

6

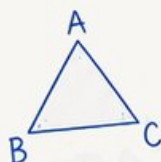
Connecticut Smarter Balanced

GRADE
6
MATH

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

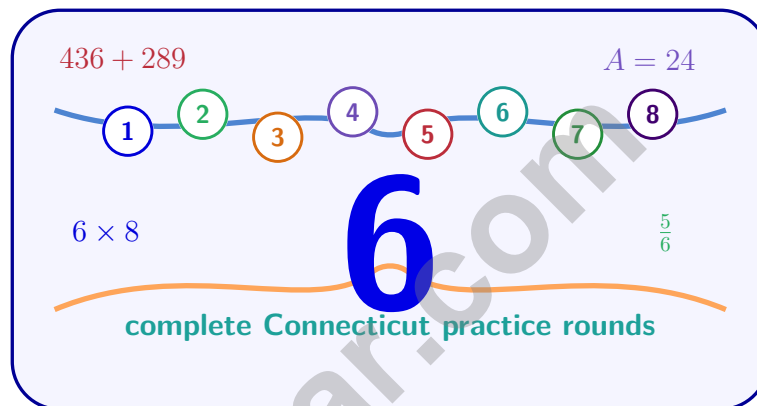


SUCCEED

Build confidence and achieve your best

6 Connecticut Smarter Balanced Grade 6 Math Practice Tests

Standards-Aligned Careful New England Review for Smarter Balanced Assessment Consortium



Six complete 40-question Grade 6 practice rounds for Smarter Balanced, built for careful New England 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, Connecticut Math Explorer!

Eight focused rounds using careful New England review

This book gives you six full Grade 6 practice tests for Smarter Balanced. Each round uses town greens, shoreline routes, and precise classroom thinking as a fresh mental backdrop while you read closely, choose a smart strategy, show your work, and check whether your answer makes sense.

Your Connecticut Practice Promise

Make every answer earn its place by reading labels, checking scale, and explaining the step.

Read

Plan

Check

How to Use This Book

A six-session routine for careful New England review

1. **Preview the skills.** Scan the quick review pages before beginning the first round.
2. **Work in order.** Take one 40-question test at a time in a quiet place.
3. **Mark confidence.** Put a small star beside problems where your plan felt strong.
4. **Correct actively.** Retry missed items before reading the full explanation.
5. **Plan the next round.** Use the growth log to choose one habit and one skill to practice.

Connecticut review rhythm: Pair each test with a review session so errors become a neat checklist.



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. Careful new england review means recognizing the skill even when the next question changes topic, changes format, or asks for an explanation.

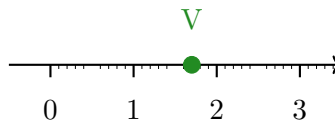


Scan me!
For more practice
& answers

Table of Contents

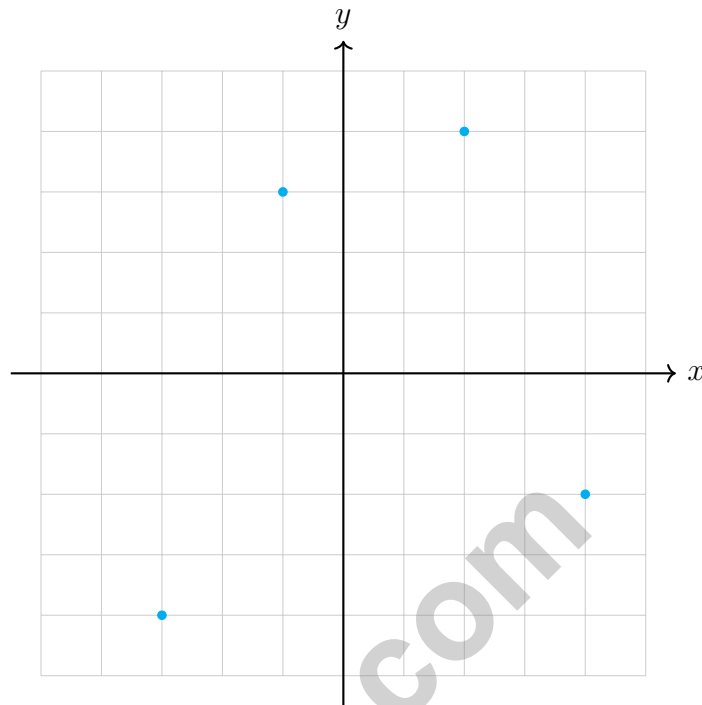
★ Practice Test 1	_____	14
★ Practice Test 2	_____	31
★ Practice Test 3	_____	45
★ Practice Test 4	_____	60
★ Practice Test 5	_____	76
★ Practice Test 6	_____	92
Practice Test Answer Keys	_____	110
Practice Test Answers and Explanations	_____	114

1) The number line below shows tick marks at tenths. Which decimal is at point V?



- A. 1.5 C. 1.7
 B. 1.6 D. 1.8
- 2) A trapezoid has bases of 10 cm and 6 cm. If the area is 32 cm^2 , what is the height?
- A. 2 cm C. 4 cm
 B. 3.2 cm D. 8 cm
- 3) Marcus solved $4,368 \div 28$ using long division and wrote 156 with no remainder. Which statement verifies his result?
- A. $28 \times 156 = 4,368$ exactly, so the answer is correct. C. $28 \times 156 = 4,568$, so the quotient is too low.
 B. $28 \times 156 = 4,268$, so the quotient is too high. D. The remainder must be 28.
- 4) What is the prime factorization of 30?
- A. $2 \times 3 \times 5$ C. 3×10
 B. 2×15 D. $2 \times 2 \times 3$





5)

Which of the plotted points is in Quadrant III?

- A. (2, 4) C. (4, -2)
 B. (-1, 3) D. (-3, -4)

6) Which three numbers are correctly ordered from least to greatest?

- A. -2.1, -1.9, 0.5 C. 0.5, -1.9, -2.1
 B. -1.9, -2.1, 0.5 D. -1.9, 0.5, -2.1

7) A deep-sea submersible is at a depth of $-2,500$ meters. It rises 300 meters. What is its new depth?

- A. $-2,800$ meters C. $2,200$ meters
 B. $-2,200$ meters D. $2,800$ meters



Scan me!
For more practice
& answers

8) Evaluate: $(2 + 3)^2 - 5$

A. 10

C. 25

B. 20

D. 30

9) Which expression has exactly 2 terms, both with variables, and a coefficient of 4?

A. $4x + 7$

C. $4m + 4n$

B. $4a + b$

D. $2x + 2y$

10) After distributing $3(4a - 2)$, what is the coefficient of a ?

11) A container holds w liters of water. A second container holds twice as much water. How many liters are in the second container?

A. $w + 2$

C. $w - 2$

B. $\frac{w}{2}$

D. $2w$

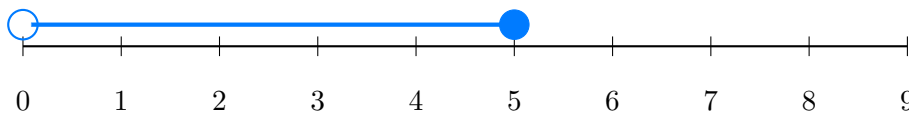
12) Which equation is equivalent to $x - 9 = 5$?

A. $x = 5 - 9$

C. $x = 9 + 5$

B. $x = 9 - 5$

D. $x = 5 + 9$



13)

Based on the number line above, which inequality is represented?

A. $0 < x \leq 5$

C. $0 < x < 5$

B. $0 \leq x < 5$

D. $0 \leq x \leq 5$



- 1) Sarah opens a savings account with \$500 earning a simple interest rate of 4% per year. Using the formula $I = P \times r \times t$, how much interest will she earn in 2 years?
- A. \$20 C. \$80
 B. \$100 D. \$40
- 2) Find the mean of 20, 30, 40, 50.
- A. 30 C. 40
 B. 35 D. 45
- 3) The MAD of a data set represents what?
- A. The difference between the highest and lowest values. C. The spread of the middle 50% of the data.
 B. The average distance of the data points from the mean. D. The value that appears most often.
- 4) A survey asks 10 people: hours exercised per week. Data: {2, 3, 4, 4, 5, 5, 5, 6, 7, 8}. What is the mean?
- A. 4.5 C. 5
 B. 4.9 D. 5.5
- 5) A statistical question about favorite sports should ask about one student or a group of students?



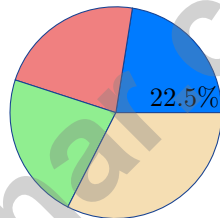
Scan me!
For more practice
& answers

- 6) A cube has edge length s cm. If the surface area is 294 cm^2 , what is the value of s (in cm)?

- 7) A bag of letter tiles contains 5 A's, 3 E's, and 2 I's. If one tile is drawn at random, what is the probability that it is **not** an A?

A. $\frac{1}{10}$
 B. $\frac{1}{2}$

C. $\frac{3}{5}$
 D. $\frac{5}{10}$



8)

A company surveys 800 employees about work location. The circle graph shows 22.5% work from home. How many employees work from home?

A. 180
 B. 160

C. 200
 D. 220

- 9) At a campfire, the ratio of hot dogs to hamburgers is $7 : 5$. Which of the following could be the total number of hot dogs and hamburgers combined at the campfire?

A. 10 items
 B. 20 items

C. 24 items
 D. 30 items



1) Find the median of: 2, 8, 4, 6, 10, 5, 3.

A. 4

C. 6

B. 5

D. 7

2) For 2, 4, 6, 8, 10, 12, 14, find the interquartile range.

3) An appliance store has two refrigerators on sale. Model A costs \$480 for a 20-cubic-foot unit. Model B costs \$600 for a 30-cubic-foot unit. Which has the better price per cubic foot?

A. Model A at \$24/cu ft

C. Model B at \$20/cu ft

B. Model A at \$32/cu ft

D. Model B at \$21/cu ft

4) Which of the following is a rate?

A. 3 boys to 4 girls

C. 5 red marbles to 2 blue marbles

B. 60 miles per hour

D. 8 pencils to 3 pens

5) A laptop costs \$1200 and is on sale for \$900. What is the percent discount?

A. 20%

C. 30%

B. 33%

D. 25%



6) A bucket holds 4 quarts of water. How many pints is this? (Use 1 quart = 2 pints.)

- A. 2 pints C. 8 pints
 B. 6 pints D. 12 pints

7) A dataset has 8 values with a mean of 45. If 7 of the values are {38, 40, 42, 44, 46, 48, 50}, what is the eighth value?

8) A teenager earns \$50 per week from a part-time job. She saves \$12 per week and spends the rest. How much does she spend per week?

- A. \$25 C. \$38
 B. \$32 D. \$40

9) A climate scientist collects temperature data from 100 cities. What is the population?

- A. The 100 cities sampled C. The temperature readings
 B. All cities on Earth D. The countries represented

10) A lemonade stand sells lemonade and iced tea in a ratio of 3 : 2. If the stand sells 18 cups of lemonade, how many cups of iced tea does it sell?

- A. 6 cups C. 27 cups
 B. 30 cups D. 12 cups



Scan me!
For more practice
& answers

Connecticut Smarter Balanced Practice Test Answer Keys

How to use this Connecticut 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 careful New England review
3. rework the problem before reading the full explanation, using this reminder: Make every answer earn its place by reading labels, checking scale, and explaining the step.

A calm Connecticut correction routine turns every missed item into useful practice. Pair each test with a review session so errors become a neat checklist.



Connecticut Practice Test Answers and Explanations

Review the six printed Smarter Balanced tests with precise, calm, and ready for the next assessment day habits.

Practice Test 1 Answers and Explanations

- Choice C is correct.** **(6.NS.C.6c)** Point V is located 0.7 units to the right of 1, placing it at 1.7.
- Choice C is correct.** **(6.G.A.1)** Using $A = \frac{1}{2}(b_1 + b_2) \times h$: $32 = \frac{1}{2}(10 + 6) \times h = 8h$, so $h = 4$ cm.
- Choice A is correct.** **(6.NS.B.2)** Verification: $28 \times 156 = 4,368$. Marcus's answer is exactly correct—no remainder.
- Choice A is correct.** **(6.NS.B.4)** $30 = 2 \times 15 = 2 \times 3 \times 5$. The prime factors are 2, 3, 5. Option B uses 15, which is composite; C uses 10, which is composite; D gives prime factorization of 12.
- Choice D is correct.** **(6.NS.C.8)** The point in Quadrant III (lower left) has both negative coordinates. The point $(-3, -4)$ fits this description.
- Choice A is correct.** **(6.NS.C.7d)** $-2.1 < -1.9 < 0.5$. Negatives come before positives; among negatives, more negative is less.
- Choice B is correct.** **(6.EE.A.3)** Rising (going up) from a negative depth: $-2,500 + 300 = -2,200$ meters.
- Choice B is correct.** **(6.EE.A.1)** First, work inside the parentheses: $2 + 3 = 5$. Then apply the exponent: $5^2 = 25$. Finally subtract: $25 - 5 = 20$.
- Choice C is correct.** **(6.EE.A.2b)** $4m + 4n$ has 2 terms ($4m$ and $4n$), both have variables, and both have coefficient 4.
- The correct answer is 12.** **(6.EE.A.3)** $3(4a - 2) = 12a - 6$, so the coefficient is 12.
- Choice D is correct.** **(6.EE.B.6)** "Twice as much" means multiply by 2.
- Choice D is correct.** **(6.EE.B.5)** Add 9 to both sides to isolate x : $x = 5 + 9 = 14$.
- Choice A is correct.** **(6.EE.B.8)** The open circle at 0 means "not including 0" ($>$). The filled circle at 5 means "including 5" (\leq). Together: $0 < x \leq 5$.
- Choice D is correct.** **(6.G.A.1)** The height is defined as the perpendicular distance from the base to the opposite vertex, regardless of the triangle type.
- Choice D is correct.** **(6.G.A.3)** The left side goes from $(2, 3)$ to $(2, 7)$. Length = $7 - 3 = 4$ units.
- Choice B is correct.** **(6.G.A.1)** Width: $6 - 1 = 5$ units. Height: $7 - 2 = 5$ units. Area = $5 \times 5 = 25$ square units.
- Choice D is correct.** **(6.G.A.4)** A straight line of 6 unit squares cannot fold into a cube without overlap or gaps. Valid cube nets require a more compact 2D arrangement (like a cross or T-shape) such that the net folds into 3D with no overlaps.
- Choice A is correct.** **(6.NS.C.8)** The x -coordinate stays -3 . The y -coordinate changes from -4 to 0 , an increase of 4 units upward.
- The correct answer is Equivalent-fraction divide and reciprocal multiply.** **(6.NS.A.1)** B uses a common denominator so you are dividing same-size chunks: $\frac{15}{18} \div \frac{6}{18} = \frac{15}{6} = \frac{5}{2}$. C keeps $\frac{5}{6}$ and multiplies by the reciprocal of $\frac{1}{3}$, which is $\frac{3}{1}$ —that is $\frac{5}{6} \times \frac{3}{1}$, also simplifying to $\frac{5}{2}$. A never flips $\frac{1}{3}$, D mixes random numbers together, and E flips $\frac{5}{6}$ instead of flipping the divisor.
- Choice B is correct.** **(6.SP.A.2)** The data shows different responses (0, 5, 8, 10 hours), confirming variability. Recognizing and describing this variability is key to understanding statistical data.
- Choice B is correct.** **(6.SP.A.2)** IQR = $Q_3 - Q_1$, representing the spread of the middle 50% of the data. Range is $\text{max} - \text{min}$; mean is the average; mode is the most frequent.
- Choice A is correct.** **(6.SP.B.5c)** Mean = 6, Median = 3. The outlier (20) skews the mean upward. The median (3) is more representative of a typical value in this data set.
- Choice C is correct.** **(6.SP.B.5c)** Maximum = 18, minimum = 12. Range = $18 - 12 = 6$ inches.



A Quiet Word From Your Mentor

Hi, Thoughtful Student,

◇ I want to take a moment to tell you something true: you did excellent work. 6 practice tests is a real promise that you kept to yourself. That matters. ◇

★ **Mentors notice:** growth is quiet. It doesn't shout. But it shows up in how you handle a problem today vs how you did weeks ago. That growth is your real prize. ★

What I See in You

- **Hard Work:** You don't quit when problems are tough.
- **Curiosity:** You wonder why and how.
- **Kindness:** You are patient with yourself.
- **Brave Heart:** You try things that scare you.

Mentor's note: on test day, treat yourself like you would a friend. Be kind. Be patient. Be encouraging. The skills are inside you!

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

Jay Daie

Your Math Mentor

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