Verify: $40 + 0.10(100) = 50$. ✓
☐ B. Solve: $0.10t = 10$, so $t = 100$ texts. Verify: $40(100) + 0.10 = 50$. ✗
☐ C. Solve: $40t = 10$, so $t = 0.25$ texts. Verify: $40 + 0.10(0.25) = 50$. ✗
☐ D. The equation cannot be checked without more information.

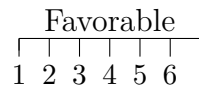


- 6) Which of the following is the correct first step to solve $4x - 3 = 13$?
- ☐ A. Subtract 4 from both sides ☐ C. Divide both sides by 4
- ☐ B. Add 3 to both sides ☐ D. Multiply both sides by 4
- 7) What is $\frac{3}{4} \div \frac{1}{2}$?
- ☐ A. $\frac{3}{8}$ ☐ C. $\frac{3}{2}$
- ☐ B. $\frac{2}{3}$ ☐ D. 2
- 8) Factor out the GCF: $10y + 15$.
- ☐ A. $5(2y + 3)$ ☐ C. $10(y + 5)$
- ☐ B. $5(10y + 15)$ ☐ D. $2(5y + 7.5)$
- 9) Which equation is equivalent to $3(x - 5) = 24$?
- ☐ A. $3x - 15 = 24$ ☐ C. $x - 15 = 24$
- ☐ B. $3x - 5 = 24$ ☐ D. $3x = 19$
- 10) A person buys an item for \$45 and sells it for 20% more. What is the selling price?
- ☐ A. \$36 ☐ C. \$65
- ☐ B. \$54 ☐ D. \$90
- 11) Two populations of trees have median heights of 25 feet. Forest A has a MAD of 1.5 feet. Forest B has a MAD of 3.8 feet. What can a biologist conclude?
- ☐ A. Forest A trees are all taller than Forest B trees ☐ C. Forest B has more genetic diversity
- ☐ B. Forest A's tree heights are more uniform ☐ D. Both forests are identical



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12)



A number line shows a uniform model with outcomes $\{1, 2, 3, 4, 5, 6\}$. If the favorable region is $\{2, 3\}$, what is $P(\text{favorable})$?

☐ A. $\frac{1}{2}$

☐ B. $\frac{1}{4}$

☐ C. $\frac{1}{3}$

☐ D. $\frac{2}{5}$

13) What is $2 \times (-3) \times (-2)$?

☐ A. -12

☐ B. -8

☐ C. 8

☐ D. 12

14) A box plot compares the test scores of two tutoring methods. Traditional Method: Median = 75, Range = 25. New Method: Median = 78, Range = 35. Which method is better?

☐ A. New Method (higher median, but less consistent)
 ☐ C. Both methods produce identical results

☐ B. Traditional Method (consistent with reasonable performance)
 ☐ D. New Method is clearly superior

15) An investment account earns 7% simple interest per year. If someone invests \$3,000, how much interest will they earn after 3 years?



- 1) A die is rolled and a spinner with 6 equal sections is spun. What is the probability of rolling a number greater than 2 AND spinning a number less than 4?

☐ A. $\frac{1}{3}$
☐ B. $\frac{8}{36}$

☐ C. $\frac{2}{3}$
☐ D. $\frac{4}{9}$

- 2) Solve: $2x + 7 \geq -1$

☐ A. $x \geq -4$
☐ B. $x \geq 3$

☐ C. $x \leq -4$
☐ D. $x > -4$

- 3) Simplify: $5(2a + 3) - (a + 6)$.

☐ A. $10a + 15 - a - 6 = 9a + 9$
☐ B. $10a + 9$

☐ C. $11a - 6$
☐ D. $10a + 3$

- 4) A sports team orders x uniforms at \$15 each. After a \$20 bulk discount, the total is \$130. Which equation represents this?

☐ A. $15x - 20 = 130$
☐ B. $15(x - 20) = 130$

☐ C. $x(15 - 20) = 130$
☐ D. $15x + 20 = 130$

- 5) A circle has radius 7 cm. Find its circumference using $\pi \approx \frac{22}{7}$.



6) Which scenario shows the most total interest earned over 3 years with compound interest?

☐ A. \$2,000 at 4%

☐ C. \$2,500 at 3%

☐ B. \$1,000 at 8%

☐ D. \$1,500 at 6%

7) A dot plot shows the number of goals scored by soccer players: 2 (two players), 3 (three players), 4 (four players), 5 (two players), 6 (one player). What is the mean number of goals?

☐ A. 3.5 goals

☐ C. 4 goals

☐ B. 3.8 goals

☐ D. 5.5 goals

8) A bag has 8 balls: 3 yellow and 5 orange. What is the probability of drawing a yellow ball on a single draw?

☐ A. $\frac{3}{8}$

☐ C. $\frac{3}{5}$

☐ B. $\frac{5}{8}$

☐ D. $\frac{2}{7}$

9) The stem-and-leaf plot shows heights (in cm) of students:

Stem	Leaves
15	2, 5, 8
16	1, 3, 6, 9
17	0, 4, 7
18	2, 5

How many students are represented?

☐ A. 8

☐ C. 12

☐ B. 11

☐ D. 14



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1) A store buys a product for \$8 and marks it up by 50%. What is the selling price?

☐ A. \$10

☐ C. \$14

☐ B. \$16

☐ D. \$12

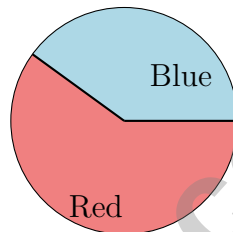
2) A random number generator produces a number from 1 to 20. What is the probability that the number is prime?

☐ A. $\frac{1}{4}$

☐ C. $\frac{2}{5}$

☐ B. $\frac{7}{20}$

☐ D. $\frac{1}{2}$



3)

A spinner is divided into two sectors: Blue (144°) and Red. What is $P(\text{Red})$?

☐ A. $\frac{144}{360}$

☐ C. $\frac{2}{5}$

☐ B. $\frac{216}{360}$

☐ D. $\frac{3}{4}$

4) What is 5×4 ?

☐ A. 9

☐ C. 20

☐ B. 18

☐ D. 25

5) Three events have probabilities: Event A = $\frac{1}{2}$, Event B = 0.6, Event C = 55%. Which event is most likely?

☐ A. Event A

☐ C. Event C

☐ B. Event B

☐ D. Events A and C are equally likely



6) What is $-10 + 5 + (-3)$?

☐ A. -18

☐ C. 8

☐ B. 18

☐ D. -8

7) A shirt costs \$45 before an 8.5% sales tax. What is the final price paid?

8)



Which subtraction problem is shown by the red arrow (moving right 4 units from -7)?

☐ A. $-7 - (-4)$

☐ C. $-7 + (-4)$

☐ B. $-7 - 4$

☐ D. $4 - (-7)$

9) Which expression shows $2 \cdot 5 + 2 \cdot 3$ factored?

☐ A. $2(5 + 3)$

☐ C. $2 \cdot 15$

☐ B. $(2 + 5)(2 + 3)$

☐ D. $5 + 3$



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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) Volume = $\frac{7}{8} - \frac{1}{8} + \frac{3}{8} = \frac{7-1+3}{8} = \frac{9}{8}$ liters.
- 2) **Choice B is correct.** (7.NS.1-7.NS.3) In 10 hours, there are $10 \div 2 = 5$ periods of 2 hours. Total drop: $1.2 \times 5 = 6^\circ\text{C}$, or -6°C .
- 3) **Choice B is correct.** (7.NS.1-7.NS.3) $6,800,000,000 = 6.8 \times 10^9$. Decimal moves 9 places left.
- 4) **Choice C is correct.** (7.EE.1-7.EE.2) Any base to the first power equals itself: $7^1 = 7$.
- 5) **Choice A is correct.** (7.EE.4a) This develops the habit of solving and then substituting back to verify. It also introduces realistic numbers for a cell phone bill context.
- 6) **Choice B is correct.** (7.EE.3-7.EE.4) When the constant is subtracted, reverse the operation by adding. This gives $4x = 16$.
- 7) **Choice C is correct.** (7.NS.1-7.NS.3) Multiply by the reciprocal: $\frac{3}{4} \div \frac{1}{2} = \frac{3}{4} \times \frac{2}{1} = \frac{6}{4} = \frac{3}{2}$.
- 8) **Choice A is correct.** (7.EE.1-7.EE.2) $\text{gcd}(10, 15) = 5$, so $10y + 15 = 5(2y + 3)$.
- 9) **Choice A is correct.** (7.EE.4a) The distributive property gives $3 \cdot x - 3 \cdot 5 = 24$, so $3x - 15 = 24$.
- 10) **Choice B is correct.** (7.EE.3-7.EE.4) Selling price = $45 \times 1.20 = 54$.
- 11) **Choice B is correct.** (7.SP.1-7.SP.4) Same median (25 ft) but Forest A's smaller MAD (1.5 vs. 3.8) indicates tree heights in Forest A cluster more tightly around the median, showing greater uniformity.
- 12) **Choice C is correct.** (7.SP.5-7.SP.8) Two favorable outcomes out of six: $P(\text{favorable}) = \frac{2}{6} = \frac{1}{3}$.
- 13) **Choice D is correct.** (7.NS.2) $2 \times (-3) = -6$. Then $(-6) \times (-2) = 12$. Two negatives (one in the (-3) and one in the (-2)) give a positive.
- 14) **Choice A is correct.** (7.SP.3) The New Method has a higher median (78 vs. 75), suggesting better average performance. However, its larger range (35 vs. 25) indicates less consistency. Trade-off: higher average but more variability.
- 15) **The correct answer is \$630.** (7.RP.3) Simple interest = $P \times r \times t = \$3,000 \times 0.07 \times 3 = \630 .
- 16) **Choice D is correct.** (7.RP.3) Commission on package = commission rate $\times$ package cost = $0.05 \times 2000 = \$100$. Insurance does not affect the commission calculation on the base package.
- 17) **Choice C is correct.** (7.G.4-7.G.6) Square: $5 \times 5 = 25 \text{ cm}^2$. Triangle: $\frac{1}{2} \times 5 \times 2 = 5 \text{ cm}^2$. Total: $25 + 5 = 30 \text{ cm}^2$.
- 18) **Choice D is correct.** (7.RP.1-7.RP.3) Total gas cost: $25 \times 3.50 = \$87.50$. Cost per mile: $\$87.50 \div 350 = \0.25 per mile.
- 19) **Choice C is correct.** (7.RP.3) Year 1: $500 \times 1.05 = 525$. Year 2: $525 \times 1.05 = 551.25$. Year 3: $551.25 \times 1.05 = 578.81$, rounded to 579.13.
- 20) **Choice D is correct.** (7.G.4-7.G.6) $V = l \times w \times h = 14 \times 8 \times 6 = 672 \text{ cm}^3$.
- 21) **The correct answer is A,D.** (7.RP.3) 1st try: $\frac{|35-40|}{40} \times 100\% = 12.5\%$ (A is true). 2nd try: $\frac{|38-40|}{40} \times 100\% = 5\%$ (B is false). C is false (2nd is more accurate). D is true (both $< 15\%$). 5 times 2nd, not exactly double).
- 22) **Choice C is correct.** (7.G.1-7.G.5) The third side c must satisfy $|12 - 5| < c$, so $c > 7$. The smallest whole number greater than 7 is 8.
- 23) **Choice B is correct.** (7.G.4-7.G.6) A chord of length r is shorter than the diameter $d = 2r$. Such a chord exists and is a valid chord in the circle.
- 24) **Choice B is correct.** (7.SP.5-7.SP.8) $20\% = \frac{20}{100} = \frac{1}{5}$ (simplified).
- 25) **Choice D is correct.** (7.G.1-7.G.5) AAA (Angle–Angle–Angle) guarantees similarity, not congruence. The triangles could be different sizes but the same shape. At least one side length is needed to prove congruence.
- 26) **Choice B is correct.** (7.SP.1-7.SP.4) Larger random samples produce more stable and reliable estimates because they reduce the effect of random variability. Increasing sample size is the proper way to improve the reliability of a sample estimate. Options A (biased region), C (leading questions), and D (discarding data) are not valid approaches.
- 27) **The correct answer is 11.** (7.NS.1-7.NS.3) $11^2 = 121$ and $12^2 = 144$. Since 130 is very close to 121, $\sqrt{130} \approx 11.4$, which rounds to 11.
- 28) **Choice A is correct.** (7.NS.1-7.NS.3) The correct answer is $-14 + 14 = 0$ because -14 and 14 are opposites. The student incorrectly added the absolute values.



You Know More Than You Think

Hi, Skilled Learner!

◇ After working through Grade 7 practice, you now have more tools than you may realize: models, formulas, graphs, equations, and reasoning habits. ◇

★ **Remember this:** The next step is learning when to use each tool. That comes from practice, review, and the courage to try a method even when you are unsure. This version gave you 8 opportunities to rehearse test-day habits. ★

Tools You Can Use

- **Models:** Make relationships visible.
- **Equations:** Represent unknowns clearly.
- **Graphs:** Show change and location.
- **Formulas:** Organize measurement problems.

Grade 7 test-day tip: Before solving, name the tool you plan to use. That small choice makes your work more intentional.

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

Jay Daie

Your Skill-Building Coach

PRACTICE TODAY. SUCCEED TOMORROW!

This book includes **8** 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:

8 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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