

GRADE

6

MATH

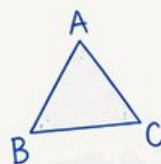
6

South Dakota Smarter Balanced

PRACTICE TESTS

Standards-Aligned
Steady Southern
Problem Solving for
Comprehensive
Assessment Program

$2x + 3 = 11$



$7^2 = 49$

BUILD SKILLS.
GAIN CONFIDENCE.
SUCCEED!



6 PRINTED TESTS
Realistic practice to
build confidence
and mastery



2 ONLINE TESTS
Extra practice for
continued success



**DETAILED ANSWER
EXPLANATIONS**
Learn with step-by-step
solutions



FOCUSED & EFFECTIVE
Target key math skills
with purposeful
practice



**6 PRINTED TESTS
+ 2 ONLINE TESTS**

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



PRACTICE
Sharpen skills
with targeted
practice tests



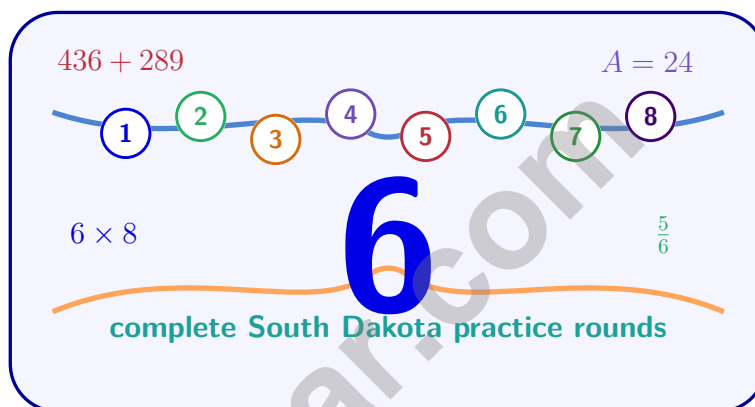
REVIEW
Understand
concepts and
strengthen skills



SUCCEED
Build confidence
and achieve
your best

6 South Dakota Smarter Balanced Grade 6 Math Practice Tests

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



Six 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



Copyright ©

Testinar Inc



Published by Testinar Inc

Testinar.com

All rights reserved. No part of this publication may be reproduced, distributed, or transmitted in any form or by any means, including photocopying, recording, or other electronic or mechanical methods, without the prior written permission of the author, except in the case of brief quotations embodied in critical reviews and certain other noncommercial uses permitted by copyright law, including Section 107 or 108 of the 1976 United States Copyright Act.

This publication is independently produced and has no official connection to any state, district, or national testing program.

Test names and organizational names used herein are the property of their respective trademark holders.



Copyright ©

Welcome, South Dakota Math Explorer!

Eight focused rounds using prairie-and-ridge review

This book gives you six 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 six-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 1–2	Foundation rounds for ratios, rational numbers, operations, and careful reading.
Tests 3–5	Skill-building rounds with expressions, equations, geometry, data, and problem models.
Test 6	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.

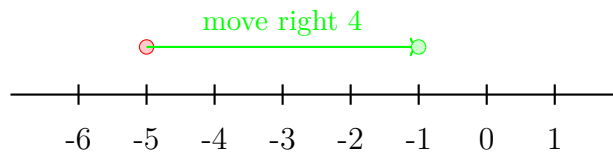


Scan me!
For more practice
& answers

Table of Contents

★ Practice Test 1	_____	14
★ Practice Test 2	_____	30
★ Practice Test 3	_____	46
★ Practice Test 4	_____	60
★ Practice Test 5	_____	76
★ Practice Test 6	_____	91
Practice Test Answer Keys	_____	107
Practice Test Answers and Explanations	_____	111

6) Which number line correctly shows $-5 - (-4) = -1$?



Correct model: Start at -5 , move right 4 units to -1 .

- A. Model shown is correct C. Model should start at 0
 B. Model should move left instead D. Model should end at -9
- 7) After distributing $5(x + 6)$, what is the constant term?

- 8) A temperature reading shows -5°F . A warming trend raises it by 12°F . What is the new temperature?
- A. -17°F C. 7°F
 B. -7°F D. 17°F
- 9) What is the value of $10 - 2^2 \times 2 + 3$?
- A. 5 C. 11
 B. 7 D. 15



Scan me!
For more practice
& answers

10) Which expression correctly translates “the sum of 2 and the quotient of 8 and a number z ”?

A. $\frac{2+8}{z}$

B. $(2+8) \div z$

C. $z + \frac{8}{2}$

D. $2 + \frac{8}{z}$

11) Evaluate $10 - a$ when $a = 3$.

A. 7

B. 13

C. 30

D. 3

12) A discount applies when you spend less than \$50. If d represents the amount you spend, which inequality is correct?

A. $d < 50$

B. $d \leq 50$

C. $d > 50$

D. $d \geq 50$

13) Which inequality best represents “the value is at least 15”?

A. $v < 15$

B. $v \leq 15$

C. $v > 15$

D. $v \geq 15$



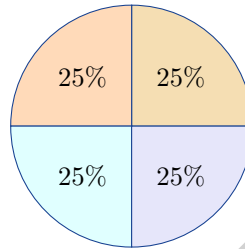
5) A gym tracks daily visitors with a stem-and-leaf plot. The plot spans stems 10 through 13 (using 2-digit stems). If each stem has at least 2 leaves, what is the minimum number of days recorded?

A. 2

C. 6

B. 4

D. 8



6)

The circle graph shows equal portions of 120 total items. What is the measure of the central angle for each section?

A. 45°

C. 120°

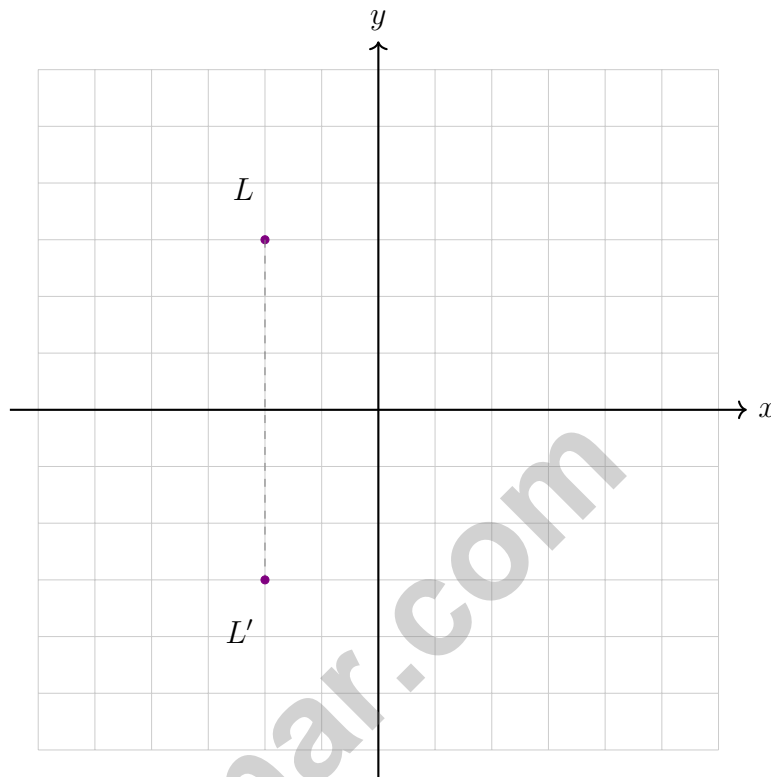
B. 75°

D. 90°

7) The data set is: 5, 8, 10, 12, 15, 18, 20, 22, 25, 28. Find the interquartile range (IQR).
Hint: $Q1 = 10$, $Q3 = 23$.



Scan me!
For more practice
& answers



1)

Points L and L' are shown. If L is reflected across the x -axis to create L' , what are the coordinates of L ?

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

2)

Servings	2	4	6
Eggs	3	6	9

What is the unit rate in eggs per serving?

- A. $\frac{1}{2}$ egg per serving
- B. $\frac{3}{2}$ eggs per serving
- C. 2 eggs per serving
- D. 3 eggs per serving



Scan me!
For more practice
& answers

- 3) Class A has range 10 and Class B has range 15. By how much is Class B's range greater?

- 4) A garden hose fills a tank at a rate of 8 gallons per minute. How many gallons are in the tank after 5.5 minutes?

- A. 40 gallons C. 48 gallons
 B. 44 gallons D. 52 gallons

- 5) A person reads 0.72 of a book. What percent of the book has been read?

- A. 7.2% C. 272%
 B. 28% D. 72%

- 6) The wait times are 8, 12, 15, 18, 22, 25, 19, 14. How many modes are there?

- 7) If a book's price increases from \$20 to \$24, what is the percent increase?

- A. 20% C. 30%
 B. 25% D. 40%



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.



Scan me!
For more practice
& answers

South Dakota Practice Test Answers and Explanations

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

Practice Test 1 Answers and Explanations

- Choice D is correct.** **(6.NS.4)** Factors of 20: 1, 2, 4, 5, 10, 20. Factors of 30: 1, 2, 3, 5, 6, 10, 15, 30. Common factors: 1, 2, 5, 10. GCF is 10.
- Choice C is correct.** **(6.EE.6)** The variable x represents the unknown number being multiplied by 4 and decreased by 7.
- Choice C is correct.** **(6.EE.5)** Multiply both sides by 2.5: $x = 6 \times 2.5 = 15$.
- Choice B is correct.** **(6.SP.4)** Absolute value is distance from zero, so it is never negative. The sign indicates direction, not distance magnitude.
- Choice A is correct.** **(6.NS.7)** City A has the lowest temperature at -5°C . Ordering: $-5 < -1 < 0 < 2$.
- Choice A is correct.** **(6.NS.3)** $-5 - (-4) = -5 + 4 = -1$. Subtracting a negative means adding its opposite. Start at -5 , move right 4 units to -1 .
- The correct answer is 30.** **(6.EE.3)** $5(x + 6) = 5x + 30$, so the constant term is 30.
- Choice C is correct.** **(6.EE.7)** Temperature increase added to negative temperature: $-5 + 12 = 7^\circ\text{F}$.
- Choice A is correct.** **(6.EE.1)** Exponent first: $2^2 = 4$. Multiply: $4 \times 2 = 8$. Then subtract and add from left to right: $10 - 8 = 2$, then $2 + 3 = 5$.
- Choice D is correct.** **(6.EE.3)** "The quotient of 8 and z " is $\frac{8}{z}$. "The sum of 2 and" that quotient is $2 + \frac{8}{z}$.
- Choice A is correct.** **(6.EE.3)** Substitute $a = 3$: $10 - 3 = 7$.
- Choice A is correct.** **(6.EE.8)** "Less than \$50" means strictly below 50: $d < 50$.
- Choice D is correct.** **(6.EE.8)** "At least" means "greater than or equal to," so the inequality is $v \geq 15$.
- Choice C is correct.** **(6.G.3)** Side length = $8 - 2 = 6$ units. Area = $6 \times 6 = 36$ square units.
- Choice C is correct.** **(6.G.1)** Decompose the shape. Rectangle: width $9 - 1 = 8$ and height $4 - 1 = 3$, area = $8 \times 3 = 24$. Triangle: base $9 - 1 = 8$ and height $8 - 4 = 4$, area = $\frac{1}{2} \times 8 \times 4 = 16$. Total area = $24 + 16 = 40$ square units.
- Choice C is correct.** **(6.G.4)** A rectangular prism net must have 6 rectangles (not necessarily squares) arranged such that opposite faces are congruent. A line of 6 identical unit squares cannot fold into a rectangular prism without severe overlap or gaps.
- Choice A is correct.** **(6.NS.8)** Reflection over the y -axis: $(-1, 2) \rightarrow (1, 2)$.
- Choice B is correct.** **(6.RP.1)** Radius $r = \frac{12}{2} = 6$ in. Area = $\pi r^2 \approx 3.14 \times 6^2 = 3.14 \times 36 = 113.04$ in².
- Choice B is correct.** **(6.SP.2)** Population and sample are distinct concepts. The population is all individuals you want to study. A sample is a smaller group drawn from the population to represent it efficiently.
- Choice A is correct.** **(6.SP.2)** Class X range = $9 - 8 = 1$. Class Y range = $10 - 3 = 7$. A smaller range indicates more consistent scores. Class X is much more tightly clustered.
- The correct answer is $2.4 \times 2 = 4.8$ and $9.6 \div 2 = 4.8$.** **(6.NS.3)** A equals 4.8 because $2.4 \times 2 = 4.8$. B equals 4.8 because $9.6 \div 2 = 4.8$. Choices C, D, and E give 4.9, 3.9, and 4.2.
- Choice B is correct.** **(6.SP.3)** Mean = $\frac{20 + 30 + 40 + 50}{4} = \frac{140}{4} = 35$.
- Choice D is correct.** **(6.SP.3)** Median is 62 (middle of 7 values). Lower half: 56, 58, 60. Q1 is the median of the lower half, which is 58.
- The correct answer is 15.** **(6.EE.9)** The cost increases by \$30 for every 2 hours. So the rate is $\frac{\$30}{2 \text{ hours}} = \15 per hour. Check: 2 h at \$15/h costs \$30; 4 h costs \$60; 6 h costs \$90.
- Choice A is correct.** **(6.SP.4)** Add the number of people at each age: $5 + 8 + 3 = 16$ total people.
- Choice B is correct.** **(6.SP.5)** Sum = $2 + 3 + 4 + 4 + 5 + 5 + 5 + 6 + 7 + 8 = 49$. Mean = $49/10 = 4.9$.



Scan me!
For more practice
& answers

Inventor's Workshop Note

Hi, Math Inventor!

◇ 6 practice tests. 6 chances to invent new ways to think. You tried things. You changed them. You made your math brain stronger! ◇

★ **Inventors know:** the first try isn't always the best try. Sometimes you fix it. Sometimes you start over. You did all of that! ★

Inventor's Workshop

- **Sketch Pad:** Full of ideas!
- **Toolbox:** Lots of math strategies.
- **Workbench:** Neat and organized.
- **Brave Mind:** You try new things.

Inventor tip: on test day, if your first try doesn't work, switch tools. Inventors don't get stuck on one tool. Pick the right one for the job!

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

Jay Daie

Your Math Inventor

PRACTICE 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 6 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.

6
PRINTED
TESTS

+

2
ONLINE
TESTS

PERFECT FOR:

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

★ BUILD SKILLS.
GAIN CONFIDENCE.
SUCCEED!

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.



6 FULL-LENGTH
PRINTED TESTS



2 ONLINE
PRACTICE TESTS



DETAILED ANSWER
EXPLANATIONS