

7 Wisconsin Forward Exam Grade 7 Math Practice Tests



ONLINE

7 PRINTED TESTS + 2 ONLINE TESTS

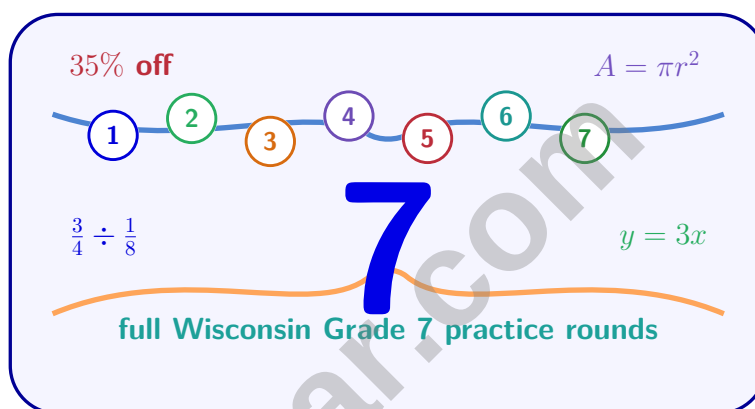


**Standards Aligned Problem Solving
For Comprehensive Assessment Programs**



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.

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Welcome, Wisconsin Grade 7 Problem Solver!

Eight focused rounds for sharper Forward Exam math thinking

This book gives you seven 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, 280 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.

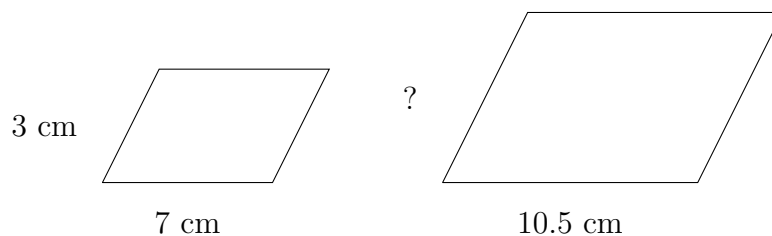
The tests are mixed on purpose. Grade 7 success means recognizing which idea is being tested even when the next question changes format.



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1)

The trapezoids are similar. Find the height of the larger trapezoid.

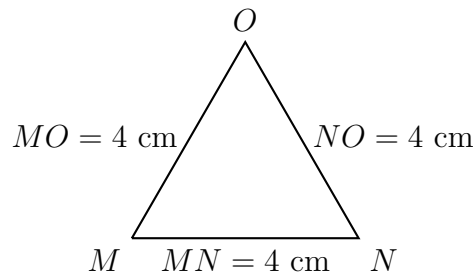
☐ A. 3 cm☐ C. 4.5 cm☐ B. 4 cm☐ D. 6 cm

2) A real estate agent earns commissions on home sales. Last month, she earned \$8,000 in commission at a 2% rate. What was the total value of homes she sold?

☐ A. \$160,000☐ C. \$240,000☐ B. \$200,000☐ D. \$400,000

3) An account earning 3% annual compound interest starts with \$1,000. Approximately how many years until the balance reaches \$1,100?

☐ A. 2 years☐ C. 3.5 years☐ B. 5 years☐ D. 3 years

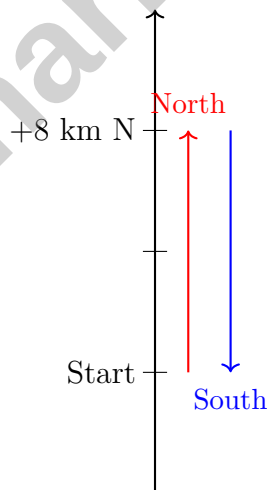


4)

Triangle MNO has all three sides equal: $MN = NO = OM = 4$ cm. What are the measures of all angles?

☐ A. $60^\circ, 60^\circ, 60^\circ$
☐ B. $45^\circ, 45^\circ, 90^\circ$
☐ C. $30^\circ, 60^\circ, 90^\circ$
☐ D. Cannot be determined without more info

5) A scout hikes 8 kilometers north, then 8 kilometers south. Using a signed number model where north is positive, what is the total displacement?


☐ A. 16 km north

☐ B. 8 km north

☐ C. 0 km (back at start)

☐ D. 8 km south


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6) Factor: $4c - 12d$

☐ A. $4(c - 3d)$

☐ B. $2(2c - 6d)$

☐ C. $12(c - d)$

☐ D. $c(4 - 12d)$

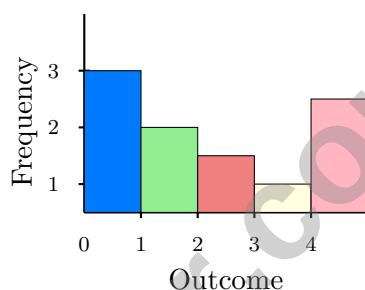
7) A triangular prism has a right triangular base with legs 6 m and 8 m (hypotenuse 10 m by Pythagorean theorem). The prism height is 9 m. What is the surface area?

☐ A. 48 m^2

☐ B. 144 m^2

☐ C. 264 m^2

☐ D. 288 m^2



8)

Based on the bar graph showing 100 simulation trials, what is the estimated probability of Outcome 1?

☐ A. 0.10

☐ B. 0.15

☐ C. 0.25

☐ D. 0.30

9) Evaluate $\frac{3x}{4} + 1$ when $x = 8$.

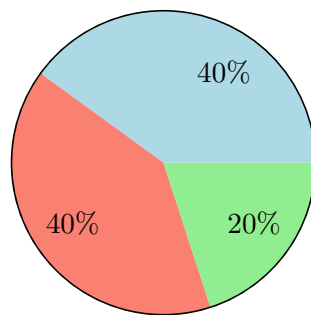
☐ A. 4

☐ B. 5

☐ C. 9

☐ D. 7





1)

The circle graph shows the results of a survey on transportation methods. Blue is cars (40%), salmon is buses (40%), and green is bicycles (20%). If 500 people were surveyed, how many use bicycles?

- ☐ A. 50
☐ B. 100

- ☐ C. 200
☐ D. 400

2) Between which two consecutive integers does $\sqrt{175}$ lie?

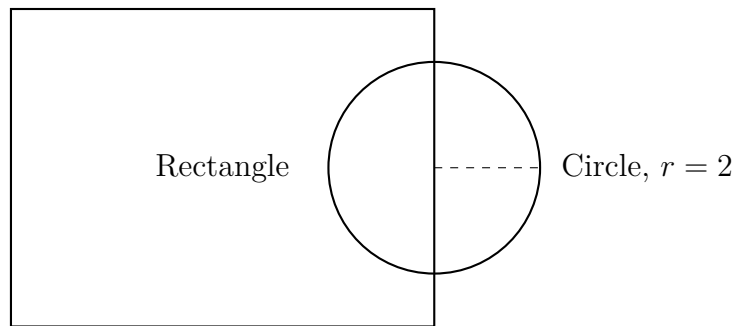
- ☐ A. between 11 and 12
☐ B. between 12 and 13

- ☐ C. between 13 and 14
☐ D. between 14 and 15

3) Two histograms show daily step counts for sedentary workers vs. active workers. Sedentary: concentrated at 3000–5000 steps. Active: concentrated at 10000–12000 steps. What is the most valid conclusion?

- ☐ A. Active workers get significantly more steps
☐ B. Both groups have identical activity levels
☐ C. Sedentary workers should not be hired
☐ D. Job type does not affect step count levels





4)

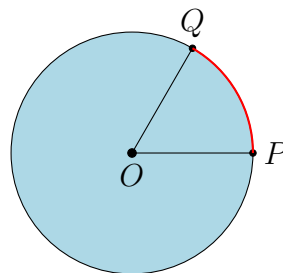
A composite figure has a rectangle ($8 \text{ m} \times 6 \text{ m}$) with a circle (radius 2 m) attached to one side. Using $\pi \approx 3.14$, what is the total area?

☐ A. 12.56 m^2
☐ C. 60.56 m^2
☐ B. 48 m^2
☐ D. 98.24 m^2

5) A rectangular prism has length 15 cm and width 6 cm . If the height is tripled from 2 cm to 6 cm , how much does the volume increase?

☐ A. 180 cm^3
☐ C. 540 cm^3
☐ B. 360 cm^3
☐ D. 720 cm^3

6) In the circle below, which shaded region represents a sector?



The red shaded region is:

☐ A. A chord

☐ C. An arc

☐ B. A sector

☐ D. A radius


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- 1) Two hikers walk different paths. Hiker 1 walks $(3x + 5)$ miles. Hiker 2 walks $(2x - 1)$ miles. How much farther does Hiker 1 walk than Hiker 2?

☐ A. $x + 6$ ☐ C. $5x + 6$
☐ B. $5x + 4$ ☐ D. $x + 4$

- 2) A model swimming pool has a scale of 1 : 50. If the actual pool volume is 5,000,000 cubic centimeters, what is the model pool volume in cubic centimeters?

☐ A. 100,000 cm^3 ☐ C. 4,000 cm^3
☐ B. 40,000 cm^3 ☐ D. 40 cm^3

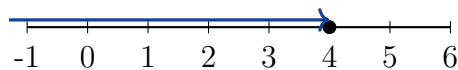
- 3) A science lab test shows 42 bacteria out of 280 total are resistant. What percent are resistant? Round to the nearest whole percent.

☐ A. 12% ☐ C. 18%
☐ B. 25% ☐ D. 15%

- 4) A store advertises “If your item costs more than \$50, get 30% off; if it costs \$50 or less, get 20% off.” A customer buys a shirt for \$55 before discount. After the discount, how much does she pay?

☐ A. \$11 ☐ C. \$25
☐ B. \$44 ☐ D. \$38.50

- 5) Solve $2x - 1 \leq 7$ and select the correct graph.



☐ A. Closed circle at 4 pointing left ☐ C. Closed circle at 4 pointing right
☐ B. Open circle at 4 pointing left ☐ D. Open circle at 4 pointing right



- 6) Simplify $m^6 \cdot m^3 \div m^4$. What is the exponent on m ?

- 7) A square pyramid has a base with side length 12 cm and slant height 10 cm. What is the surface area?

☐ A. 144 cm²

☐ C. 384 cm²

☐ B. 240 cm²

☐ D. 480 cm²

- 8) A phone plan costs \$25 per month plus \$0.20 for each minute of international calls. If a customer's bill was \$45, write an equation to represent the number of minutes m of international calls, solve for m , and verify your answer.

- 9) A researcher runs two independent simulations of the same event. Simulation 1 uses 100 trials and estimates probability 0.48. Simulation 2 uses 500 trials and estimates probability 0.52. Which simulation is likely to be a more reliable estimate of the true probability?

☐ A. Simulation 1, because it has fewer trials

☐ C. Simulation 2, because it has more trials

☐ B. Simulation 1, because the estimate is closer to 0.50

☐ D. Both are equally reliable



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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 C is correct.** (7.G.1-7.G.5) Scale factor = $\frac{10.5}{7} = 1.5$. Height = $3 \times 1.5 = 4.5$ cm.
- 2) **Choice D is correct.** (7.RP.3) Commission = commission rate $\times$ sales. Since $8000 = 0.02 \times \text{sales}$, $\text{sales} = 8000 \div 0.02 = \$400,000$.
- 3) **Choice D is correct.** (7.RP.3) Year 1: $1000(1.03) = 1030$. Year 2: $1030(1.03) = 1060.90$. Year 3: $1060.90(1.03) = 1092.73 \approx 1100$.
- 4) **Choice A is correct.** (7.G.1-7.G.5) An equilateral triangle has all sides and all angles equal. Since the angle sum is 180° and all three angles are equal, each angle is $180^\circ \div 3 = 60^\circ$.
- 5) **Choice C is correct.** (7.NS.1-7.NS.3) $+8$ (north) and -8 (south) are opposites. Their sum is zero: $8 + (-8) = 0$. The scout returns to the starting point.
- 6) **Choice A is correct.** (7.EE.1-7.EE.2) The GCF of 4 and 12 is 4. Factor out: $4c - 12d = 4(c - 3d)$.
- 7) **Choice C is correct.** (7.G.4-7.G.6) Two triangular bases: $2 \times \frac{1}{2}(6)(8) = 48 \text{ m}^2$. Three rectangular sides: $6 \times 9 = 54$, $8 \times 9 = 72$, $10 \times 9 = 90 \text{ m}^2$. Total: $48 + 54 + 72 + 90 = 264 \text{ m}^2$.
- 8) **Choice C is correct.** (7.SP.5-7.SP.8) From the bar graph, Outcome 1 appears 25 times out of 100 trials. Relative frequency = $\frac{25}{100} = 0.25$.
- 9) **Choice D is correct.** (7.EE.1-7.EE.2) Substitute: $\frac{3(8)}{4} + 1 = \frac{24}{4} + 1 = 6 + 1 = 7$.
- 10) **Choice C is correct.** (7.EE.1) Like terms have the same variable and exponent. Both $7m$ and $2m$ contain the variable m with exponent 1.
- 11) **Choice D is correct.** (7.EE.4b) Set up: $25d \leq 200$ (total cost at most \$200). Divide by 25: $d \leq 8$ days maximum.
- 12) **Choice B is correct.** (7.NS.1-7.NS.3) Subtraction can be rewritten as adding the opposite: $8 - 3 = 8 + (-3) = 5$.
- 13) **Choice D is correct.** (7.NS.2d) Divide $23 \div 40 = 0.575$. Since $40 = 2^3 \times 5$, it terminates in three decimal places.
- 14) **Choice C is correct.** (7.NS.1-7.NS.3) Markup: $\frac{1}{4} \times 80 = 20$. Selling price: $80 + 20 = 100$ dollars.
- 15) **Choice A is correct.** (7.EE.1-7.EE.2) The quotient rule requires subtracting exponents: $\frac{y^8}{y^3} = y^{8-3} = y^5$, not y^{11} . The student added exponents (product rule) instead of subtracting them (quotient rule).
- 16) **Choice A is correct.** (7.EE.4a) The student reversed the roles of the coefficient and constant. The per-book charge \$3 multiplies the number of books b .
- 17) **Choice B is correct.** (7.EE.3-7.EE.4) Set up: $8w + 15 = 63 \Rightarrow 8w = 48 \Rightarrow w = 6$.
- 18) **Choice A is correct.** (7.G.1-7.G.5) Linear scale factor: $\frac{1 \text{ km}}{2 \text{ cm}} = 0.5 \text{ km/cm}$. Area scale factor: $(0.5)^2 = 0.25 \text{ km}^2/\text{cm}^2$. Actual area: $8 \times 0.25 = 2 \text{ km}^2$.
- 19) **The correct answer is -17.** (7.NS.1-7.NS.3) After descending: $0 - 25 = -25$. After ascending 8 meters: $-25 - (-8) = -25 + 8 = -17$. She is 17 meters below sea level.
- 20) **The correct answer is A,C.** (7.RP.3) A is true because $\$100 + 0.50(\$100) = \$150$. C is the correct definition of markup percent. B is false because markup is added to cost, not subtracted. D is false because $\frac{20}{80} \times 100 = 25\%$, not 20%.
- 21) **Choice A is correct.** (7.G.1-7.G.5) A plane parallel to the triangular bases of a prism produces a cross-section congruent to those bases. For an equilateral triangular prism, the cross-section is an equilateral triangle with the same side length (5 cm).
- 22) **Choice D is correct.** (7.G.1-7.G.5) Angles on a straight line sum to 180° : $34 + k = 180^\circ$, so $k = 146^\circ$.
- 23) **Choice B is correct.** (7.G.4-7.G.6) $C = \pi d \Rightarrow 400 = 3.14d \Rightarrow d = 400 \div 3.14 \approx 127 \text{ m}$.
- 24) **The correct answer is 70.** (7.RP.1-7.RP.3) The unit rate is $140 \div 2 = 70$ miles per hour. This is the car's constant speed.
- 25) **Choice A is correct.** (7.G.4-7.G.6) From $50.24 = 3.14 \times r^2$, we get $r^2 = 16$, so $r = 4$ meters.
- 26) **Choice C is correct.** (7.G.4-7.G.6) Radius is half diameter: $r = 4 \text{ cm}$. $V = \pi r^2 h \approx 3.14 \times 16 \times 10 = 502.4 \text{ cm}^3$.
- 27) **Choice B is correct.** (7.SP.1-7.SP.4) Stratified sampling from each grade ensures all groups are included, preventing bias toward any single grade level.
- 28) **The correct answer is \$625.** (7.RP.3) Savings: $0.25 \times 2500 = \$625$ per month.



Hi, Grade 7 Math Star!

◇ You finished this practice set with real effort. Grade 7 math asks you to connect ideas, explain your thinking, and stay steady through multi-step problems. ◇

★ **Remember this:** Every page you completed helped build stronger habits: reading carefully, choosing a method, showing work, and checking whether the answer makes sense. You practiced across 7 full Grade 7 practice tests, and that repeated effort matters. ★

What You Built

- **Focus:** You stayed with challenging questions.
- **Accuracy:** You learned to slow down when details matter.
- **Reasoning:** You practiced explaining why a method works.
- **Readiness:** You are more prepared than when you started.

Grade 7 test-day tip: Before test day, review the questions that made you pause. Those are the best teachers.

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

Jay Daie

Your Grade 7 Math Friend

Practice Today. Succeed Tomorrow!

This book includes **7** 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:

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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!

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



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