

10

New Jersey NJSLA

GRADE
7
MATH

PRACTICE TESTS

Standards Aligned Problem
Solving For Comprehensive
Assessment Programs



10 PRINTED TESTS

Realistic practice to build
confidence and mastery



2 ONLINE TESTS

Extra practice for
continued success



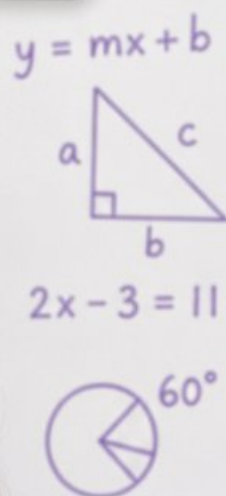
DETAILED ANSWER EXPLANATIONS

Learn with step-by-step
solutions



FOCUSED & EFFECTIVE

Target key math skills
with purposeful practice



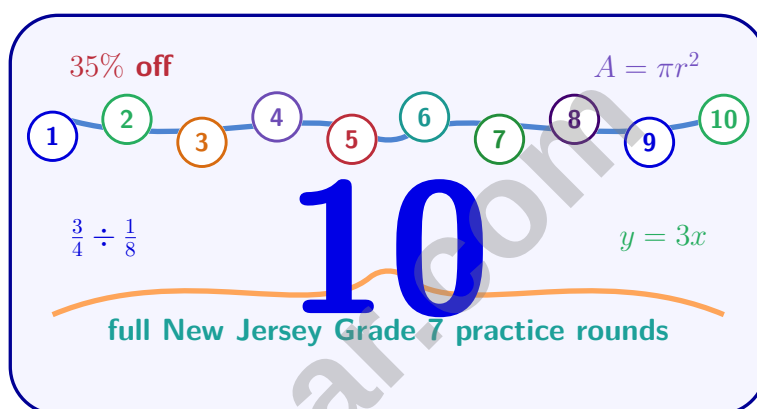
10 PRINTED TESTS
+2 ONLINE TESTS

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

PRACTICE ★ REVIEW ★ SUCCEED

10 New Jersey NJSLA Grade 7 Math Practice Tests

New Jersey Grade 7 NJSLA Practice for shore-to-school practice with proportional models, percent reasoning, algebra, geometry, and data



Ten complete 40-question Grade 7 NJSLA practice rounds with proportional relationships, percents, rational numbers, expressions, equations, geometry, statistics, probability, answer keys, and clear explanations for every item.

Jay Daie and Reza Nazari



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Welcome, New Jersey Grade 7 Problem Solver!

Ten focused rounds for sharper New Jersey NJSLA math thinking

This book gives you ten full Grade 7 NJSLA math practice tests. Each round is built to help you notice structure, compare quantities, use proportional reasoning, handle rational numbers, and explain your thinking with care.

Your New Jersey Practice Promise

I will read every question carefully, choose a strategy that fits, write enough work to prove my answer, and use corrections as training for the next test.

Read

Model

Verify

How to Use This Book

A ten-session plan for confident Grade 7 review

1. **Warm up with the review pages.** Notice the big ideas before starting the tests.
2. **Complete one test at a time.** Treat each 40-question round like a real practice session.
3. **Show your reasoning.** Jot a proportion, equation, diagram, number line, or quick estimate when it helps.
4. **Correct actively.** Rework missed items before reading the explanation.
5. **Choose the next target.** After each test, name one skill and one habit to improve.

New Jersey review rhythm: Work a test, score it, study your misses, then come back ready for the next round with one clear goal.



What Is Inside?

Ten New Jersey NJSLA tests, 400 questions, and a complete review path

Part	What You Will Practice
Tests 1–3	Proportional relationships, unit rates, percents, rational-number operations, and careful reading.
Tests 4–6	Expressions, equations, inequalities, scale drawings, geometry, and multi-step problem solving.
Tests 7–9	Statistics, probability, mixed review, stamina, and choosing efficient strategies.
Test 10	A final New Jersey round to show growth across the whole book.
Answer Pages	Compact keys and explanations that show why each answer works.

The tests are mixed on purpose. Grade 7 success means recognizing which idea is being tested even when the next question changes format.



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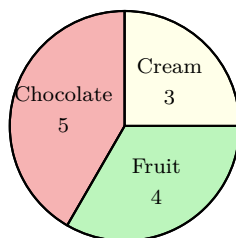
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- 1) A kitchen scales recipe calls for $\frac{2}{3}$ cup sugar per batch. How many batches can be made with 6 cups?
- ☐ A. 4 batches ☐ C. 9 batches
☐ B. 6 batches ☐ D. 12 batches
- 2) The population of a city is 1.5×10^6 . How is this number written in standard form?
- ☐ A. 15,000 ☐ C. 1,500,000
☐ B. 150,000 ☐ D. 15,000,000
- 3) Solve for y : $2y - 8 = -14$ and check your answer makes sense.
- ☐ A. $y = -3$ ☐ C. $y = 3$
☐ B. $y = 0$ ☐ D. $y = 11$
- 4) Which statement is true?
- ☐ A. $\sqrt{16} = 4$ and $4^2 = 16$ ☐ C. $\sqrt{36} = 6$ and $6^2 = 37$
☐ B. $\sqrt{25} = -5$ and $5^2 = 25$ ☐ D. $\sqrt{49} = 7$ and $7^2 = 49$
- 5) A cylindrical can contains 301.44 cubic inches of soup. If the radius is 3 inches, what is the height of the can? Use $\pi \approx 3.14$.



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6)

A restaurant menu has 12 desserts: 5 chocolate, 4 fruit, and 3 cream-based. If you pick one at random, what is the probability of choosing a chocolate or cream-based dessert?

- ☐ A. $\frac{5}{12}$
☐ B. $\frac{8}{12}$

- ☐ C. $\frac{2}{3}$
☐ D. $\frac{1}{2}$

- 7) A restaurant manager surveys 40 customers and finds that 32 of them would recommend the restaurant to a friend. What proportion of customers in the sample would recommend the restaurant?

- 8) When a standard die is rolled and a spinner with sections W, X, Y, Z is spun, how many favorable outcomes result in rolling a number less than 4 and landing on a consonant?

- ☐ A. 3
☐ B. 6

- ☐ C. 9
☐ D. 12



9) Two number cubes are rolled. What is the probability of rolling doubles (both dice show the same number)?

- ☐ A. $\frac{1}{6}$
☐ B. $\frac{7}{36}$

- ☐ C. $\frac{1}{12}$
☐ D. $\frac{5}{36}$

10) A stem-and-leaf plot has stems 5, 6, 7 with leaves:

- Stem 5: 1, 4, 7
- Stem 6: 0, 3, 8
- Stem 7: 2, 6, 9

What is the range of the data?

- ☐ A. 24
☐ B. 25

- ☐ C. 26
☐ D. 27

11) A bag contains marbles of three colors. Maria draws a marble, records the color, and replaces it. After 300 draws, the results are:

Color	Red	Blue	Green
Count	105	95	100

If Maria draws one more marble, which color is she most likely to draw based on experimental probability?

- ☐ A. All equally likely
☐ B. Blue

- ☐ C. Green
☐ D. Red

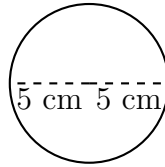
12) Which list orders the probabilities from least likely to most likely?

- ☐ A. 0.2, 0.5, 0.9, 1
☐ B. 1, 0.9, 0.5, 0.2

- ☐ C. 0.5, 0.2, 1, 0.9
☐ D. 0.9, 1, 0.2, 0.5



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1)

The diameter of this circle is 10 cm. What is its circumference? Use $\pi \approx 3.14$.

☐ A. 15.7 cm☐ C. 62.8 cm☐ B. 31.4 cm☐ D. 78.5 cm

2) A histogram shows test scores for two classes. Class 1 has a tall bar at 90–95 with few lower scores. Class 2 has bars spread from 70 to 95 with a shorter peak around 80. Which statement is most accurate?

☐ A. Class 1 performed better with less variation☐ C. Both classes have identical score distributions☐ B. Class 2 had more students overall☐ D. Class 2 has higher average scores

3) A data set has values: 12, 15, 15, 18, 21, 23, 24, 28. Which is the correct stem-and-leaf plot?

☐ A. Stem 1: 2, 5, 5, 8; Stem 2: 1, 3, 4, 8☐ C. Stem 1: 2, 5, 5, 8; Stem 2: 3, 4, 8, 1☐ B. Stem 1: 1, 2, 5, 5; Stem 2: 1, 3, 4, 8☐ D. Stem 1: 1, 2, 3, 4; Stem 2: 1, 5, 5, 8

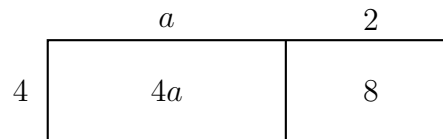
4) A prism has a base area of 72 ft^2 and a volume of 576 ft^3 . What is its height?

☐ A. 6 ft☐ C. 12 ft☐ B. 8 ft☐ D. 504 ft

- 5) Two sides of a triangle measure 7 cm and 10 cm. The angle between them is 60° . How many distinct triangles can be drawn?

☐ A. 0
☐ B. 1
☐ C. 2
☐ D. Infinitely many

- 6) The rectangle below models $4(a + 2)$. What is the total area expressed as a sum?



- ☐ A. $6a$
☐ B. $4a + 2$
☐ C. $4a + 8$
☐ D. $a + 8$
- 7) Simplify: $6x^2 + 2x^2 - 3x$
- ☐ A. $8x^2 - 3x$
☐ B. $5x^2$
☐ C. $8x^2 - 3x^2$
☐ D. $5x^3$
- 8) What is the correct factorization of $-6m + 18$?
- ☐ A. $6(-m + 3)$
☐ B. $-6(m - 3)$
☐ C. $-6(m + 3)$
☐ D. $6(m - 3)$
- 9) A sector in a circle graph has a central angle of 54° . What percent does it represent?
- ☐ A. 12%
☐ B. 15%
☐ C. 18%
☐ D. 20%



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- 1) A coin is flipped and a die is rolled together in a compound experiment. Out of 240 trials, heads AND rolling a 5 occurred 18 times. What is the experimental probability of both events?
- ☐ A. $\frac{1}{12}$ ☐ C. 0.10
☐ B. $\frac{18}{240}$ ☐ D. $\frac{1}{8}$
- 2) A percent can be converted to an angle in a circle graph. What angle corresponds to 25% of a circle?
- ☐ A. 45° ☐ C. 90°
☐ B. 60° ☐ D. 120°
- 3) A student writes: $0.000789 = 7.89 \times 10^{-3}$. Is this correct?
- ☐ A. Yes, it is correct. ☐ C. No; the coefficient should be 78.9.
☐ B. No; the exponent should be -4 . ☐ D. No; the answer should be 7.89×10^4 .
- 4) Which expression equals $(2s - 10) - (s - 3)$?
- ☐ A. $s - 7$ ☐ C. $3s - 13$
☐ B. $s - 13$ ☐ D. $s + 7$
- 5) Simplify: $c^8 \div c^5$
- ☐ A. c^3 ☐ C. c^2
☐ B. c^{13} ☐ D. 1
- 6) A concert ticket costs \$35 and a service fee is \$6.50 per ticket. If someone buys 3 tickets, what is the total cost?
- ☐ A. $3(35 + 6.50) = \$124.50$ ☐ C. $35 + 3 + 6.50 = \$44.50$
☐ B. $3(35) + 3(6.50) = \$124.50$ ☐ D. $35(3) + 6.50 = \$111.50$



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7) Which value of x satisfies $4x + 2 = 18$?

☐ A. $x = 2$

☐ C. $x = 5$

☐ B. $x = 4$

☐ D. $x = 8$

8) Solve for x : $3(x - 2) = x + 2$

☐ A. $x = 2$

☐ C. $x = 4$

☐ B. $x = 3$

☐ D. $x = 5$

9) A pictograph shows cars sold per month, with one symbol representing 20 cars. If the month of June has 5.5 symbols, how many cars were sold in June?



10) A scale drawing uses a scale of 5 mm : 1 cm. What is the scale factor?

☐ A. 0.5

☐ C. 2

☐ B. 1

☐ D. 5

11) A rectangular field on a map is 9 cm by 12 cm at a scale of 1 cm : 0.75 km. If the scale is changed to 1 cm : 1.5 km, what will be the new length?

☐ A. 6 cm

☐ C. 18 cm

☐ B. 12 cm

☐ D. 24 cm



New Jersey NJSLA Grade 7 Practice Test Answer Keys**How to use this section with a Grade 7 student:**

1. check the answer first and circle any item that needs another look
2. retry the problem with fresh work before reading the explanation
3. write one short lesson learned from each missed or guessed item

A strong review routine turns every correction into a sharper plan for the next New Jersey NJSLA practice test.



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Practice Test Answers and Explanations

Practice Test 1 Answers and Explanations

- 1) **Choice C is correct.** (7.NS.1-7.NS.3) $6 \div \frac{2}{3} = 6 \times \frac{3}{2} = 9$.
- 2) **Choice C is correct.** (7.NS.1-7.NS.3) $1.5 \times 10^6 = 1.5 \times 1,000,000 = 1,500,000$.
- 3) **Choice A is correct.** (7.EE.3-7.EE.4) Add 8: $2y = -6$. Divide by 2: $y = -3$. Check: $2(-3) - 8 = -6 - 8 = -14$ ✓. Reasonable: negative answer expected (result is negative).
- 4) **Choice A is correct.** (7.NS.1-7.NS.3) Statement A is correct: $4 \times 4 = 16$ and $\sqrt{16} = 4$ (principal square root is positive). Statement B is false: $\sqrt{25} = 5$, not -5 (the square root symbol yields only the positive root). Statement C is false: $6^2 = 36$, not 37. Statement D is true but only A is the correct answer for this single-answer MC.
- 5) **The correct answer is 10.67.** (7.G.4-7.G.6) $V = \pi r^2 h \Rightarrow 301.44 = 3.14 \times 9 \times h \Rightarrow 301.44 = 28.26h \Rightarrow h \approx 10.67$ inches.
- 6) **Choice C is correct.** (7.SP.5-7.SP.8) Chocolate or cream-based: $5 + 3 = 8$. $P = \frac{8}{12} = \frac{2}{3}$.
- 7) **The correct answer is $\frac{4}{5}$.** (7.SP.1-7.SP.4) Simplify the fraction: $\frac{32}{40} = \frac{4}{5} = 0.8 = 80\%$. This sample statistic ($\frac{4}{5}$) is the point estimate used to predict the proportion of all customers who would recommend the restaurant.
- 8) **Choice C is correct.** (7.SP.5-7.SP.8) Numbers less than 4: $\{1, 2, 3\} = 3$ outcomes. Consonants: $\{W, X, Y, Z\} = 4$ outcomes. Favorable: $3 \times 4 = 9$ outcomes.
- 9) **Choice A is correct.** (7.SP.5-7.SP.8) Doubles: $(1,1), (2,2), (3,3), (4,4), (5,5), (6,6) = 6$ outcomes out of 36. Probability $= \frac{6}{36} = \frac{1}{6}$.
- 10) **Choice B is correct.** (7.SP.1-7.SP.4) Minimum is 51, maximum is 76. Range $= 76 - 51 = 25$.
- 11) **Choice D is correct.** (7.SP.6) Red has the highest experimental probability: $\frac{105}{300} = 0.35$. From observed patterns, Red appeared most frequently, so we predict it is most likely on the next draw.
- 12) **Choice A is correct.** (7.SP.5-7.SP.8) Lower probabilities represent less likely events. Ordering: $0.2 < 0.5 < 0.9 < 1$.
- 13) **Choice D is correct.** (7.RP.3) Percent error $= \frac{|16-20|}{20} \times 100\% = \frac{4}{20} \times 100\% = 20\%$.
- 14) **Choice A is correct.** (7.EE.1-7.EE.2) Distribute $\frac{1}{2}$: $\frac{1}{2}(4x) + \frac{1}{2}(6) = 2x + 3$.
- 15) **The correct answer is Class 1.** (7.SP.3) Both classes may have the same median of 30 sit-ups, but the distribution shape matters. Class 1's tight clustering (small range) means less variability and easier group improvement. Class 2's spread (large range) indicates inconsistency within the group.
- 16) **Choice D is correct.** (7.RP.3) $I = 500 \times 0.03 \times 2 = \30 .
- 17) **Choice C is correct.** (7.RP.1-7.RP.3) Multiply the map distance by the scale factor: $3.5 \times 50 = 175$ km.
- 18) **The correct answer is A,B.** (7.G.1-7.G.5) Statement A is always true: horizontal cuts perpendicular to the axis create circles. Statement B is always true: non-perpendicular planes through cylinders form ellipses. Statement C is false: a plane through the apex parallel to the base doesn't intersect the cone as a triangle cross-section (it's tangent). Statement D is true but not universally stated; it depends on the specific plane. Statement
- 19) **Choice D is correct.** (7.RP.3) Discount is $60 - 45 = 15$. Percent: $\frac{15}{60} = \frac{1}{4} = 25\%$.
- 20) **Choice D is correct.** (7.RP.3) Store A: $95 \times 0.75 = \$71.25$. Store B: $110 \times 0.65 = \$71.50$. Store A is cheaper.
- 21) **Choice C is correct.** (7.NS.1b) Starting at floor -2 and moving up 9 floors: $-2 + 9 = 7$. The elevator reaches floor 7.
- 22) **Choice B is correct.** (7.EE.1) Like terms have the same variable(s) and exponent(s). Both $-5ab$ and $3ab$ have the same variables and exponents.
- 23) **Choice C is correct.** (7.SP.1-7.SP.4) 45% of $365 \approx 0.45 \times 365 = 164.25 \approx 164$ days.
- 24) **The correct answer is 5.** (7.SP.1-7.SP.4) Compute $40 \div 8 = 5$.
- 25) **Choice A is correct.** (7.EE.1-7.EE.2) Substitute: $\frac{9}{3} + 2(-2) = 3 - 4 = -1$.
- 26) **Choice A is correct.** (7.EE.4b) "The sum of a number and 2" is $n + 2$; "is not equal to 7" is $\neq 7$.
- 27) **Choice D is correct.** (7.RP.1-7.RP.3) Production is 12 pounds per square meter. Total tomatoes equal 12 times the area: $t = 12g$.
- 28) **Choice B is correct.** (7.NS.2d) Divide $11 \div 50 = 0.22$. Since $50 = 2 \times 5^2$, the result is terminating.



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Hi, Math Hero!

◇ This full-length book gave you ten complete Grade 7 practice tests, so you had repeated chances to build accuracy, pacing, and confidence. You showed up for Grade 7 practice again and again. That is what real growth looks like: steady effort, honest review, and a willingness to try. ◇

★ **Remember this:** A math hero is not someone who never misses a question. A math hero learns from the miss and comes back stronger. ★

Hero Habits

- **Courage:** You try problems that are not automatic.
- **Honesty:** You review what needs work.
- **Patience:** You let skills grow over time.
- **Pride:** You recognize the effort you gave.

Grade 7 test-day tip: Save one solved problem you are proud of. Looking back at progress helps motivation stay strong.

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

Jay Daie

Your Math Hero Guide

PRACTICE TODAY. SUCCEED TOMORROW!

This book includes 10 full-length Math practice tests and 2 extra online tests to help Grade 7 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:

10 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.

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- ✓ The Number System
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- ✓ Percents
- ✓ Statistics & Probability
- ✓ Data Analysis
- ✓ Measurement & Conversions
- ✓ And More!



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