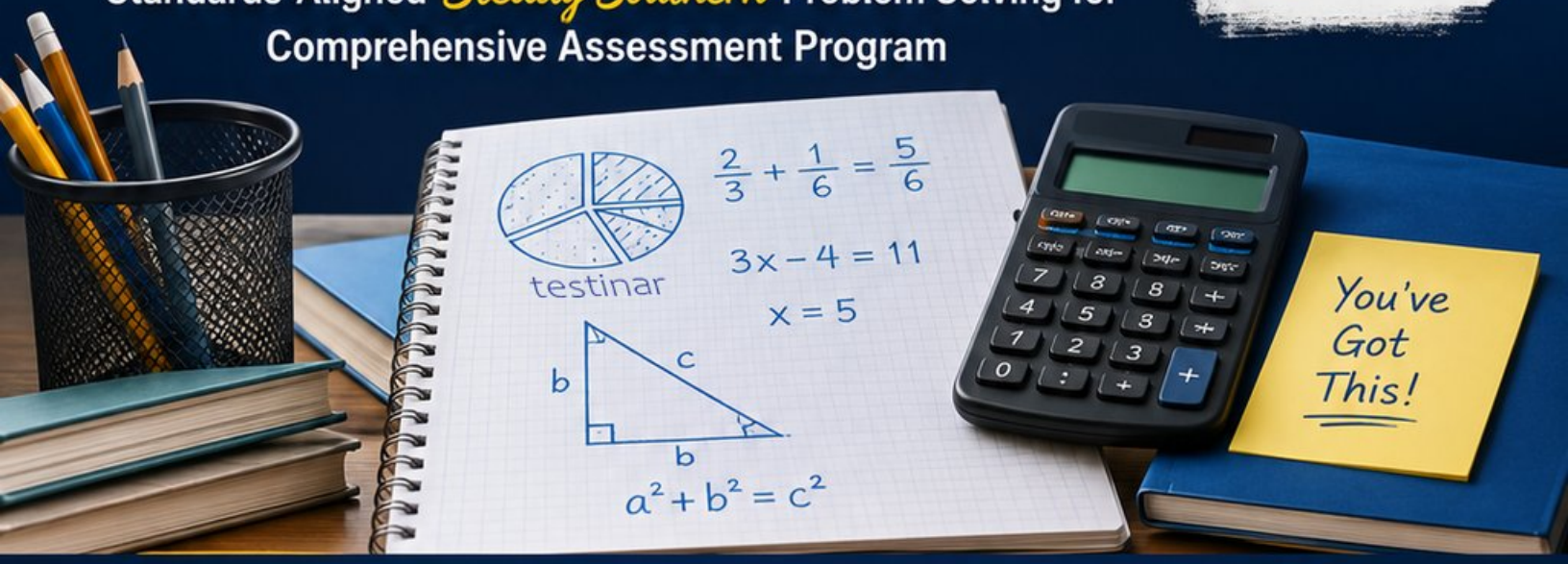
# 8 New Mexico NM MSSA

8 PRINTED TESTS + 2 ONLINE TESTS

## GRADE 6 MATH PRACTICE TESTS

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

Standards-Aligned *Steady Southern* Problem Solving for Comprehensive Assessment Program




BUILT FOR ACAP SUCCESS

REALISTIC TESTS & QUESTION TYPES

STRENGTHEN MATH SKILLS

REVIEW, PRACTICE, AND IMPROVE

# 8 New Mexico NM-MSSA Grade 6 Math Practice Tests

*Standards-Aligned High-Desert Math Clarity for New Mexico Measures of Student Success and Achievement*




**Eight complete 40-question Grade 6 practice rounds for NM-MSSA, built for high-desert math clarity with ratios, rational numbers, expressions, equations, geometry, statistics, answer keys, and clear explanations for every item.**

**Jay Daie and Reza Nazari**

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# Welcome, New Mexico Math Explorer!

Eight focused rounds using high-desert math clarity

This book gives you eight full Grade 6 practice tests for NM-MSSA. Each round uses mesa views, desert colors, and thoughtful problem setup as a fresh mental backdrop while you read closely, choose a smart strategy, show your work, and check whether your answer makes sense.

**Your New Mexico Practice Promise**

Look for structure: identify the relationship, choose a representation, and check the result.

# How to Use This Book

A eight-session routine for high-desert math clarity

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.

**New Mexico review rhythm:** Work a round, study the pattern of misses, and bring one cleaner method into the next test.

# What Is Inside?

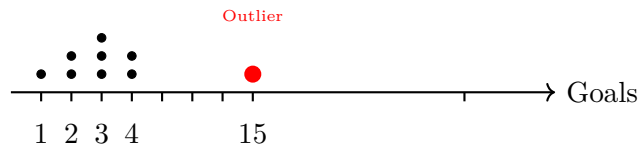
Eight NM-MSSA tests, 320 questions, and a full review path

| Part | What You Will Practice |
|---|---|
| Tests 1–3 | Foundation rounds for ratios, rational numbers, operations, and careful reading. |
| Tests 4–6 | Skill-building rounds with expressions, equations, geometry, data, and problem models. |
| Tests 7–8 | Final stamina rounds 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. High-desert math clarity means recognizing the skill even when the next question changes topic, changes format, or asks for an explanation.

# Table of Contents

1) A dot plot shows goal counts: $1, 2, 2, 3, 3, 3, 4, 4, 15$.




Which measure best describes the typical goal count (excluding the outlier)?

☐ A. Mean
☐ B. Median
☐ C. Mode
☐ D. Range

2) You have 50 student heights to display. Which is better: a dot plot or a histogram?

☐ A. Dot plot (shows individual values)
☐ B. Histogram (groups data into intervals)
☐ C. Both work equally well
☐ D. Neither is appropriate

3) A trapezoid has bases of 20 m and 8 m with a height of 6 m. What is the area?

☐ A. 28 $m^2$
☐ B. 56 $m^2$
☐ C. 84 $m^2$
☐ D. 168 $m^2$

4) A rectangular prism has volume 120 $cm^3$, width 5 cm, and height 4 cm. What is its length?

☐ A. 4 cm
☐ B. 6 cm
☐ C. 8 cm
☐ D. 15 cm

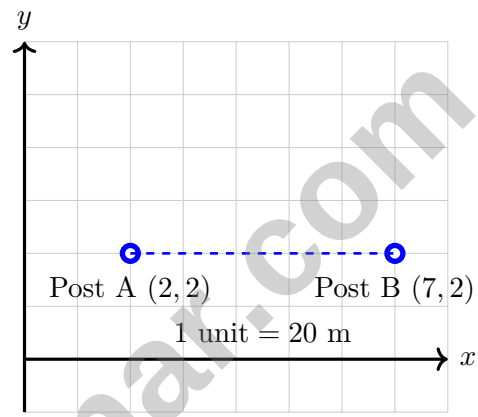
5) Which net cannot fold into a cube without overlapping faces?

☐ A. T-shaped net with 6 squares
☐ B. Zigzag with 6 squares
☐ C. Cross with 6 squares
☐ D. Straight line of 6 squares

6) Which number is closest to zero?

☐ A. $-4$
☐ B. 2
☐ C. $-0.3$
☐ D. 1.5

7)




Two fence posts are located at $(2, 2)$ and $(7, 2)$ on a map. If each unit equals 20 meters, what is the actual distance between the posts?

☐ A. 80 m
☐ B. 140 m
☐ C. 120 m
☐ D. 100 m

8) What is $\frac{-20}{4}$?

☐ A. 5
☐ B. 4
☐ C. $-4$
☐ D. $-5$

9) Evaluate: $18 \div 3 + 4^2$

☐ A. 16
☐ B. 22
☐ C. 26
☐ D. 30

10) Which expression matches "the difference of a number $t$ and 3"?

☐ A. $3 - t$
☐ B. $t - 3$
☐ C. $t + 3$
☐ D. $3t$

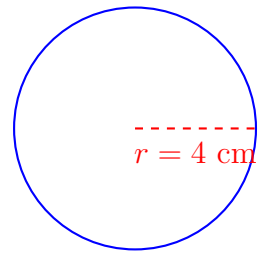
11) Find the value of $10 - \frac{x}{2}$ when $x = 6$.

☐ A. 5
☐ B. 7
☐ C. 8
☐ D. 13

12) A student plots a rectangle and claims it has vertices at $(2, 2)$, $(5, 2)$, $(5, 5)$, and $(3, 5)$. What is the error?

☐ A. The shape is not a rectangle because the sides are not parallel.
☐ B. The $y$-coordinates are wrong.
☐ C. The shape is a rectangle but with incorrect dimensions.
☐ D. There is no error.

**Circle A**




13)

What is the approximate area of Circle A? Use $\pi \approx 3.14$.

☐ A. 12.56 cm$^2$
☐ B. 25.12 cm$^2$
☐ C. 100.48 cm$^2$
☐ D. 50.24 cm$^2$

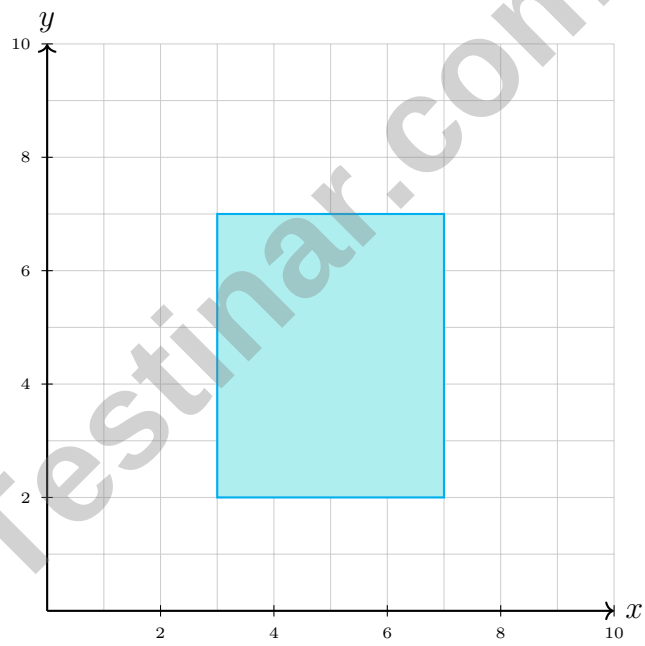
1) Write an expression for "the product of 6 and the difference of $h$ and 2".

☐ A. $6h - 2$
☐ B. $6 - h - 2$
☐ C. $(6 - h) \cdot 2$
☐ D. $6(h - 2)$

2) A rectangular prism has volume $\frac{80}{3}$ cm$^3$, length $\frac{10}{3}$ cm, and width 4 cm. What is its height?

☐ A. 1 cm
☐ B. 4 cm
☐ C. 3 cm
☐ D. 2 cm

3)




A rectangle has vertices at $(3, 2)$, $(7, 2)$, $(7, 7)$, and $(3, 7)$. What is its area?

☐ A. 16 square units
☐ B. 18 square units
☐ C. 20 square units
☐ D. 22 square units

4) A rectangular prism has surface area 550 $cm^2$. Its length is 15 cm and width is 10 cm. What is its height?

☐ A. 5 cm
☐ B. 7 cm
☐ C. 8 cm
☐ D. 10 cm

5) A spinner has 6 equal sections numbered $1, 2, 3, 4, 5, 6$. What is the probability of spinning an odd number?

☐ A. $\frac{1}{6}$
☐ B. $\frac{1}{3}$
☐ C. $\frac{1}{2}$
☐ D. $\frac{2}{3}$

6) A teacher examines a stem-and-leaf plot and notices that all leaves for a particular stem are identical (e.g., stem 5 has leaves $3, 3, 3, 3$). What does this indicate about the data?

☐ A. The data is not properly organized
☐ B. Several data values are the same (repeated data points)
☐ C. The plot must contain an error
☐ D. All data must be in the same range

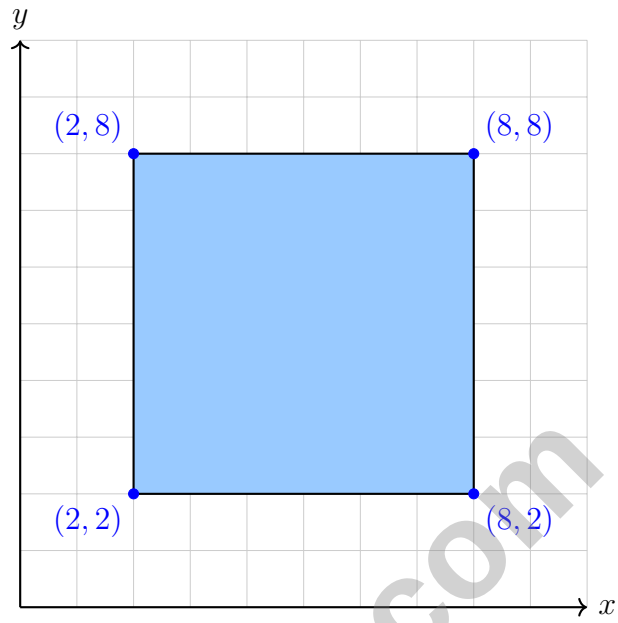
7) If the distance between points $(0, a)$ and $(0, -5)$ is 8 units, what is $a$?

☐ A. $a = 3$ or $a = -13$
☐ B. $a = -3$ or $a = 13$
☐ C. $a = 2$ or $a = -12$
☐ D. $a = 5$ or $a = -8$

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

☐ A. 10
☐ B. 20
☐ C. 25
☐ D. 30

1)

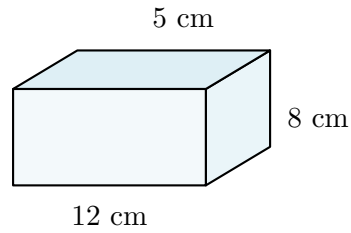



What is the area of this square?

☐ A. 24 square units
☐ B. 32 square units
☐ C. 36 square units
☐ D. 48 square units

2) A parallelogram has a base of 11 cm and a height of 4 cm. What is its area?

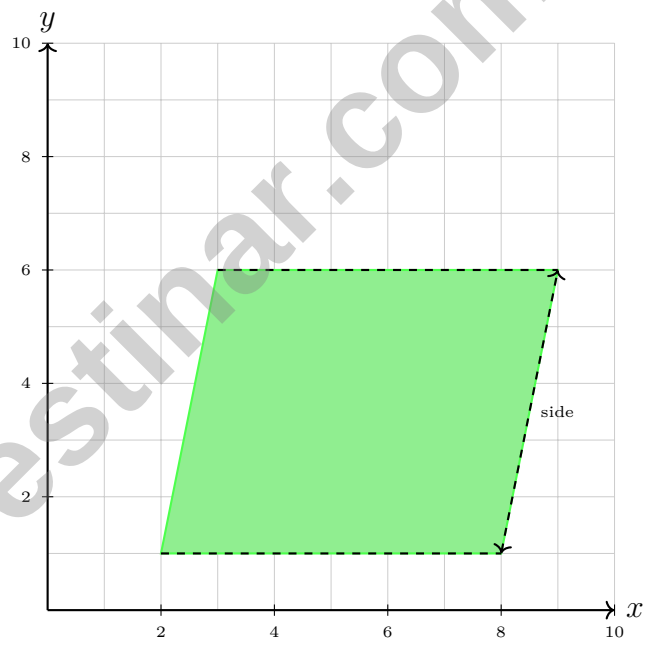
☐ A. 30 $cm^2$
☐ B. 22 $cm^2$
☐ C. 15 $cm^2$
☐ D. 44 $cm^2$




3)

A gift box is 12 cm long, 8 cm wide, and 5 cm high. How many cubic centimeters is its volume?

☐ A. 25 $cm^3$
☐ B. 120 $cm^3$
☐ C. 240 $cm^3$
☐ D. 480 $cm^3$




4)

A parallelogram has vertices at $(2, 1)$, $(8, 1)$, $(9, 6)$, and $(3, 6)$. The base is 6 units and the height is 5 units. What is its area?

☐ A. 30 square units
☐ B. 35 square units
☐ C. 40 square units
☐ D. 42 square units

# New Mexico NM-MSSA Practice Test Answer Keys

**How to use this New Mexico NM-MSSA 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 high-desert math clarity
3. rework the problem before reading the full explanation, using this reminder: Look for structure: identify the relationship, choose a representation, and check the result.

**A calm New Mexico correction routine turns every missed item into useful practice. Work a round, study the pattern of misses, and bring one cleaner method into the next test.**

# New Mexico Practice Test Answers and Explanations

Review the eight printed NM-MSSA tests with thoughtful, clear, and ready for the next mesa habits.

## Practice Test 1 Answers and Explanations

1) **Choice B is correct.** 6.SP.B.5c The outlier 15 heavily skews the mean. The median (middle value) is more representative: 3.
2) **Choice B is correct.** 6.SP.A.2 With 50 values, a histogram with intervals is cleaner and shows the overall shape better than a dot plot with many dots.
3) **Choice C is correct.** 6.G.A.1 Area $= \frac{1}{2}(20+8) \times 6 = \frac{1}{2}(28)(6) = 84$ m$^2$.
4) **Choice B is correct.** 6.G.A.2 From $V = L \times W \times H$, we have $120 = L \times 5 \times 4$. So $L = 120 \div 20 = 6$ cm.
5) **Choice D is correct.** 6.G.A.4 A straight line of 6 squares cannot fold into a cube. Valid cube nets require the squares to be arranged in 2D such that when folded in 3D, no faces overlap and all edges meet properly. A straight line does not satisfy this geometric constraint.
6) **Choice C is correct.** 6.NS.C.7d The distance from $-0.3$ to 0 is 0.3 units, which is smaller than the distances of the other numbers.
7) **Choice D is correct.** 6.NS.C.8 Distance on map: $|7-2| = 5$ units. Actual distance: $5 \times 20 = 100$ meters.
8) **Choice D is correct.** 6.NS.B.3 A negative divided by a positive is negative: $\frac{-20}{4} = -5$.
9) **Choice B is correct.** 6.EE.A.1 Exponent first: $4^2 = 16$. Division next: $18 \div 3 = 6$. Finally add: $6 + 16 = 22$.
10) **Choice B is correct.** 6.EE.A.2a "The difference of $t$ and 3" starts with $t$, so we compute $t - 3$. Order matters: $3 - t$ gives a different result.
11) **Choice B is correct.** 6.EE.A.2c Substitute $x = 6$: $10 - \frac{6}{2} = 10 - 3 = 7$.
12) **Choice A is correct.** 6.G.A.3 The vertices $(2,2)$, $(5,2)$, $(5,5)$, and $(3,5)$ do not form a rectangle. The bottom side goes from $x = 2$ to $x = 5$ (length 3), but the top side goes from $x = 3$ to $x = 5$ (length 2). The sides are not parallel, so it is not a rectangle.
13) **Choice D is correct.** 6.RP.A.1 Using $A = \pi r^2 \approx 3.14 \times 4^2 = 3.14 \times 16 = 50.24$ cm$^2$.
14) **The correct answer is** 4,000. 6.EE.B.8 The maximum value is 4,000.
15) **Choice A is correct.** 6.SP.B.5c Distances: $|5-7.5| = 2.5$, $|6-7.5| = 1.5$, $|7-7.5| = 0.5$, $|7-7.5| = 0.5$, $|8-7.5| = 0.5$, $|8-7.5| = 0.5$, $|9-7.5| = 1.5$, $|10-7.5| = 2.5$. Sum $= 10$. MAD $= 10/8 = 1.25$.
16) **Choice D is correct.** 6.SP.B.4 The bars show a peak on the left and a tail extending to the right, which characterizes a right-skewed distribution.
17) **Choice C is correct.** 6.RP.A.1 IQR $= Q_3 - Q_1 = 7.5 - 2.5 = 5$.
18) **Choice B is correct.** 6.NS.A.1 $\frac{7}{16} \times 560 = \frac{3920}{16} = 245$ employees.
19) **The correct answer is** 31. 6.EE.B.8 The greatest whole number less than 32 is 31.
20) **Choice A is correct.** 6.RP.A.3 Bar graphs are most affected because truncating the axis exaggerates the visual difference in heights. The rectangular areas appear disproportionately large or small. Line graphs are less affected; circle and dot plots don't use axes.
21) **The correct answer is Plan X shows a proportional relationship, and it is represented by $e = 20h$.** 6.NS.C.7d Statement A is correct: Plan X has equation $e = 20h$, so it is proportional. Statement C matches the equation for Plan X. Plan Y has equation $e = 100 + 10h$, so it is not proportional and its graph does not pass through the origin. After 10 hours, both plans pay \$200, so D is false.
22) **Choice D is correct.** 6.RP.A.1 The 8 tomato parts represent 24 plants, so each part is $24 \div 8 = 3$ plants. Pepper plants are 3 parts, so $3 \times 3 = 9$.
23) **The correct answer is** 60. 6.EE.C.9 The speed is $\frac{\text{distance}}{\text{time}}$. From the table, $\frac{60 \text{ mi}}{1 \text{ h}} = 60$ mph; or $\frac{180 \text{ mi}}{3 \text{ h}} = 60$ mph. The constant rate of change is 60 miles per hour.
24) **The correct answer is** 100. 6.G.A.1 $A = \frac{1}{2} \times 25 \times 8 = 100$ ft$^2$.

## Author's Note

### Trail Guide's Final Note

## Hi, Brave Trail-Walker!

◇ You walked all 8 miles of the practice trail. Smooth paths, steep climbs, narrow passes. Every step taught you something. ◇

⋆ **Trail guides know:** the most important thing is to keep moving. Slow steps still get you there. You have a steady stride now. ⋆

**Trail Survey**

- **Route Knowledge:** You know lots of problem types.
- **Steady Pace:** You don't rush. You don't stop.
- **Pack Loaded:** You have all the math tools you need.
- **Confidence:** You trust your training.

**Guide's tip:** on test day, stay on the trail you've walked before. Use the strategies you've practiced. Trust the route. The summit is one steady walk away!

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

**Jay Daie**

Your Math Trail Guide

# MASTER MATH. ACE YOUR TESTS.

This Grade 6 Math Practice Tests book is designed to help students build confidence, strengthen math skills, and excel on comprehensive assessments.

With 8 full-length printed tests and 2 online tests, this resource provides realistic practice, a variety of question types, and detailed answer explanations to help students achieve their best.

Perfect for classroom use, homework, test preparation, and extra practice at home.

**8 PRINTED TESTS**

**+**

**2 ONLINE TESTS**

## PERFECT FOR

- Classroom Practice
- Homework & Review
- Independent Learning
- Test Preparation
- Skill Reinforcement
- Building Confidence

**PRACTICE TODAY. SUCCEED TOMORROW.**

## 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.

### Understand Key Concepts
Reinforce important math ideas aligned with standards.

### Test Confidence
Get familiar with test formats and improve accuracy.

### 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.

**8 FULL-LENGTH PRACTICE TESTS**

**2 ONLINE PRACTICE TESTS**

**DETAILED ANSWER EXPLANATIONS**