

8

South Dakota

Smarter Balanced

GRADE 6

MATH

PRACTICE TESTS

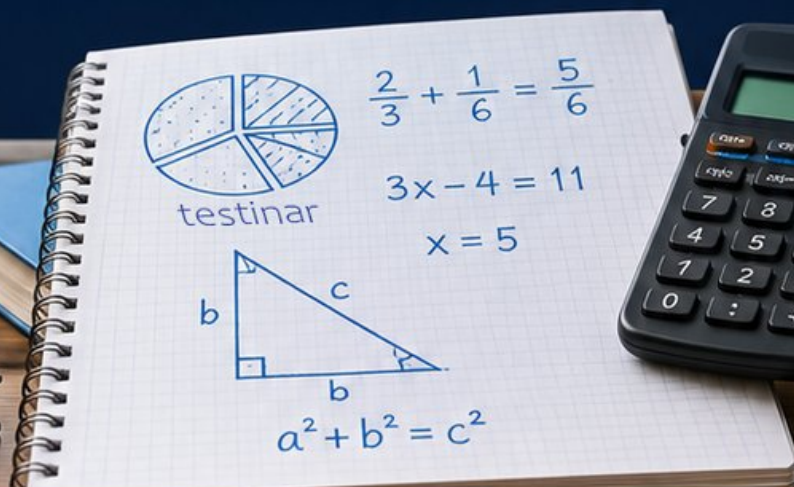
8
PRINTED
TESTS

+

2
ONLINE
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



BUILT FOR
ACAP SUCCESS



REALISTIC TESTS
& QUESTION TYPES



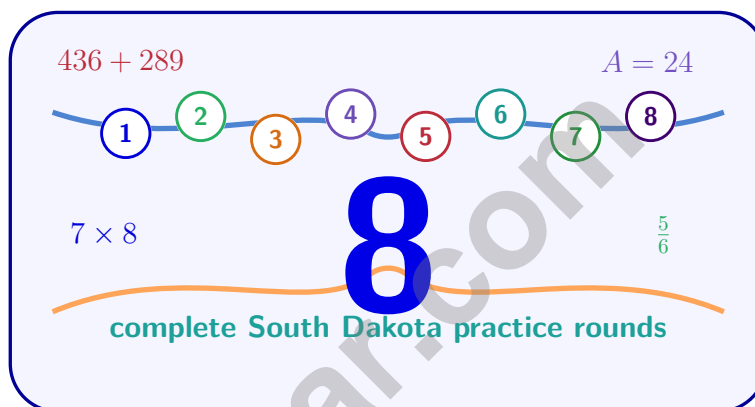
STRENGTHEN
MATH SKILLS



REVIEW, PRACTICE,
AND IMPROVE

8 South Dakota Smarter Balanced Grade 6 Math Practice Tests

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



Eight 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 eight 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 eight-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. |
| Tests 7–8 | Final stamina rounds for mixed review, neat work, and flexible strategy choices. |
| Answer Pages | Compact keys and explanations that show why each answer works. |

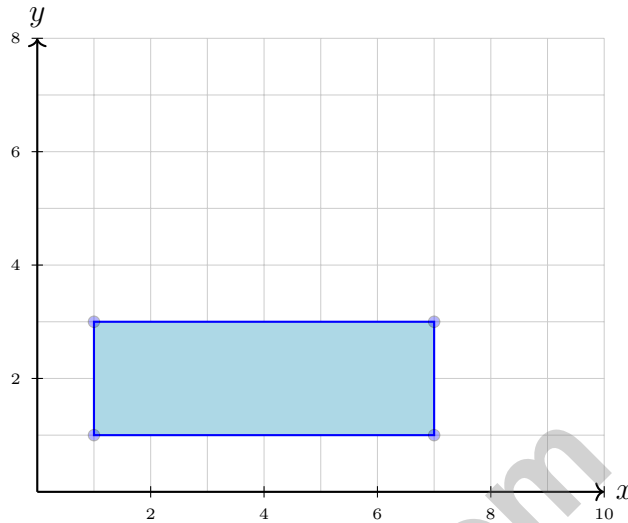
The tests are mixed on purpose. Prairie-and-ridge review means recognizing the skill even when the next question changes topic, changes format, or asks for an explanation.



Scan me!
For more practice
& answers

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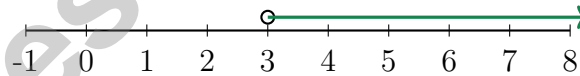


1)

What is the area of the rectangle shown?

- A. 10 square units
- B. 12 square units
- C. 16 square units
- D. 18 square units

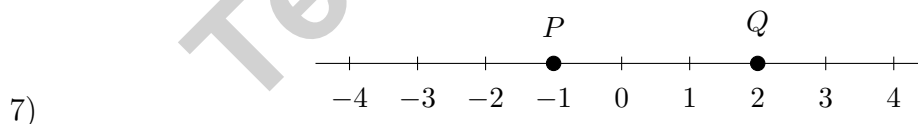
2) A student incorrectly graphed $x \geq 3$ with an open circle at 3 and an arrow pointing right. What is the error?



- A. The arrow should point left instead of right
- B. The circle should be closed instead of open
- C. The circle should be at -3 instead of 3
- D. There is no error



- 3) Which triangle has the same area as a rectangle with length 12 cm and width 5 cm?
- A. Base 6 cm, height 10 cm C. Base 12 cm, height 5 cm
 B. Base 10 cm, height 12 cm D. Base 20 cm, height 3 cm
- 4) Data Set 1: mean=50, median=50, range=10. Data Set 2: mean=50, median=45, range=50. Which statement is true?
- A. Set 1 is symmetric; Set 2 is skewed right C. Set 1 is symmetric; Set 2 is skewed left
 B. Both data sets have identical distributions D. Both are skewed right with the same spread
- 5) What is the median of the data set: 3, 7, 9, 12, 15?
- A. 9 C. 12
 B. 7 D. 10.2
- 6) The five-number summary of student test scores is: min = 55, $Q_1 = 70$, median = 78, $Q_3 = 85$, max = 98. How many points is the range?
- A. 15 C. 43
 B. 23 D. 78



What is the relationship between points P and Q ?

- A. $P > Q$ C. $P = Q$
 B. P is 3 units greater D. $P < Q$



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8) A student's test score history: First test +5 points above average, second test -8 points below average, third test +12 points above average. What is the total relative to average?

- A. -11 points C. 25 points
 B. 9 points D. -3 points

9) Evaluate: $(5 + 1)^2 \div 3 + 4$

- A. 8 C. 20
 B. 16 D. 36

10) Write an expression for "half the product of 10 and a number m ".

- A. $\frac{10m}{2}$ C. $5m + m$
 B. $\frac{10 + m}{2}$ D. $10 \cdot \frac{m}{2}$

11) Find the value of $3(a + b) - 2$ when $a = 2$ and $b = 3$.

- A. 10 C. 15
 B. 17 D. 13

12) Write $\frac{3}{4}$ as a decimal.



1) What is the expanded form of 2^3 ?

A. $2 + 2 + 2$

C. $2 \times 2 \times 2$

B. 2×3

D. 3×3

2) A five-number summary is: min = 6, $Q_1 = 12$, median = 18, $Q_3 = 24$, max = 32. Calculate the IQR.

3) A container has 15 balls: 5 red, 4 blue, 3 yellow, and 3 green. If one ball is drawn at random, what is the probability it is **not** red?

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

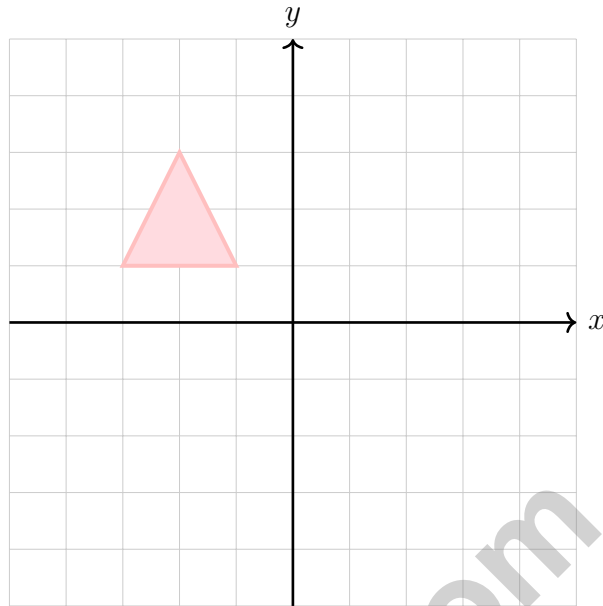
B. $\frac{3}{5}$

C. $\frac{1}{3}$

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



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4)

A triangle has vertices at $(-3, 1)$, $(-1, 1)$, and $(-2, 3)$. If it is reflected over the x -axis, what will be the image of the vertex at $(-2, 3)$?

- A. $(2, 3)$ C. $(-2, 3)$
 B. $(-2, -3)$ D. $(2, -3)$

5) Which characteristic is MOST important when deciding to use a dot plot instead of a histogram?

- A. You need to show the median only C. The dataset is large (over 100 points)
 B. The dataset is small and you want to see each value D. The data represents categories, not numbers



1) Find the value of $\frac{2x+4}{2}$ when $x = 4$.

A. 4

C. 6

B. 5

D. 8

2) A thermometer shows -8°C . It drops another 12°C . What is the new temperature number?

3) A shop has some apples. After selling 12 apples, there are 28 left. Write an equation and solve for the original number of apples x .

A. $x + 12 = 28$; $x = 16$

C. $12x = 28$; $x = 2.33$

B. $x - 12 = 28$; $x = 40$

D. $\frac{x}{12} = 28$; $x = 336$

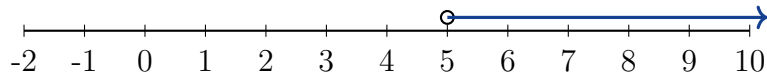
4) If $|x| = 25$, list both possible values of x .

5) Which decimal is equivalent to $-\frac{7}{10}$? Write your answer as a decimal.



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6) Examine this number line. Which inequality does it represent?



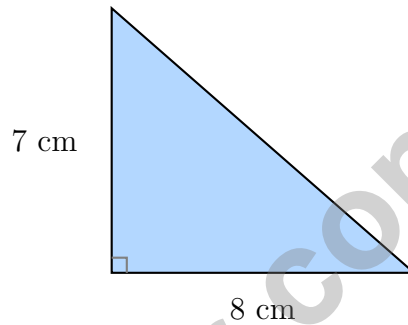
A. $x \leq 5$

C. $x > 5$

B. $x < 5$

D. $x \geq 5$

7) A right triangle with legs 7 cm and 8 cm has what area?



A. 15 cm^2

C. 56 cm^2

B. 112 cm^2

D. 28 cm^2

8) Which expression matches “the product of a number f and the difference of 10 and 2”?

A. $f \cdot 10 - 2$

C. $(f - 10) \cdot 2$

B. $f - 10 + 2$

D. $f(10 - 2)$

9) Which expression is equivalent to $2(4x + 1)$?

A. $8x + 2$

C. $4x + 2$

B. $6x + 2$

D. $8x + 1$



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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For more practice
& answers

South Dakota Practice Test Answers and Explanations

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

Practice Test 1 Answers and Explanations

- 1) **Choice B is correct.** (6.G.1) Width: $7 - 1 = 6$ units. Height: $3 - 1 = 2$ units. Area = $6 \times 2 = 12$ square units.
- 2) **Choice B is correct.** (6.EE.8) The symbol \geq includes the boundary, so a closed circle is needed. The direction is correct (right for greater values).
- 3) **Choice B is correct.** (6.G.1) Rectangle area = $12 \times 5 = 60$ cm². Triangle with base 10 and height 12: $A = \frac{1}{2} \times 10 \times 12 = 60$ cm².
- 4) **Choice A is correct.** (6.SP.2) Set 1: mean = median means symmetric. Set 2: mean (50) > median (45) means skewed right. Set 2 also has a much larger range (50 vs. 10).
- 5) **Choice A is correct.** (6.SP.3) The data is already ordered. The median is the middle value: 9.
- 6) **Choice C is correct.** (6.RP.1) Range = max - min = $98 - 55 = 43$ points.
- 7) **Choice D is correct.** (6.NS.7) P is at -1 and Q is at 2 . Since $-1 < 2$, point P is less than point Q .
- 8) **Choice B is correct.** (6.EE.7) Sum of deviations: $5 + (-8) + 12 = 5 - 8 + 12 = 9$ points above average overall.
- 9) **Choice B is correct.** (6.EE.1) Parentheses: $5 + 1 = 6$. Exponent: $6^2 = 36$. Division: $36 \div 3 = 12$. Finally add: $12 + 4 = 16$.
- 10) **Choice A is correct.** (6.EE.3) "The product of 10 and m " is $10m$. "Half" that product means divide by 2: $\frac{10m}{2}$.
- 11) **Choice D is correct.** (6.EE.3) Substitute: $3(2 + 3) - 2 = 3(5) - 2 = 15 - 2 = 13$.
- 12) **The correct answer is 0.75.** (6.EE.8) $3 \div 4 = 0.75$.
- 13) **Choice D is correct.** (6.EE.9) If 2 cups of flour go with 3 eggs, then 6 eggs is twice as many, so you need $2 \times 2 = 4$ cups of flour.
- 14) **Choice C is correct.** (6.G.1) Area = $6 \times 1.5 = 9$ yd².
- 15) **Choice C is correct.** (6.SP.3) Range = $\$45 - \$5 = \$40$.
- 16) **Choice B is correct.** (6.SP.4) Order the data: 70, 75, 75, 80, 80, 80, 85, 90. There are 8 values, so the median is the average of the 4th and 5th values. Both are 80, so the median is $\frac{80+80}{2} = 80$.
- 17) **Choice C is correct.** (6.SP.5) Right-skewed distributions have a tail of high values that pull the mean above the median.
- 18) **The correct answer is Housing and Food are correctly calculated.** (6.EE.9) A: Housing is $40\% \times 2500 = \$1000$. Correct. B: Food is $24\% \times 2500 = \$600$. Correct. C: Utilities is $10\% \times 2500 = \$250$, not \$200. Incorrect. D: Transportation is $12\% \times 2500 = \$300$, not \$250. Incorrect. E: Savings is $14\% \times 2500 = \$350$, not \$400. Incorrect.
- 19) **The correct answer is 3.** (6.G.2) From $V = L \times W \times H$: $120 = 8 \times 5 \times H = 40 \times H$, so $H = 3$ ft.
- 20) **Choice B is correct.** (6.SP.4) Class A leaves (reading right-to-left) are 2, 5, 7, giving values 82, 85, 87. The smallest is 82.
- 21) **Choice B is correct.** (6.NS.1) 33.3% of 350 is approximately $\frac{1}{3} \times 350 \approx 116.67 \approx 117$ items. Answer B (115) is the closest reasonable approximation among choices.
- 22) **The correct answer is 24.** (6.G.3) Side length = 6 units. Perimeter = $4 \times 6 = 24$ units.
- 23) **Choice D is correct.** (6.RP.3) With 50 continuous numerical values, a histogram groups them into intervals (e.g., 0–10, 11–20, etc.) to show the distribution pattern. A bar graph for each individual height would be too crowded; circle and pictographs don't display numerical distributions.
- 24) **Choice B is correct.** (6.RP.2) From the double number line, 3 miles in 10 minutes gives $3 \div 10 = 0.3$ miles per minute.
- 25) **Choice B is correct.** (6.RP.3) Multiply the decimal by 100: $0.43 \times 100 = 43\%$.
- 26) **Choice B is correct.** (6.RP.3) Multiply: $3 \times 1000 = 3000$ mL.



Hi, Math Athlete!

◇ 8 practice tests done! That's serious training. Your math muscles are strong. You are in great shape for the big test. ◇

★ **Trainers know:** muscle memory is real. The more you practice, the more your brain knows what to do without thinking. You built that muscle memory! ★

Athlete Performance

- **Endurance:** TOP! You can finish a long test.
- **Strength:** STRONG! You handle hard problems.
- **Speed:** JUST RIGHT! You don't rush.
- **Recovery:** GOOD! You bounce back from tough questions.

Trainer tip: on test day, drink water, breathe deeply, and warm up with the easier questions first. Your training will carry you the rest of the way!

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

Jay Daie

Your Math Trainer

MASTER MATH. ACE YOUR TESTS.

This Grade 6 Math Practice Tests book is designed to help students build confidence, strengthen math skills, and excel on comprehensive assessments.

With 8 full-length printed tests and 2 online tests, this resource provides realistic practice, a variety of question types, and detailed answer explanations to help students achieve their best.

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.



Understand Key Concepts

Reinforce important math ideas aligned with standards.



Test Confidence

Get familiar with test formats and improve accuracy.



Achieve Success

Build confidence and perform your best on test day.

TOPICS COVERED

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



8 FULL-LENGTH
PRACTICE TESTS



2 ONLINE
PRACTICE TESTS



DETAILED ANSWER
EXPLANATIONS