

# 5

# New Mexico NM MSSA

## GRADE 6 MATH PRACTICE TESTS

Standards Aligned Problem Solving  
For Comprehensive Assessment Programs



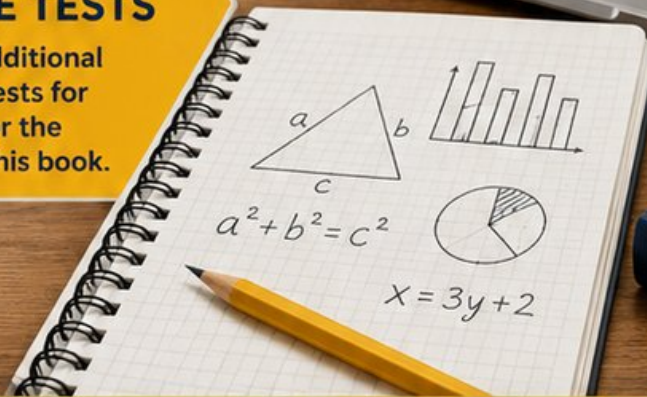
### 5 PRINTED TESTS

- ✓ Full-Length Practice Tests
- ✓ Realistic Questions
- ✓ Answer Key & Explanations



### + 2 ONLINE TESTS

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



PREPARE • PRACTICE • SUCCEED



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

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



Five 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 five 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.

Read

Plan

Check

## How to Use This Book

A five-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 1–2	Foundation rounds for ratios, rational numbers, operations, and careful reading.
Tests 3–4	Skill-building rounds with expressions, equations, geometry, data, and problem models.
Test 5	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. High-desert math clarity 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	_____	29
★ Practice Test 3	_____	44
★ Practice Test 4	_____	60
★ Practice Test 5	_____	75
<b>Practice Test Answer Keys</b>	_____	<b>92</b>
<b>Practice Test Answers and Explanations</b>	_____	<b>96</b>

1) Solve for  $x$ :  $x - 3 = 9$

A.  $x = 6$

C.  $x = 12$

B.  $x = 9$

D.  $x = 27$

2) A five-number summary is: min = 6,  $Q_1 = 12$ , median = 18,  $Q_3 = 24$ , max = 32.  
Calculate the IQR.

3) How many  $\frac{1}{4}$ -cup servings are in 2 cups?

A. 6

C.  $\frac{1}{2}$

B. 8

D. 4

4) In a class of 30 students, 18 play soccer. What is the ratio of soccer players to non-soccer players?

A. 18 : 30

C. 3 : 2

B. 18 : 12

D. 2 : 3

5) A road is 5 kilometers long. How many meters long is the road? (Use 1 kilometer = 1000 meters.)

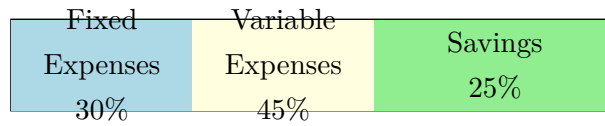
A. 500 meters

C. 50,000 meters

B. 5000 meters

D. 5 meters





6) Monthly Income = \$1000

Based on the budget bar above, which category has the highest dollar amount?

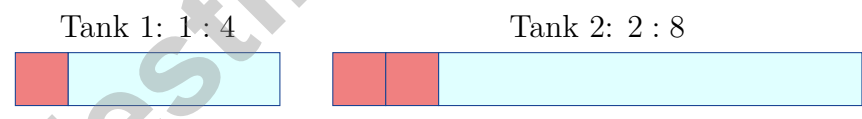
- A. Fixed Expenses (\$300)
- B. All three are equal.
- C. Savings (\$250)
- D. Variable Expenses (\$450)

7) 

The diagram shows coral and green counters. What is the ratio of green to coral?

- A. 4 : 3
- B. 7 : 3
- C. 7 : 4
- D. 3 : 4

8) Two water tanks are filled with salt water in different ratios. Tank 1 has salt to water in the ratio 1 : 4. Tank 2 has salt to water in the ratio 2 : 8. The diagrams represent each tank's contents.



Which statement is correct?

- A. Tank 1 has more salt per unit of water.
- B. Tank 2 has more salt per unit of water.
- C. Both tanks have the same salt-to-water ratio.
- D. Tank 1 is larger overall.



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9)

<b>Pounds</b>	2	5	10
<b>Cost (\$)</b>	3	7.50	15

What is the unit rate in dollars per pound?

- A. \$1.00 per pound                       C. \$1.50 per pound  
 B. \$1.25 per pound                       D. \$2.50 per pound

- 10) A chef prepares pasta for an event. The table shows the relationship between servings and pasta used.

Number of Servings	Pounds of Pasta
4	1
8	2
12	3
20	5

What is the unit rate in pounds of pasta per serving?

- A. 0.2 lbs per serving                       C. 0.5 lbs per serving  
 B. 0.25 lbs per serving                       D. 1 lb per serving

- 11) A mixer makes smoothies with yogurt and fruit in a 3 : 2 ratio. The table is incomplete. Fill in the blank:

Yogurt (oz)	Fruit (oz)
3	2
?	4
12	8

- A. 4     C. 8  
 B. 10     D. 6



1) A zoomed number line shows the region from 1 to 2 divided into tenths. A point is marked at 1.3. What is the distance from this point to 2 on the number line?

A. 0.3

C. 1.3

B. 0.7

D. 3

2) A frequency table from a dot plot shows the most accurate interpretation would be:

Data Value	Frequency	Cumulative Frequency
5	2	2
6	4	6
7	5	11
8	3	14

A. There are 14 total data points

C. There are 5 data values equal to 7

B. The mode is 5

D. The frequency of 6 is 11

3) A point is located on the negative  $x$ -axis. What is its  $y$ -coordinate?

4) Two box plots represent Class A and Class B. Both have the same median, but Class A has a smaller box. What does this tell us about Class A?

A. Class A has a higher average score.

C. Class A has all higher scores.

B. Class A has less variability in the middle 50% of data.

D. Class A's median is not reliable.



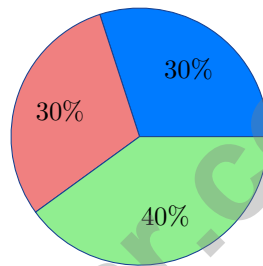
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5) A researcher gathers data on the number of hours 10 students study per week:

Stem	Leaf
1	2, 5, 8
2	1, 3, 4, 6, 9
3	0, 2

What is the mean (average) number of hours studied?

- A. 22 hours                       C. 24 hours  
 B. 25 hours                       D. 23 hours



6)

A circle graph shows survey results from 250 people. Which section represents the most people?

- A. The 40% section with 100 people.     C. The 30% section with 50 people.  
 B. The 30% section with 75 people.     D. Both 30% sections equally.



1) A trapezoid has bases of 15 cm and 9 cm. If the area is  $72 \text{ cm}^2$ , what is the height?

A. 4 cm

C. 8 cm

B. 6 cm

D. 12 cm

2) 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

3) Solve for  $x$ :  $x + 6 = 19$ .

4) A data set has a median of 50 and a mean of 45. What does this suggest?

A. The data is skewed right

C. The data is symmetric

B. The data is bimodal

D. The data is skewed left

5) The table shows quiz scores for 5 students.

Student	A	B	C	D	E
Score	85	90	88	92	85

What is the mean score?

A. 86

C. 88

B. 87

D. 90



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

### Practice Test 1 Answers and Explanations

- Choice C is correct. **(6.EE.B.5)** Add 3 to both sides:  $x = 9 + 3 = 12$ .
- The correct answer is 12. **(6.RP.A.1)**  $IQR = Q_3 - Q_1 = 24 - 12 = 12$ .
- Choice B is correct. **(6.NS.A.1)** You are counting how many  $\frac{1}{4}$ -cup servings fit inside 2 cups—that's a division problem:  $2 \div \frac{1}{4}$ . Rewrite as  $2 \times 4$ , which equals 8 servings.
- Choice C is correct. **(6.RP.A.3)** Non-soccer players:  $30 - 18 = 12$ . Ratio  $18 : 12$  simplifies to  $3 : 2$  by dividing by 6.
- Choice B is correct. **(6.RP.A.3d)** Multiply:  $5 \times 1000 = 5000$  meters.
- Choice D is correct. **(6.EE.C.9)** Fixed:  $30\% \times \$1000 = \$300$ . Variable:  $45\% \times \$1000 = \$450$ . Savings:  $25\% \times \$1000 = \$250$ . Variable expenses is the largest.
- Choice D is correct. **(6.RP.A.1)** The order is green to coral. Count 3 green counters and 4 coral counters, so the ratio is  $3 : 4$ .
- Choice C is correct. **(6.RP.A.3)** Tank 1 has a salt-to-water ratio of  $1 : 4$ . Tank 2 has  $2 : 8$ , which simplifies to  $1 : 4$ , so the ratios are the same.
- Choice C is correct. **(6.RP.A.3d)** Divide cost by pounds:  $3 \div 2 = 1.50$  dollars per pound.
- Choice B is correct. **(6.RP.A.3b)** From any row:  $1 \div 4 = 0.25$  lbs per serving. Check:  $2 \div 8 = 0.25$ . All rows confirm this.
- Choice D is correct. **(6.RP.A.3)** The ratio is  $3 : 2$ . When fruit is 4 (multiply by 2), yogurt is  $3 \times 2 = 6$  oz.
- Choice C is correct. **(6.RP.A.3a)** The ratios are:  $\frac{65}{1} = 65$ ,  $\frac{75}{2} = 37.5$ ,  $\frac{85}{3} \approx 28.3$ . The ratios are different, so this is not a proportional relationship. The line does not pass through the origin  $(0, 0)$ , which is required for proportionality.
- Choice D is correct. **(6.RP.A.3c)**  $88\% = \frac{88}{100} = 0.88$ .
- Choice A is correct. **(6.RP.A.3c)** Increase is  $90 - 82 = 8$ . Percent increase is  $\frac{8}{82} \approx 0.0976 \approx 9.8\%$ , which rounds to 10% to the nearest whole percent.
- Choice C is correct. **(6.NS.C.7d)** Tip:  $15\% \text{ of } \$32 = 0.15 \times 32 = \$4.80$ .
- Choice C is correct. **(6.NS.C.7d)** Solution A: mass/volume =  $50/10 = 5$ . Solution B: mass/volume =  $75/15 = 5$ . Both solutions have the same constant ratio of 5 grams per mL.
- Choice C is correct. **(6.RP.A.3)** Multiply:  $2.5 \text{ cm} \times 4 = 10 \text{ cm}$ .
- Choice A is correct. **(6.NS.B.2)**  $9,360 \div 48 = 195$ . Check:  $48 \times 195 = 9,360$ .
- The correct answer is 71.5. **(6.SP.B.4)** In order: 67, 68, 71, 72, 74, 75. With 6 values, the median is the average of the 3rd and 4th values:  $(71 + 72)/2 = 71.5$ .
- Choice A is correct. **(6.NS.B.3)** Stack the decimals, subtract tenths then ones (borrowing quietly if needed), and you land on 5.6—no drama needed.
- Choice C is correct. **(6.NS.B.4)** Factors of 32: 1, 2, 4, 8, 16, 32. Factors of 48: 1, 2, 3, 4, 6, 8, 12, 16, 24, 48. Common factors: 1, 2, 4, 8, 16. GCF is 16.
- The correct answer is **Dot plots show individual data points; histograms group values into intervals..** **(6.SP.B.4)** Both A and E correctly describe the relationship between dot plots and histograms. A accurately states the key difference: dot plots show individual points while histograms group them. E correctly notes the trade-off: histograms sacrifice individual precision for clearer pattern visualization. B is incorrect because finding the exact median requires counting all dots. C is debatable but overstates; both can display large sets. D is false; the displays can have different structures.
- Choice C is correct. **(6.NS.C.5)** The vertical distance is the difference:  $150 - (-45) = 150 + 45 = 195$  feet.



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Lab Notes for a Young Scientist

## Hi, Curious Scientist!

◇ 5 tests. So many experiments! You tested ideas. You watched what worked. You learned a lot. That's how scientists work—and how you work! ◇

★ **Scientists know:** mistakes are facts, not failures. Every problem you missed taught you something. You used those facts to do better next time. ★

### Lab Results

- **Hypothesis:** CONFIRMED! Practice makes you better.
- **Method:** STRONG! You try, watch, and adjust.
- **Data:** CAREFUL! You read and copy numbers right.
- **Conclusion:** READY! You can do this test.

**Scientist tip:** on test day, stay curious. Ask, "What is this asking?" Then experiment with your math tools. You will find the answer!

If you want to share something or ask a question, please email me at [jay@testinar.com](mailto:jay@testinar.com).

**Jay Daie**

Your Math Scientist

# PRACTICE MORE. ACHIEVE MORE.

This book provides **5 full-length Math practice tests** designed to help Grade 6 students strengthen their skills, build confidence, and excel on standardized assessments.

Each test is carefully crafted to reflect the latest standards and covers a wide range of math topics with realistic questions and detailed answer explanations.



#### BUILD CONFIDENCE

Practice builds familiarity and reduces test anxiety.



#### IMPROVE ACCURACY

Sharpen skills and avoid common mistakes.



#### ACHIEVE SUCCESS

Consistent practice leads to greater results.

## WHAT'S INSIDE?



#### 5 Full-Length Practice Tests

Realistic tests designed to mirror actual exam conditions.



#### Realistic Questions

A variety of question types to strengthen problem-solving skills.



#### Answer Keys & Explanations

Detailed solutions to help students learn and improve.



#### Performance Tracking

Track progress and identify areas that need improvement.



#### Comprehensive Coverage

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