

3

Washington

Smarter Balanced

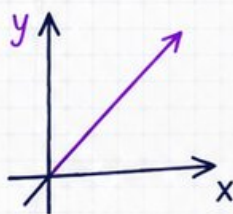
GRADE

7

MATH

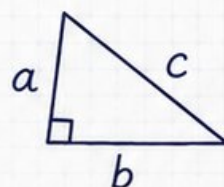
PRACTICE TESTS

- ✓ Standards Aligned
Problem Solving
For Comprehensive
Assessment Programs



$$y = mx + b$$

$$\frac{2}{3}x - \frac{4}{5} = \frac{1}{2}$$



$$3(x - 2) = 2x + 5$$



3 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
Math Skills



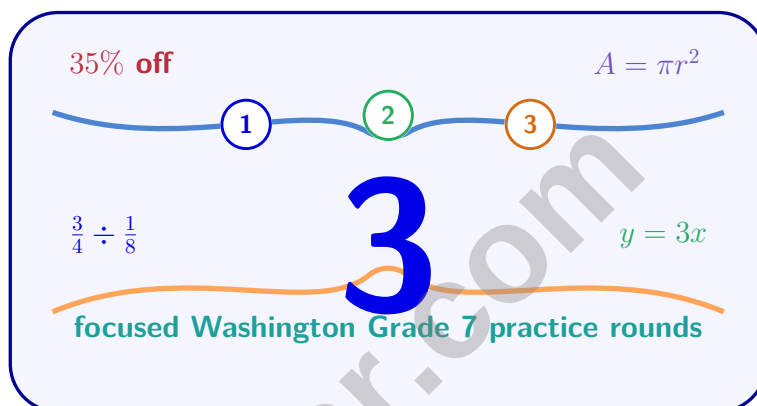
Detailed Answers
& Explanations



Improve Test
Performance

3 Washington Smarter Balanced Grade 7 Math Practice Tests

Smarter Balanced Practice for Ratios, Expressions, Geometry, and Data



Three 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!

Three focused rounds for sharper Smarter Balanced math thinking

This book gives you three 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 three-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?

Three Smarter Balanced tests, 120 questions, and a focused review path

Part	What You Will Practice
Tests 1–2	Proportional relationships, unit rates, percents, rational-number operations, and careful reading.
Test 3	Expressions, equations, inequalities, scale drawings, geometry, data, probability, and multi-step problem solving.
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	_____	28
★ Practice Test 3	_____	44
Practice Test Answer Keys	_____	58
Practice Test Answers and Explanations	_____	61

1) A student compared two datasets with the same mean of 50 and concluded, "Dataset A is better because it has a larger range." Is the student correct?

- ☐ A. Yes, larger range always means better data quality
- ☐ B. No, larger range indicates more variability, not quality
- ☐ C. The ranges must be equal if means are equal
- ☐ D. Cannot judge without sample sizes

2) A survey predicted 450 people would attend a concert. If the actual attendance was 500, what is the percent error?

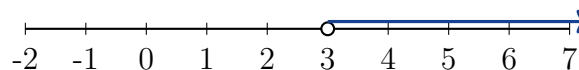
- ☐ A. 11.1%
- ☐ B. 50%
- ☐ C. 10%
- ☐ D. 9%

3) Expand: $4(2x - 3)$

- ☐ A. $6x - 12$
- ☐ B. $8x - 12$
- ☐ C. $8x - 3$
- ☐ D. $6x - 7$

4) A mountain climber is at 200 meters above sea level. She descends 350 meters. At what elevation is she now? Write your answer as an integer.

5) Choose the correct representation for $j > 3$.



- ☐ A. Closed circle at 3 pointing left
- ☐ B. Open circle at 3 pointing right
- ☐ C. Closed circle at 3 pointing right
- ☐ D. Open circle at 3 pointing left



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- 6) A credit card charges 12% simple interest annually. If you carry a balance of \$1500, how much interest will you owe after 6 months?
- ☐ A. \$45 ☐ C. \$180
☐ B. \$360 ☐ D. \$90
- 7) A photo is 8 inches wide and 6 inches tall. It is enlarged by a scale factor of 2.5. What are the new dimensions?
- ☐ A. 5.5 inches $\times$ 3.5 inches ☐ C. 16 inches $\times$ 12 inches
☐ B. 10 inches $\times$ 8 inches ☐ D. 20 inches $\times$ 15 inches
- 8) A survey finds that 84 out of 300 people prefer brand X. What percent is this?
- ☐ A. 20% ☐ C. 28%
☐ B. 24% ☐ D. 32%
- 9) A hat is priced at \$28. After a $\frac{1}{4}$ discount, what is the sale price?
- ☐ A. \$35 ☐ C. \$7
☐ B. \$14 ☐ D. \$21
- 10) Evaluate $-13 + (-7)$.
- ☐ A. -20 ☐ C. 6
☐ B. -6 ☐ D. 20
- 11) Simplify: $7a + 4b - 2a + 3b - b$
- ☐ A. $5a + 6b$ ☐ C. $9a + 6b$
☐ B. $5a + 5b$ ☐ D. $5a + 7b$



12) Factor: $18ab + 27a$

☐ A. $9a(2b + 3)$

☐ C. $a(18b + 27)$

☐ B. $18(ab + 1.5a)$

☐ D. $3(6ab + 9a)$

13) A square pyramid has base side 9 m and slant height 12 m. What is the total surface area?

☐ A. 81 m^2

☐ C. 297 m^2

☐ B. 216 m^2

☐ D. 378 m^2

14)

Number of Heads	0	1	2	3	Total
Frequency	12	36	37	15	100

A coin is flipped 3 times in each trial, and this is repeated 100 times. The table shows the number of heads per trial. What is the estimated probability of getting exactly 2 heads in three flips?

☐ A. 0.27

☐ C. 0.37

☐ B. 0.35

☐ D. 0.40

15) A percent-stacked bar chart shows budget allocation (Needs, Wants, Savings) for three people: Alex, Bailey, Casey. Alex allocates 50% Needs, 35% Wants, 15% Savings. If Alex earns \$3,600, how much more does he spend on wants than savings (in dollars)?

☐ A. \$300

☐ C. \$600

☐ B. \$480

☐ D. \$720



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- 1) A student computed $-7 + 4$ and got -11 . What error did the student make?



Correct: start at -7 , move 4 right to -3

- ☐ A. Added the absolute values instead of subtracting them
- ☐ B. Flipped the signs
- ☐ C. Subtracted in the wrong order
- ☐ D. Forgot to use a number line
- 2) A scale drawing has a scale of 1 cm : 0.5 m. What is the scale factor?
- ☐ A. 0.5
- ☐ B. 2
- ☐ C. 50
- ☐ D. 500
- 3) A pair of shoes is on sale for \$60 after a 25% discount. What was the original price of the shoes?

- 4) A rectangular field on a map is 9 cm by 12 cm at a scale of 1 cm : 0.75 km. If the scale is changed to 1 cm : 1.5 km, what will be the new length?
- ☐ A. 6 cm
- ☐ B. 12 cm
- ☐ C. 18 cm
- ☐ D. 24 cm



- 5) A cone with height 20 cm and base radius 5 cm is sliced by a vertical plane passing through the apex at an angle (not through the axis). Which shape is the cross-section?

☐ A. Isosceles triangle
☐ B. Right triangle
☐ C. Scalene triangle
☐ D. Trapezoid

- 6) A delivery service charges \$4.50 base fee plus \$1.25 per mile. What is the cost to deliver a package 12 miles away?

- 7) An angle and its supplement are in the ratio 2 : 7. What is the measure of the supplement?

☐ A. 140°
☐ B. 80°
☐ C. 40°
☐ D. 160°

- 8) If $H(5, -2)$ is reflected over the line $y = -x$, what is the image?

☐ A. $(2, -5)$
☐ B. $(-2, -5)$
☐ C. $(5, 2)$
☐ D. $(-5, 2)$

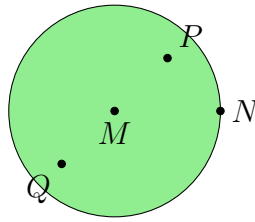
- 9) What is the formula for the circumference of a circle given its radius r ?

☐ A. $C = \pi r^2$
☐ B. $C = 2\pi r$
☐ C. $C = \frac{\pi r}{2}$
☐ D. $C = 4\pi r$



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1) Which point is the center of the circle?



☐ A. N

☐ C. P

☐ B. M

☐ D. Q

2) A spinner has 5 equal sections: 1, 1, 2, 3, 3. Find $P(1)$.

☐ A. $\frac{1}{5}$

☐ C. $\frac{3}{5}$

☐ B. $\frac{2}{5}$

☐ D. $\frac{1}{3}$

3) A sales associate earned \$150 in commission on \$2,500 worth of sales. What is the commission rate?

☐ A. 4%

☐ C. 6%

☐ B. 5%

☐ D. 8%

4) A checking account allows you to write checks and make debit card purchases, but typically offers little to no interest. A savings account accrues interest but limits withdrawals. If you want to access your money frequently for bills, which account is better?

☐ A. Savings account

☐ C. Both equally

☐ B. Neither; use credit instead

☐ D. Checking account



5) If money doubles in 10 years with annual compound interest, which rate is most consistent with this growth?

☐ A. 5%☐ C. 10%☐ B. 12%☐ D. 7%

6) An item originally marked at \$80 is reduced to \$60. What is the percent decrease?

☐ A. 20%☐ C. 30%☐ B. 33%☐ D. 25%

7) A car travels at a constant speed passing through the origin and the point (2, 140) on a distance-time graph (where x = hours and y = miles). What is the unit rate in miles per hour?

8) A living room measures 18 feet by 14 feet. On a floor plan with scale $\frac{1}{2}$ inch to 4 feet, what is the area of the room on the floor plan in square inches?



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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 B is correct.** (7.SP.1-7.SP.4) The student confused range (a measure of spread) with quality. Larger range means data is more spread out, indicating greater variability. More variability does not equal better; it depends on context.
- 2) **Choice C is correct.** (7.RP.3) Percent error = $\frac{|450-500|}{500} \times 100\% = \frac{50}{500} \times 100\% = 10\%$.
- 3) **Choice B is correct.** (7.EE.1-7.EE.2) Distribute 4 to both terms: $4(2x) - 4(3) = 8x - 12$. (Positive times negative gives negative.)
- 4) **The correct answer is -150.** (7.NS.1-7.NS.3) The elevation change is $200 - 350 = -150$. She is now 150 meters below sea level.
- 5) **Choice B is correct.** (7.EE.4b) $j > 3$ is a strict inequality, so use an open circle at 3 with the arrow pointing right toward greater values.
- 6) **Choice D is correct.** (7.RP.3) STEP 1: Convert 6 months to years: $t = 6 \div 12 = 0.5$ years. STEP 2: $I = 1500 \times 0.12 \times 0.5 = \90 .
- 7) **Choice D is correct.** (7.RP.1-7.RP.3) Multiply each dimension by the scale factor: $8 \times 2.5 = 20$ inches; $6 \times 2.5 = 15$ inches.
- 8) **Choice C is correct.** (7.RP.3) $\frac{84}{300} = \frac{7}{25} = 0.28 = 28\%$.
- 9) **Choice D is correct.** (7.RP.3) Discount = $\frac{1}{4} \times 28 = \7 . Sale price = $28 - 7 = \$21$.
- 10) **Choice A is correct.** (7.NS.1b) Both numbers are negative. Add their absolute values: $|-13| + |-7| = 13 + 7 = 20$. Since both are negative, the sum is -20 .
- 11) **Choice A is correct.** (7.EE.1) Combine: $(7 - 2)a + (4 + 3 - 1)b = 5a + 6b$.
- 12) **Choice A is correct.** (7.EE.1-7.EE.2) GCF of $18ab$ and $27a$ is $9a$. Factor: $18ab + 27a = 9a(2b + 3)$.
- 13) **Choice C is correct.** (7.G.4-7.G.6) Base: $9^2 = 81 \text{ m}^2$. Four triangles: $4 \times \frac{1}{2}(9)(12) = 4 \times 54 = 216 \text{ m}^2$. Total: $81 + 216 = 297 \text{ m}^2$.
- 14) **Choice C is correct.** (7.SP.5-7.SP.8) Relative frequency = $\frac{37}{100} = 0.37$. (Theoretical is $\frac{3}{8} = 0.375$, so this is very close.)
- 15) **Choice D is correct.** (7.RP.3) Wants = $35\% \times \$3,600 = \$1,260$. Savings = $15\% \times \$3,600 = \540 . Difference = $\$1,260 - \$540 = \$720$.
- 16) **Choice D is correct.** (7.EE.1-7.EE.2) Substitute: $(3)^2 + 2(3)(2) = 9 + 12 = 15$.
- 17) **Choice A is correct.** (7.EE.1-7.EE.2) Product rule: $z^5 \cdot z^4 \cdot z^2 = z^{5+4+2} = z^{11}$.
- 18) **Choice C is correct.** (7.EE.4a) Although both forms are mathematically equivalent, in word-problem context, writing the fixed fee first ($3.50 + 6n$) is often clearer.
- 19) **Choice B is correct.** (7.EE.4a) Distribute: $10x - 20 = 50$. Add 20: $10x = 70$. Divide by 10: $x = 7$.
- 20) **The correct answer is A,C.** (7.SP.1-7.SP.4) Bread: $0.35 \times 400 = 140$ items, so A is correct. Pastries and cakes together make 200 items, not 50, so B is false. Other: $0.15 \times 400 = 60$ items, so C is correct. Pastries (28%) plus other (15%) equals 43%, not 45%.
- 21) **Choice C is correct.** (7.EE.4b) Check $x = 6$: $6 - 4 = 2 \not\geq 3$. The other values give 3, 6, and 96, all ≥ 3 .
- 22) **Choice B is correct.** (7.G.1-7.G.5) Convert: 60 feet = 720 inches. Scale = $\frac{24}{720} = \frac{1}{30}$, or 1 : 30.
- 23) **Choice C is correct.** (7.SP.1-7.SP.4) This is stratified random sampling: dividing the population into groups (grades) and randomly selecting from each ensures all grade levels are represented proportionally. This avoids bias toward any one grade's study habits.
- 24) **Choice D is correct.** (7.SP.1-7.SP.4) 12 stars $\times$ 50 students/star = 600 students.
- 25) **Choice C is correct.** (7.SP.5-7.SP.8) Letters: 3; numbers: 4. Total: $3 \times 4 = 12$ ordered pairs.
- 26) **Choice D is correct.** (7.RP.1-7.RP.3) In Table A: $\frac{12}{4} = 3$, $\frac{24}{8} = 3$, $\frac{30}{10} = 3$, so $k = 3$. In Table B: $\frac{5}{2} = 2.5$, $\frac{10}{4} = 2.5$, $\frac{15}{6} = 2.5$, so $k = 2.5$. Table B matches the claim.
- 27) **The correct answer is $\frac{4}{3}$.** (7.RP.1-7.RP.3) If $\frac{1}{2}$ job takes $\frac{2}{3}$ hour, then 1 full job takes $\frac{2}{3} \times 2 = \frac{4}{3}$ hours.
- 28) **Choice D is correct.** (7.RP.1-7.RP.3) Unit rate = $240 \div 8 = 30$ widgets per hour.



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Hi, Calm Solver!

◇ This short, concentrated book gave you three focused Grade 7 practice tests, so you had repeated chances to build accuracy, pacing, and confidence. A calm mind can see choices more clearly. That matters in Grade 7, where one problem may have several possible entry points. ◇

★ **Remember this:** You practiced building calm by doing full tests. Each completed page is rehearsal for staying steady when the real test feels serious. ★

Calm-Test Moves

- **Pause:** Give your brain one quiet second.
- **Choose:** Pick the first useful step.
- **Continue:** Do not demand perfection immediately.
- **Check:** Use review time wisely.

Grade 7 test-day tip: If you feel rushed, slow your reading for one sentence. Clear reading saves time.

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

Jay Daie

Your Calm-Test Coach

PRACTICE TODAY. SUCCEED TOMORROW!

This book includes **3** 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:

3 Full-Length Printed Tests

2 Online Practice Tests

 Detailed Answers & Explanations



MORE PRACTICE. GREATER RESULTS.

Give your child the tools to build strong math skills, confidence, and a positive attitude toward learning.

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Practice regularly to feel prepared and test-ready.



Strengthen Math Skills

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Detailed Answers & Explanations

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Apply your knowledge and achieve your best score!

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- ✓ 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.



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