

3

New Mexico

NM MSSA

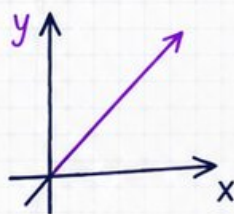
GRADE

7

MATH

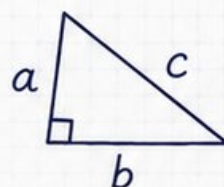
PRACTICE TESTS

✓ Standards Aligned
Problem Solving
For Comprehensive
Assessment Programs



$$y = mx + b$$

$$\frac{2}{3}x - \frac{4}{5} = \frac{1}{2}$$



$$3(x - 2) = 2x + 5$$



3 PRINTED TESTS



2 ONLINE TESTS



USE THESE TWO
ADDITIONAL ONLINE
PRACTICE TESTS
FOR EXTRA REVIEW AFTER
THE PRINTED TESTS
IN THIS BOOK.



Build
Confidence



Strengthen
Math Skills



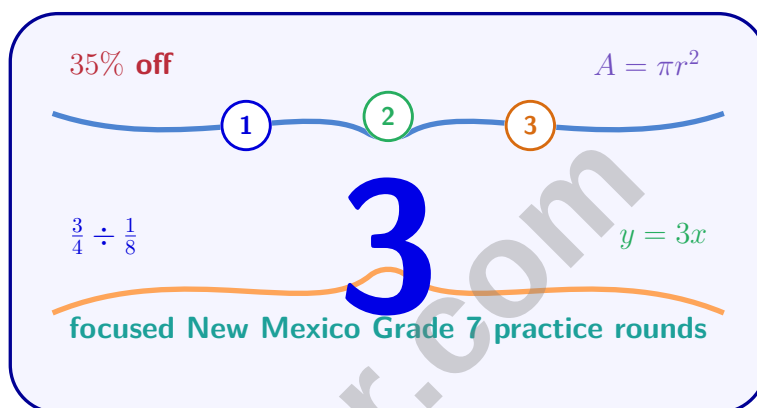
Detailed Answers
& Explanations



Improve Test
Performance

3 New Mexico NM MSSA Grade 7 Math Practice Tests

New Mexico Math Readiness Practice with Keys and Explanations



Three complete 40-question Grade 7 NM MSSA 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 Mexico Grade 7 Problem Solver!

Three focused rounds for sharper NM MSSA math thinking

This book gives you three full Grade 7 NM MSSA 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 Mexico 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 three-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 Mexico 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?

Three NM MSSA tests, 120 questions, and a focused review path

Part	What You Will Practice
Tests 1–2	Proportional relationships, unit rates, percents, rational-number operations, and careful reading.
Test 3	Expressions, equations, inequalities, scale drawings, geometry, data, probability, and multi-step problem solving.
Answer Pages	Compact keys and explanations that show why each answer works.

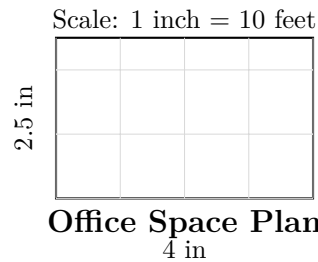
The tests are mixed on purpose. Grade 7 success means recognizing which idea is being tested even when the next question changes format.



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& answers

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1)

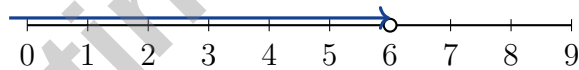
Based on the scale, what is the perimeter of the office space in feet?

- ☐ A. 325 feet ☐ C. 6.5 feet
☐ B. 65 feet ☐ D. 130 feet

2) An artist estimated she would use 16 ounces of paint but used 20 ounces. What is the percent error?

- ☐ A. 25% ☐ C. 4%
☐ B. 80% ☐ D. 20%

3) Which graph represents $w < 6$?



- ☐ A. Closed circle at 6 pointing right ☐ C. Closed circle at 6 pointing left
☐ B. Open circle at 6 pointing left ☐ D. Open circle at 6 pointing right

4) A store marks up the cost c by \$5, then multiplies by 3 for sale price. Which expression shows the final price?

- ☐ A. $3c + 5$ ☐ C. $3c - 5$
☐ B. $3c + 15$ ☐ D. $c + 15$



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- 5) A laptop originally sells for \$1200. After a 15% discount and applying 8% sales tax on the discounted price, what is the final cost?
- ☐ A. \$1062 ☐ C. \$1080
☐ B. \$1020 ☐ D. \$1102.40
- 6) A parent wants to save money for a child's education. If \$4500 is invested at 5.5% simple interest, what is the difference in total amount between 5 years and 3 years?
- ☐ A. \$247.50 ☐ C. \$742.50
☐ B. \$990 ☐ D. \$495
- 7) Find the sum: $-3 + (-2) + 8$.
- ☐ A. -13 ☐ C. 3
☐ B. -3 ☐ D. 13
- 8) Which factorization is correct?
- ☐ A. $10x + 15 = 5(2x + 3)$ ☐ C. $10x + 15 = 10(x + 1.5)$
☐ B. $10x + 15 = 2(5x + 7.5)$ ☐ D. $10x + 15 = 3(3x + 5)$
- 9) A rectangular prism has length 7 in, width 5 in, and height 4 in. If each dimension is increased by 1 inch, by how much does the surface area increase?
- ☐ A. 24 in^2 ☐ C. 70 in^2
☐ B. 48 in^2 ☐ D. 96 in^2



Total = 100



10)

30%

70%

The bar model shows 30% and 70% of a total. If the total is 100, how much is 30%?

☐ A. 25☐ C. 35☐ B. 40☐ D. 3011) Simplify: $-\frac{1}{2}a + \frac{3}{2}a - a$ ☐ A. a ☐ C. $\frac{1}{2}a$ ☐ B. 0☐ D. $2a$

12) To simulate the compound event of flipping a coin and rolling a die, how many equally likely outcomes should be in the sample space?

☐ A. 6☐ C. 12☐ B. 8☐ D. 1813) Evaluate $-2x + 5$ when $x = -3$.☐ A. 11☐ C. 1☐ B. -1☐ D. -614) For the inequality $x - 4 \geq 3$, which value is **not** a solution?☐ A. $x = 7$ ☐ C. $x = 6$ ☐ B. $x = 10$ ☐ D. $x = 100$ 

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- 1) A phone company charges \$20 per month plus \$0.15 for each text message over the limit. If Marcus pays \$35.60 in a month, which equation could be used to find n , the number of text messages over the limit?

☐ A. $0.15n + 20 = 35.60$

☐ C. $20 + 35.60 = 0.15n$

☐ B. $20n + 0.15 = 35.60$

☐ D. $0.15 + 20n = 35.60$

- 2) A shirt costs \$35 and socks cost \$4 per pair. If you buy 1 shirt and p pairs of socks for a total of \$51, how many pairs of socks did you buy?

☐ A. 2 pairs

☐ C. 6 pairs

☐ B. 4 pairs

☐ D. 8 pairs

- 3) Solve for x : $-4(x + 6) = 8$

☐ A. $x = -8$

☐ C. $x = 2$

☐ B. $x = -4$

☐ D. $x = 4$

- 4) A savings account has a balance of $-\$15$ (overdraft). After depositing \$50, what is the new balance? Write and solve an equation.

☐ A. \$25

☐ C. \$50

☐ B. \$35

☐ D. \$65

- 5) A photograph is scaled down by a factor of $\frac{1}{4}$. If the original photograph is 8 inches wide, what is the width of the scaled version?

☐ A. 1 inch

☐ C. 4 inches

☐ B. 2 inches

☐ D. 6 inches



- 6) A video game costs \$35. After a 20% price increase, what is the new cost?

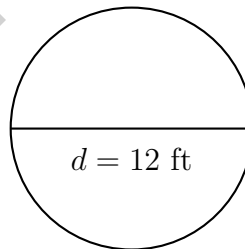
- 7) A triangle with vertices at $A(1, 1)$, $B(3, 1)$, and $C(2, 3)$ is translated by the vector $(2, -4)$. What is the image of vertex B after this translation?

- ☐ A. $(5, -3)$ ☐ C. $(1, 3)$
☐ B. $(3, -4)$ ☐ D. $(6, 0)$

- 8) Two similar quadrilaterals have a scale factor of $\frac{2}{5}$. If the larger quadrilateral has a perimeter of 100 cm, what is the perimeter of the smaller quadrilateral?

- ☐ A. 30 cm ☐ C. 50 cm
☐ B. 40 cm ☐ D. 80 cm

circumference =?



9)

A circular garden has diameter 12 feet. The gardener knows the full circumference. Using $\pi \approx 3.14$, what is the circumference?

- ☐ A. 18.84 ft ☐ C. 113.04 ft
☐ B. 37.68 ft ☐ D. 452.16 ft



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- 1) If point $U(7, 0)$ is reflected over the y -axis, what is the image U' ?
- ☐ A. $(0, 7)$ ☐ C. $(7, 0)$
☐ B. $(-7, 0)$ ☐ D. $(0, -7)$
- 2) A bag of marbles is modeled with $P(\text{red}) = 0.5$, $P(\text{blue}) = 0.3$, $P(\text{green}) = 0.15$, $P(\text{white}) = 0.05$. If you draw one marble, what is $P(\text{not blue})$?
- ☐ A. 0.3 ☐ C. 0.2
☐ B. 0.7 ☐ D. 0.15
- 3) An event planner receives \$3,000 for planning a wedding. She must pay a 12% vendor coordination fee from her earnings. How much does she keep after the fee?
- ☐ A. \$360 ☐ C. \$2,640
☐ B. \$2,400 ☐ D. \$3,360
- 4) A budget app tracks your spending and alerts you when you exceed a limit. If your food budget is \$500 per month and you have spent \$420, what percent of your food budget remains?
- ☐ A. 12% ☐ C. 16%
☐ B. 14% ☐ D. 20%
- 5) An account earning 3% annual compound interest starts with \$1,000. Approximately how many years until the balance reaches \$1,100?
- ☐ A. 2 years ☐ C. 3.5 years
☐ B. 5 years ☐ D. 3 years



6) A pair of jeans originally costs \$50. The store raises the price to \$60. What is the percent increase?

☐ A. 10%

☐ C. 20%

☐ B. 16.7%

☐ D. 30%

7) A car loan of \$15000 is taken at a simple interest rate of 7% per year. How much total interest will be paid over 6 years?

☐ A. \$4500

☐ C. \$7000

☐ B. \$10500

☐ D. \$6300

8) A proportional relationship has an equation $y = 2.2x$. What is the value of y when $x = 5$?

9) Sophia had \$28 in her wallet. She spent \$35 on lunch. Write her account balance as an integer (assuming the wallet could go negative). What is her balance?

☐ A. \$ - 63

☐ C. \$7

☐ B. \$63

☐ D. \$ - 7



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& answers

New Mexico NM MSSA 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 Mexico NM MSSA practice test.



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Practice Test Answers and Explanations

Practice Test 1 Answers and Explanations

- 1) **Choice D is correct.** (7.RP.1-7.RP.3) Actual dimensions: $4 \times 10 = 40$ feet; $2.5 \times 10 = 25$ feet. Perimeter $= 2(40 + 25) = 130$ feet.
- 2) **Choice D is correct.** (7.RP.3) Percent error $= \frac{|16-20|}{20} \times 100\% = \frac{4}{20} \times 100\% = 20\%$.
- 3) **Choice B is correct.** (7.EE.4b) $w < 6$ is a strict inequality, so use an open circle at 6 with the arrow pointing left.
- 4) **Choice B is correct.** (7.EE.1-7.EE.2) First add the markup: $(c+5)$. Then multiply by 3: $3(c+5) = 3c+15$. Distribute to both terms.
- 5) **Choice D is correct.** (7.RP.3) After discount: $1200 - 0.15(1200) = \$1020$. Tax: $0.08(1020) = \$81.60$. Final: $1020 + 81.60 = \$1102.40$.
- 6) **Choice D is correct.** (7.RP.3) At 5 years: $I = 4500(0.055)(5) = \$1237.50$, so $A = \$5737.50$. At 3 years: $I = 4500(0.055)(3) = \$742.50$, so $A = \$5242.50$. Difference: $5737.50 - 5242.50 = \$495$.
- 7) **Choice C is correct.** (7.NS.1b) Combine: $-3 + (-2) = -5$, then $-5 + 8 = 3$. The positive number outweighs the combined negatives.
- 8) **Choice A is correct.** (7.EE.1-7.EE.2) The GCF of 10 and 15 is 5. Check: $5(2x) + 5(3) = 10x + 15$. Correct.
- 9) **Choice C is correct.** (7.G.4-7.G.6) Original: $SA_1 = 2(7 \cdot 5 + 7 \cdot 4 + 5 \cdot 4) = 2(35 + 28 + 20) = 2(83) = 166 \text{ in}^2$. New dimensions $8 \times 6 \times 5$: $SA_2 = 2(8 \cdot 6 + 8 \cdot 5 + 6 \cdot 5) = 2(48 + 40 + 30) = 2(118) = 236 \text{ in}^2$. Increase: $236 - 166 = 70 \text{ in}^2$.
- 10) **Choice D is correct.** (7.RP.3) 30% of 100 is $0.30 \times 100 = 30$.
- 11) **Choice B is correct.** (7.EE.1) Combine: $-\frac{1}{2}a + \frac{3}{2}a - a = -\frac{1}{2}a + \frac{3}{2}a - \frac{2}{2}a = \frac{-1+3-2}{2}a = \frac{0}{2}a = 0$.
- 12) **Choice C is correct.** (7.SP.5-7.SP.8) Coin outcomes: 2 (heads, tails). Die outcomes: 6. Total: $2 \times 6 = 12$ outcomes.
- 13) **Choice A is correct.** (7.EE.1-7.EE.2) Substitute: $-2(-3) + 5 = 6 + 5 = 11$.
- 14) **Choice C is correct.** (7.EE.4b) Check $x = 6$: $6 - 4 = 2 \geq 3$. The other values give 3, 6, and 96, all ≥ 3 .
- 15) **The correct answer is 13.** (7.NS.1-7.NS.3) If the difference is $4 - x = -9$, then $x = 4 - (-9) = 4 + 9 = 13$. Check: $4 - 13 = -9$ ✓.
- 16) **Choice B is correct.** (7.G.1-7.G.5) Original drawing: $3.6 \times 5.4 \text{ cm}$; actual dimensions: $3.6 \times 0.8 = 2.88 \text{ m}$ and $5.4 \times 0.8 = 4.32 \text{ m}$. New drawing $2.4 \times 3.6 \text{ cm}$: $2.88 \div 2.4 = 1.2 \text{ m per cm}$.
- 17) **Choice D is correct.** (7.G.1-7.G.5) A plane passing through opposite corners of a rectangular prism can intersect at most 5 faces, producing at most a pentagon. A hexagon would require intersecting all 6 faces, which this type of cut cannot do.
- 18) **Choice C is correct.** (7.G.1-7.G.5) Adjacent angles on a line are supplementary: $i = 180 - 67 = 113^\circ$.
- 19) **The correct answer is A,C.** (7.SP.1-7.SP.4) City A dark roast (42%) > City B dark roast (38%), so A is correct. City B light roast (40%) > City A light roast (35%), so C is correct. B is wrong (survey size not given). D is wrong (A: 23%, B: 22%).
- 20) **The correct answer is $\frac{4}{3}$.** (7.RP.1-7.RP.3) If $\frac{1}{2}$ job takes $\frac{2}{3}$ hour, then 1 full job takes $\frac{2}{3} \times 2 = \frac{4}{3}$ hours.
- 21) **Choice C is correct.** (7.G.4-7.G.6) $A = \pi r^2 = \frac{22}{7} \times 7^2 = \frac{22}{7} \times 49 = 22 \times 7 = 154 \text{ cm}^2$.
- 22) **Choice C is correct.** (7.SP.1-7.SP.4) Only people motivated to respond (those with strong opinions) participate, making the sample non-representative of all customers.
- 23) **Choice B is correct.** (7.SP.1-7.SP.4) Same median (25 ft) but Forest A's smaller MAD (1.5 vs. 3.8) indicates tree heights in Forest A cluster more tightly around the median, showing greater uniformity.
- 24) **Choice D is correct.** (7.RP.1-7.RP.3) Production is 12 pounds per square meter. Total tomatoes equal 12 times the area: $t = 12g$.
- 25) **Choice D is correct.** (7.RP.1-7.RP.3) The unit rate is $6 \div 4 = 1.5$. So $y = 1.5x$. At $x = 8$, $y = 1.5 \times 8 = 12$ cups.
- 26) **Choice C is correct.** (7.RP.3) Set up the proportion $\frac{x}{100} = \frac{16}{80}$. Cross-multiply: $x = \frac{16 \times 100}{80} = 20$.
- 27) **Choice C is correct.** (7.RP.3) Year 1: $\$1,000 \times 1.05 = \$1,050$. Year 2: $\$1,050 \times 1.05 = \$1,102.50$. Option A is simple interest for 1 year; B and D are incorrect calculations.
- 28) **Choice B is correct.** (7.NS.1-7.NS.3) Evaluate: A: $|-0.8| = 0.8$; B: $|-6| = 6$; C: $|-1.1| = 1.1$; D: $|1.3| = 1.3$. Greatest is B.



Hi, Progress Maker!

◇ You have done more than complete a set of tests. You have rehearsed the habits that make Grade 7 math feel less surprising. ◇

★ **Remember this:** Progress is not always loud. Sometimes it looks like fewer careless errors, clearer work, better pacing, and more confidence when a problem is unfamiliar. You practiced across 3 full Grade 7 practice tests, and that repeated effort matters. ★

Signs of Growth

- **Clear Work:** Your steps are easier to follow.
- **Better Pacing:** You know when to move on and return.
- **Stronger Checks:** You catch mistakes earlier.
- **Calmer Thinking:** You know what to try next.

Grade 7 test-day tip: Keep one short list of mistakes you often make, then check that list before each practice session.

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

Jay Daie

Your Growth Coach

PRACTICE TODAY. SUCCEED TOMORROW!

This book includes **3** full-length Math practice tests and **2** 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:

3 Full-Length Printed Tests

2 Online Practice Tests

 Detailed Answers & 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



Build Confidence

Practice regularly to feel prepared and test-ready.



Strengthen Math Skills

Develop key math concepts and problem solving abilities.



Detailed Answers & Explanations

Learn from clear explanations and step-by-step solutions.



Improve Test Performance

Apply your knowledge and achieve your best score!

TOPICS COVERED

- ✓ Ratios & Proportions
- ✓ The Number System
- ✓ Expressions & Equations
- ✓ Geometry
- ✓ Percents & Decimals
- ✓ Statistics & Probability
- ✓ Data Analysis
- ✓ Measurement & Conversions
- ✓ Algebraic Thinking
- ✓ And More!



2 ONLINE TESTS

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



2 EXTRA ONLINE TEST ACCESS CODE IS INSIDE THE BOOK!

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