

7 Washington Smarter Balanced Grade 7 Math Practice Tests



7 PRINTED TESTS + 2 ONLINE TESTS

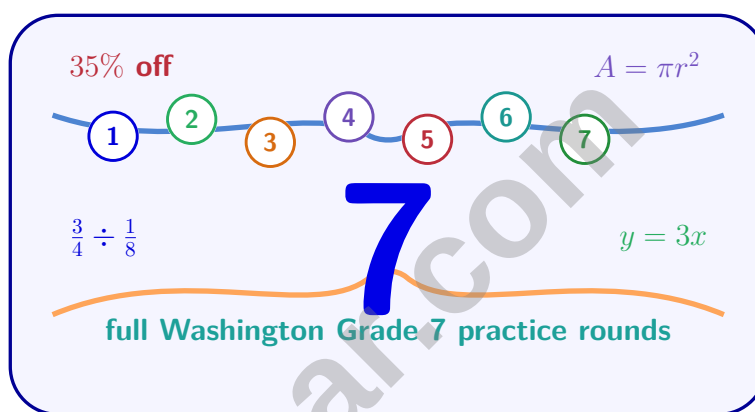


Standards Aligned Problem Solving
For Comprehensive Assessment Programs



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.

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Welcome, Washington Grade 7 Problem Solver!

Eight focused rounds for sharper Smarter Balanced math thinking

This book gives you seven 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, 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) A rectangular prism has a length of 20 cm. The width is half the length. The height is 10 cm. What is the volume?

☐ A. 1,200 cm³

☐ B. 2,000 cm³

☐ C. 4,000 cm³

☐ D. 2,400 cm³

- 2) What is $-2\frac{1}{3} \times (-3)$?

☐ A. -7

☐ B. 7

☐ C. $-6\frac{2}{3}$

☐ D. $6\frac{2}{3}$

- 3) A baker makes 18 loaves of bread in 3 hours. At this constant rate, how many loaves are made per hour?

- 4) A credit card company charges a \$95 annual fee. After 2 years, how much has the cardholder paid in fees?

☐ A. \$95

☐ B. \$380

☐ C. \$285

☐ D. \$190

- 5) Tanya deposits \$800 in an account at 9% annual compound interest. What is the balance after 2 years?

☐ A. \$944.72

☐ B. \$972

☐ C. \$952

☐ D. \$950.48



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- 6) A blueprint for a kitchen has dimensions of 3.2 inches by 2.8 inches with a scale of 1 inch = 3 feet. What is the actual area of the kitchen in square feet?

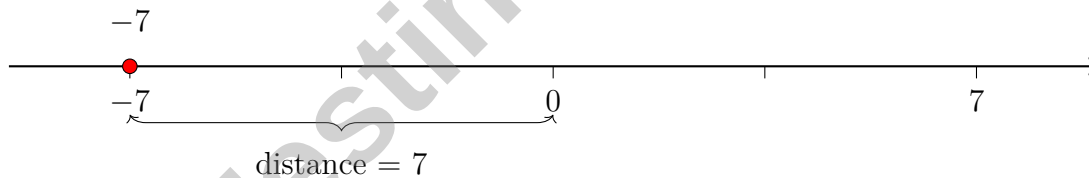
7)

Sample	Left-Handed	Total
Sample A	12	80
Sample B	15	75
Sample C	18	120

Which sample shows the highest proportion of left-handed individuals?

- ☐ A. Sample A ☐ C. Sample C
☐ B. Sample B ☐ D. All have equal proportions

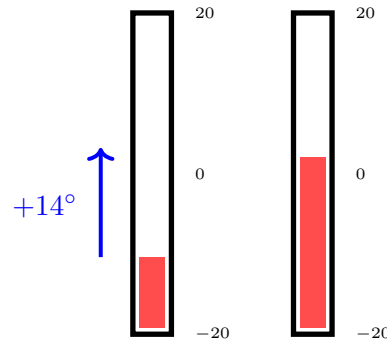
- 8) What is $|-7|$?



- ☐ A. -7 (confuses absolute value with the original number) ☐ C. 0 (misplaces absolute value at the origin)
☐ B. -14 (incorrectly applies a sign reversal) ☐ D. 7 (correct; distance is always non-negative)



- 9) A thermometer reads -5°C . The temperature rises 14°C . What is the new temperature?



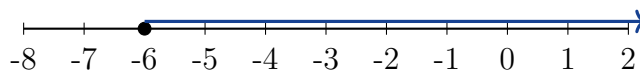
Before: -5°C After: 9°C

- ☐ A. -19°C
☐ C. 9°C
- ☐ B. -9°C
☐ D. 19°C
- 10) Factor: $12p - 8$
- ☐ A. $4(3p - 2)$
☐ C. $8(4p - 1)$
- ☐ B. $2(6p - 4)$
☐ D. $6(2p - 1.33)$
- 11) Identify which term is not a like term with $3x$.
- ☐ A. $7x$
☐ C. x
- ☐ B. $-2x$
☐ D. $3x^2$
- 12) Solve: $5x - 2 \geq 18$
- ☐ A. $x \geq 4$
☐ C. $x \geq 20$
- ☐ B. $x \leq 4$
☐ D. $x > 4$

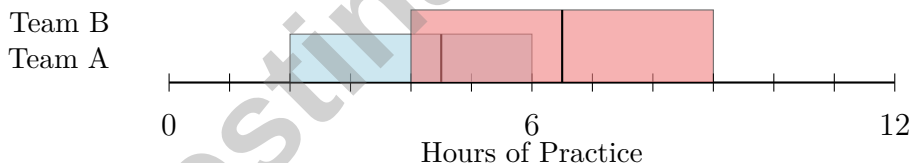


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- 1) Solve $4 + x \geq -2$ and identify the correct number line representation.



- ☐ A. Closed circle at -6 pointing right ☐ C. Closed circle at -6 pointing left
☐ B. Open circle at -6 pointing left ☐ D. Open circle at -6 pointing right
- 2) A cylinder has a lateral surface area of 94.2 cm^2 and a radius of 3 cm. What is the height? Use $\pi \approx 3.14$.
- ☐ A. 5 cm ☐ C. 15 cm
☐ B. 10 cm ☐ D. 20 cm
- 3) A gym membership costs m dollars per month. With a 15% sign-up bonus (you pay less), which form is **not** equivalent to the others?
- ☐ A. $m - 0.15m$ ☐ C. $m(0.85)$
☐ B. $0.85m$ ☐ D. $1.15m$



4)

The box plots show practice hours for two soccer teams. Based on the visual, what is true about their centers and spreads?

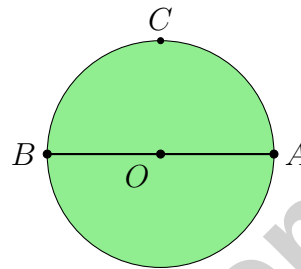
- ☐ A. Team A: median ≈ 4.5 ; Team B: median ≈ 6.5 ; Team B more spread ☐ C. Both teams practice identically
☐ B. Team A practices more than Team B ☐ D. Medians cannot be compared from box plots



- 5) An irregular hexagon can be split into three rectangles: $(4\text{ m} \times 2\text{ m})$, $(3\text{ m} \times 2\text{ m})$, and $(2\text{ m} \times 2\text{ m})$. What is the total area?

☐ A. 18 m^2 ☐ C. 22 m^2 ☐ B. 20 m^2 ☐ D. 24 m^2

- 6) In the circle below, use the diagram to identify the segment.



The segment from B to A is:

☐ A. A radius☐ C. An arc☐ B. A diameter☐ D. A sector

- 7) A bank account has a balance of -45 dollars (overdrawn). After a deposit and withdrawal, the balance becomes -20 dollars. What was the net change in the account (deposit minus withdrawal)? Write your answer as an integer with the appropriate sign.



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1) A student starts with 50, adds 12, multiplies by 2, and subtracts 8. What is the correct result?

☐ A. 116☐ C. 108☐ B. 66☐ D. 72

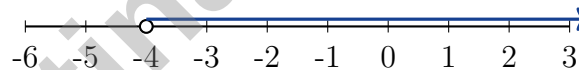
2) A science lab test shows 42 bacteria out of 280 total are resistant. What percent are resistant? Round to the nearest whole percent.

☐ A. 12%☐ C. 18%☐ B. 25%☐ D. 15%

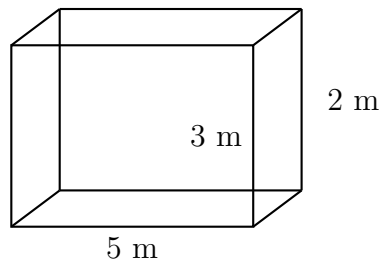
3) An electronics store has a clearance sale offering 35% off all items. If a laptop is originally \$1 200, what is the sale price?

☐ A. \$420☐ C. \$835☐ B. \$1 035☐ D. \$780

4) Solve $-2x < 8$ and choose the correct graph.

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

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5)

A rectangular prism with dimensions $5\text{ m} \times 3\text{ m} \times 2\text{ m}$ is shown above. Calculate its surface area.

☐ A. 30 m^2 ☐ C. 84 m^2 ☐ B. 62 m^2 ☐ D. 120 m^2

6) A spinner with 4 equal sections (Red, Blue, Green, Yellow) is spun twice to simulate a compound event. If “success” is defined as “the first spin is Red and the second spin is Blue,” how many outcomes in the sample space represent a success?

☐ A. 1☐ C. 4☐ B. 2☐ D. 8

7) A scale model of a skyscraper is built with a scale of $1 : 200$. The model is 45 cm tall. Which measurement is closest to the height of the actual building in meters?

☐ A. 45 m ☐ C. 450 m ☐ B. 90 m ☐ D. 900 m

8) A rectangular prism has dimensions $4\text{ cm} \times 6\text{ cm} \times 8\text{ cm}$. If a vertical plane cuts through it perpendicular to the base, which shape **MUST** appear in the cross-section?

☐ A. Square☐ C. Trapezoid☐ B. Rectangle☐ D. Triangle

Smarter Balanced Assessment Consortium 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 Smarter Balanced Assessment Consortium practice test.



Practice Test Answers and Explanations

Practice Test 1 Answers and Explanations

- 1) **Choice B is correct.** (7.G.4-7.G.6) Length = 20 cm. Width = $20/2 = 10$ cm. Height = 10 cm. Volume = $20 \times 10 \times 10 = 2,000 \text{ cm}^3$.
- 2) **Choice B is correct.** (7.NS.2) $-2\frac{1}{3} = -\frac{7}{3}$. So $-\frac{7}{3} \times (-3) = \frac{7 \times 3}{3} = 7$. Negative times negative is positive.
- 3) **The correct answer is 6.** (7.RP.1-7.RP.3) Unit rate = $18 \div 3 = 6$ loaves per hour.
- 4) **Choice D is correct.** (7.RP.3) Total fees = $95 \times 2 = \$190$.
- 5) **Choice D is correct.** (7.RP.3) Year 1: $800 \times 1.09 = 872$. Year 2: $872 \times 1.09 = 950.48$.
- 6) **The correct answer is 80.64.** (7.RP.1-7.RP.3) Actual dimensions: $3.2 \times 3 = 9.6$ feet and $2.8 \times 3 = 8.4$ feet. Area = $9.6 \times 8.4 = 80.64$ square feet.
- 7) **Choice B is correct.** (7.SP.1-7.SP.4) Sample A: $\frac{12}{80} = 0.15$ or 15%; Sample B: $\frac{15}{75} = 0.20$ or 20%; Sample C: $\frac{18}{120} = 0.15$ or 15%. Sample B is highest.
- 8) **Choice D is correct.** (7.NS.1-7.NS.3) The absolute value of any number is its distance from zero, which is always non-negative. $|-7| = 7$.
- 9) **Choice C is correct.** (7.NS.1b) A temperature rise of 14° from -5° is: $-5 + 14 = 9^\circ\text{C}$.
- 10) **Choice A is correct.** (7.EE.1-7.EE.2) The GCF of 12 and 8 is 4. Factor out 4: $12p - 8 = 4(3p - 2)$.
- 11) **Choice D is correct.** (7.EE.1) $3x^2$ has exponent 2, while $3x$ has exponent 1. They are not like terms.
- 12) **Choice A is correct.** (7.EE.4b) Add 2: $5x \geq 20$. Divide by 5: $x \geq 4$.
- 13) **Choice A is correct.** (7.G.4-7.G.6) The formula $SA = 2(lw + lh + wh)$ requires multiplying by 2 because each rectangle pair appears twice. The student calculated only one of each pair, missing half the surface area.
- 14) **Choice C is correct.** (7.SP.5-7.SP.8) Sample space: HH, HT, TH, TT (four equally likely outcomes). Outcomes with at least one heads: HH, HT, TH (three outcomes). So $P(\text{at least one heads}) = \frac{3}{4} = 0.75$.
- 15) **Choice D is correct.** (7.EE.1-7.EE.2) Substitute: $\frac{3(8)}{4} + 1 = \frac{24}{4} + 1 = 6 + 1 = 7$.
- 16) **Choice B is correct.** (7.EE.1-7.EE.2) Power rule: $(r^5)^3 = r^{5 \times 3} = r^{15}$.
- 17) **The correct answer is \$90.** (7.RP.3) If $18 = 0.20 \times b$, then $b = \frac{18}{0.20} = 90$ dollars.
- 18) **The correct answer is A, C.** (7.RP.1-7.RP.3) A: $\frac{2}{1/4} = 8$ \$/lb. B: $\frac{3}{2/5} = 7.50$ \$/lb. C: $\frac{4}{1/2} = 8$ \$/lb. D: $\frac{7}{3/4} \approx 9.33$ \$/lb. Only A and C have the same unit price.
- 19) **Choice A is correct.** (7.EE.4a) Consultation is \$50 plus \$60 per session. Equation: $60s + 50 = 290$.
- 20) **Choice C is correct.** (7.EE.3-7.EE.4) Subtract 5: $\frac{x}{4} = 4$. Multiply by 4: $x = 16$.
- 21) **Choice B is correct.** (7.G.1-7.G.5) Drawing dimensions: $15 \div 3 = 5$ cm and $9 \div 3 = 3$ cm. Perimeter: $2(5 + 3) = 16$ cm.
- 22) **Choice A is correct.** (7.G.1-7.G.5) Scale factor = $\frac{3.6}{3} = 1.2$. Verify: $2.25 \times 1.2 = 2.7$ ✓
- 23) **Choice C is correct.** (7.SP.1-7.SP.4) Asking every 10th visitor is systematic random sampling. Since the pattern (every 10th) doesn't depend on characteristics of individual visitors, it provides a representative, unbiased sample of all museum visitors.
- 24) **Choice A is correct.** (7.SP.1-7.SP.4) Same median (82) but Group X has IQR = 8 (middle 50% spans 8 units) while Group Y has IQR = 14 (wider middle spread). Group X is more consistent.
- 25) **Choice C is correct.** (7.SP.1-7.SP.4) Percentage = $\frac{90}{360} \times 100\% = \frac{1}{4} \times 100\% = 25\%$.
- 26) **Choice C is correct.** (7.SP.5-7.SP.8) A fair coin has two equally likely outcomes: heads and tails. $P(\text{heads}) = \frac{1}{2}$.
- 27) **Choice D is correct.** (7.SP.5-7.SP.8) By the counting principle: $3 \times 5 \times 2 = 30$ complete meals.
- 28) **Choice A is correct.** (7.NS.1-7.NS.3) When adding two negative numbers, add their absolute values and keep the negative sign: $-5 + (-2) = -(5 + 2) = -7$.
- 29) **Choice B is correct.** (7.NS.1-7.NS.3) $(-56) \div (-8) = 7$ and $(-56) \div 8 = -7$. Since $7 > -7$, the first is larger.
- 30) **Choice C is correct.** (7.NS.2d) Divide $1 \div 3 = 0.333 \dots$. The 3 repeats forever, written as $0.\overline{3}$. Since 3 is not a factor of 2 or 5, it is repeating.



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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 7 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 **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.



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Better Problem Solving

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Deeper Understanding

Reinforce key concepts with clear explanations and meaningful practice.



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Familiarize with test formats and improve accuracy and speed.



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- ✓ The Number System
- ✓ Expressions & Equations
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- ✓ 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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