

# 5

# FULL-LENGTH

# South Dakota

# Smarter Balanced

## GRADE 5 MATH

### ★ PRACTICE TESTS ★



**5 FULL-LENGTH  
PRACTICE TESTS**



**COMPLETE  
STANDARDS  
REVIEW**



**SKILL PRACTICE,  
WORD PROBLEMS,  
AND MORE!**

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



$$12 \times 3 = 36$$



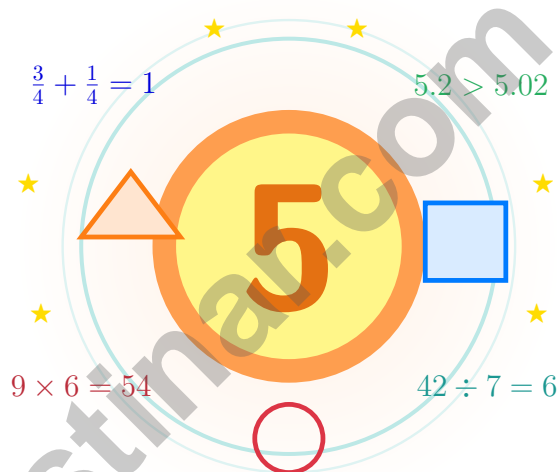
$$\frac{7}{10} = 0.7$$



**BUILT FOR SUCCESS. DESIGNED TO HELP EVERY STUDENT.**

# 5 South Dakota Smarter Balanced Grade 5 Math Practice Tests

*Five full tests, five lessons, one stronger mathematician*



Five full tests, a friendly quick review, smart strategy pages, and student-tested support that turn Grade 5 practice in The Mount Rushmore State into a steady quest of real growth.

**Jay Daie and Reza Nazari**



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# South Dakota, The Five-Test Journey Starts Here

Five full tests, five lessons, one stronger mathematician

## To Every Math Brain in South Dakota

This book is your practice zone, not a place to be perfect. Each of the five tests gives you a chance to notice clues, choose a strategy, check your thinking, and come back stronger for the next round. Math is like Mount Rushmore – big results come from small careful chips, day after day.

Some questions will feel easy right away. Some will make you slow down, draw, estimate, or retry. That is excellent news. It means your math brain is doing real work.

### Spot Clues

Notice the numbers, units, and tricky words.

### Make a Plan

Choose the strategy or model that fits.

### Bounce Back

Mistakes show you exactly where to grow next.

**A strong quest habit for South Dakota:** slow down, write neatly, estimate before you solve, and keep going even when a problem looks tricky at first. That is exactly how confident math students are built.

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# Use This Book Like a Quest Coach

A simple routine that turns five tests into real growth

## Step 1: Warm Up

**Sharpen your math brain with the quick review.**

Wake up important ideas before you begin so your brain is ready to use them.

## Step 2: Quest Run

**Take a full practice test in a calm spot.**

Find a quiet space, work carefully, and let accuracy matter more than speed.

## Step 3: Debrief

**Score honestly and circle missed questions.**

Circle missed questions and look for patterns. Which skill or habit needs another try?

## Step 4: Repair Kit

**Fix the missed work and lock the lesson in.**

Read the explanation, repair the work, and carry that lesson into the next test.

## A Five-Week South Dakota Quest Map

Week	Mission Focus
Week 1	Take Test 1 like a careful first chip on stone.
Week 2	Take Test 2 and notice one habit that grew sharper.
Week 3	Take Test 3 and polish fractions, decimals, and conversions.
Week 4	Take Test 4 and slow down on multi-step problems.
Week 5	Take Test 5 and reveal the shape with calm, confident final chips.



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## Grade 5 Mathematics Reference Materials

### PERIMETER AND AREA

Perimeter of Rectangle  $P = 2l + 2w$  or  $P = 2(l + w)$

Area of Rectangle  $A = l \times w$

Area of Triangle  $A = \frac{1}{2} \times b \times h$

Volume of Rectangular Prism  $V = l \times w \times h$

### LENGTH

#### Customary

1 foot (ft) = 12 inches (in.)

1 yard (yd) = 3 feet (ft)

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#### Metric

1 meter (m) = 100 centimeters (cm)

1 centimeter (cm) = 10 millimeters (mm)

1 kilometer (km) = 1,000 meters (m)

### CAPACITY

#### Customary

1 cup (c) = 8 fluid ounces (fl oz)

1 pint (pt) = 2 cups (c)

1 quart (qt) = 2 pints (pt)

1 gallon (gal) = 4 quarts (qt)

#### Metric

1 liter (L) = 1,000 milliliters (mL)

### WEIGHT AND MASS

#### Customary

1 pound (lb) = 16 ounces (oz)

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### TIME

1 minute (min) = 60 seconds (sec)    1 week = 7 days

1 hour (hr) = 60 minutes (min)    1 year = 12 months

1 day = 24 hours (hr)    1 year = 52 weeks



1) Estimate the sum:  $3.92 + 4.18$ . Which is the best estimate?

A. 7

C. 9

B. 8

D. 10

2) Round 5.985 to the nearest hundredth.

*Record your answer in the space provided.*

3) What is  $7 \times 10^2$ ?

A. 49

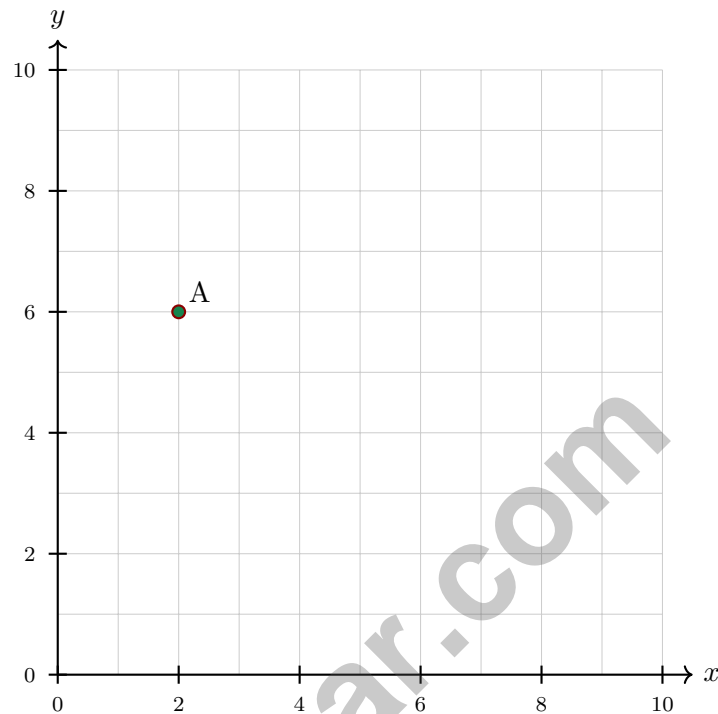
C. 700

B. 70

D. 7000



4) Which ordered pair names point A on the grid below?



- A. (2, 6)                       C. (6, 4)
- B. (6, 2)                       D. (4, 6)
- 5) Which statement correctly compares  $(50 - 10) \times 2$  to  $50 - 10$ ?
- A. First is 2 more                       C. They are equal
- B. First is 2 times as much                       D. First is  $\frac{1}{2}$  as much
- 6) How many pints are in 3 quarts?
- A. 3 pints                       C. 8 pints
- B. 4 pints                       D. 6 pints



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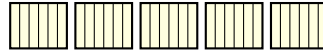
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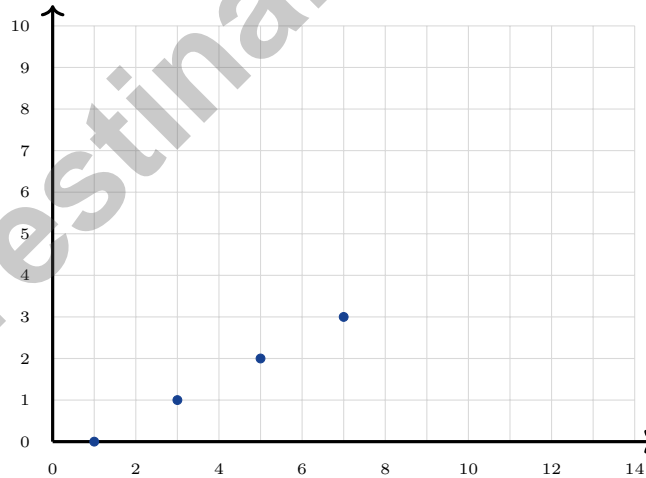
- 1) A furniture store has 5 yards of fabric. Each chair cushion needs  $\frac{1}{6}$  yard. How many cushions can be covered?

Each yard is divided into sixth-yard lengths



5 yards shown

- |   |   |
|---|---|
| <p><input type="checkbox"/> A. 24 cushions</p> <p><input type="checkbox"/> B. 28 cushions</p> | <p><input type="checkbox"/> C. 30 cushions</p> <p><input type="checkbox"/> D. 32 cushions</p> |
|---|---|
- 2) Which product is between 5 and 6?
- |   |   |
|---|---|
| <p><input type="checkbox"/> A. <math>1\frac{1}{4} \times 4</math></p> <p><input type="checkbox"/> B. <math>1\frac{2}{3} \times 3</math></p> | <p><input type="checkbox"/> C. <math>2\frac{1}{2} \times 2</math></p> <p><input type="checkbox"/> D. <math>2\frac{3}{4} \times 2</math></p> |
|---|---|
- 3) Using the coordinate grid, which point follows the pattern if you start at (1, 0) and add 2 to  $x$  and 1 to  $y$  each time?



- |  |   |
|--|---|
| <p><input type="checkbox"/> A. (9, 5)</p> <p><input type="checkbox"/> B. (10, 4)</p> | <p><input type="checkbox"/> C. (8, 5)</p> <p><input type="checkbox"/> D. (9, 4)</p> |
|--|---|



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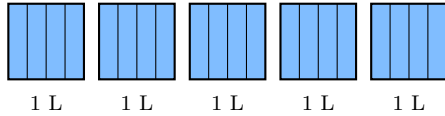
1 day = 24 hours (hr)    1 year = 52 weeks



1) Three hikers cover  $2\frac{1}{8}$  miles,  $3\frac{5}{7}$  miles, and  $1\frac{9}{11}$  miles. Estimate the total distance.

- A. About 6 miles
- B. About 7 miles
- C. About 8 miles
- D. About 9 miles

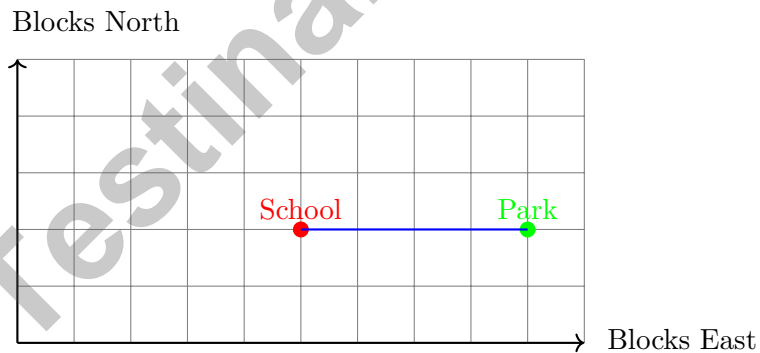
2) A sports drink comes in bottles that hold  $\frac{1}{4}$  liter each. How many bottles can be filled from 5 liters?



5 liters split into quarter-liter bottles

- A. 20
- B. 10
- C. 15
- D. 25

3) A coordinate grid shows that a school is at (5, 2) and the park is at (9, 2). What can you say about these two locations?



- A. They are on the same vertical line
- B. They are on the same horizontal line
- C. They are 7 blocks apart
- D. They are in different quadrants



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1) A triangle has all angles less than 90 degrees. What type of triangle is this based on its angles?

A. Right triangle

B. Acute triangle

C. Obtuse triangle

D. Not enough information

2) Compare the products: Which is larger,  $\frac{1}{2} \times \frac{4}{5}$  or  $\frac{2}{3} \times \frac{3}{4}$ ?

A.  $\frac{1}{2} \times \frac{4}{5}$

B. Cannot determine

C. They are equal

D.  $\frac{2}{3} \times \frac{3}{4}$

3) What is  $6 \div \frac{1}{2}$ ?

A. 12

B. 3

C. 6

D. 18

4) A ribbon is  $3\frac{1}{3}$  yards long. A decoration uses  $1\frac{1}{2}$  times that length. How many yards of ribbon are used?

*Record your answer in the space provided.*

5) Find:  $7.05 \times 10^5$ .

*Record your answer in the space provided.*



## Practice Test Answer Keys

### How to use this section:

1. check your answer
2. circle missed questions
3. rework them before reading the explanation

**Good correction habits build strong scores.**

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## Practice Test Answers and Explanations

### Practice Test 1 Answers and Explanations

- 1) **Choice B is correct.** **(5.NBT.7)** Round to nearest whole:  $3.92 \approx 4$  and  $4.18 \approx 4$ . So  $4 + 4 = 8$ .
- 2) **The correct answer is 5.99.** **(5.NBT.4)** Thousandths digit is 5, which rounds the hundredths up from 8 to 9: 5.99.
- 3) **Choice C is correct.** **(5.NBT.2)** Multiplying by a power of 10 shifts the value to a larger place.  $10^2 = 100$ , so  $7 \times 100 = 700$ . This confirms the answer.
- 4) **Choice A is correct.** **(5.G.2)** Point A is 2 units right along the  $x$ -axis and 6 units up along the  $y$ -axis, so the coordinates are (2, 6).
- 5) **Choice B is correct.** **(5.OA.2)** The expression  $50 - 10$  is one amount. Multiplying that amount by 2 makes two copies, so the first expression is twice as much.
- 6) **Choice D is correct.** **(5.MD.1)** Since 2 pints = 1 quart, multiply 3 by 2:  $3 \times 2 = 6$  pints.
- 7) **Choice C is correct.** **(5.NBT.7)** Multiply  $5 \times 0.75 = 3.75$ . Since 0.75 has 2 decimal places and 5 has 0, the product has 2 decimal places: \$3.75.
- 8) **Choice D is correct.** **(5.NBT.2)** Dividing by 1,000:  $189 \div 1000 = 0.189$  g per sample.
- 9) **Choice B is correct.** **(5.G.4)** Four equal sides makes it a rhombus. Without right angles, it cannot be a square.
- 10) **The correct answer is  $\frac{2}{3}$ .** **(5.NF.1)** Reduce each fraction by dividing the numerator and denominator by the same number.  $\frac{6}{9}$  and  $\frac{8}{12}$  both simplify to  $\frac{2}{3}$ .
- 11) **Choice B is correct.** **(5.MD.4)** The known width and height make groups of  $5 \times 9 = 45$  cubic inches. Since  $180 \div 45 = 4$ , the length is 4 inches.
- 12) **Choice C is correct.** **(5.OA.1)** The diagram separates the multiplication and division nicely:  $8 \times 5 = 40$  and  $12 \div 3 = 4$ . Then  $40 - 4 + 7 = 43$ .
- 13) **Choice A is correct.** **(5.NF.6)** Start with one unit fraction,  $\frac{1}{6}$ , and share it into 2 equal parts. Each part is  $\frac{1}{6} \div 2 = \frac{1}{12}$  of the whole.
- 14) **Choice B is correct.** **(5.NBT.2)** Dividing by 100 moves the decimal point two places to the left.  $4,200 \div 100 = 42$ .
- 15) **Choice D is correct.** **(5.NBT.6)** Use compatible numbers close to the original problem:  $4,927 \approx 4,900$  and  $73 \approx 70$ . Then  $4,900 \div 70 = 70$ .
- 16) **Choice A is correct.** **(5.G.3)** A quadrilateral with two pairs of parallel sides and four right angles is a rectangle. Since not all sides are the same length, it is not a square.
- 17) **The correct answer is  $(20 - 6) \div 7$ .** **(5.OA.2)** The phrase "then divide by 7" applies to the result of  $20 - 6$ , so use  $(20 - 6) \div 7$ .
- 18) **Choice A is correct.** **(5.G.2)** The first coordinate, 2, matches the  $x$ -axis label: hours read. The second coordinate, 50, matches the  $y$ -axis label: pages read. So the point means pages read is 50 when hours read is 2.
- 19) **Choice D is correct.** **(5.NBT.2)** The factors 5 and 2 make 10, and then multiplying by another 10 makes 100. The product has 2 zeros.
- 20) **Choice B is correct.** **(5.G.4)** Triangle B has a small square in the corner, which is the symbol for a right angle (90 degrees). This indicates a right triangle.
- 21) **The correct answer is 9 rectangles.** **(5.G.4)** Rectangles include the rectangle-only region and the intersection:  $6 + 3 = 9$ . Accept either the number alone or the labeled answer.
- 22) **Choices A and B are correct.** **(5.NBT.2)** A and B are true. For powers of 10, the exponent tells how many zeros come after the 1, so  $10^5 = 100,000$  and  $10^1 = 10$ .
- 23) **Choice D is correct.** **(5.NF.7)**  $\frac{1}{2} \div 8 = \frac{1}{2} \times \frac{1}{8} = \frac{1}{16}$ .
- 24) **Choice A is correct.** **(5.NF.6)** The word "of" points to multiplication:  $\frac{1}{4} \times \frac{2}{3} = \frac{2}{12} = \frac{1}{6}$  meter.
- 25) **Choice B is correct.** **(5.NBT.7)** Compare tenths first, then hundredths when needed:  $0.72 < 0.80 < 0.86 < 1.0$ .
- 26) **Choice B is correct.** **(5.MD.5)** The base area is  $12 \times 4 = 48$  square inches. Since  $240 \div 48 = 5$ , the height is 5 in.
- 27) **Choice A is correct.** **(5.MD.1)** Add:  $12.5 + 8.75 + 6.25 = 27.5$  meters.
- 28) **Choice D is correct.** **(5.MD.4)** I:  $2 \times 3 \times 10 = 60$ . II:  $4 \times 3 \times 5 = 60$ . III:  $5 \times 4 \times 3 = 60$ . IV:  $2 \times 6 \times 5 = 60$ . All prisms have volume 60 cubic units.



## Greetings, Star Navigator!

★ Stellar achievements unlocked! You've traversed five complete mathematical galaxies, calculating trajectories, solving cosmic puzzles, and navigating through challenging mathematical dimensions like an intergalactic explorer! Each test took you to new mathematical frontiers, and you charted your course with remarkable precision. Your navigation systems are fully calibrated and operational! ★

◇ **Here's what intergalactic navigators understand:** exploring unknown galaxies requires preparation, courage, and advanced navigation skills. They study star maps, practice emergency protocols, and trust their instruments completely. You've developed those same skills through these five test voyages! Your mathematical navigation systems are reliable and ready for any cosmic challenge! ◇

### Spacecraft Systems Status

- **Navigation Computers:** All mathematical coordinates calculated accurately!
- **Life Support Systems:** Problem-solving stamina at maximum capacity!
- **Communication Array:** Clear understanding of all mathematical signals!
- **Mission Status:** Cleared for test day deep space exploration!

**Interstellar travel wisdom:** experienced navigators remain calm during meteor showers because they've trained for turbulence. When test day presents unexpected mathematical asteroids, remember your five training missions through different galaxies. You've already navigated successfully through diverse challenges. Trust your instruments, maintain your course, and reach your destination confidently!

Want to report discoveries from distant mathematical galaxies? Transmit your findings to [reza@testinar.com](mailto:reza@testinar.com). Command Center is receiving!

**Reza Nazari & Jay Daie**

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# 5 FULL-LENGTH TESTS. STRONG SKILLS. BRIGHTER RESULTS.



Build confidence and master math with **5 full-length** practice tests designed to reflect the real test experience. This book provides the practice, review, and support students need to succeed in Grade 5 and beyond!

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Realistic tests that build familiarity, boost focus, and improve test readiness.



### COMPLETE STANDARDS REVIEW

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with consistent  
practice



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