

# 4

**COMPLETE**

# Connecticut

## Smarter Balanced

Grade

# MATH

# 5

## PRACTICE TESTS

Standards-Based Test Prep with  
Mixed Review, Word Problems,  
and **Full Answer Key**



- ✓ **4 COMPLETE PRACTICE TESTS**  
Built to reflect the test format and rigor



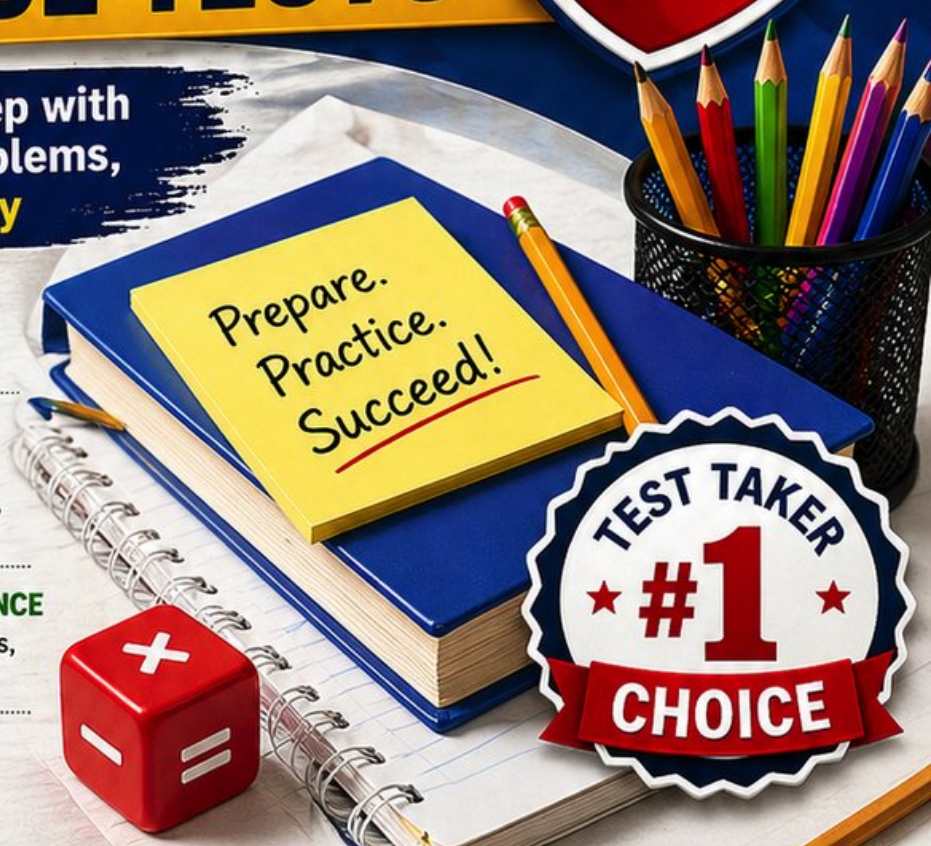
- ✓ **COVERS ALL ESSENTIAL TOPICS**  
Numbers & Operations, Fractions, Decimals, Geometry, Measurement, Data & Probability, and more



- ✓ **STRENGTHEN SKILLS & CONFIDENCE**  
Mixed review, challenging questions, and strategic practice



- ✓ **FULL ANSWER KEY INCLUDED**  
Detailed explanations for every question



**BUILD STRONG MATH SKILLS & TEST READINESS**



**IMPROVE ACCURACY, SPEED, AND PROBLEM SOLVING**



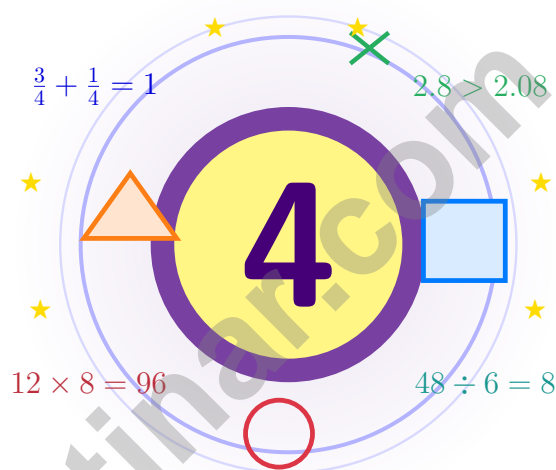
**PERFECT FOR CLASSROOM, HOME, OR SELF-STUDY**



**ALIGNED TO CONNECTICUT STATE STANDARDS (SMARTER BALANCED)**

# 4 Connecticut Smarter Balanced Grade 5 Math Practice Tests

*Four chances to grow your math mind one careful step at a time*



Four full tests, a smart quick review, mission-style strategy pages, and student-tested support that help Grade 5 mathematicians from The Constitution State build calm, careful, confident habits.

Jay Daie and Reza Nazari



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# Connecticut Math Crew, Welcome Aboard

Four practice tests, four growth checks, one calm routine

## To the Grade 5 Explorer in Connecticut

This book gives you four chances to read closely, solve carefully, and level up your math thinking. Strong math practice is like a New England harbor: small, well-kept, and ready for any kind of weather.

You do not need to feel perfect before you begin. You just need to stay curious, use strategies, and learn from every correction. That is how confident mathematicians are built.

### Watch

Watch what the question really wants from you.

### Try

Try a strategy that fits the size of the numbers.

### Polish

Polish your steps, units, and the final answer.

**A strong mission habit for Connecticut:** keep your work neat, estimate when it helps, label units carefully, and never let one hard question decide your mood for the whole page.

# How to Get the Most Out

A four-step routine that turns practice into real improvement

## Step 1: Open

**Open the warm-up review and use it.**

Wake up the big Grade 5 ideas before the test starts so your brain is already warmed up.

## Step 2: Test

**Take the test with steady focus.**

Find a calm corner, settle in, and aim for careful, honest choices before quick ones.

## Step 3: Reflect

**Notice what was sharp and what was shaky.**

Circle missed questions, sort out what went sideways, and notice which skills are calling for attention.

## Step 4: Sharpen

**Practice the shaky skills before the next round.**

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



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## A Four-Week Connecticut Mission Map

Week	Mission Focus
Week 1	Take Test 1 and chart your starting harbor. The first map matters most.
Week 2	Take Test 2 and aim attention at word problems and clearly shown steps.
Week 3	Take Test 3 to sharpen fractions, decimals, and measurement work.
Week 4	Take Test 4 and steer in calmly: neat work, steady pace, careful final check.



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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)

1 yard (yd) = 36 inches (in.)

#### 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)

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### TIME

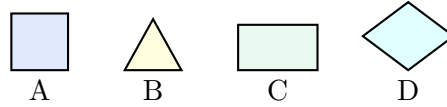
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- 1) The figures below are labeled A-D. Which figure is a parallelogram but not a rectangle?



- A. Figure A
- B. Figure B
- C. Figure C
- D. Figure D
- 2) A scientist measures a bacteria sample at 0.42 millimeters. After dividing this number by 10, the result is 0.042. In 0.042, what place is the digit 4 in?
- A. Hundredths place
- B. Thousandths place
- C. Ones place
- D. Tenths place
- 3) How many zeros are in  $10^6$ ?
- A. 3 zeros
- B. 4 zeros
- C. 5 zeros
- D. 6 zeros
- 4) Which pair has two expressions that both equal 5000?
- A.  $40 \times 10$  and  $4 \times 100$
- B.  $40 \times 10$  and  $4 \times 1000$
- C.  $50 \times 100$  and  $500 \times 10$
- D.  $30 \times 1000$  and  $3 \times 10000$
- 5) What is  $13.07 - 8.95$ ?
- A. 4.12
- B. 5.12
- C. 4.22
- D. 3.98





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1) Which statement correctly compares two multiplications?

A.  $0.13 \times 100 > 0.13 \times 1000$

C.  $0.13 \times 10 > 1.3$

B.  $0.013 \times 100 > 1.3$

D.  $0.13 \times 100 = 13$

2) What is  $\frac{1}{3} \div 4$ ?

A.  $\frac{1}{12}$

C.  $\frac{4}{3}$

B.  $\frac{1}{6}$

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

3) A triangle has one angle of 95 degrees, one angle of 50 degrees, and one angle of 35 degrees. Classify it based on its angles.

A. Acute

C. Equilateral

B. Right

D. Obtuse

4) A rectangular prism is 12 cm long, 3 cm wide, and 4 cm high. What is its volume?

A.  $96 \text{ cm}^3$

C.  $144 \text{ cm}^3$

B.  $108 \text{ cm}^3$

D.  $192 \text{ cm}^3$

5) A craft uses three pieces of string:  $\frac{1}{4}$  meter,  $\frac{1}{3}$  meter,  $\frac{1}{6}$  meter. Total?

A.  $\frac{3}{13}$  meter

C.  $\frac{3}{24}$  meter

B.  $\frac{1}{2}$  meter

D.  $\frac{3}{4}$  meter

6) Evaluate the expression:  $\{(9 + 3) \times 2\} - 4 \div 5$

*Record your answer in the space provided.*



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1) Crate A measures 6 centimeters by 6 centimeters by 3 centimeters. Crate B measures 5 centimeters by 5 centimeters by 5 centimeters. Which has the greater volume, and by how much?

- A. Crate A by 27 cubic centimeters       C. Crate B by 22 cubic centimeters  
 B. Crate B by 17 cubic centimeters       D. They have the same volume.

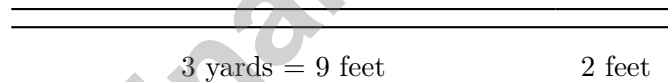
2) Evaluate:  $(9 \times 2) + [15 - (3 + 2)]$

- A. 15       C. 25  
 B. 19       D. 28

3) Which expression represents “twice the sum of 8 and 5”?

- A.  $2 \times 8 + 5$        C.  $2 \times (8 + 5)$   
 B.  $2 + (8 + 5)$        D.  $8 + 2 \times 5$

4) A fence is 3 yards and 2 feet long. How many feet total?



- A. 11 feet       C. 12 feet  
 B. 9 feet       D. 10 feet

5) A composite classroom model is made from two non-overlapping rectangular prisms. Prism A is 5 inches long, 4 inches wide, and 5 inches tall. Prism B is 6 inches long, 4 inches wide, and 3 inches tall. What is the total volume?

- A. 100 cubic inches       C. 72 cubic inches  
 B. 172 cubic inches       D. 192 cubic inches



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1) Which property is shared by ALL rectangles?

A. All sides are equal.

C. All angles are acute.

B. No sides are parallel.

D. All angles are right angles.

2) Complete the pattern:

Expression	Value
$3,500 \div 10$	350
$3,500 \div 100$	35
$3,500 \div 1,000$	?

A. 35,000

C. 350

B. 0.35

D. 3.5

3) Which product is greatest?

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

C.  $\frac{1}{3} \times \frac{1}{2}$

B.  $\frac{1}{4} \times \frac{1}{2}$

D.  $\frac{2}{3} \times \frac{1}{2}$



## 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 D is correct.** **(5.G.B.4)** Figure D is a rhombus with no right angles. It has two pairs of parallel sides, so it is a parallelogram, but it is not a rectangle.
- 2) **Choice A is correct.** **(5.NBT.A.1)**  $0.42 \div 10 = 0.042$ . In 0.42 the digit 4 is in the tenths place; after dividing by 10, it moves one place to the right, so the digit 4 is now in the hundredths place.
- 3) **Choice D is correct.** **(5.NBT.A.2)** A power of 10 tells how many factors of 10 to use.  $10^6 = 1000000$  has 6 zeros. This confirms the answer.
- 4) **Choice C is correct.** **(5.NBT.A.2)** Both equal 5000:  $50 \times 100 = 5000$  and  $500 \times 10 = 5000$ .
- 5) **Choice A is correct.** **(5.NBT.B.7)**  $13.07 - 8.95 = 4.12$ . Requires borrowing from ones place.
- 6) **Choice D is correct.** **(5.NF.B.7c)**  $9 \div \frac{1}{4} = 9 \times 4 = 36$ . There are 36 bundles.
- 7) **Choice C is correct.** **(5.OA.A.2)** A square has 4 equal sides. If each side is 9 meters, the perimeter is  $9 + 9 + 9 + 9$ , or  $4 \times 9$ .
- 8) **The correct answer is  $\frac{1}{12}$ .** **(5.NF.B.4b)** Splitting into 3 rows and 4 columns gives 12 equal parts; the overlapping region is 1 of those parts:  $\frac{1}{12}$ .
- 9) **Choice A is correct.** **(5.NF.A.2)**  $\frac{1}{3} = \frac{1 \times 4}{3 \times 4} = \frac{4}{12}$  and  $\frac{1}{4} = \frac{1 \times 3}{4 \times 3} = \frac{3}{12}$ .
- 10) **Choice A is correct.** **(5.NBT.A.3a)** “Three tenths and four hundredths” is written as  $0.3 + 0.04 = 0.34$ .
- 11) **Choice B is correct.** **(5.G.A.2)** Compare each pair:  $1 \times 7 = 7$ ,  $2 \times 7 = 14$ ,  $3 \times 7 = 21$ , and  $4 \times 7 = 28$ .
- 12) **Choice C is correct.** **(5.NBT.A.2)**  $0.072 \times 1000 = 72$  (move decimal 3 places right).
- 13) **Choice A is correct.** **(5.G.B.4)** A square is the only quadrilateral that is both a rectangle (all  $90^\circ$  angles) and a rhombus (all sides equal).
- 14) **The correct answer is  $\frac{1}{2}$ .** **(5.NF.A.2)**  $\frac{1}{3} = \frac{2}{6}$ . Remaining:  $\frac{5}{6} - \frac{2}{6} = \frac{3}{6} = \frac{1}{2}$ .
- 15) **Choice B is correct.** **(5.NBT.A.2)** Check by dividing 50 by 1,000: moving the decimal three places left gives 0.05.
- 16) **Choice D is correct.** **(5.MD.A.1)** 2 yards =  $2 \times 3 = 6$  feet. 6 feet =  $6 \times 12 = 72$  inches.
- 17) **Choice C is correct.** **(5.MD.C.5)** Books cost:  $3 \times 12.95 = 38.85$  dollars. Pens cost:  $5 \times 2.50 = 12.50$  dollars. Total:  $38.85 + 12.50 = 51.35$  dollars.
- 18) **Choice B is correct.** **(5.NBT.B.7)** Hundredths:  $5 + 8 = 13$  (regroup 1 tenth); tenths:  $7 + 6 + 1 = 14$  (regroup 1 one); ones:  $2 + 3 + 1 = 6$ . Sum is 6.43.
- 19) **Choice D is correct.** **(5.MD.C.3b)**  $V = \text{base area} \times \text{height} = 10 \times 6 = 60$  cubic units.
- 20) **Choice A is correct.** **(5.NF.A.2)**  $\frac{5}{6} - \frac{1}{6} = \frac{4}{6}$ , simplifies to  $\frac{2}{3}$ .
- 21) **Choice C is correct.** **(5.MD.B.2)** There are three ribbons at  $\frac{1}{2}$  yard. Their total length is  $\frac{1}{2} + \frac{1}{2} + \frac{1}{2} = 1\frac{1}{2}$  yards.
- 22) **Choices A, C are correct.** **(5.OA.A.1)** Good checking means testing every choice. B evaluates to 16, and D evaluates to 17, so they do not belong in the answer set.
- 23) **The correct answer is isosceles.** **(5.G.B.4)** Two side lengths are equal, so Triangle P is isosceles.
- 24) **Choice A is correct.** **(5.NF.B.5a)** Multiplying by 1 keeps the value the same. Multiplying by  $\frac{3}{4}$  (less than 1) makes it smaller:  $6 \times \frac{3}{4} = 4\frac{1}{2} < 6$ .
- 25) **Choice B is correct.** **(5.MD.A.1)** 1 liter = 1,000 milliliters. Multiply:  $3.5 \times 1000 = 3500$  mL.
- 26) **Choice C is correct.** **(5.G.A.2)** Both points have the same x-coordinate (3), so the distance is  $9 - 4 = 5$  miles north.
- 27) **Choice B is correct.** **(5.G.A.1)** The dashed line shows points with first coordinate 4. The whole-number points above the x-axis are (4, 1) through (4, 10), so there are 10 points.
- 28) **Choice B is correct.** **(5.NF.A.2)**  $3\frac{2}{7} \approx 3$  and  $1\frac{1}{8} \approx 1$ . So  $3\frac{2}{7} + 1\frac{1}{8} \approx 3 + 1 = 4$ .
- 29) **The correct answer is  $\frac{1}{15}$ .** **(5.NF.B.7c)**  $\frac{1}{3} \times \frac{1}{5} = \frac{1}{15}$ .
- 30) **The correct answer is 96 ft<sup>3</sup>.** **(5.MD.C.5a)**  $8 \times 3 \times 4 = 96$  ft<sup>3</sup>.
- 31) **Choice A is correct.** **(5.MD.C.5)** Use the rectangular-prism volume formula:  $10 \times 3 \times 4 = 120$ . So the volume is 120 cubic centimeters.



### Notes From Your Math Architect

#### Dear Builder of Big Ideas,

◇ Across 4 practice tests, you laid down brick after brick of math skill. The foundation is solid. The walls are strong. The roof is in place. You've built yourself a study sturdy enough to stand any storm test day might bring. ◇

★ **What architects know:** a great building starts with a great plan. You've practiced planning—reading carefully, picking your strategy, and working step by step. That blueprint thinking is what turns hard problems into clear answers. ★

#### Builder's Inspection Checklist

- **Foundation:** ROCK SOLID! Number sense, fractions, decimals—all in place.
- **Frame:** STRONG! You can break down a problem into clear parts.
- **Walls:** TIGHT! Your work is organized and easy to follow.
- **Roof:** FINISHED! You always answer the question that was asked.

**Architect's tip:** on test day, build each answer like a small building. Foundation: read the question. Frame: pick the strategy. Walls: do the math. Roof: check the answer. Each piece matters. Each piece is yours.

If you'd like to share your experience or have questions, please email me at [reza@testinar.com](mailto:reza@testinar.com). I'd love to hear from you!

**Reza Nazari & Jay Daie**  
Your Math Architect (Built to Last)

# 4 COMPLETE TESTS. CONFIDENCE. SUCCESS.



Give your child the practice and confidence they need to excel in **Grade 5 Math**. This book includes **4 full-length** practice tests designed to build skills, improve test readiness, and help students reach their full potential.

## WHAT'S INSIDE:



### 4 COMPLETE PRACTICE TESTS

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