

3

South Dakota

Smarter Balanced

GRADE

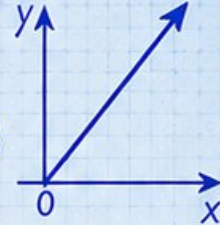
6

MATH

PRACTICE TESTS

Standards Aligned Problem Solving
For Comprehensive Assessment Programs

$$y = 2x + 3$$



$$\frac{3}{5} + \frac{2}{10} = \frac{8}{10} = \frac{4}{5}$$

$$36\% \text{ of } 150 = ?$$



3 | PRINTED TESTS



2 | ONLINE TESTS



Build Confidence



Master Key Math Skills



Answer Explanations for Every Question



Test-Taking Strategies That Work

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

3 South Dakota Smarter Balanced Grade 6 Math Practice Tests

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

$436 + 289$ $A = 24$

1 2 3

3×10 $\frac{3}{4}$

complete South Dakota practice rounds

Three 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!

Three focused rounds using prairie-and-ridge review

This book gives you three 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 three-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?

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

Part	What You Will Practice
Tests 1–2	Foundation rounds for ratios, rational numbers, operations, and careful reading.
Test 3	Final stamina round for expressions, equations, geometry, data, problem models, and mixed review.
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

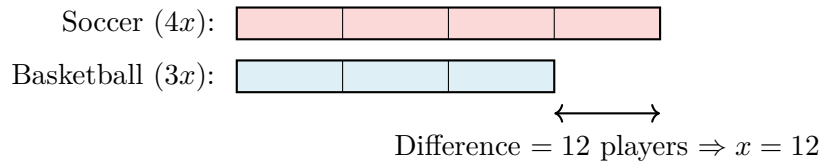
Table of Contents

★ Practice Test 1	_____	14
★ Practice Test 2	_____	28
★ Practice Test 3	_____	45
Practice Test Answer Keys	_____	62
Practice Test Answers and Explanations	_____	65

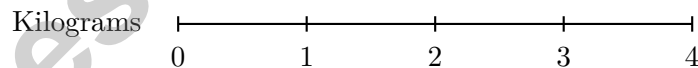
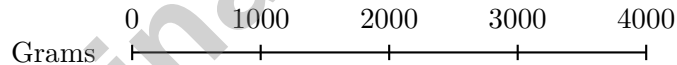
- 1) If you need a triangle with area 75 cm^2 and base 15 cm, what height is needed?
- A. 5 cm C. 15 cm
 B. 20 cm D. 10 cm
- 2) Express 25% as a fraction in simplest form.
- A. $\frac{1}{4}$ C. $\frac{1}{25}$
 B. $\frac{25}{100}$ D. $\frac{25}{75}$
- 3) A model car is 8 cm long. The scale is 1 cm = 2 meters. How long is the actual car?
- A. 8 meters C. 20 meters
 B. 10 meters D. 16 meters
- 4) A student graphed the ratio of cats to dogs as (cats, dogs). For the point (2, 5), the correct constant of proportionality is $\frac{5}{2} = 2.5$. The student wrote $\frac{2}{5} = 0.4$ instead. What did this error represent?
- A. The student divided the x-value by the y-value instead of the y-value by the x-value C. The student found $\frac{5}{2}$ instead of $\frac{2}{5}$
 B. The student forgot to simplify the fraction D. The student changed the point to (5, 2)
- 5) In a class of 40 students, 18 students like basketball. What percent of the class likes basketball?
- A. 35% C. 45%
 B. 40% D. 50%



- 6) The ratio of soccer players to basketball players on a team is 4 : 3. There are 12 more soccer players than basketball players. How many basketball players are there?



- A. 30 players C. 40 players
- B. 36 players D. 48 players
- 7) A recipe calls for flour and sugar in a 5 : 2 ratio. If the recipe uses 10 cups of flour, how many cups of sugar are needed?



- 8) Using the double number line, how many grams are in 2.5 kilograms?

- A. 1,000 grams C. 2,500 grams
- B. 2,000 grams D. 3,000 grams



Scan me!
For more practice
& answers

1) A rectangular prism has a rectangular base with area 20 cm^2 and the height is 3 cm. What is the volume?

- A. 23 cm^3 C. 60 cm^3
 B. 40 cm^3 D. 80 cm^3

2) Which question is BEST written as a statistical question?

- A. What is the area of a rectangle with length 5 and width 3? C. What is the average number of pages in novels written in the past 10 years?
 B. How many books are in our school library? D. Who is the principal of my school?

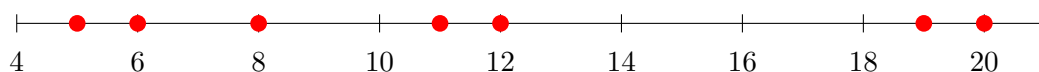
3) A large IQR indicates what about a data set?

- A. The data is very tightly clustered D. The middle 50% of the data is spread out
 B. There are no outliers present
 C. All values are identical

4) Which statement is true about finding the median?

- A. Always take the middle value D. With odd count, take the middle value; with even, average two middle values
 B. Add all values and divide by count
 C. Find the most frequently occurring value

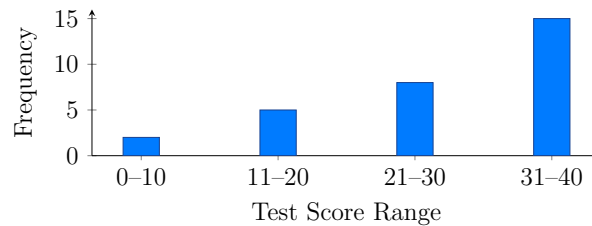
5) The data set 8, 12, 5, 19, 11, 6, 20 is displayed on a number line. What is the range?



- A. 5 C. 15
 B. 12 D. 20



- 6) A histogram shows the test scores for a class of 30 students, grouped into ranges. The bars show: 0–10 has height 2, 11–20 has height 5, 21–30 has height 8, and 31–40 has height 15. How many students scored between 21 and 30?



- A. 5 students
- B. 8 students
- C. 15 students
- D. 10 students
- 7) A dataset's five-number summary is: min = 12, $Q_1 = 22$, median = 30, $Q_3 = 38$, max = 48. Based on the five-number summary, which value appears to be the most typical of the data?
- A. The minimum value of 12
- B. The median value of 30
- C. The maximum value of 48
- D. The range of 36
- 8) Corn plant heights (inches) from 9 plants: {24, 26, 28, 30, 32, 34, 36, 38, 40}. What is the shape?
- A. Symmetric
- B. Skewed right
- C. Skewed left
- D. Bimodal
- 9) A standard die is rolled twice. How many possible outcomes are in the sample space?
- A. 6
- B. 12
- C. 36
- D. 72



Scan me!
For more practice
& answers

1) What is the coefficient of m in the expression $m + 5n + 2$?

A. 0

C. 5

B. 1

D. 2

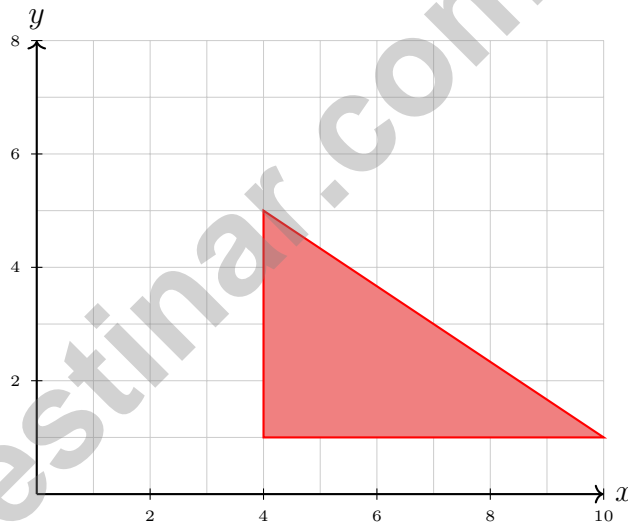
2) Two adjacent sides of a rectangle are on the lines $x = 2$ and $y = 5$. One vertex is at $(2, 5)$. Another is at $(6, 5)$. Where is a third vertex?

A. $(2, 2)$

C. $(2, 9)$

B. $(6, 8)$

D. $(6, 2)$



3)

A right triangle has vertices at $(4, 1)$, $(10, 1)$, and $(4, 5)$. What is its area?

A. 8 square units

C. 12 square units

B. 10 square units

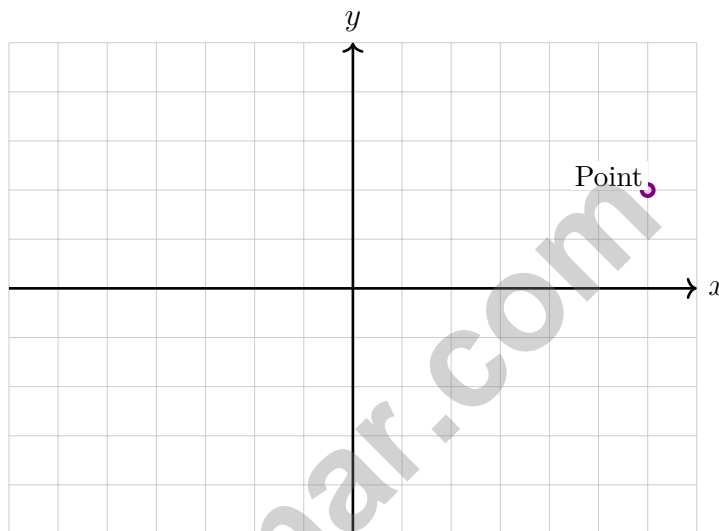
D. 14 square units



Scan me!
For more practice
& answers

4) A net of a triangular prism consists of 2 triangles and 3 rectangles. If the triangular base is a right triangle with legs 3 cm and 4 cm, and the hypotenuse is 5 cm, and the prism height is 7 cm, what is the total surface area?

- A. 96 cm^2
- B. 84 cm^2
- C. 72 cm^2
- D. 120 cm^2



5)

A point $(6, 2)$ is reflected over the y -axis. Where does the image point appear?

- A. $(-6, 2)$
- B. $(6, -2)$
- C. $(-6, -2)$
- D. $(6, 2)$

6) A circular trampoline has a diameter of 10 feet. What is its approximate area using $\pi \approx 3.14$?

- A. 78.5 ft^2
- B. 62.8 ft^2
- C. 31.4 ft^2
- D. 314 ft^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.



South Dakota Practice Test Answers and Explanations

Review the three 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.G.1)** $75 = \frac{1}{2} \times 15 \times h \Rightarrow h = 10$ cm.
- 2) **Choice A is correct.** **(6.RP.3)** $25\% = \frac{25}{100}$. Simplify by dividing numerator and denominator by 25: $\frac{25 \div 25}{100 \div 25} = \frac{1}{4}$.
- 3) **Choice D is correct.** **(6.RP.3)** Use the scale: $8 \text{ cm} \times 2 \text{ m/cm} = 16 \text{ m}$.
- 4) **Choice A is correct.** **(6.RP.3)** For a graph with cats on the x-axis and dogs on the y-axis, the constant of proportionality is $y \div x = \frac{5}{2}$. The student used $x \div y = \frac{2}{5}$, so the fraction was inverted.
- 5) **Choice C is correct.** **(6.RP.3)** $\frac{18}{40} = 0.45 = 45\%$.
- 6) **Choice B is correct.** **(6.RP.3)** Ratio 4 : 3 means Soccer = $4x$ and Basketball = $3x$. Difference: $4x - 3x = 12$, so $x = 12$. Basketball players: $3 \times 12 = 36$.
- 7) **The correct answer is 4.** **(6.RP.3)** Flour is the 5-part amount. Since $10 \div 5 = 2$, each part is 2 cups, and sugar is 2 parts: $2 \times 2 = 4$ cups.
- 8) **Choice C is correct.** **(6.RP.3)** Reading the double number line: 2.5 kg is halfway between 2 kg (2000 g) and 3 kg (3000 g), so it equals 2500 g.
- 9) **Choice B is correct.** **(6.SP.4)** $\$3.20 - \$2.80 = \$0.40$ per gallon.
- 10) **Choice B is correct.** **(6.EE.9)** The ratio cost/notebooks = $3/1 = 6/2 = 9/3 = 12/4 = 3$. The constant ratio confirms proportionality, and the equation is $c = 3n$.
- 11) **Choice D is correct.** **(6.EE.9)** Comparing the percentages: 45%, 30%, 20%, and 5%, the smallest is 5% for Other.
- 12) **Choice B is correct.** **(6.NS.1)** $2\frac{1}{2} \div \frac{5}{8} = \frac{5}{2} \times \frac{8}{5} = \frac{40}{10} = 4$.
- 13) **Choice A is correct.** **(6.NS.2, 6.NS.3)** $7,600 \div 25 = 304$. Verify: $25 \times 304 = 7,600$.
- 14) **Choice A is correct.** **(6.NS.3)** Add: $0.75 + 1.2 + 0.8 + 0.6 = 3.95$ kg.
- 15) **Choice D is correct.** **(6.NS.4)** This is a GCF problem. The GCF of 40 and 56 is 8. So they can make 8 boxes with 5 chocolate chip and 7 oatmeal cookies in each.
- 16) **Choice D is correct.** **(6.EE.3)** The greatest common factor of 16 and 32 is 16. Factoring out 16 gives $16 + 32 = 16(1 + 2)$.
- 17) **Choice C is correct.** **(6.NS.5)** Zero is neither positive nor negative; it is the reference point. Statements A, B, and D are all true, but C is false because 0 is not classified as positive or negative.
- 18) **Choice C is correct.** **(6.SP.4)** Opposite numbers: -3 and 3 . Their absolute values: $|-3| + |3| = 3 + 3 = 6$.
- 19) **The correct answer is 720 items.** **(6.RP.1)** First, find the unit rate: $420 \div 7 = 60$ items per hour. Then multiply by 12 hours: $60 \times 12 = 720$ items.
- 20) **Choice B is correct.** **(6.SP.4)** -2.25 is exactly halfway between -2.5 and -2 , found by: $\frac{-2.5 + (-2)}{2} = -2.25$.
- 21) **Choice B is correct.** **(6.NS.8)** By definition, Quadrant II (upper left) has all points where $x < 0$ and $y > 0$.
- 22) **The correct answer is 4 : 6 = 2 : 3 (dividing by 2) and 4 : 6 = 8 : 12 (multiplying by 2).** **(6.RP.1)** Nice checking: Choice A works because 4 : 6 simplifies to 2 : 3, and Choice B works because multiplying both parts of 4 : 6 by 2 gives 8 : 12. The other choices change the relationship.
- 23) **Choice C is correct.** **(6.NS.7)** Negatives come before positives. $-\frac{3}{4} = -0.75 < -\frac{1}{4} = -0.25 < \frac{1}{4} = 0.25 < \frac{3}{4} = 0.75$.
- 24) **Choice D is correct.** **(6.NS.8)** Length: $|5 - 1| = 4$ units. Width: $|4 - 1| = 3$ units. Perimeter: $2(4 + 3) = 14$ units.
- 25) **Choice A is correct.** **(6.NS.3)** $-5 + (-3) = -8$. Start at -5 and move 3 units left, landing at -8 .
- 26) **Choice A is correct.** **(6.NS.3)** Positive times negative is negative: $3 \times (-12) = -36$.
- 27) **Choice C is correct.** **(6.EE.7)** Adding a score increase to a negative score: $-150 + 200 = 50$ points.



Scan me!
For more practice
& answers

Lab Notes for a Young Scientist

Hi, Curious Scientist!

◇ 3 tests. So many experiments! You tested ideas. You watched what worked. You learned a lot. That's how scientists work—and how you work! ◇

★ **Scientists know:** mistakes are facts, not failures. Every problem you missed taught you something. You used those facts to do better next time. ★

Lab Results

- **Hypothesis:** CONFIRMED! Practice makes you better.
- **Method:** STRONG! You try, watch, and adjust.
- **Data:** CAREFUL! You read and copy numbers right.
- **Conclusion:** READY! You can do this test.

Scientist tip: on test day, stay curious. Ask, "What is this asking?" Then experiment with your math tools. You will find the answer!

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

Jay Daie

Your Math Scientist

PRACTICE TODAY. SUCCEED TOMORROW!

This book includes 3 full-length Math practice tests and 2 online tests to help Grade 6 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 Answer 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



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 with clear explanations and meaningful practice.



Test Confidence

Familiarize 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

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



VISIT [TESTINAR.COM/MATH6](https://www.testinar.com/math6)
FOR MORE PRACTICE TESTS
AND LEARNING RESOURCES



PRACTICE
REGULARLY



STAY
FOCUSED



SOLVE
CONFIDENTLY



SUCCEED
BRIGHTLY

PREPARE TODAY. **SUCCEED TOMORROW!**