7 New Mexico NM MSSA

Grade 7 Math Practice Tests

ONLINE

7 PRINTED TESTS + 2 ONLINE TESTS

Standards Aligned Problem Solving For Comprehensive Assessment Programs

8 New Mexico NM MSSA Grade 7 Math Practice Tests

A confident march through New Mexico Grade 7 unit rates, percent error, equations, transformations, two-population data, and chance

Eight 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.

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Welcome, New Mexico Grade 7 Problem Solver!

Eight focused rounds for sharper NM MSSA math thinking

This book gives you seven 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.

How to Use This Book

An eight-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?

Eight NM MSSA tests, 280 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 7–8	Statistics, probability, mixed review, stamina, and choosing efficient strategies.
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.

Table of Contents

1) A stem-and-leaf plot is created from test scores. Stem 8 has leaves $1, 2, 4, 5, 6, 7, 9$. Stem 9 has leaves $0, 1, 3$. Which score appears most frequently in the dataset?

☐ A. 81
☐ B. 89
☐ C. 90
☐ D. No mode (each score appears once)

2) Solve for x: $4(2x + 1) = 3(x + 8)$

☐ A. $x = 2$
☐ B. $x = 3$
☐ C. $x = 4$
☐ D. $x = 5$

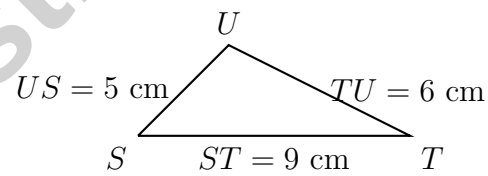
3) What is -4×0.25?

☐ A. -2
☐ B. -1
☐ C. 1
☐ D. 4.25

4) A concert ticket costs \$85, but the venue adds a 7% facility fee. What is the total cost per ticket?

☐ A. \$85.70
☐ B. \$92.95
☐ C. \$91.00
☐ D. \$90.95

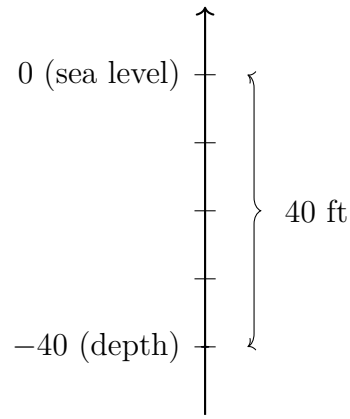
5)



Triangle STU has sides $ST = 9$, $TU = 6$, $US = 5$ cm. Which type is it?

☐ A. Acute
☐ B. Right
☐ C. Obtuse
☐ D. Impossible

6) A scuba diver descends 40 feet below sea level. Which integer represents this depth?



☐ A. 40 (ignores direction/below sea level)
☐ B. −80 (double the depth)
☐ C. 0 (at sea level, not below)
☐ D. −40 (correct; below is negative)

7) A student computed $-7+4$ and got -11. What error did the student make?

Correct: start at −7, move 4 right to −3

☐ A. Added the absolute values instead of subtracting them
☐ B. Flipped the signs
☐ C. Subtracted in the wrong order
☐ D. Forgot to use a number line

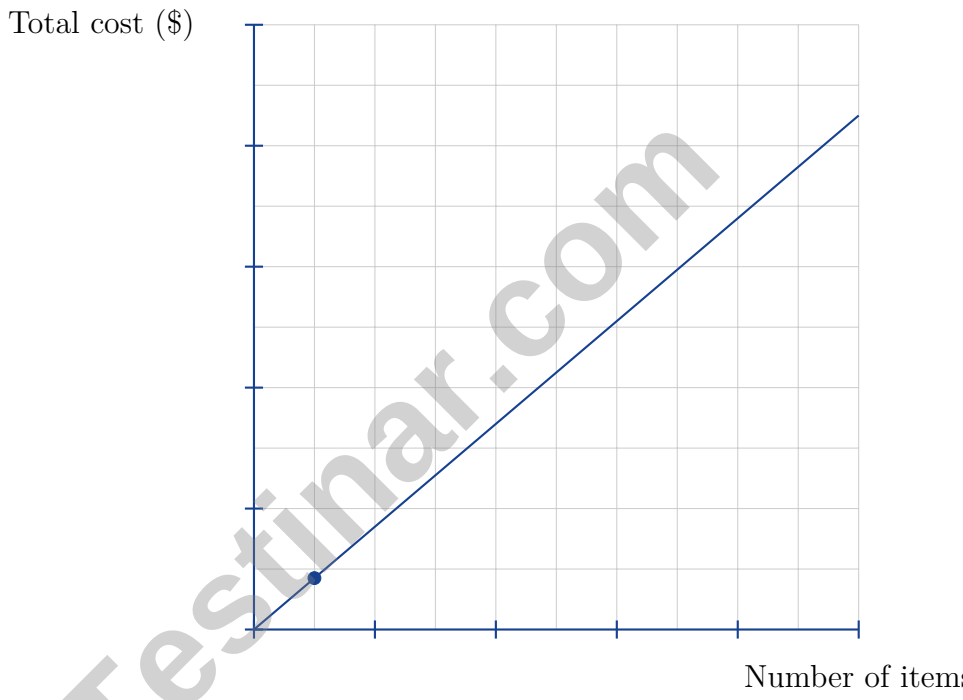
8) Factor: $12p - 8$

☐ A. $4(3p - 2)$
☐ B. $2(6p - 4)$
☐ C. $8(4p - 1)$
☐ D. $6(2p - 1.33)$

9) A rectangular prism has base dimensions 9 cm × 7 cm and height 2 cm. A student forgets to include one of the two side faces with dimensions 9 × 2 cm. If the correct surface area is SA_{correct}, what percentage of the correct surface area is their incorrect answer?

☐ A. 25%
☐ B. 50%
☐ C. 75%
☐ D. 91%

10)



From this proportional relationship graph, identify the unit-rate point and find the cost per item.

1) Solve for x: $3(x + 4) = 27$

☐ A. $x = 5$
☐ B. $x = 7$
☐ C. $x = 9$
☐ D. $x = 23$

2) A histogram displays the number of plants in gardens across two neighborhoods. North Side: concentrated at 15–25 plants. South Side: concentrated at 25–35 plants. Both neighborhoods show similar spread. What inference can be made?

☐ A. South Side gardens have approximately 10 more plants on average
☐ B. North Side is better for gardening
☐ C. Both neighborhoods have identical gardens
☐ D. Gardening is equally popular in both areas

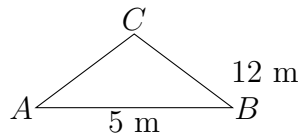
3) A rectangular garden is 10 m wide and 8 m tall. A triangular section is removed from the bottom, with the triangle's base being 10 m and height 2 m. What is the remaining area?

☐ A. 70 m^2
☐ B. 80 m^2
☐ C. 90 m^2
☐ D. 100 m^2

4) A rectangular prism has volume 240 cm^3 and base area 30 cm^2. What is the height of the prism?

☐ A. 8 cm
☐ B. 10 cm
☐ C. 15 cm
☐ D. 210 cm

5) max =?



Greta wants to draw a triangle with sides 5 m and 12 m. If the third side is a whole number of meters, what is the maximum possible length?

☐ A. 15 m
☐ B. 16 m
☐ C. 17 m
☐ D. 18 m

6) A circle has a diameter of $\frac{30}{7}$ meters. What is its radius?

☐ A. $\frac{15}{7}$ meters
☐ B. $\frac{30}{7}$ meters
☐ C. $\frac{60}{7}$ meters
☐ D. 7 meters

7) Which pair of expressions are equivalent?

☐ A. $2(x+7)$ and $2x+7$
☐ B. $3(2y-4)$ and $6y-12$
☐ C. $5(a+2)$ and $5a+2$
☐ D. $4(3m-1)$ and $12m-1$

8) A student calculates the surface area of a rectangular prism with dimensions 5 cm, 3 cm, and 4 cm. They compute $5\times3+5\times4+3\times4=47$ cm^2 and forget to multiply by 2. What error did they make?

☐ A. They calculated only one pair of faces instead of all pairs.
☐ B. They forgot to square each dimension.
☐ C. They used subtraction instead of addition.
☐ D. They included a face that doesn't exist.

1) A subscription service costs $10 per month. After a 50% price increase, what is the new monthly cost?

☐ A. $5
☐ B. $12
☐ C. $15
☐ D. $20

2)

Year	Starting Balance	Interest Earned	Ending Balance	Rate
1	$2000	$80	$2080	?
2	$2080	$80	$2160	?
3	$2160	$80	$2240	?

What annual interest rate does this account offer?

☐ A. 2%
☐ B. 8%
☐ C. 6%
☐ D. 4%

3) A bookstore has 400 books. $\frac{1}{4}$ of them are fiction. What percent of the books are fiction?

☐ A. 15%
☐ B. 20%
☐ C. 25%
☐ D. 40%

4) If a credit card has an annual interest rate (APR) of 18% and you carry a balance of $500, how much interest will you pay in one year if you make no payments?

☐ A. $50
☐ B. $75
☐ C. $90
☐ D. $100

5) A swimmer is currently 4 kg below their target weight. If they gain 0.5 kg per week, how many weeks w must pass to reach or exceed their target weight?

☐ A. $0.5w - 4 \geq 0$
☐ B. $0.5w \geq 4$
☐ C. $w \geq 8$
☐ D. $w \leq 8$

6) To simulate the probability of guessing a true/false question correctly 3 times in a row, which tool best models this compound event?

☐ A. Rolling a six-sided die once
☐ B. Flipping a coin 3 times
☐ C. Spinning a spinner with 3 equal sections once
☐ D. Drawing a card from a deck of 52 once

7) A rectangular storage room is drawn 8 in by 6 in at a scale of 1 in : 4 ft. Which statement is true?

☐ A. The actual dimensions are 32 ft by 24 ft
☐ B. The actual dimensions are 2 ft by 1.5 ft
☐ C. The actual dimensions are 4 ft by 3 ft
☐ D. The actual dimensions are 64 ft by 48 ft

8) A cone is cut by a plane that passes through the apex and the base circle. What is the shape of the cross-section?

☐ A. Circle
☐ B. Isosceles triangle
☐ C. Ellipse
☐ D. Semicircle

New Mexico Measures of Student Success and Achievement 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 Measures of Student Success and Achievement practice test.

Practice Test Answers and Explanations

Practice Test 1 Answers and Explanations

1) **Choice D is correct.** 7.SP.1-7.SP.4 All leaves appear exactly once, so no value repeats. There is no mode.
2) **Choice C is correct.** 7.EE.4a Distribute both sides: $4(2x) + 4(1) = 3(x) + 3(8) \Rightarrow 8x + 4 = 3x + 24$. Subtract $3x$: $5x + 4 = 24$. Subtract 4: $5x = 20$. Divide by 5: $x = 4$. Verify: $4(2 \cdot 4 + 1) = 4(9) = 36$ and $3(4 + 8) = 3(12) = 36$. ✓
3) **Choice B is correct.** 7.NS.2 $-4 \times 0.25 = -1$. Since $0.25 = \frac{1}{4}$, we have $-4 \times \frac{1}{4} = -1$.
4) **Choice D is correct.** 7.RP.3 Facility fee $= 0.07 \times 85 = \$5.95$. Total $= 85 + 5.95 = \$90.95$.
5) **Choice C is correct.** 7.G.1-7.G.5 Check the longest side: $9^2 = 81$ vs. $6^2 + 5^2 = 36 + 25 = 61$. Since $81 > 61$, the square of the longest side exceeds the sum of squares of the other two. The angle opposite the longest side is obtuse.
6) **Choice D is correct.** 7.NS.1-7.NS.3 Descending (going down) below sea level is represented by a negative number. A descent of 40 feet is -40.
7) **Choice A is correct.** 7.NS.1b The student added $|-7| + |4| = 7 + 4 = 11$ and kept the negative sign. For opposite signs, subtract: $|-7| - |4| = 7 - 4 = 3$, so the correct answer is -3.
8) **Choice A is correct.** 7.EE.1-7.EE.2 The GCF of 12 and 8 is 4. Factor out 4: $12p - 8 = 4(3p - 2)$.
9) **Choice D is correct.** 7.G.4-7.G.6 Correct $SA = 2(63 + 18 + 14) = 190$ cm^2. Missing one $9 \times 2 = 18$ cm^2 face: incorrect $SA = 190 - 18 = 172$ cm^2. Ratio: $\frac{172}{190} \approx 0.905 = 90.5\% \approx 91\%$.
10) **The correct answer is** 0.85 **.** 7.RP.1-7.RP.3 The marked point is $(1, 0.85)$, which is the unit-rate point. This means the constant of proportionality is $k = 0.85$, so the cost is \$0.85 per item.
11) **Choice A is correct.** 7.EE.1 Combine: $(9 + 3)x + (-2 + 5)y = 12x + 3y$.
12) **Choice A is correct.** 7.EE.4b Subtract 7: $2x \geq -8$. Divide by 2: $x \geq -4$.
13) **Choice A is correct.** 7.SP.5-7.SP.8 Error for green: $|0.24 - 0.25| = 0.01$. Error for blue: $|0.38 - 0.25| = 0.13$. Error for red: $|0.76 - 0.25| = 0.51$. Green has the smallest error.
14) **Choice B is correct.** 7.NS.1-7.NS.3 $(-20) \div y = -4$ means $y = (-20) \div (-4) = 5$.
15) **Choice B is correct.** 7.NS.2d Divide $3 \div 10 = 0.3$. Since the denominator is a power of 10, this terminates immediately.
16) **The correct answer is** 15% **.** 7.RP.3 The discount amount is $60 - 51 = 9$ dollars. Percent discount: $\frac{9}{60} = 0.15 = 15\%$.
17) **The correct answer is** 60 **.** 7.RP.3 Calculate $\frac{5}{12} \times 144 = \frac{5 \times 144}{12} = \frac{720}{12} = 60$ books.
18) **Choice A is correct.** 7.NS.1-7.NS.3 Final score $= -250 + 180 - 120 + 200 = 10$ points.
19) **The correct answer is A,D.** 7.RP.1-7.RP.3 A and D are true. Relationship A ($y = 4x$) is proportional and has y-intercept 0. Relationship B has constant term 2, so it is not proportional and has y-intercept 2.
20) **Choice A is correct.** 7.EE.1-7.EE.2 Subtract: $(3x + 5) - (2x - 1) = 3x + 5 - 2x + 1 = x + 6$ miles farther.
21) **Choice C is correct.** 7.EE.3-7.EE.4 Subtract 5: $-2x = -4$. Divide by -2: $x = 2$.
22) **Choice B is correct.** 7.G.1-7.G.5 Original scale 1:12 means 1 in = 12 ft. New scale 1:6 means 1 in = 6 ft. Real-world distance per inch halved (12 to 6), so drawing expands. Scale factor ratio: $6 \div 12 = 0.5$, so drawing expands by $1 \div 0.5 = 2$. New dimensions: $3.5 \times 2 = 7$ in and $4.5 \times 2 = 9$ in.
23) **Choice A is correct.** 7.G.1-7.G.5 A horizontal plane cutting through a frustum produces a circular cross-section. The radius of this circle is between the radii of the upper and lower bases.
24) **Choice B is correct.** 7.G.1-7.G.5 The center of Rectangle 1 is $(2, 3)$. Under a 180° rotation, it maps to $(-2, -3)$, which is the center of Rectangle 2.
25) **Choice C is correct.** 7.G.1-7.G.5 The scale factor is $\frac{100 \text{ miles}}{2 \text{ inches}} = 50$ miles/inch. So 5 inches $\times$ 50 = 250 miles.
26) **Choice B is correct.** 7.G.4-7.G.6 Area of full circle: $A = \pi r^2 = 3.14 \times 16 = 50.24$ in^2. Semicircle: $\frac{50.24}{2} = 25.12$ in^2.
27) **Choice A is correct.** 7.G.4-7.G.6 $157 = 2(3.14)(r)(10) \Rightarrow 157 = 62.8r \Rightarrow r = 2.5$ cm.
28) **Choice A is correct.** 7.SP.1-7.SP.4 Airport jobs may have specific wage structures, making them unrepresentative of all city workers.
29) **Choice A is correct.** 7.SP.1-7.SP.4 Week 1: \$450–465 (range = 15, mean = 456, tight cluster). Week 2: \$300–550 (range = 250, mean = 440, highly variable). Week 1 is much more predictable for planning.

Hi, Brave Learner!

◇ No one gets stronger by only doing easy problems. The questions that slowed you down were part of the training. This broad and demanding book gave you seven strong Grade 7 practice tests, so you had repeated chances to build accuracy, pacing, and confidence. ◇

⋆ **Remember this:** Mistakes are not proof that you cannot do math. They are directions. They show what to review, what to ask about, and what to practice next. ⋆

How to Use Mistakes

- **Name It:** Was it reading, setup, arithmetic, or checking?
- **Fix It:** Correct the work while the question is fresh.
- **Repeat It:** Try one similar problem soon.
- **Remember It:** Write the lesson in your own words.

Grade 7 test-day tip: Treat every corrected error as a point you are preparing to earn next time.

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

Jay Daie

Your Brave-Learning Coach

Practice Today. Succeed Tomorrow!

This book includes 7 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:

- **7** 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.

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

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2 EXTRA ONLINE TEST ACCESS CODE IS INSIDE THE BOOK!

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