

9

Washington

Smarter Balanced

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**



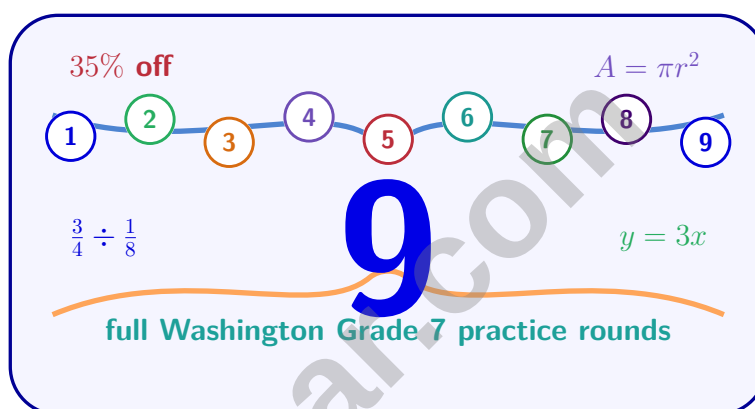
**SHARPEN
THINKING**



BE TEST-READY
Improve Performance

9 Washington Smarter Balanced Grade 7 Math Practice Tests

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



Nine complete 40-question Grade 7 Smarter Balanced 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, Washington Grade 7 Problem Solver!

Nine focused rounds for sharper Smarter Balanced math thinking

This book gives you nine full Grade 7 Smarter Balanced 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 Washington 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.

Washington 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 Smarter Balanced 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

Table of Contents

★ Practice Test 1	_____	15
★ Practice Test 2	_____	30
★ Practice Test 3	_____	43
★ Practice Test 4	_____	58
★ Practice Test 5	_____	72
★ Practice Test 6	_____	87
★ Practice Test 7	_____	101
★ Practice Test 8	_____	115
★ Practice Test 9	_____	129
Practice Test Answer Keys	_____	144
Practice Test Answers and Explanations	_____	150

1) Which expression is equivalent to $8 - 3$?

☐ A. $8 + 3$

☐ C. $-8 + 3$

☐ B. $8 + (-3)$

☐ D. $3 - 8$

2) An event has a probability of $\frac{2}{5}$. What is the probability of the complement (the event NOT happening)?

☐ A. $\frac{2}{5}$

☐ C. $\frac{1}{5}$

☐ B. $\frac{3}{5}$

☐ D. $\frac{5}{2}$

3)

Service	Fee
Check deposit	\$0.25
Wire transfer	\$15.00
ATM withdrawal (out-of-network)	\$2.50
Monthly account fee	\$8.00

A customer performs one of each service during a month. What is the total in fees?

☐ A. \$25.00

☐ C. \$26.00

☐ B. \$27.50

☐ D. \$25.75

4) Two histograms display daily smartphone usage (in hours) for teenagers and adults. Teenagers: concentrated at 5–7 hours per day. Adults: concentrated at 2–4 hours per day. Based on the visuals, what is a valid inference?

☐ A. Teenagers typically use smartphones 3–4 hours more daily☐ C. Both groups use smartphones equally☐ B. Adults never use smartphones☐ D. Smartphone use depends on screen size, not age

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5) 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

☐ C. 6

☐ B. 5

☐ D. 7

6) A bag contains only red and blue marbles. A marble is drawn 150 times with replacement. Red appears 84 times. Based on this experiment, which is the best estimate of the probability of drawing a red marble on the next draw?

☐ A. 0.44

☐ C. 0.56

☐ B. 0.50

☐ D. 0.84

7) In a circle, the diameter is 18 cm. A chord in the same circle has a length of 18 cm. What can you conclude?

☐ A. The chord must be a radius

☐ C. The chord is longer than the diameter

☐ B. The chord must be a diameter

☐ D. The chord is impossible

8) A game has a $\frac{1}{3}$ chance of winning and a $\frac{2}{3}$ chance of losing. What is the probability of winning as a decimal (rounded to the nearest hundredth)?

☐ A. 0.33

☐ C. 0.5

☐ B. 0.67

☐ D. 0.2


- 9) A model airplane has a scale of 1 : 72. If a real airplane is 72 meters long, how long is the model?
- ☐ A. 1 cm ☐ C. 1 meter
- ☐ B. 72 cm ☐ D. 100 cm
- 10) A water tank is 40% full. If the tank holds 250 liters, how many liters of water are in it?
- ☐ A. 80 liters ☐ C. 120 liters
- ☐ B. 150 liters ☐ D. 100 liters
- 11) What is $7 + 9$?
- ☐ A. 2 ☐ C. 63
- ☐ B. -2 ☐ D. 16
- 12) A coat priced at \$150 has a $\frac{1}{3}$ discount applied. What is the final price?
- ☐ A. \$200 ☐ C. \$50
- ☐ B. \$125 ☐ D. \$100
- 13) 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



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1) A scientist estimated the density of a liquid at 1.2 g/mL but the actual density was 1.5 g/mL. What is the percent error?

☐ A. 30%

☐ C. 80%

☐ B. 25%

☐ D. 20%

2) A recipe calls for $\frac{2}{\frac{3}{\frac{1}{2}}}$ cups of sugar. Simplify.

☐ A. $\frac{1}{3}$ cup

☐ C. $\frac{1}{2}$ cup

☐ B. $\frac{3}{4}$ cup

☐ D. $\frac{4}{3}$ cups

3) A salesperson earns a 7% commission on all sales. This month, the salesperson sold \$4,000 worth of merchandise. What is the commission earned?

4) Evaluate $\frac{7}{8} \div \frac{7}{12}$.

5) Which equation represents a proportional relationship?

☐ A. $y = 3x + 5$

☐ C. $y = x - 2$

☐ B. $y = 2x + 1$

☐ D. $y = 7x$



6) A photo costs \$0.50 each. If you buy n photos for a total cost of T dollars, which equation is correct?

☐ A. $n = 0.50T$

☐ C. $T = \frac{0.50}{n}$

☐ B. $T = n + 0.50$

☐ D. $T = 0.50n$

7) A student earns \$12 per hour. The equation is $m = 12h$, where m is money earned and h is hours. What is the constant of proportionality?

☐ A. 6

☐ C. 24

☐ B. h

☐ D. 12

8) Convert $\frac{7}{8}$ to a decimal by performing long division.

9) A refrigerator is set to maintain a temperature of -2°C . It drops $\frac{1}{4}^{\circ}\text{C}$ per hour. What will the temperature be after 8 hours?

10) Factor the expression: $6x + 18$

☐ A. $6(x + 3)$

☐ C. $2(3x + 9)$

☐ B. $3(2x + 6)$

☐ D. $6(x + 18)$



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1) Evaluate $6 - 2(x + 1)$ when $x = 2$.

☐ A. 8

☐ C. 4

☐ B. 0

☐ D. 2

2) Solve for x : $9(x + 2) = 63$

☐ A. $x = 3$

☐ C. $x = 7$

☐ B. $x = 5$

☐ D. $x = 9$

3) Simplify $12x - 8x + 5y - 2y - x$, then evaluate when $x = 1$ and $y = 2$.

4) Expand and simplify $-2(5 - 3m) + 4m$, then evaluate when $m = 3$.

5) A model airplane has a scale of 1 in : 8 ft. The model is 12 inches long. How long is the actual airplane?

☐ A. 48 ft

☐ C. 96 ft

☐ B. 64 ft

☐ D. 108 ft



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& answers

6) A cone is cut by a plane that passes through the apex and the base circle. What is the shape of the cross-section?

- ☐ A. Circle ☐ C. Ellipse
☐ B. Isosceles triangle ☐ D. Semicircle

7) If two angles are complementary and one angle is 19° , what is the other angle?

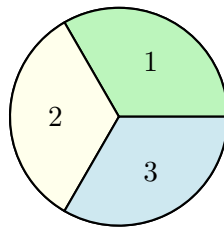
- ☐ A. 19° ☐ C. 161°
☐ B. 61° ☐ D. 71°

8) A polygon is translated by the vector $(3, -5)$. One vertex of the original polygon is at $(-1, 4)$. Where is this vertex after the translation?

- ☐ A. $(2, -1)$ ☐ C. $(-4, 1)$
☐ B. $(4, 9)$ ☐ D. $(2, 1)$

9) Two similar squares have side lengths in the ratio $2 : 5$. If the smaller square has an area of 16 square units, what is the area of the larger square?

- ☐ A. 40 square units ☐ C. 125 square units
☐ B. 100 square units ☐ D. 225 square units



10)

A spinner is divided into 3 equal sections labeled 1, 2, 3. What is the probability of spinning a 2 or a 3?

- ☐ A. $\frac{1}{3}$ ☐ C. $\frac{1}{2}$
☐ B. $\frac{2}{3}$ ☐ D. $\frac{3}{4}$



Washington Smarter Balanced 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 Washington Smarter Balanced 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) Subtraction can be rewritten as adding the opposite: $8 - 3 = 8 + (-3) = 5$.
- 2) **Choice B is correct.** (7.SP.5-7.SP.8) Complement: $P(\text{not } A) = 1 - P(A) = 1 - \frac{2}{5} = \frac{3}{5}$.
- 3) **Choice D is correct.** (7.RP.3) Total fees = $0.25 + 15.00 + 2.50 + 8.00 = \25.75 .
- 4) **Choice A is correct.** (7.SP.3) Histogram centers show typical usage. Teenagers average 5–7 hours vs. adults at 2–4 hours. The difference is approximately 3–4 hours more for teenagers on average.
- 5) **Choice B is correct.** (7.SP.1-7.SP.4) Students with < 35 min: 20, 25, 28, 29, 32 (from stems 2 and first leaf of 3). Total: 5 students.
- 6) **Choice C is correct.** (7.SP.6) Experimental probability = $\frac{84}{150} = 0.56$. The relative frequency of drawing red guides our prediction for future draws.
- 7) **Choice B is correct.** (7.G.4-7.G.6) A chord with length equal to the diameter must be the diameter itself, as the diameter is the longest possible chord in a circle.
- 8) **Choice A is correct.** (7.SP.5-7.SP.8) $\frac{1}{3} = 0.\overline{3} \approx 0.33$ when rounded to the nearest hundredth.
- 9) **Choice C is correct.** (7.RP.1-7.RP.3) Divide the real length by the scale factor: $72 \div 72 = 1$ meter.
- 10) **Choice D is correct.** (7.RP.3) 40% of 250 is $0.40 \times 250 = 100$ liters.
- 11) **Choice D is correct.** (7.NS.1b) Both numbers are positive, so add them directly: $7 + 9 = 16$.
- 12) **Choice D is correct.** (7.RP.3) Discount = $\frac{1}{3} \times 150 = \50 . Final price = $150 - 50 = \$100$.
- 13) **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.
- 14) **Choice B is correct.** (7.NS.1-7.NS.3) Reading from graph: hour 1 is 16°C , hour 3 is 12°C . Change = $12 - 16 = -4^\circ\text{C}$.
- 15) **Choice A is correct.** (7.EE.1-7.EE.2) Combine: $(7h + 2h - h) + (-3 - 5 - 1) = 8h - 9$.
- 16) **The correct answer is 2800.** (7.SP.1-7.SP.4) $\frac{56}{160} = \frac{x}{8000}$. Reduce: $\frac{7}{20} = \frac{x}{8000} \Rightarrow x = 2800$.
- 17) **Choice C is correct.** (7.G.1-7.G.5) Scale 1 : 3 means the enlargement is 3 times the original: $4 \times 3 = 12$ inches.
- 18) **Choice B is correct.** (7.SP.5-7.SP.8) Non-blue marbles = $3 + 5 = 8$. $P(\text{not blue}) = \frac{8}{10} = \frac{4}{5}$.
- 19) **Choice D is correct.** (7.RP.1-7.RP.3) The rate is $\frac{120 \text{ pages}}{2 \text{ minutes}} = 60$ pages per minute, so $k = 60$.
- 20) **Choice D is correct.** (7.RP.3) Discount amount: $200 - 150 = 50$. Using the proportion $\frac{50}{200} = \frac{p}{100}$: $p = 25\%$.
- 21) **Choice B is correct.** (7.NS.1-7.NS.3) Left square: $s = \sqrt{4} = 2$. Right square: $s = \sqrt{16} = 4$. Since $4 > 2$, the right square has the longer side.
- 22) **The correct answer is A,D.** (7.G.4-7.G.6) A is correct because $V = Bh$, so $h = V/B$. D is correct because volume is measured in cubic units. B is false because $2 \times 3 \times 5 = 30 \text{ m}^3$, not 10 m^3 . C is false because the base shape affects the base area.
- 23) **Choice C is correct.** (7.EE.1-7.EE.2) The distributive property says $3(2 + 0.5) = 3(2) + 3(0.5)$. Choice C shows this explicitly: we multiply 3 by each part separately ($3 \times 2 = 6$ cups, $3 \times 0.5 = 1.5$ cups), then add: $6 + 1.5 = 7.5$ cups. This form reveals how multiplication distributes across each ingredient measure.
- 24) **Choice D is correct.** (7.G.4-7.G.6) The area of a circle is πr^2 . The other formulas are for circumference or use the wrong variable.
- 25) **Choice A is correct.** (7.SP.5-7.SP.8) Since $P(\text{Win}) + P(\text{Lose}) = 1$, we have $P(\text{Lose}) = 1 - 0.75 = 0.25$. (Negative probabilities are undefined.)
- 26) **Choice A is correct.** (7.NS.2) $(-7) \times 5 = -35$, not 35. The student multiplied correctly but forgot that negative times positive is negative.
- 27) **Choice A is correct.** (7.G.4-7.G.6) Large rectangle: $20 \times 15 = 300 \text{ m}^2$. Three removed sections: $3 \times (3 \times 2) = 18 \text{ m}^2$. Remaining: $300 - 18 = 282 \text{ m}^2$.
- 28) **The correct answer is 0.** (7.G.1-7.G.5) Compute $169 - (25 + 144) = 0$. This indicates the triangle is a right triangle.
- 29) **Choice D is correct.** (7.RP.1-7.RP.3) Unit price = $\$15 \div 6 = \2.50 per notebook.



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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