

9 Wyoming

WY TOPP

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**



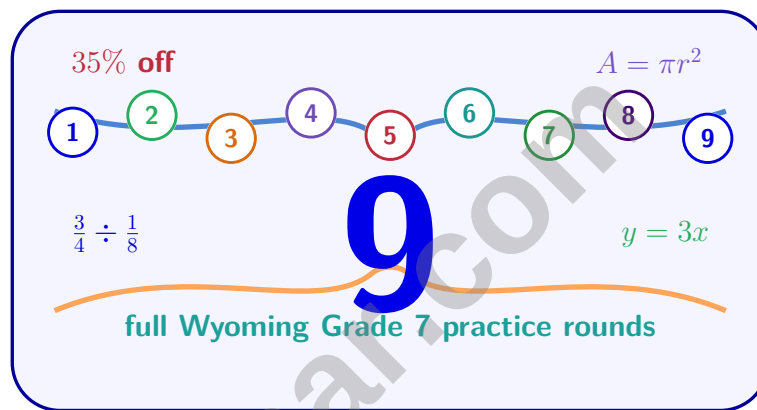
**SHARPEN
THINKING**



BE TEST-READY
Improve Performance

9 Wyoming WY TOPP Grade 7 Math Practice Tests

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



Nine complete 40-question Grade 7 WY TOPP 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, Wyoming Grade 7 Problem Solver!

Nine focused rounds for sharper WY TOPP math thinking

This book gives you nine full Grade 7 WY TOPP 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 Wyoming 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.

Wyoming 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 WY TOPP 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.



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& answers

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1) Which expression uses the associative property to group the two negative addends first?

☐ A. $-6 + 13 + (-7)$

☐ C. $13 + (-6) + (-7)$

☐ B. $(-6 + (-7)) + 13$

☐ D. $(13 + (-6)) + (-7)$

2) A real estate agent earns a 2.5% commission on home sales. She sells a house for \$400,000. How much is her commission?

☐ A. \$6,000

☐ C. \$12,500

☐ B. \$40,000

☐ D. \$10,000

3) A spinner was spun 200 times with four equal sections labeled A, B, C, and D. Section A appeared 58 times. Which best describes the relationship between the experimental and theoretical probabilities for landing on A?

☐ A. Both are exactly 0.25.

☐ C. Experimental is 0.25; theoretical is

☐ B. Experimental is 0.58; theoretical is 0.29.

0.20.

☐ D. Experimental is 0.29; theoretical is 0.25.

4) A trapezoidal prism has a trapezoidal base with parallel sides 4 cm and 6 cm and a height of 3 cm (height of the trapezoid). The depth of the prism is 10 cm. What is the volume? (Area of trapezoid = $\frac{1}{2}(b_1 + b_2) \times h$)

☐ A. 60 cm^3

☐ C. 150 cm^3

☐ B. 75 cm^3

☐ D. 300 cm^3



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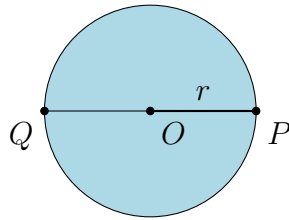
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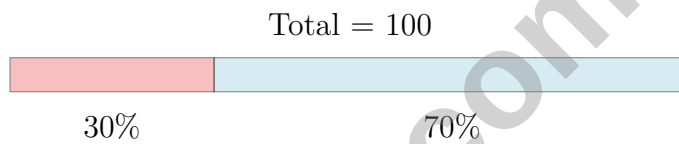
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- 5) The diagram below shows a circle with center O .



Which line segment is the radius of the circle?

- ☐ A. OP ☐ C. PQ
☐ B. OQ ☐ D. QP



6)

The bar model shows 30% and 70% of a total. If the total is 100, how much is 30%?

- ☐ A. 25 ☐ C. 35
☐ B. 40 ☐ D. 30

- 7) A landscaper creates a scale model of a garden. The model shows a square garden with side length 5 inches. The actual garden has a side length of 25 feet. What is the scale?

- ☐ A. 1 : 5 ☐ C. 5 : 25
☐ B. 1 : 120 ☐ D. 1 : 60



8)

Original Price \$80	Discount 22.5%
------------------------	-------------------

A book store displays a book with original price \$80 and a discount tag showing 22.5% off. What is the sale price?

- ☐ A. \$57.50 ☐ C. \$61.00
☐ B. \$18 ☐ D. \$62

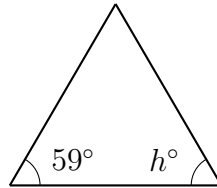
9) A machine produces $\frac{2}{3}$ box of items in $\frac{4}{9}$ hour. How many boxes per hour?

- ☐ A. $\frac{8}{27}$ box/hr ☐ C. $\frac{4}{6}$ box/hr
☐ B. $\frac{1}{6}$ box/hr ☐ D. $\frac{3}{2}$ boxes/hr

10) A simulation estimates the probability of an event using a spinner with 5 equal sections. After 500 spins, one section appears 96 times. What is the estimated probability for that section? (Express as a decimal rounded to the nearest hundredth.)



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1)

A triangle is formed with one angle of 59° at the bottom left and another angle h at the bottom right. The top angle is 62° . What is h ?

☐ A. 28° ☐ C. 62° ☐ B. 59° ☐ D. 121°

2) One service charges \$150 for $\frac{2}{3}$ hour of work. Another charges \$140 for $\frac{3}{5}$ hour. Which charges less per hour?

☐ A. They charge the same☐ C. Second at \$225/hr☐ B. Second at $\frac{700}{3} \approx 233.33$ \$/hr☐ D. First at \$225/hr

3) A student claims: "The relationship is proportional because the y -values keep increasing." Is this correct?

☐ A. Yes, increasing y is the definition☐ C. Yes, but only if x also increases☐ B. Cannot determine without seeing the data☐ D. No; must have constant ratio y/x

4) A discount store marks all items at $\frac{3}{4}$ of the original price. If o is the original price and d is the discounted price, which equation is correct?

☐ A. $d = o + \frac{3}{4}$ ☐ C. $o = \frac{3}{4}d$ ☐ B. $d = o - \frac{3}{4}$ ☐ D. $d = \frac{3}{4}o$ 

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- 5) The table shows pounds of fruit and the cost.

Pounds	Cost (\$)
3	6.00
5	10.00
8	16.00

What is the cost per pound?

- ☐ A. \$1.50 ☐ C. \$2.50
☐ B. \$3.00 ☐ D. \$2.00
- 6) Factor: $9m + 12$
- ☐ A. $3(3m + 4)$ ☐ C. $3m(3 + 4)$
☐ B. $9(m + 12)$ ☐ D. $12(0.75m + 1)$
- 7) A rectangular prism has length 7 in, width 5 in, and height 4 in. If each dimension is increased by 1 inch, by how much does the surface area increase?
- ☐ A. 24 in^2 ☐ C. 70 in^2
☐ B. 48 in^2 ☐ D. 96 in^2
- 8) Two fair dice are rolled as a simulation of a compound event. If “success” is rolling a sum of 7, which of the following correctly identifies all successful outcomes?
- ☐ A. $(1, 7), (2, 7), (3, 7), (4, 7), (5, 7), (6, 7)$ — six outcomes ☐ C. $(1, 6), (2, 5), (3, 4)$ — three outcomes
☐ B. $(1, 6), (2, 5), (3, 4), (4, 3), (5, 2), (6, 1)$ — six outcomes ☐ D. Any roll where one die shows 7 — multiple outcomes



1) A vehicle inspection charges a flat fee of \$45 and \$12 per system checked. If the total is \$93, which equation finds s , the number of systems?

☐ A. $45s + 12 = 93$

☐ C. $12 + 45s = 93$

☐ B. $12s + 45 = 93$

☐ D. $45(s + 12) = 93$

2) Solve: $\frac{-x}{3} \leq 4$

☐ A. $x \leq -12$

☐ C. $x < 4$

☐ B. $x \geq -12$

☐ D. $x > -12$

3) A rectangular living room has actual dimensions 6 m by 8 m. One scale drawing shows it as 3 cm by 4 cm. What is the scale of this drawing?

☐ A. 1 cm : 2 m

☐ C. 1 cm : 4 m

☐ B. 1 cm : 3 m

☐ D. 3 cm : 8 m

4) A triangle with vertices $A(1, 1)$, $B(4, 1)$, and $C(1, 4)$ is translated by vector $(-1, 2)$. What are the coordinates of the image of vertex A ?

☐ A. $(0, 3)$

☐ C. $(1, 1)$

☐ B. $(2, 3)$

☐ D. $(0, 1)$

5) Two similar triangles have areas in the ratio 16 : 81. What is the ratio of their perimeters?

☐ A. 4 : 9

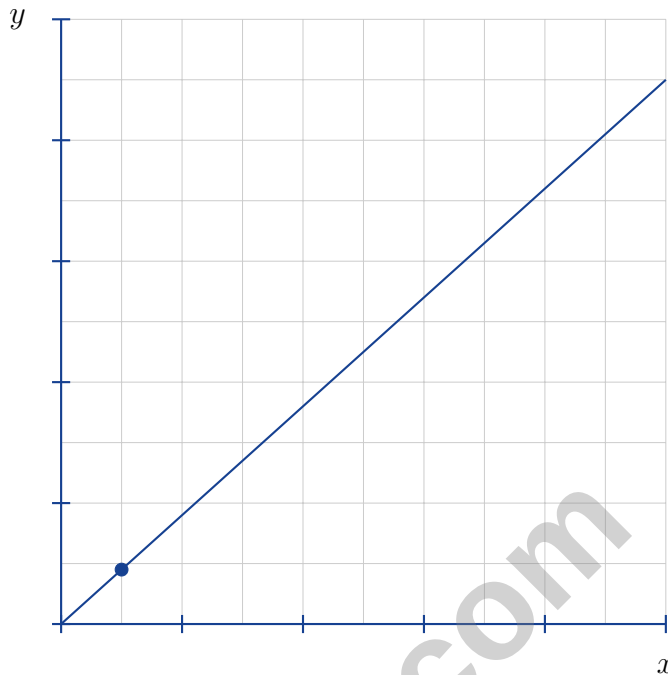
☐ C. 8 : 27

☐ B. 16 : 81

☐ D. 2 : 9



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& answers



6)

Based on the graph, what is the value of y when $x = 5$?

☐ A. 0.9

☐ C. 5

☐ B. 9

☐ D. 4.5
7) Which correctly identifies the repeating block in $\frac{1}{7}$?
☐ A. $0.\overline{14}$
☐ C. $0.\overline{1428}$
☐ B. $0.\overline{142857}$
☐ D. $0.\overline{7}$
8) Which expression is equivalent to $2a + 2b + 2c$?
☐ A. $2(a + b + c)$
☐ C. $2abc$
☐ B. $2(a + b) + c$
☐ D. $(2 + a)(2 + b)(2 + c)$


Wyoming WY TOPP 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 Wyoming WY TOPP practice test.

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Practice Test Answers and Explanations

Practice Test 1 Answers and Explanations

- 1) **Choice B is correct.** (7.NS.1b) Option B groups the two negative numbers first ($-6 + (-7) = -13$), then adds the positive: $-13 + 13 = 0$. This is easier than computing left-to-right.
- 2) **Choice D is correct.** (7.RP.3) Commission = commission rate $\times$ sales = $0.025 \times 400,000 = \$10,000$.
- 3) **Choice D is correct.** (7.SP.6) Experimental probability (0.29) is based on observed data and differs from theoretical probability (0.25) because of random variation. Both values are relative frequencies—ratios of favorable outcomes to total trials.
- 4) **Choice C is correct.** (7.G.4-7.G.6) Base area = $\frac{1}{2}(4 + 6) \times 3 = \frac{1}{2} \times 10 \times 3 = 15 \text{ cm}^2$. Volume = $15 \times 10 = 150 \text{ cm}^3$.
- 5) **Choice A is correct.** (7.G.4-7.G.6) The radius is any segment from the center to the circle. OP is labeled and is a radius.
- 6) **Choice D is correct.** (7.RP.3) 30% of 100 is $0.30 \times 100 = 30$.
- 7) **Choice D is correct.** (7.RP.1-7.RP.3) Convert 25 feet to inches: $25 \times 12 = 300$ inches. Scale = $5 : 300 = 1 : 60$.
- 8) **Choice D is correct.** (7.RP.3) Discount = $0.225 \times 80 = \$18$. Sale price = $80 - 18 = \$62$.
- 9) **Choice D is correct.** (7.RP.1-7.RP.3) Unit rate: $\frac{\frac{2}{3}}{\frac{4}{9}} = \frac{2}{3} \times \frac{9}{4} = \frac{18}{12} = \frac{3}{2} = 1.5$ boxes/hr.
- 10) **The correct answer is 0.19.** (7.SP.5-7.SP.8) Relative frequency: $\frac{96}{500} = 0.192 \approx 0.19$.
- 11) **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.
- 12) **Choice D is correct.** (7.RP.1-7.RP.3) The constant is $\frac{y}{x} = \frac{3}{9} = \frac{1}{3}$.
- 13) **Choice D is correct.** (7.RP.3) Using the proportion $\frac{40}{100} = \frac{d}{1}$ where d is the decimal, divide: $\frac{40}{100} = 0.4$.
- 14) **Choice B is correct.** (7.NS.1-7.NS.3) Total wins = $15 + 18 = 33$. Total losses = $8 + 5 = 13$. Net = $33 - 13 = 20$ wins.
- 15) **Choice A is correct.** (7.EE.1-7.EE.2) Combine: $(10g + 2g - 3g) + (6 - 8 - 1) = 9g - 3$.
- 16) **The correct answer is 20.** (7.RP.1-7.RP.3) Cross multiply: $7 \times 100 = 35 \times x$. So $700 = 35x$, giving $x = 20$.
- 17) **Choice C is correct.** (7.EE.1-7.EE.2) Using quotient rule: $\frac{k^7}{k^7} = k^{7-7} = k^0 = 1$. Any number divided by itself equals 1.
- 18) **Choice B is correct.** (7.G.1-7.G.5) Actual dimensions: 10 m $\times$ 6 m. Perimeter: $2(10 + 6) = 32$ m.
- 19) **The correct answer is A, C.** (7.G.4-7.G.6) Large square: $20 \times 20 = 400 \text{ m}^2$ (A). Small square: $5 \times 5 = 25 \text{ m}^2$. Remaining: $400 - 25 = 375 \text{ m}^2$ (C). The cutout is $\frac{25}{400} = \frac{1}{16}$ of the original area, not $\frac{1}{20}$.
- 20) **Choice B is correct.** (7.G.1-7.G.5) Scale factor $\frac{2}{5}$ means smaller = larger $\times \frac{2}{5} = 100 \times \frac{2}{5} = 40$ cm.
- 21) **Choice A is correct.** (7.RP.3) Savings = 12% of \$1,200 = $0.12 \times 1200 = \$144$.
- 22) **Choice B is correct.** (7.NS.1-7.NS.3) According to the perfect squares table, $\sqrt{81} = 9$ because $9 \times 9 = 81$.
- 23) **Choice B is correct.** (7.EE.1-7.EE.2) $30(1 - 0.1)$ clearly displays the factored structure: the scale factor $(1 - 0.1) = 0.9$ multiplied by the original price. This factored form emphasizes why a 10% discount leaves 90%.
- 24) **Choice D is correct.** (7.EE.4a) Reservation is \$50 plus \$120 per month. Equation: $120m + 50 = 530$.
- 25) **The correct answer is 2800.** (7.SP.1-7.SP.4) $\frac{56}{160} = \frac{x}{8000}$. Reduce: $\frac{7}{20} = \frac{x}{8000} \Rightarrow x = 2800$.
- 26) **Choice D is correct.** (7.G.1-7.G.5) Angles on a straight line sum to 180° : $f = 180 - 56 = 124^\circ$.
- 27) **Choice C is correct.** (7.SP.5-7.SP.8) Prime numbers on a die: 2, 3, 5 (three primes). $P(\text{prime}) = \frac{3}{6} = \frac{1}{2}$.
- 28) **Choice A is correct.** (7.NS.2) $(2 \times 3) \times (-5) = 6 \times (-5) = -30$. Positive times negative is negative.
- 29) **Choice C is correct.** (7.SP.1-7.SP.4) Scores in range [72, 86]: 72, 72, 74, 78, 81, 83, 86 (from stems 7 and 8). Total: 7 scores.
- 30) **Choice C is correct.** (7.RP.3) Wants budget: $0.20 \times 1200 = \$240$.
- 31) **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.



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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