

7 South Dakota

Smarter Balanced

7
PRINTED
TESTS

+
2
ONLINE
TESTS

Grade 6 MATH

PRACTICE TESTS

Use these two additional online practice tests for extra review after the printed tests in this book.

Standards-Aligned *Steady Southern*
Problem Solving for Comprehensive
Assessment Program



7 Full-Length
Printed Tests



Standards-Aligned
Math Practice



Detailed Answer Keys
and Explanations



Build Confidence.
Achieve Success.



You've
Got
This!



PREPARE
PRACTICE
SUCCEED



PRACTICE
WITH PURPOSE



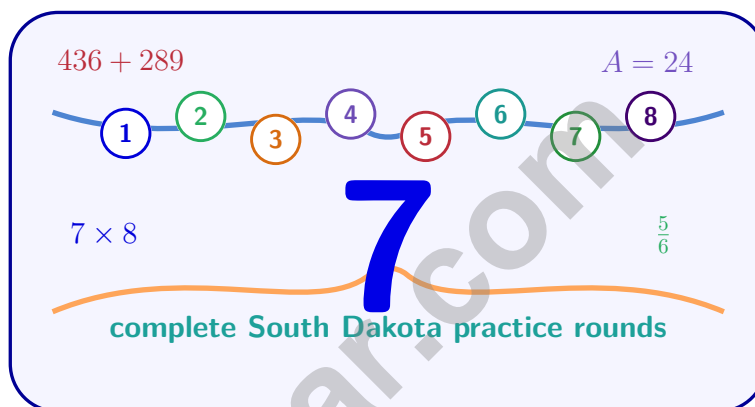
STRENGTHEN
MATH SKILLS



REVIEW, IMPROVE,
AND SUCCEED

7 South Dakota Smarter Balanced Grade 6 Math Practice Tests

Standards-Aligned Prairie-And-Ridge Review for Smarter Balanced Assessment Consortium



Seven complete 40-question Grade 6 practice rounds for Smarter Balanced, built for prairie-and-ridge review with ratios, rational numbers, expressions, equations, geometry, statistics, answer keys, and clear explanations for every item.

Jay Daie and Reza Nazari



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Welcome, South Dakota Math Explorer!

Eight focused rounds using prairie-and-ridge review

This book gives you seven full Grade 6 practice tests for Smarter Balanced. Each round uses open prairie, carved hills, and steady problem checks as a fresh mental backdrop while you read closely, choose a smart strategy, show your work, and check whether your answer makes sense.

Your South Dakota Practice Promise

Use wide-open thinking: mark what matters, solve in order, and check if the answer is reasonable.

Read

Plan

Check

How to Use This Book

A seven-session routine for prairie-and-ridge review

1. **Work in order.** Take one 40-question test at a time in a quiet place.
2. **Preview the skills.** Scan the quick review pages before beginning the first round.
3. **Correct actively.** Retry missed items before reading the full explanation.
4. **Mark confidence.** Put a small star beside problems where your plan felt strong.
5. **Plan the next round.** Use the growth log to choose one habit and one skill to practice.

South Dakota review rhythm: Complete a round, review the hard hills, and start the next test with a clearer plan.



What Is Inside?

Eight Smarter Balanced tests, 320 questions, and a full review path

Part	What You Will Practice
Tests 1–3	Foundation rounds for ratios, rational numbers, operations, and careful reading.
Tests 4–6	Skill-building rounds with expressions, equations, geometry, data, and problem models.
Test 7	Final stamina round for mixed review, neat work, and flexible strategy choices.
Answer Pages	Compact keys and explanations that show why each answer works.

The tests are mixed on purpose. Prairie-and-ridge review means recognizing the skill even when the next question changes topic, changes format, or asks for an explanation.



Scan me!
For more practice
& answers

Table of Contents

★ Practice Test 1	_____	14
★ Practice Test 2	_____	30
★ Practice Test 3	_____	45
★ Practice Test 4	_____	60
★ Practice Test 5	_____	76
★ Practice Test 6	_____	93
★ Practice Test 7	_____	107
Practice Test Answer Keys	_____	125
Practice Test Answers and Explanations	_____	130

1) A height requirement states that riders must be taller than 48 inches. Which inequality matches this?

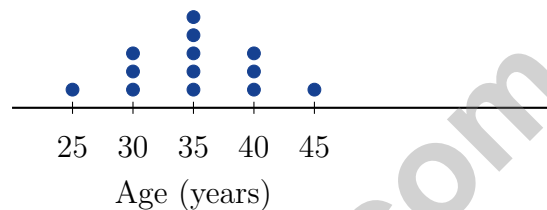
A. $h \geq 48$

C. $h < 48$

B. $h \leq 48$

D. $h > 48$

2) A dot plot displays the ages of people at a yoga class. The distribution appears roughly symmetric with a peak at 35 years. This suggests:


 A. The mean is less than the median

 C. The mean is greater than the median

 B. The mean cannot be determined from a dot plot

 D. The mean is approximately equal to the median

3) A dot plot: $\{1, 2, 2, 3, 3, 3, 4, 5, 5, 6\}$. What is the IQR?

A. 1.5

C. 2.5

B. 3

D. 2

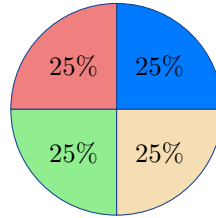
4) Using the push-ups data from Question 11, what is the median number of push-ups?

 A. 34 push-ups

 C. 36 push-ups

 B. 35 push-ups

 D. 37 push-ups

5)

A baker made 560 cookies. The circle graph shows $\frac{1}{4}$ are chocolate chip. How many chocolate chip cookies did the baker make?

 A. 140 C. 180 B. 100 D. 200

6) Two recipes both use raisins and almonds. Recipe A has a ratio of raisins to almonds of 3 : 5. Recipe B has a ratio of raisins to almonds of 6 : 10. Which statement is true?

 A. Recipe A and Recipe B have different proportions; you cannot use them interchangeably. C. Recipe B has more raisins per almond than Recipe A. B. Recipe A has more almonds per raisin than Recipe B. D. Recipe A and Recipe B have the same proportion of raisins to almonds.

7) A bakery sells cookies for c cents each. A customer buys 6 cookies. Which expression shows the total cost in cents?

 A. $c + 6$ C. $c - 6$ B. $6c$ D. $\frac{c}{6}$ 

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8) Solve for x : $\frac{x}{3} = 7$

A. $x = 4$

C. $x = 21$

B. $x = 10$

D. $x = 2.33$

9) A composite figure consists of a triangle and a trapezoid (or identify triangular components). If only the triangle portion has base 10 meters and height 5 meters, what is the area of just the triangle?

A. 15 m^2

C. 50 m^2

B. 25 m^2

D. 75 m^2

10) A book storage unit is 2 ft by 1 ft by 3 ft. A larger unit is 3 ft by 2 ft by 2 ft. How many times larger is the second unit's volume?

A. 1 time

C. 3 times

B. 2 times

D. 4 times

11) If the probability of success is 0.85, what is the probability of failure?

A. 0.15

C. 0.35

B. 0.25

D. 0.50

12) Which value satisfies both $x \geq 3$ and $x \leq 7$?

A. $x = 2$

C. $x = 8$

B. $x = 5$

D. $x = 10$

13) In the equation $y = 5x + 2$, which quantity changes as x increases?

A. The slope

C. The value of y

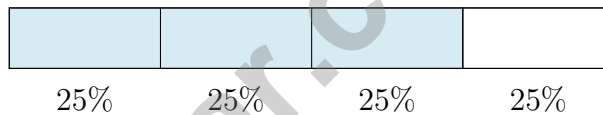
B. The y -intercept

D. The value of 5



Step-by-Step: $7,524 \div 44$ Step 1: 44 goes into 75 once. $44 \times 1 = 44$ Step 2: $75 - 44 = 31$. Bring down 2 $\Rightarrow 312$ Step 3: 44 goes into 312 seven times. $44 \times 7 = 308$ Step 4: $312 - 308 = 4$. Bring down 4 $\Rightarrow 44$ Step 5: $44 \div 44 = 1$, remainder 0Quotient: **171**

1)

What is $7,524 \div 44$? A. 171 C. 169 B. 170 D. 175

2)

In the bar model above, the shaded region represents 75 students. How many students are there in total?

 A. 100 C. 200 B. 150 D. 300

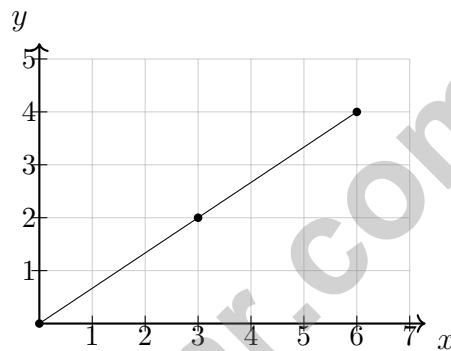
3) Four friends split a restaurant bill of \$96. How much does each person owe?

 A. \$20 C. \$30 B. \$24 D. \$32

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& answers

- 4) A clothing store stocks shirts and pants in a 3 : 2 ratio. If the store has 24 shirts, how many pants does it have?

- 5) A line on a coordinate plane has the equation $y = \frac{2}{3}x$. Which point lies on this line?



- A. (2, 4) C. (6, 4)
- B. (3, 3) D. (6, 9)
- 6) A graph shows the relationship between the amount of flour (in cups) and the number of muffins baked. The point (2, 24) is on the line. If the ratio is constant and starts at the origin, how many muffins can be made with 5 cups of flour?



1) If a rectangular prism has length 12 cm, width 9 cm, and height 6 cm, what is the lateral surface area (area of the 4 vertical faces, not including top and bottom)?

- A. 108 cm^2 C. 216 cm^2
 B. 180 cm^2 D. 252 cm^2

2) A student needs to save more than \$100. What is the least whole-dollar amount that works?

3) A recipe needs $\frac{1}{4}$ cup of oil. What percent of a cup is this?

- A. 14% C. 50%
 B. 25% D. 75%

4) A track coach measures the sprint distance as 120 yards. What is this distance in feet?

- A. 180 feet C. 40 feet
 B. 240 feet D. 360 feet

5) Marcus earns \$250 per week. He wants to save 20% of his earnings. How much will he save in one week?

- A. \$20 C. \$70
 B. \$100 D. \$50



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& answers

6) A baker uses 2 cups of sugar per cake. How many cups are used for 7 cakes?

7) Which of these is the distance between $(-7, -3)$ and $(-7, 4)$?

A. 7 units

C. 1 unit

B. 11 units

D. 4 units

8) A recipe calls for 2 cups of flour for every 3 cups of sugar. Which fraction represents the ratio of flour to the total amount of flour and sugar?

A. $\frac{2}{3}$

C. $\frac{2}{5}$

B. $\frac{3}{5}$

D. $\frac{3}{2}$



South Dakota Smarter Balanced Practice Test Answer Keys

How to use this South Dakota Smarter Balanced answer section with a Grade 6 student:

1. check the answer first, then write one quick reason the choice is correct
2. mark questions to try again, especially the skills that feel connected to prairie-and-ridge review
3. rework the problem before reading the full explanation, using this reminder:
Use wide-open thinking: mark what matters, solve in order, and check if the answer is reasonable.

A calm South Dakota correction routine turns every missed item into useful practice. Complete a round, review the hard hills, and start the next test with a clearer plan.



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& answers

South Dakota Practice Test Answers and Explanations

Review the seven printed Smarter Balanced tests with patient, clear, and ready for the next climb habits.

Practice Test 1 Answers and Explanations

- 1) **Choice D is correct.** **(6.EE.8)** “Taller than” (strictly greater) means $h > 48$, not $h \geq 48$.
- 2) **Choice D is correct.** **(6.SP.4)** For a symmetric distribution, the mean and median are roughly equal, both clustering near the center peak at 35 years.
- 3) **Choice D is correct.** **(6.SP.5)** With 10 values, $Q1 = \text{median of lower } 5 \{1, 2, 2, 3, 3\} = 2$. $Q3 = \text{median of upper } 5 \{3, 4, 5, 5, 6\} = 4$. $IQR = 4 - 2 = 2$.
- 4) **Choice A is correct.** **(6.SP.4)** In order: 23, 25, 28, 29, 31, 34, 36, 37, 42, 45, 48. With 11 values (an odd count), the median is the middle value at position 6: 34 push-ups.
- 5) **Choice A is correct.** **(6.NS.1)** $\frac{1}{4} = 25\%$. So $0.25 \times 560 = 140$ chocolate chip cookies.
- 6) **Choice D is correct.** **(6.RP.1)** Simplify Recipe B: $6 : 10 = 3 : 5$ (divide by 2). Since both ratios simplify to $3 : 5$, they are equivalent and have the same proportion.
- 7) **Choice B is correct.** **(6.EE.6)** Total = price per cookie \times number of cookies = $6c$ cents.
- 8) **Choice C is correct.** **(6.EE.5)** Multiply both sides by 3: $x = 7 \times 3 = 21$.
- 9) **Choice B is correct.** **(6.G.1)** $A = \frac{1}{2} \times 10 \times 5 = 25 \text{ m}^2$.
- 10) **Choice B is correct.** **(6.G.2)** First unit: $V = 2 \times 1 \times 3 = 6 \text{ ft}^3$. Second unit: $V = 3 \times 2 \times 2 = 12 \text{ ft}^3$. Ratio: $12 \div 6 = 2$.
- 11) **Choice A is correct.** **(6.NS.3)** Probability of failure = $1 - 0.85 = 0.15$.
- 12) **Choice B is correct.** **(6.EE.8)** $x \geq 3$ means x is at least 3. $x \leq 7$ means x is at most 7. Only 5 falls in the range $[3, 7]$.
- 13) **Choice C is correct.** **(6.EE.9)** As x increases, the value of $5x$ increases, which causes $y = 5x + 2$ to increase. The slope 5 and intercept 2 are constants.
- 14) **Choice C is correct.** **(6.G.1)** Area = base \times height = $5 \times 2 = 10 \text{ mm}^2$.
- 15) **The correct answer is 7.** **(6.EE.7)** Floor after rising 8 floors: $-1 + 8 = 7$.
- 16) **The correct answer is 17.** **(6.EE.1)** Substitute: $a = 2$ so $a^3 = 2^3 = 8$. And $b = 3$ so $b^2 = 3^2 = 9$. Then add: $8 + 9 = 17$.
- 17) **Choice C is correct.** **(6.G.1)** Width: $7 - 3 = 4$ units. Height: $7 - 2 = 5$ units. Area = $4 \times 5 = 20$ square units.
- 18) **Choice B is correct.** **(6.G.4)** $SA = 2LW + 2LH + 2WH$, so $280 = 2(10)(6) + 2(10)H + 2(6)H = 120 + 32H$. Then $160 = 32H$, so $H = 5$ cm.
- 19) **Choice A is correct.** **(6.NS.8)** Reflection over the x -axis keeps the x -coordinate unchanged and negates the y -coordinate.
- 20) **The correct answer is Both A and B describe adding 8 to -5 , which equals 3.** **(6.NS.3)** A is correct: starting at -5 and moving 8 units right (the direction for adding a positive) lands at 3. B is correct: a temperature rise of 8 degrees from -5 gives $-5 + 8 = 3$ degrees. C is incorrect because moving left would be subtraction. D is incorrect because a deposit adds money, so $-5 + 8 = 3$, not -13 . E is incorrect because the move from -5 to 3 is to the right, not left.
- 21) **The correct answer is 6.** **(6.EE.3)** Twice 3 cups is $2 \times 3 = 6$ cups.
- 22) **Choice A is correct.** **(6.RP.1)** Divide sugar by cookies: $\frac{1}{2} \div 12 = \frac{1}{2} \times \frac{1}{12} = \frac{1}{24}$ cup per cookie.
- 23) **Choice B is correct.** **(6.RP.2)** $360 \div 8 = 45$ widgets per hour.
- 24) **Choice A is correct.** **(6.RP.3)** Counting the shaded squares: 18 in the upper region + 8 in the right region = 26 squares out of 100. So 26%.
- 25) **Choice C is correct.** **(6.RP.3)** 40% of \$300 = $0.40 \times 300 = \$120$. New price is $\$300 - \$120 = \$180$.
- 26) **Choice D is correct.** **(6.SP.4)** Overspend: $\$180 - \$150 = \$30$. Percentage: $\frac{\$30}{\$150} = 0.20 = 20\%$.
- 27) **Choice C is correct.** **(6.NS.8)** To go from $(3, 4)$ to $(-3, -4)$, both the x -coordinate sign and y -coordinate sign must change. This requires reflection across both the x -axis and y -axis.



Hi, Math Champion!

◇ You trained hard! 7 full practice tests is real practice. Your math game is way better now than when you started. ◇

★ **Coach's truth:** kids who practice get better. You practiced. You got better. That's how it works!
★

Your Game Stats

- **Energy:** HIGH! You can finish a long test.
- **Smart Plays:** You know lots of strategies.
- **Calm Head:** You stay cool with hard problems.
- **Game-Day Ready:** You feel strong and prepared.

Coach's tip: the night before the test, get good sleep. Eat a good breakfast. Bring a sharp pencil. Trust your training!

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

Jay Daie

Your Math Coach

MASTER TODAY. SUCCEED TOMORROW.

This Grade 6 Math Practice Tests book is designed to help students strengthen their math skills, master important concepts, and build the confidence they need to excel on comprehensive assessments.

With 7 full-length printed tests and 2 online tests, students get the review, practice, and realistic test experience they need to improve accuracy, develop problem-solving abilities, and reach their full potential.

Perfect for classroom use, homework, test preparation, and extra practice at home.



PERFECT FOR:

- ✓ Classroom Practice
- ✓ Homework & Review
- ✓ Independent Learning
- ✓ Test Preparation
- ✓ Skill Reinforcement
- ✓ Building Confidence

★ PRACTICE TODAY.
SUCCEED TOMORROW.

WHAT STUDENTS WILL 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 aligned with standards through meaningful practice.



Test Confidence

Become familiar with test formats and improve accuracy and speed.



Achieve Success

Build confidence and perform your best on test day.

TOPICS COVERED

- ✓ Ratios & Rates
- ✓ The Number System
- ✓ Expressions & Equations
- ✓ Geometry
- ✓ Fractions & Decimals
- ✓ Percents
- ✓ Statistics & Probability
- ✓ Data Analysis
- ✓ Measurement & Conversions
- ✓ And More!



2 ONLINE TESTS

Extra online practice to reinforce learning and build confidence.

MORE PRACTICE. GREATER RESULTS.

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



7 FULL-LENGTH
PRINTED TESTS



STANDARDS-
ALIGNED PRACTICE



DETAILED ANSWER
KEYS & EXPLANATIONS