

5

Washington

Smarter Balanced

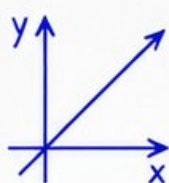
GRADE

7

MATH

PRACTICE TESTS

Standards Aligned
Problem Solving
For Comprehensive
Assessment Programs



$$y = mx + b$$

$$\frac{2}{3} + \frac{1}{6} = \frac{5}{6}$$



$$V = \pi r^2 h$$



5 PRINTED TESTS



2 ONLINE TESTS

USE THESE TWO
**ADDITIONAL ONLINE
PRACTICE TESTS**
FOR EXTRA REVIEW AFTER
THE PRINTED TESTS
IN THIS BOOK.



Build
Confidence



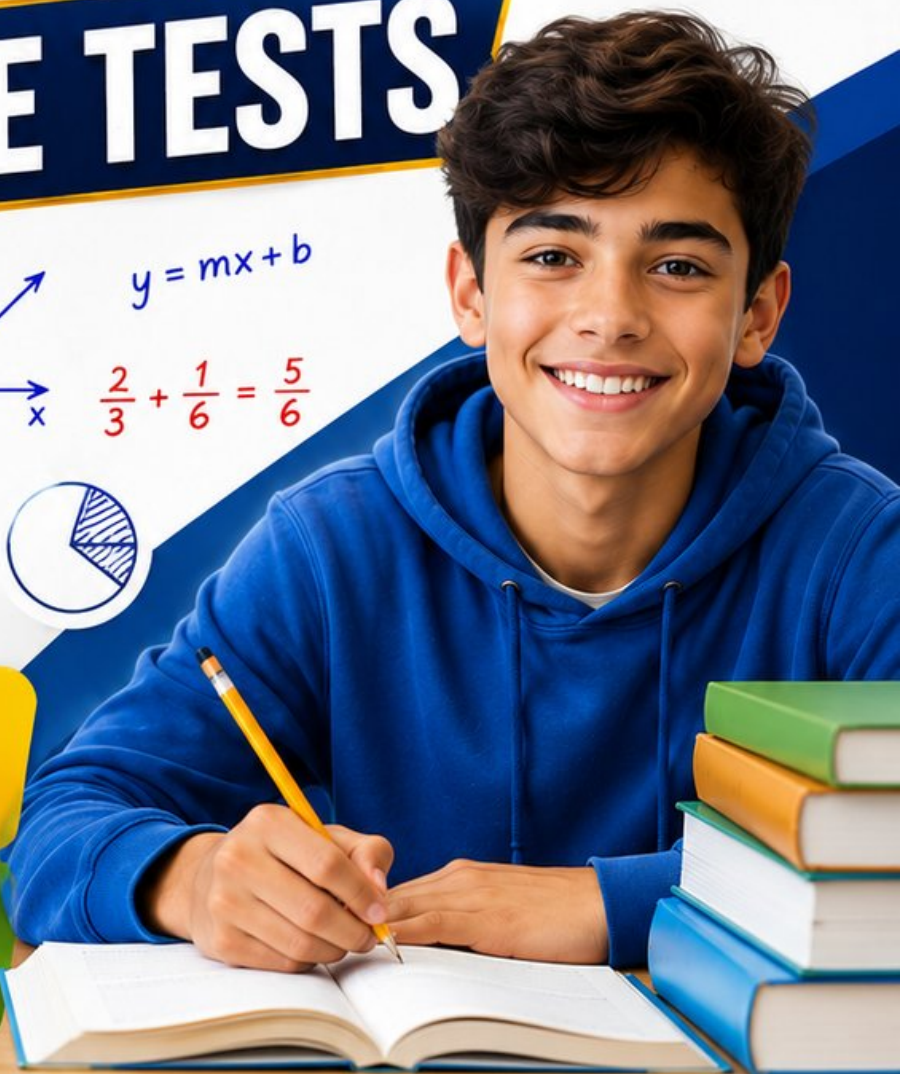
Strengthen
Math Skills



Detailed Answers
& Explanations



Improve Test
Performance



5 Washington Smarter Balanced Grade 7 Math Practice Tests

Grade 7 Test Prep with Mixed Review, Keys, and Clear Solutions



Five 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!

Five focused rounds for sharper Smarter Balanced math thinking

This book gives you five 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 five-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?

Five Smarter Balanced tests, 200 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.
Tests 3–5	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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For more practice
& answers

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1) What is $\sqrt{64}$?

☐ A. 6

☐ C. 9

☐ B. 8

☐ D. 7

2) What is $-11 - (-5)$?

☐ A. -16

☐ C. 6

☐ B. 16

☐ D. -6

3) If a sector measures 288° , what percent of the circle does it represent?

☐ A. 72%

☐ C. 80%

☐ B. 75%

☐ D. 88%

4) A toy train layout uses a scale of 1 inch : 4 feet. A piece of track on the layout is 18 inches long. A student incorrectly calculates the actual length as 4.5 feet by dividing. What should the correct answer be?

☐ A. 4.5 feet (the student is correct)

☐ C. 14 feet

☐ B. 9 feet

☐ D. 72 feet

5) A worker is paid \$18 per hour. What are the earnings for 40 hours?



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6)

Sport	Students	Percent
Basketball	36	45%
Soccer	20	25%
Other	24	30%

The table shows sports preferences. If 45% of 80 students play basketball, how many is that?

☐ A. 30☐ C. 40☐ B. 45☐ D. 367) Which of the following is NOT a like term with $6xy$?☐ A. $-4xy$ ☐ C. $2xy^2$ ☐ B. $9yx$ ☐ D. $10xy$

8) A student's part-time job pays \$600 per month. After saving 25%, how much money does the student have left to spend?

☐ A. \$150☐ C. \$400☐ B. \$300☐ D. \$4509) A recipe calls for 2 cups of flour for every 1 cup of sugar. If the recipe uses s cups of sugar, which expression shows the amount of flour needed?☐ A. $s + 2$ ☐ C. $\frac{s}{2}$ ☐ B. $2s$ ☐ D. $2 + s$ 

10) A copy machine prints $\frac{4}{5}$ of a document in $\frac{2}{5}$ minute. How many documents can it print in 1 minute?

☐ A. $\frac{8}{25}$ documents

☐ C. $\frac{1}{2}$ document

☐ B. 1 document

☐ D. 2 documents

11) A recipe calls for $\frac{1}{2}$ cup of flour for every $\frac{1}{4}$ cup of sugar. Which ratio represents the proportional relationship?

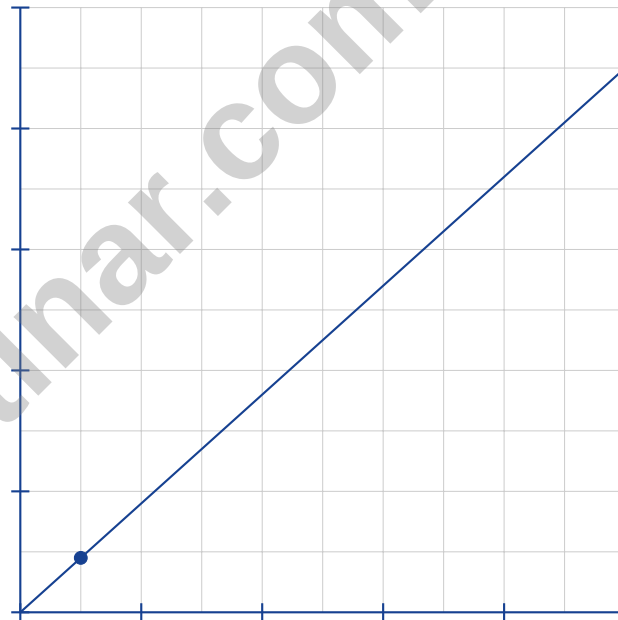
☐ A. 1 : 2

☐ C. 4 : 1

☐ B. 1 : 4

☐ D. 2 : 1

Grams of protein



Servings

12)

A food label shows protein content proportional to servings. What is the protein per serving?

☐ A. 10 grams

☐ C. 9 grams

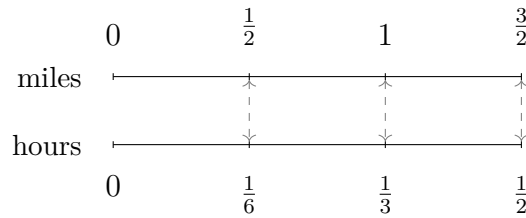
☐ B. 1 gram

☐ D. 0.9 grams



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- 1) Use the double number line below to find the unit rate of miles per hour.



What is the unit rate in miles per hour?

- ☐ A. 9 mph ☐ C. $\frac{1}{9}$ mph
☐ B. $\frac{1}{3}$ mph ☐ D. 3 mph
- 2) What is the greatest common factor of $16m$ and $24n$?

- 3) A phone case costs \$15 and is discounted by \$3. What is the percent discount?

- ☐ A. 10% ☐ C. 15%
☐ B. 25% ☐ D. 20%

- 4) The table shows a proportional relationship. What is the constant of proportionality?

x	y
9	3
18	6
27	9

- ☐ A. $k = 3$ ☐ C. $k = 9$
☐ B. $k = 6$ ☐ D. $k = \frac{1}{3}$



5) The cost c of buying n identical books is proportional to n . If 4 books cost \$18, what is the constant of proportionality (unit price per book)?

☐ A. \$2.50

☐ C. \$14.00

☐ B. \$4.00

☐ D. \$4.50

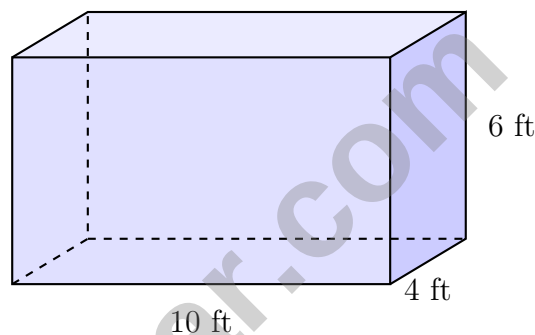
6) Solve: $-2x + 3 < 9$

☐ A. $x > -3$

☐ C. $x < 6$

☐ B. $x < -3$

☐ D. $x \geq 3$



7)

The colored isometric view represents a rectangular prism. Which calculation correctly finds its surface area?

☐ A. $2(10 + 6 + 4)$

☐ C. $2(10 \times 6 + 10 \times 4 + 6 \times 4)$

☐ B. $2(10 \times 6 \times 4)$

☐ D. $10 \times 6 \times 4$

8) To simulate drawing a card from a standard deck and finding whether it is a heart (probability $\frac{1}{4}$), which spinner design is best?

☐ A. Spinner with 2 equal sections (one shaded, one not)

☐ C. Spinner with 6 equal sections (two shaded, four not)

☐ B. Spinner with 4 equal sections (one shaded, three not)

☐ D. Spinner with 13 equal sections (one shaded, twelve not)



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1) If a triangle has sides a , b , and c where c is the longest side, and $c^2 = a^2 + b^2$, what angle measure can we conclude?

- ☐ A. The angle opposite c is 90° ☐ C. The angle opposite c is obtuse
☐ B. The angle opposite c is acute ☐ D. All angles are equal

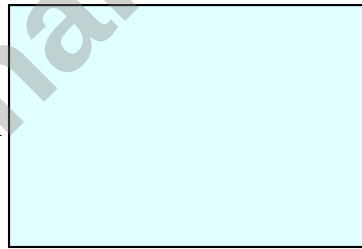
2) Simplify: $c^8 \div c^5$

- ☐ A. c^3 ☐ C. c^2
☐ B. c^{13} ☐ D. 1

3) A phone company charges \$20 per month plus \$0.15 for each text message over the limit. If Marcus pays \$35.60 in a month, which equation could be used to find n , the number of text messages over the limit?

- ☐ A. $0.15n + 20 = 35.60$ ☐ C. $20 + 35.60 = 0.15n$
☐ B. $20n + 0.15 = 35.60$ ☐ D. $0.15 + 20n = 35.60$

4 cm



6 cm

Scale: 1 cm : 3 m

4)

A scale drawing shows a field with dimensions 6 cm by 4 cm. What is the perimeter of the actual field in meters?

- ☐ A. 20 m ☐ C. 60 m
☐ B. 30 m ☐ D. 120 m



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For more practice
& answers

5) A catering company charges a fixed price per meal. For a party of 8 people, the cost is \$160. How much is charged per meal?

- ☐ A. \$8
☐ B. \$160

- ☐ C. \$30
☐ D. \$20

6) Evaluate: $-2\frac{1}{2} + 5\frac{3}{4}$

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

- ☐ C. $7\frac{1}{4}$
☐ D. $-8\frac{1}{4}$

7) Solve for x : $4(x + 5) = 44$

8) A freezer temperature drops from 0°C to -30°C over 10 hours. What is the average temperature drop per hour?

- ☐ A. 30°C per hour
☐ B. -3°C per hour

- ☐ C. 3°C per hour
☐ D. -30°C per hour

9) Convert $\frac{3}{11}$ to a decimal.

- ☐ A. 0.3
☐ B. $0.27\overline{27}$

- ☐ C. $0.\overline{27}$
☐ D. 0.311



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) $8 \times 8 = 64$, therefore $\sqrt{64} = 8$.
- 2) **Choice D is correct.** (7.NS.1-7.NS.3) $-11 - (-5) = -11 + 5 = -6$.
- 3) **Choice C is correct.** (7.SP.1-7.SP.4) $288^\circ \div 360^\circ \times 100 = 80\%$.
- 4) **Choice D is correct.** (7.RP.1-7.RP.3) Multiply: $18 \times 4 = 72$ feet. Student divided instead of multiplied (flipped the operation).
- 5) **The correct answer is \$720.** (7.RP.1-7.RP.3) Use $18 \times 40 = 720$ dollars.
- 6) **Choice D is correct.** (7.RP.3) 45% of 80 is $0.45 \times 80 = 36$ students.
- 7) **Choice C is correct.** (7.EE.1) Like terms must have the same variables with the same exponents. $2xy^2$ has x^1y^2 , while $6xy$ has x^1y^1 . The exponents on y differ, so they are not like terms. Options A and D are clearly like $6xy$. Option B, $9yx$, equals $9xy$ by commutativity, so it is also a like term with $6xy$.
- 8) **Choice D is correct.** (7.RP.3) Amount left = $(100\% - 25\%) \times \$600 = 75\% \times 600 = 0.75 \times 600 = \450 .
- 9) **Choice B is correct.** (7.EE.1-7.EE.2) The ratio is 2 cups flour per 1 cup sugar, so $f = 2s$.
- 10) **Choice D is correct.** (7.RP.1-7.RP.3) Unit rate = $\frac{4/5}{2/5} = \frac{4}{5} \times \frac{5}{2} = \frac{20}{10} = 2$ documents per minute.
- 11) **Choice D is correct.** (7.RP.1-7.RP.3) Divide: $\frac{1/2}{1/4} = \frac{1}{2} \times \frac{4}{1} = 2$. For every 1 cup sugar, you need 2 cups flour.
- 12) **Choice D is correct.** (7.RP.1-7.RP.3) The unit-rate point (1, 0.9) shows 0.9 grams per serving.
- 13) **Choice D is correct.** (7.RP.3) Set part over whole equal to percent over 100: $\frac{32}{80} = \frac{p}{100}$. Cross-multiply: $p = 40\%$.
- 14) **The correct answer is \$51.** (7.RP.3) Discount amount = $0.32 \times 75 = \$24$. Sale price = $75 - 24 = \$51$.
- 15) **Choice C is correct.** (7.NS.1-7.NS.3) Common denominator 6: $-\frac{4}{6} - \frac{5}{6} = -\frac{9}{6} = -\frac{3}{2} = -1\frac{1}{2}$.
- 16) **Choice C is correct.** (7.NS.1-7.NS.3) $3\frac{1}{3} = \frac{10}{3}$. Then $\frac{10}{3} \div \frac{2}{3} = \frac{10}{3} \times \frac{3}{2} = \frac{10}{2} = 5$.
- 17) **Choice B is correct.** (7.NS.2d) Divide $1 \div 7 = 0.142857142857 \dots$. The block 142857 repeats.
- 18) **The correct answer is 2.** (7.RP.3) $180 = 1500 \times 0.06 \times t \Rightarrow 180 = 90t \Rightarrow t = 2$ years.
- 19) **Choice C is correct.** (7.NS.1-7.NS.3) Distance down: $\frac{2}{3} \times 9 = \frac{2 \times 9}{3} = \frac{18}{3} = 6$ meters.
- 20) **Choice A is correct.** (7.NS.1-7.NS.3) Final score = $-250 + 180 - 120 + 200 = 10$ points.
- 21) **The correct answer is A,B.** (7.RP.1-7.RP.3) $k = 5/20 = 0.25$ miles per minute, so A is correct. When $t = 40$: $d = 0.25 \times 40 = 10$ miles, so B is correct. C is incorrect: $d = 0.25t$, not $4t$. D is incorrect: $d = 0.25 \times 60 = 15$ miles, not 12.
- 22) **Choice B is correct.** (7.NS.1-7.NS.3) Move decimal 5 places right: $0.00008 \rightarrow 8$. Exponent is -5 .
- 23) **Choice D is correct.** (7.SP.5-7.SP.8) Since $P(\text{Heads}) + P(\text{Tails}) = 1$, we have $P(\text{Tails}) = 1 - \frac{2}{3} = \frac{1}{3}$.
- 24) **The correct answer is 8.33%.** (7.RP.3) Percent error = $\frac{|55000 - 60000|}{60000} \times 100\% = \frac{5000}{60000} \times 100\% \approx 8.33\%$.
- 25) **Choice C is correct.** (7.NS.2) $6 \times 4.50 = 27.00$. Each burger is \$4.50, so 6 burgers cost \$27.00.
- 26) **Choice C is correct.** (7.EE.1-7.EE.2) With a 6% tax, you pay $100\% + 6\% = 106\%$ of the original price: 25×1.06 .
- 27) **Choice D is correct.** (7.RP.3) Commission = commission rate $\times$ trade value = $0.005 \times 8000 = \$40$.
- 28) **Choice A is correct.** (7.SP.1-7.SP.4) For $n = 20$ (even), median is between positions $n/2 = 10$ and $n/2 + 1 = 11$.
- 29) **Choice D is correct.** (7.G.4-7.G.6) Decompose into a rectangle and a triangle. Rectangle: $6 \times 4 = 24 \text{ m}^2$. Triangle: $\frac{1}{2} \times 6 \times 3 = 9 \text{ m}^2$. Add: $24 + 9 = 33 \text{ m}^2$.
- 30) **Choice C is correct.** (7.RP.1-7.RP.3) Set up: $\frac{25}{100} = \frac{18}{x}$. Cross multiply: $25x = 1800$, so $x = 72$.
- 31) **Choice D is correct.** (7.RP.3) Correct net pay: $\$1200 - \$180 = \$1020$. Listed net is \$1100, which is \$20 too high, indicating a missing \$20 deduction.
- 32) **Choice D is correct.** (7.RP.3) Compound interest produces exponential growth because the amount grows by a constant percentage each year, not a constant amount. The curve accelerates over time.



Hi, Persistent Problem Solver!

◇ Some Grade 7 questions ask you to hold several ideas in your mind at once. That can feel hard, and that is exactly why practice matters. ◇

★ **Remember this:** You showed persistence by continuing through the set. That habit is powerful because difficult problems often open after one more good attempt. You practiced across 5 full Grade 7 practice tests, and that repeated effort matters. ★

Persistence Tools

- **Try a Smaller Case:** Use an easier number to see the pattern.
- **Draw It:** Make the situation visible.
- **Restate It:** Say the question in your own words.
- **Check One Step:** Fix the first unclear place.

Grade 7 test-day tip: When stuck, do not restart everything. Find the first step you trust, then rebuild from there.

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

Jay Daie

Your Persistence Coach

PRACTICE TODAY. SUCCEED TOMORROW!

This book includes **5** 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:

5 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.

WHAT YOU'LL GAIN



Build Confidence

Practice regularly to feel prepared and test-ready.



Strengthen Math Skills

Develop key math concepts and problem solving abilities.



Improve Understanding

Learn with clear explanations and step-by-step solutions.



Test Confidence

Familiarize with test formats and improve accuracy and speed.



Boost Performance

Apply your knowledge and achieve your best score!

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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