

# 4

# South Dakota Smarter Balanced

## Grade 3

# MATH

## PRACTICE TESTS

Standards-Aligned Practice



### STANDARDS-ALIGNED

Practice to build skills and boost confidence



### 4 FULL-LENGTH TESTS

Realistic questions to prepare for test day

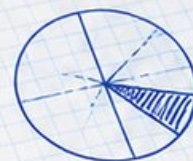


### ANSWER KEYS & EXPLANATIONS

Detailed solutions to learn and improve



$$\begin{array}{r} 425 \\ + 378 \\ \hline 803 \end{array}$$



$$6 \times 7 = 42$$

**PRACTICE.**  
**PREPARE.**  
**SUCCEED.**

# 4 South Dakota Smarter Balanced Grade 3 Math Practice Tests

*Standards-Aligned Review with Mixed Practice and Answer Key*



Four focused 30-question missions for Grade 3 math: number facts, fractions, measurement, data, area, shapes, answer keys, and clear explanations for every item.

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# Welcome to the South Dakota Math Launch

Four missions, careful work, and a stronger Grade 3 thinker



Read the mission. Show the work. Check the answer. Launch again.

## To the Grade 3 Mission Leader

This book is a four-mission practice launch for the South Dakota Smarter Balanced. Each test gives you a fresh chance to multiply, divide, read graphs, compare fractions, measure, find area, and explain math in a way someone else can follow.

South Dakota has prairie trails, Black Hills views, and big landmarks reached step by step. Good math uses the same habit: pause, check the details, and move forward with a steady plan.

### Notice

Find the numbers, units, and question before choosing a path.

### Model

Draw an array, number line, table, or quick equation.

### Verify

Ask whether your answer fits the story and the unit.

**Launch promise:** I will slow down at the important moments, show the work I can, and use every miss as a clue for the next mission.

# How to Use This Book

A four-mission routine for steady Grade 3 growth

## 1. Warm Up the System

Read the review pages first. Remind your brain how equal groups, fractions, clocks, graphs, and area models work.

## 2. Fly One Mission

Take one complete 30-question test. Keep your work neat enough that you can check it later.

## 3. Review the Flight

Use the answer key, then pause. A wrong answer is useful when you can name what happened.

## 4. Repair and Relaunch

Rework a few missed questions before starting the next test. The repair step is where the score begins to move.

### A Four-Session Plan

<b>Session 1</b>	Take Test 1 and mark the topics that need attention.
<b>Session 2</b>	Take Test 2 and focus on showing every step clearly.
<b>Session 3</b>	Take Test 3 and watch for units, labels, and two-step problems.
<b>Session 4</b>	Take Test 4 and finish with calm, careful checking.

**Best mission habit:** After checking answers, write one sentence: “Next time I will pay attention to \_\_\_\_\_.”



## Test Overview

### What each Grade 3 math mission asks you to do

Each practice test has 30 questions. Across four tests, you will practice the kind of Grade 3 math thinking used on the South Dakota Smarter Balanced: reading carefully, choosing a strategy, doing accurate computation, and explaining enough work to make your answer clear.

#### Multiple Choice

Look for the best answer. Estimate first when you can, cross out choices that do not fit, and reread the question before you choose.

#### Open Response

Write the answer and show the reason. A good Grade 3 response may use a drawing, equation, table, number line, or a few clear words.

#### Math Ideas Inside the Four Tests

- multiplication, division, arrays, missing factors, and two-step word problems
- place value, rounding, addition, subtraction, and multiplying by tens
- unit fractions, number lines, equivalent fractions, and comparing fractions
- time, mass, liquid volume, picture graphs, bar graphs, and line plots
- area, perimeter, unit squares, rectangles, and shape categories

**What strong Smarter Balanced work looks like:** the answer matches the question, the units make sense, and the work is clear enough to check.



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& answers

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1) Which expression is another way to show  $2 + 2 + 2 + 2 = 8$ ?

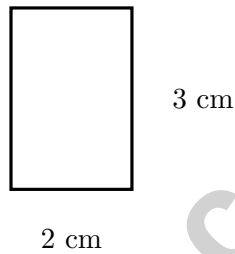
A.  $2 + 2 + 2 = 6$

C.  $2 + 4 = 6$

B.  $2 \times 8 = 16$

D.  $4 \times 2 = 8$

2) Ben is marking  $\frac{2}{4}$  on a number line from 0 to 1. He divides it into 4 equal parts. Which tick mark should he label?

 A. The 1st tick C. The 3rd tick B. The 4th tick D. The 2nd tick

3)

What is the area of this rectangle?

 A. 5 sq cm C. 8 sq cm B. 6 sq cm D. 12 sq cm

4) Which fraction equals  $\frac{1}{2}$ ?

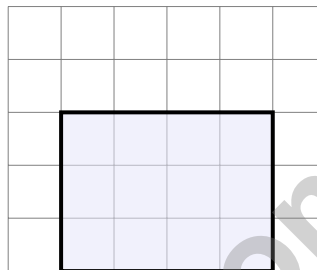
 A.  $\frac{2}{3}$  C.  $\frac{4}{8}$  B.  $\frac{3}{4}$  D.  $\frac{3}{8}$ 

5) Round 158 to the nearest 100.

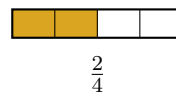
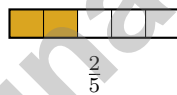
 A. 100 C. 158 B. 150 D. 200

6) The perimeter of a rectangle is 44 cm. If the width is 7 cm, what is the length?

7) Look at the grid. What is the area of this shaded region?



- A. 9 square units
- C. 10 square units
- B. 12 square units
- D. 15 square units



8)

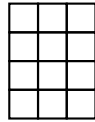
Using the bars, which is true?

- A.  $\frac{2}{5} > \frac{2}{4}$
- C.  $\frac{2}{5} = \frac{2}{4}$
- B.  $\frac{2}{5} < \frac{2}{4}$
- D. Cannot compare

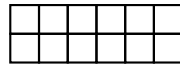


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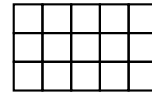
- 9) Three rectangles are shown. Which two rectangles have the same area? (Hint: Count the unit squares in your head or on paper.)



Rectangle 1

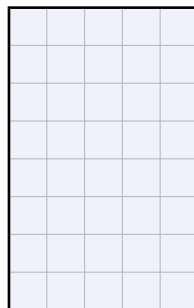


Rectangle 2



Rectangle 3

- A. Rectangles 1 and 2                       C. Rectangles 2 and 3  
 B. Rectangles 1 and 3                       D. All three have different areas
- 10) Which is the same as  $5 \times (4 + 2)$ ?
- A.  $5 \times 4 + 5 \times 2$                        C.  $5 + 4 + 2$   
 B.  $5 \times 4 + 2$                                D.  $20 + 2$
- 11) A large rectangle with total area 56 is split into two smaller rectangles. One is  $7 \times 6$  with area 42. Using the distributive property with the shared dimension of 7, what is the area of the second rectangle?
- A. 14                                               C. 7  
 B. 42                                               D. 8
- 12) On a grid, a rectangle covers 8 rows and 5 columns of unit squares.



What is the area?

- A. 13 sq units                                   C. 35 sq units  
 B. 26 sq units                                   D. 40 sq units



Width



Length

1)

If a rectangle has length 6 cm and width 4 cm, what is the length of the opposite long side?

 A. 4 cm C. 10 cm B. 6 cm D. 24 cm

2) Ben has two identical containers. Container X is  $\frac{2}{3}$  full of water. Container Y is  $\frac{4}{6}$  full of water. Which container has more water?

 A. Container X has more. C. They have the same amount. B. Container Y has more. D. The containers are different sizes.

3) A bakery makes trays of cookies. The baker puts 5 cookies in each row and has 7 rows on one tray. How many cookies are on one tray?

 A. 35 C. 30 B. 12 D. 2

4) What is  $3 \times 80$ ? Write the multiplication fact and show how you add the zero.

5) Ava covers a rectangular board with unit square tiles. The board is 7 units long and 7 units wide. How many tiles does she need?

 A. 14 tiles C. 42 tiles B. 28 tiles D. 49 tiles

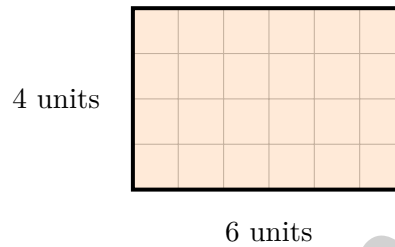




5)  $354 + 186 = ?$

 A. 540 B. 539 C. 549 D. 550

6) This rectangle on a grid has dimensions labeled.



What is the area of the rectangle?

 A. 24 sq units B. 20 sq units C. 10 sq units D. 28 sq units

7) Noah organizes his toy train cars in 4 equal rows. If he has 20 cars, how many cars are in each row?

 A. 5 B. 16 C. 24 D. 80

8) A school has 72 students going on a field trip. They are divided equally into 8 buses. Then 6 more students join one bus. How many students are on that bus now?

 A. 9 B. 10 C. 15 D. 24

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## Practice Test Answer Keys

**How to use this section with a Grade 3 student:**

1. check the answer first
2. mark questions to try again
3. rework the problem before reading the full explanation

**A calm correction routine turns every missed item into useful practice.**

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## Practice Test Answers and Explanations

### Practice Test 1 Answers and Explanations

- 1) **Choice D is correct.** **(3.OA.A.1)** The repeated addition  $2 + 2 + 2 + 2$  has four 2's added, so it equals  $4 \times 2 = 8$ .
- 2) **Choice D is correct.** **(3.NF.A.2b)**  $\frac{2}{4}$  means 2 out of 4 equal parts. That is the 2nd tick mark.
- 3) **Choice B is correct.** **(3.MD.C.7)** Area =  $2 \times 3 = 6$  square cm.
- 4) **Choice C is correct.** **(3.NF.A.3b)** Multiply numerator and denominator by 4:  $\frac{1 \times 4}{2 \times 4} = \frac{4}{8}$ .
- 5) **Choice D is correct.** **(3.NBT.A.1)** The tens digit is 5. Since  $5 \geq 5$ , round up: 158 rounds to 200.
- 6) **The correct answer is 15 centimeters.** **(3.MD.D.8)**  $44 = 2\ell + 2(7) = 2\ell + 14$ , so  $2\ell = 30$  and  $\ell = 15$  cm.
- 7) **Choice B is correct.** **(3.MD.C.5)** The shaded region is 4 units wide and 3 units tall.  $4 \times 3 = 12$  square units.
- 8) **Choice B is correct.** **(3.NF.A.3d)** Same numerator: fifths are smaller pieces than fourths. Two fifths is less than two fourths.
- 9) **Choice A is correct.** **(3.MD.C.5b)** Rectangle 1: 3 columns and 4 rows =  $3 + 3 + 3 + 3 = 12$  unit squares. Rectangle 2: 6 columns and 2 rows =  $6 + 6 = 12$  unit squares. Rectangle 3: 5 columns and 3 rows =  $5 + 5 + 5 = 15$  unit squares. Rectangles 1 and 2 both have an area of 12 square units.
- 10) **Choice A is correct.** **(3.OA.B.5)** The distributive property says  $5 \times (4 + 2) = 5 \times 4 + 5 \times 2 = 20 + 10 = 30$ .
- 11) **Choice A is correct.** **(3.MD.C.7c)** Total area is 56. First rectangle is 42. Second is  $56 - 42 = 14$ , which is  $7 \times 2$  (so width is 2).
- 12) **Choice D is correct.** **(3.MD.C.6)**  $5 \times 8 = 40$  unit squares.
- 13) **Choice C is correct.** **(3.MD.B.3)**  $7 + 4 = 11$  balloons.
- 14) **Choice C is correct.** **(3.MD.C.5a)** Length times width:  $5 \times 3 = 15$  unit squares of 1 inch by 1 inch.
- 15) **Choice C is correct.** **(3.NF.A.3c)**  $\frac{5}{1}$  means 5 wholes. But  $\frac{5}{2}$  means 5 halves, which is more than 2 wholes. Only  $\frac{5}{1} = 5$  (denominator of 1).
- 16) **The correct answer is 4 equal sides.** **(3.G.A.1)** A rhombus is defined by having 4 equal sides. When that rhombus also has 4 right angles (like a rectangle), it meets the definition of a square. A square is the shape that has properties of BOTH a rhombus and a rectangle.
- 17) **Choices A and C are correct.** **(3.OA.A.4)** Equations A and C belong to the same fact family because both use the numbers 5, 7, and 35. Choices B, D, and E use different numbers.
- 18) **Choice D is correct.** **(3.OA.D.8)** Step 1: Desks in rows:  $4 \times 6 = 24$  desks. Step 2: Add more:  $24 + 8 = 32$  desks total.
- 19) **Choice C is correct.** **(3.MD.B.4)** At 1 mm there are 4 X's, which is the highest count.
- 20) **Choice C is correct.** **(3.NF.A.2)** Starting at  $\frac{3}{8}$  and moving 2 parts right means  $3 + 2 = 5$ , so you are at  $\frac{5}{8}$ .
- 21) **The correct answer is 6.** **(3.OA.C.7)**  $54 \div 9 = 6$  because  $6 \times 9 = 54$ .
- 22) **Choice C is correct.** **(3.MD.C.7d)** Upper part:  $6 \times 3 = 18$  sq units. Lower part:  $4 \times 2 = 8$  sq units. Total:  $18 + 8 = 26$  sq units.
- 23) **Choice C is correct.** **(3.MD.A.2)** Add:  $1000 + 800 = 1800$  g.
- 24) **Choice C is correct.** **(3.NF.A.3a)**  $\frac{2}{3} = \frac{4}{6}$  because both represent two-thirds of the rectangle.
- 25) **Choice D is correct.** **(3.NBT.A.2)** Round 268 to the nearest hundred: 300 (since  $268 > 250$ ). Round 305 to the nearest hundred: 300. Estimate:  $300 + 300 = 600$  miles. (Exact answer: 573 miles.)
- 26) **Choice D is correct.** **(3.OA.A.2)**  $14 \div 2$  means measuring: How many groups of 2 fit in 14? The answer is 7 groups. This is measurement division (also called quotitive division).
- 27) **Choice D is correct.** **(3.OA.D.9)** 42 ends in 2, not 0 or 5, so it is not a multiple of 5. All others end in 0 or 5.
- 28) **Choice D is correct.** **(3.OA.A.3)** There are 5 equal groups of 4 coins. Multiply:  $5 \times 4 = 20$  coins.
- 29) **Choice C is correct.** **(3.MD.C.7b)** Area = length  $\times$  width =  $12 \times 4 = 48$  square feet.
- 30) **Choice A is correct.** **(3.MD.C.7a)** Very long rectangle:  $9 \times 2 = 18$  square units. B is perimeter sum; D is concatenation.

### Practice Test 2 Answers and Explanations



## Hi, Math Champion!

◇ Look what you did! 4 full practice tests. That's hundreds of math problems. You started as a learner. You are now a math athlete. ◇

★ **Champions know:** hard work pays off. You did the hard work. Your math skills are strong because you practiced. ★

### Champion's Stats

- **Focus:** HIGH! You stay on task.
- **Speed:** STRONG! You move at the right pace.
- **Accuracy:** SHARP! You catch your own mistakes.
- **Mindset:** CHAMPION! You believe in yourself.

**Champion tip:** on test day, walk in proud. You trained for this. You are ready!

If you want to share something or ask a question, please email me at [jay@testinar.com](mailto:jay@testinar.com).

**Jay Daie**

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