

8

Washington

Smarter Balanced

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



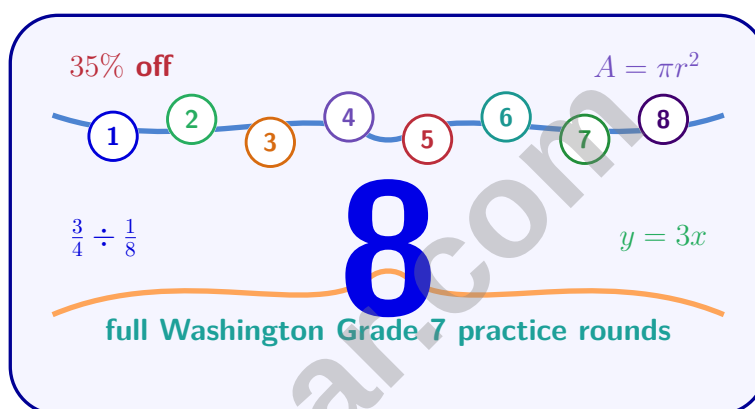
THINK SMARTER



BE TEST-READY

8 Washington Smarter Balanced Grade 7 Math Practice Tests

A thoughtful practice route across Washington Grade 7 unit rates, percent applications, geometry, data analysis, and compound events



Eight 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!

Eight focused rounds for sharper Smarter Balanced math thinking

This book gives you eight 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

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.

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?

Eight Smarter Balanced 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.



Scan me!
For more practice
& answers

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1) A loan calculator shows that borrowing \$8 000 at 6% interest for 3 years costs \$1 440 in total interest. Approximately how much is paid back in total?

☐ A. \$6 560

☐ C. \$8 000

☐ B. \$7 440

☐ D. \$9 440

2) Factor: $6xy + 9x$

☐ A. $3x(2y + 3)$

☐ C. $9(2xy + 1)$

☐ B. $6x(y + 1.5)$

☐ D. $x(6y + 9)$

3) Which value of x satisfies $3x - 2 \leq 10$?

☐ A. $x = 5$

☐ C. $x = 8$

☐ B. $x = 4$

☐ D. $x = 10$

4) A baker makes cookies. She sells mini-cookies for \$0.50 each and bundles of 12 for \$5. Which expression shows the cost of 3 bundles and 8 individual cookies?

☐ A. $3 + 8(5 + 0.50) = \$46.50$

☐ C. $5(3) + 0.50 + 8 = \$23.50$

☐ B. $(3 + 8)(5) = \$55$

☐ D. $3(5) + 8(0.50) = \$19$

5) Solve: $7x + 3 = 31$

☐ A. $x = 2$

☐ C. $x = 5$

☐ B. $x = 4$

☐ D. $x = 9$

6) Which equation is equivalent to $3(x - 5) = 24$?

☐ A. $3x - 15 = 24$

☐ C. $x - 15 = 24$

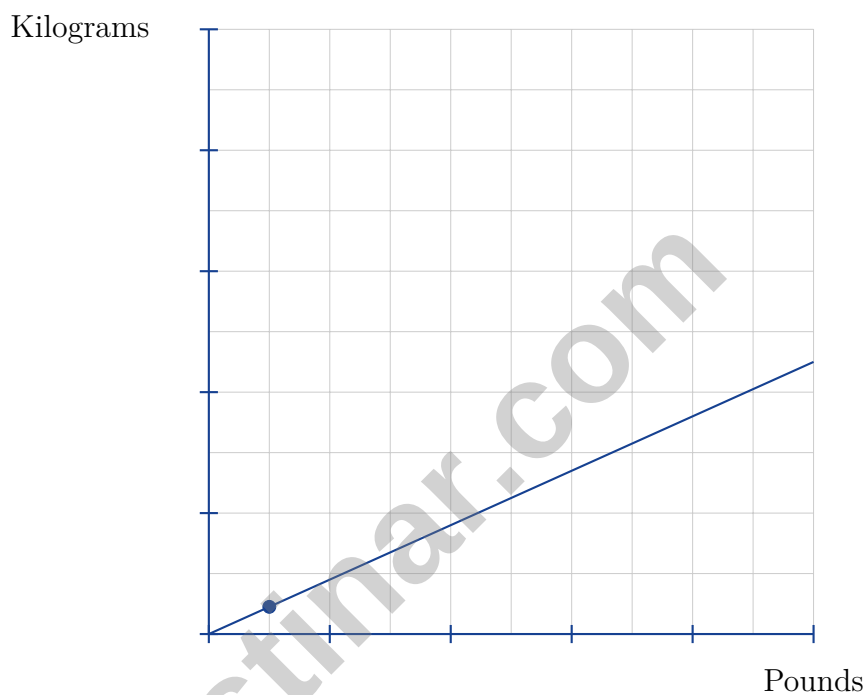
☐ B. $3x - 5 = 24$

☐ D. $3x = 19$



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7) A quadrilateral has vertices at $(0, 1)$, $(3, 1)$, $(3, 4)$, and $(0, 4)$. If each vertex is reflected over the line $y = x$, which of the following is a new vertex?

☐ A. $(1, 0)$
☐ C. $(0, 3)$
☐ B. $(4, 3)$
☐ D. $(3, 0)$


8)

This graph converts pounds to kilograms. How many kilograms are in 1 pound?

☐ A. 10 kg

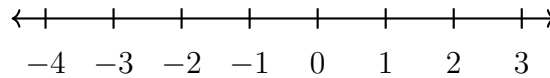
☐ C. 4.5 kg

☐ B. 1 kg

☐ D. 0.45 kg


- 9) A certificate of deposit starts with \$2,000 and earns 4% annual compound interest. After how many complete years will the balance first exceed \$2,500?

- 10) Use the number line below. Start at -2 and add 3. Where do you end?



- ☐ A. -5 ☐ C. -1
☐ B. 1 ☐ D. 5
- 11) If a square has a perimeter of 40 cm, what is its area?

- 12) Which expression is equivalent to $(-8) \div 2$?

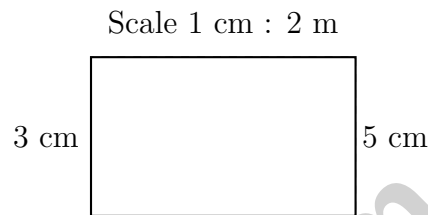
- ☐ A. $(-4) \times 2$ ☐ C. $2 \times (-8)$
☐ B. $(-8) \times \frac{1}{2}$ ☐ D. $(-2) \times (-4)$



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1) A galaxy is 2.3×10^{19} miles away. Which statement best describes this distance?

- ☐ A. A distance on Earth's surface ☐ D. A distance of about 2.3 million miles
☐ B. A distance within our solar system
☐ C. An extremely vast distance beyond our solar system



2)

What is the perimeter of the actual rectangle?

- ☐ A. 16 m ☐ C. 64 m
☐ B. 32 m ☐ D. 128 m

3) A student computed $\frac{1}{3} + \frac{1}{4}$ and got $\frac{2}{7}$. What was the student's error?

- ☐ A. Did not find common denominator ☐ C. The answer is correct
☐ B. Added incorrectly ☐ D. Used wrong common denominator

4) Which expression is equivalent to $1.08m$?

- ☐ A. $m + 0.08m$ ☐ C. $1.08 + m$
☐ B. $m - 0.08m$ ☐ D. $0.92m$



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5)

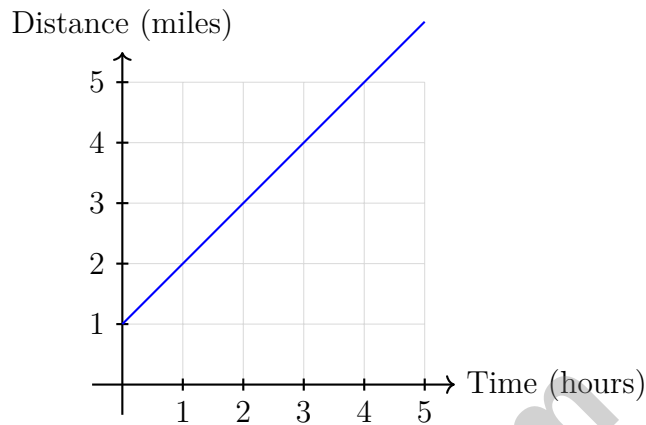
Monthly Budget Category	Percent of Income
Housing	40%
Food	15%
Transportation	10%
Savings	20%
Entertainment	15%

If your monthly income is \$3 000, how much should you budget for housing?

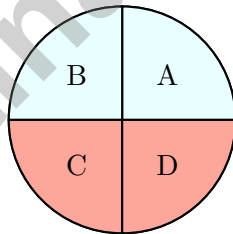
- ☐ A. \$900 ☐ C. \$1 200
☐ B. \$1 000 ☐ D. \$1 500
- 6) A triangle has two angles of 45° and 65° . If one side is 10 cm, how many distinct triangles can be drawn?
- ☐ A. Infinitely many ☐ C. 1
☐ B. 0 ☐ D. 2
- 7) A container holds 20 buttons: 7 white, 8 black, and 5 brown. A button is selected randomly. What is the probability of selecting a white or brown button?
- ☐ A. $\frac{7}{20}$ ☐ C. $\frac{12}{20}$
☐ B. $\frac{5}{20}$ ☐ D. $\frac{1}{5}$
- 8) A bike shop offers frames in 2 sizes (Small, Large) and 4 colors (Black, White, Red, Green). A customer mistakenly counts the colors first as 4, then multiplies by only 1 size instead of 2. What error did the customer make, and what is the correct answer?
- ☐ A. The error is using addition; correct: 8 ☐ C. The error is confusing size and color; correct: 6
☐ B. The error is forgetting one size; correct: 8 ☐ D. The error is not using the counting principle; correct: 4



- 1) The graph below shows the relationship between time and distance traveled. Which statement is most accurate?



- ☐ A. Proportional; passes through origin ☐ D. Not proportional; line has y -intercept at $(0, 1)$
☐ B. Cannot determine
☐ C. Proportional; all points satisfy $y = x$



- 2)

A spinner has four equal sections labeled A, B, C, D , where sections A and B are blue and sections C and D are red. What is the probability of landing on a red section?

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



- 3) An item is on sale for \$48 after a 20% discount. What was the original price?

- 4) A probability model has outcomes $\{1, 2, 3, 4, 5\}$ with $P(1) = 0.1$, $P(2) = 0.2$, $P(3) = 0.3$, $P(4) = 0.25$, $P(5) = ?$. Find $P(5)$.

☐ A. 0.15

☐ C. 0.45

☐ B. 0.25

☐ D. Cannot be determined

- 5) A patio is composed of two identical trapezoids joined together. Each trapezoid has parallel sides of 4 m and 6 m with height 3 m. What is the total area?

☐ A. 15 m²
☐ C. 45 m²
☐ B. 30 m²
☐ D. 60 m²

- 6) A painter uses 3 gallons of paint to cover 8 walls. At the same rate, how many gallons of paint are needed to cover 16 walls?

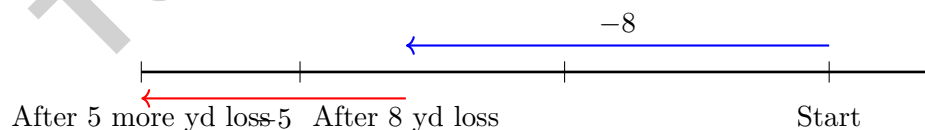
☐ A. 4 gallons

☐ C. 6 gallons

☐ B. 5 gallons

☐ D. 8 gallons

7)



A football team loses 8 yards on one play and then loses 5 more yards on the next play. Using subtraction with negative numbers, which expression represents the total change in position?

☐ A. $0 - 8 - 5$
☐ C. $0 - 8 + 5$
☐ B. $8 + 5$
☐ D. $0 + 8 - 5$


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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 D is correct.** (7.RP.3) Total repayment: Principal + Interest = \$8 000 + \$1 440 = \$9 440.
- 2) **Choice A is correct.** (7.EE.1-7.EE.2) GCF of $6xy$ and $9x$ is $3x$. Factor: $6xy + 9x = 3x(2y + 3)$.
- 3) **Choice B is correct.** (7.EE.4b) Check $x = 4$: $3(4) - 2 = 10 \leq 10$ ✓. Check $x = 5$: $3(5) - 2 = 13 \not\leq 10$. Check $x = 8$: $3(8) - 2 = 22 \not\leq 10$.
- 4) **Choice D is correct.** (7.EE.4a) Three bundles at \$5 each: $3(5) = \$15$. Eight cookies at \$0.50 each: $8(0.50) = \$4$. Total: $15 + 4 = \$19$.
- 5) **Choice B is correct.** (7.EE.3-7.EE.4) Subtract 3: $7x = 28$. Divide by 7: $x = 4$.
- 6) **Choice A is correct.** (7.EE.4a) The distributive property gives $3 \cdot x - 3 \cdot 5 = 24$, so $3x - 15 = 24$.
- 7) **Choice A is correct.** (7.G.1-7.G.5) Reflecting $(0, 1)$ over $y = x$ gives $(1, 0)$. The other new vertices are $(1, 3)$, $(4, 3)$, and $(4, 0)$.
- 8) **Choice D is correct.** (7.RP.1-7.RP.3) The unit-rate point $(1, 0.45)$ indicates approximately 0.45 kg per pound.
- 9) **The correct answer is 6.** (7.RP.3) Year 5: $2000(1.04)^5 = 2433.31$. Year 6: $2000(1.04)^6 = 2530.64 > 2500$.
- 10) **Choice B is correct.** (7.NS.1-7.NS.3) Starting at -2 and moving right 3 units: $-2 + 3 = 1$.
- 11) **The correct answer is 100.** (7.NS.1-7.NS.3) Perimeter = $4s = 40$, so $s = 10$ cm. Area = $s^2 = 10^2 = 100$ cm².
- 12) **Choice B is correct.** (7.NS.1-7.NS.3) Division by a number equals multiplication by its reciprocal: $(-8) \div 2 = (-8) \times \frac{1}{2} = -4$.
- 13) **Choice C is correct.** (7.NS.1-7.NS.3) Start 500 m, climb 320 m: $500 + 320 = 820$ m. Descend 150 m: $820 - 150 = 670$ meters.
- 14) **Choice A is correct.** (7.NS.1-7.NS.3) 6.3×10^{-8} means move the decimal 8 places left: $6.3 \rightarrow 0.000000063$.
- 15) **Choice B is correct.** (7.EE.3-7.EE.4) The arrow starts at 1 and moves 2 units right to 3; original was 1.
- 16) **Choice B is correct.** (7.G.4-7.G.6) Original: $V_1 = \pi r^2 h$. New: $V_2 = \pi r^2(3h) = 3\pi r^2 h = 3V_1$. Volume is directly proportional to height.
- 17) **Choice C is correct.** (7.SP.5-7.SP.8) For two spinners each with 3 outcomes, the sample space has $3 \times 3 = 9$ outcomes: (A, A) , (A, B) , (A, C) , (B, A) , (B, B) , (B, C) , (C, A) , (C, B) , (C, C) .
- 18) **The correct answer is B, D.** (7.NS.1-7.NS.3) B: $-33 + 33 = 0$ (opposites sum to zero). D: $-100 + 100 = 0$ (opposites sum to zero). A: $20 + (-10) = 10$ (not zero). C: $14 + (-7) = 7$ (not zero).
- 19) **The correct answer is 8.** (7.EE.1) The expression simplifies to $m + 2n$. With $m = 2$ and $n = 3$, the value is $2 + 6 = 8$.
- 20) **Choice C is correct.** (7.NS.2) First: $(-2) \times (-3) = 6$. Then: $6 + (-1) = 5$. Multiply first by order of operations, then add.
- 21) **Choice B is correct.** (7.EE.1-7.EE.2) Three containers of x liters each can be written as $x + x + x$ or $3 \times x = 3x$. This multiplication form is the most efficient equivalent expression for repeated addition.
- 22) **Choice C is correct.** (7.RP.3) Nightly rate for 4 nights: $120 \times 4 = \$480$. Facility fee = $0.10 \times 480 = \$48$. Total = $480 + 48 = \$528$.
- 23) **Choice A is correct.** (7.SP.3) Grade 7 peaks at 63–65 (higher typical height) vs. Grade 6 at 60–62. The ranges (Grade 6: 55–68, Grade 7: 58–70) overlap significantly from 58–68 inches, so some Grade 6 students are taller than some Grade 7 students.
- 24) **Choice C is correct.** (7.G.4-7.G.6) Square: $5 \times 5 = 25$ cm². Triangle: $\frac{1}{2} \times 5 \times 2 = 5$ cm². Total: $25 + 5 = 30$ cm².
- 25) **Choice D is correct.** (7.RP.1-7.RP.3) Apples: $5 \times \$0.60 = \3.00 . Oranges: $3 \times \$1.20 = \3.60 . Total: $\$3.00 + \$3.60 = \$6.60$.
- 26) **The correct answer is 14.** (7.EE.1-7.EE.2) The expression simplifies to $5a + 4$. With $a = 2$, the value is $10 + 4 = 14$.
- 27) **Choice C is correct.** (7.G.1-7.G.5) Isosceles means at least two equal sides. This triangle has two 3 cm sides, so it IS isosceles (the base does not need to be the longest or different side).
- 28) **Choice D is correct.** (7.G.4-7.G.6) s_1 , s_2 , and s_3 are radii (from center O to the circle). s_4 is the full top-to-bottom diameter, so it is not a radius.



You Are Building Test Stamina

Hi, Stamina Builder!

◇ This wide-ranging book gave you eight serious Grade 7 practice tests, so you had repeated chances to build accuracy, pacing, and confidence. Completing practice tests builds more than math knowledge. It builds the focus needed to think clearly for a long stretch. ◇

★ **Remember this:** That stamina matters. On real test day, calm pacing can be just as important as remembering a formula. ★

Stamina Skills

- **Breathe:** Reset before a difficult page.
- **Pace:** Do not spend too long in one place.
- **Return:** Come back to skipped questions with fresh eyes.
- **Finish Strong:** Use the last minutes to check.

Grade 7 test-day tip: Practice a simple reset: pause, breathe, reread, then choose your next step.

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

Jay Daie

Your Test-Stamina 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!

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



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BRIGHTLY