

9

Minnesota MCA III

GRADE

6

MATH

PRACTICE TESTS

Standards-Aligned Review
Mixed Practice & Answer Key



9 PRINTED TESTS

Realistic practice to build confidence and mastery



DETAILED ANSWER EXPLANATIONS

Learn with step-by-step solutions



FOCUSED & EFFECTIVE

Target key math skills with purposeful practice



BUILD CONFIDENCE

Strengthen problem solving and test-taking skills



9 PRINTED TESTS
+2 ONLINE TESTS

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

PRACTICE TODAY.
SUCCEED TOMORROW.



PRACTICE



REVIEW



SUCCEED

9 Minnesota MCA-III Grade 6 Math Practice Tests

Standards-Aligned North Star Review Habits for Minnesota Comprehensive Assessments

$436 + 289$ $A = 24$

1 2 3 4 5 6 7 8 9

7×8 $\frac{5}{6}$

complete Minnesota practice rounds

Nine complete 40-question Grade 6 practice rounds for MCA-III, built for North Star review habits 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, Minnesota Math Explorer!

Nine focused rounds using North Star review habits

This book gives you nine full Grade 6 practice tests for MCA-III. Each round uses lakeside paths, winter focus, and clear data reading as a fresh mental backdrop while you read closely, choose a smart strategy, show your work, and check whether your answer makes sense.

Your Minnesota Practice Promise

Use the problem as your compass: note what is asked, solve in order, and verify the units.

Read

Plan

Check

How to Use This Book

A nine-session routine for North Star review habits

1. **Work in order.** Take one 40-question test at a time in a quiet place.
2. **Preview the skills.** Scan the quick review pages before beginning the first round.
3. **Correct actively.** Retry missed items before reading the full explanation.
4. **Mark confidence.** Put a small star beside problems where your plan felt strong.
5. **Plan the next round.** Use the growth log to choose one habit and one skill to practice.

Minnesota review rhythm: Take one test, review the cold spots, and warm up the next round with targeted practice.



What Is Inside?

Nine MCA-III tests, 360 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 7–9	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. North star review habits means recognizing the skill even when the next question changes topic, changes format, or asks for an explanation.

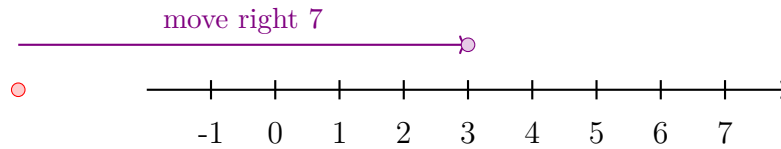


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1) What is $-4 - (-7)$?



- A. -11
 C. 3
 B. -3
 D. 11
- 2) A store marks up a product by 25% from the cost of \$80. What is the selling price?
- A. \$100
 C. \$110
 B. \$105
 D. \$120
- 3) A student uses a scale drawing where 1 inch = 4 feet. She measures a desk as 3 inches in the drawing. She says the actual desk is $\frac{3}{4}$ feet long. Which is the student's error?
- A. The units are wrong; she should say inches, not feet.
 C. She used the scale backward; the actual length is 12 inches.
 B. She divided instead of multiplied; the actual length is 12 feet.
 D. The measurement of 3 inches is wrong.
- 4) A recipe makes 8 servings and calls for $\frac{1}{2}$ cup of milk. How much milk is needed per serving?
- A. $\frac{1}{4}$ cup
 C. $\frac{1}{8}$ cup
 B. $\frac{1}{16}$ cup
 D. $\frac{4}{5}$ cup



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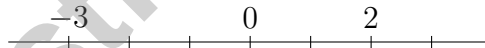
- 5) A ratio table shows that 3 gallons of paint covers 600 square feet. If a painter needs to cover 1200 square feet, how many gallons of paint are needed?

Paint (gallons)	Coverage (sq ft)
3	600
?	1200

- 6) A farmer has 5,460 seedlings to plant equally in 28 rows. How many seedlings go in each row?

- A. 195 C. 205
 B. 200 D. 210

- 7) Which number line correctly shows three points: -3 , 0 , and 2 ?



Based on the number line, which statement is true?

- A. $-3 > 2$ C. $-3 < 0 < 2$
 B. $0 < -3$ D. $2 < 0$



8) Which expression shows the distributive property correctly?

A. $5(2 + 8) = 10 + 8$

C. $5(2 + 8) = 5 + 2 + 5 + 8$

B. $5(2 + 8) = 10 + 40$

D. $5(2 + 8) = 50$

9) Which statement correctly compares two absolute values?

A. $|-4| > |5|$

C. $|-3| = |3|$

B. $|-6| < |2|$

D. $|-10| < |-8|$

10) Which of these is the distance between $(-7, -3)$ and $(-7, 4)$?

 A. 7 units

 C. 1 unit

 B. 11 units

 D. 4 units


11)

The number line shows positions at 0, -2, -4, -6. Which multiplication describes moving left by 2 units, four times?

A. $4 \times 2 = 8$

C. $(-4) \times 2 = -8$

B. $4 \times (-2) = -8$

D. $(-4) \times (-2) = 8$

12) Which expression is equivalent to $10(2y + 1)$?

A. $20y + 1$

C. $2y + 10$

B. $12y + 11$

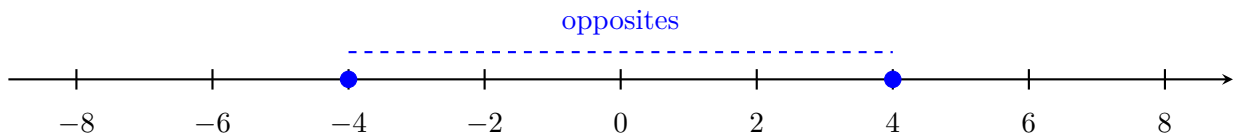
D. $20y + 10$



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- 1) A deep-sea creature lives at an elevation of -5000 meters. A high-altitude bird lives at an elevation of 8000 meters. What is the vertical distance between them?
- A. 3000 meters C. 5000 meters
 B. 13000 meters D. 8000 meters
- 2) Class B scores are 60, 75, 85, 95, 100 with mean 83. Find the mean absolute deviation.

- 3) A stock portfolio shows: Investment A gained \$75, Investment B lost \$120, Investment C gained \$45. What is the total gain or loss?
- A. \$240 loss C. \$240 gain
 B. \$0 (break-even) D. \$120 loss
- 4) Which inequality best represents “the value is at least 15”?
- A. $v < 15$ C. $v > 15$
 B. $v \leq 15$ D. $v \geq 15$
- 5)

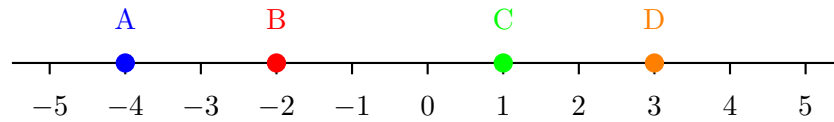


Which pair of numbers are opposites?

- A. 3 and $\frac{1}{3}$ C. 6 and 12
 B. -4 and 4 D. -2 and -2



- 6) The number line below shows points labeled A, B, C, and D. Which point represents the number -2 ?



- | | |
|-------------------------------------|-------------------------------------|
| <input type="checkbox"/> A. Point A | <input type="checkbox"/> C. Point C |
| <input type="checkbox"/> B. Point B | <input type="checkbox"/> D. Point D |

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1) Solve for x : $x - 2.7 = 5.3$

A. $x = 2.6$

C. $x = 7.5$

B. $x = 8$

D. $x = 3$

2) Which characteristic is MOST important when deciding to use a dot plot instead of a histogram?

A. You need to show the median only

C. The dataset is large (over 100 points)

B. The dataset is small and you want to see each value

D. The data represents categories, not numbers

3) Which data set would have the largest mean?

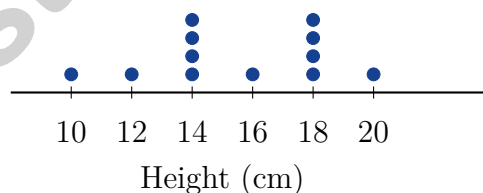
A. 1, 2, 3, 4, 5

C. 2, 3, 4, 5, 6

B. 3, 4, 5, 6, 7

D. 1, 2, 3, 4, 50

4) A dot plot displays measurements of plant heights. If the dot plot shows a bimodal distribution, this means:



A. There is one peak in the distribution

C. All data values are the same

B. The data is skewed to one side

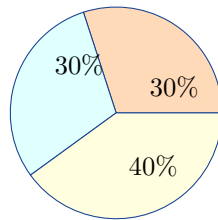
D. There are two distinct peaks in the distribution



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5) A student reads data from a stem-and-leaf plot and says: "The median is 55 and there are 11 data points." Based only on this information, what position is the median value in the ordered list?

- A. Position 5 C. Position 7
 B. Cannot determine from given information D. Position 6



6)

In a circle graph with 280 total items, if one section is 30%, how many items does that section contain?

- A. 84 C. 70
 B. 80 D. 75



Minnesota MCA-III Practice Test Answer Keys

How to use this Minnesota MCA-III 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 North Star review habits
3. rework the problem before reading the full explanation, using this reminder:
Use the problem as your compass: note what is asked, solve in order, and verify the units.

A calm Minnesota correction routine turns every missed item into useful practice. Take one test, review the cold spots, and warm up the next round with targeted practice.



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Minnesota Practice Test Answers and Explanations

Review the nine printed MCA-III tests with clear, calm, and ready for the next signal habits.

Practice Test 1 Answers and Explanations

- 1) **Choice C is correct.** (6.2.3.1) $-4 - (-7) = -4 + 7 = 3$. Subtracting a negative is the same as adding its opposite.
- 2) **Choice A is correct.** (6.1.1.6) Selling price: $\$80 + 25\%$ of $\$80 = \$80 + \$20 = \100 .
- 3) **Choice B is correct.** (6.1.2.2) To find the actual length from a drawing length, multiply by the scale factor: $3 \text{ inches} \times 4 \text{ feet per inch} = 12 \text{ feet}$. The student divided ($3 \div 4 = \frac{3}{4}$) instead of multiplying.
- 4) **Choice B is correct.** (6.1.3.2) $\frac{1}{2} \div 8 = \frac{1}{2} \times \frac{1}{8} = \frac{1}{16}$ cup per serving.
- 5) **The correct answer is 6.** (6.1.2.1) The ratio is $3 : 600$ or $1 : 200$. For 1200 square feet: $1200 \div 200 = 6$ gallons.
- 6) **Choice A is correct.** (6.1.3.5) $5,460 \div 28 = 195$ exactly. Check: $28 \times 195 = 5,460$.
- 7) **Choice C is correct.** (6.1.1.2) Reading the number line from left to right shows the order: -3 is the smallest, then 0, then 2 is the largest. So $-3 < 0 < 2$.
- 8) **Choice B is correct.** (6.1.1.6) $5(2 + 8) = 5 \cdot 2 + 5 \cdot 8 = 10 + 40 = 50$. Only Choice B shows the correct expansion via the distributive property.
- 9) **Choice C is correct.** (6.1.1.1) $|-3| = 3$ and $|3| = 3$, so they are equal. Option C is the only true statement.
- 10) **Choice A is correct.** (6.1.2.2) Same x -coordinate (-7): $|4 - (-3)| = |4 + 3| = 7$ units.
- 11) **Choice B is correct.** (6.1.2.4) Four jumps of -2 units (leftward) land at -8 . This represents $4 \times (-2) = -8$ or equivalently $(-2) \times 4 = -8$.
- 12) **Choice D is correct.** (6.2.2.1) Distribute: $10(2y + 1) = 10 \cdot 2y + 10 \cdot 1 = 20y + 10$.
- 13) **Choice D is correct.** (6.2.3.1) $7 \times 500 = 3500$ toys per week.
- 14) **Choice B is correct.** (6.3.2.3) Area of a triangle $= \frac{1}{2} \times b \times h = \frac{1}{2} \times 10 \times 6 = 30 \text{ cm}^2$.
- 15) **Choice D is correct.** (6.3.1.2) Area $= \frac{1}{2}(5 + 5) \times 2 = \frac{1}{2}(10)(2) = 10 \text{ cm}^2$.
- 16) **Choice D is correct.** (6.1.1.1) The shape has four sides with opposite sides parallel and all angles at 90 degrees. It is a rectangle but not a square since length \neq width.
- 17) **Choice A is correct.** (6.1.2.2) While it is true that different students might like different colors, a statistical question must be worded to ask about variability across a group. The original question asks about ONE student's preference (one fixed answer). To be statistical, it should ask about the group's favorite color.
- 18) **The correct answer is $2.4 \times 2 = 4.8$ and $9.6 \div 2 = 4.8$.** (6.1.3.1) A equals 4.8 because $2.4 \times 2 = 4.8$. B equals 4.8 because $9.6 \div 2 = 4.8$. Choices C, D, and E give 4.9, 3.9, and 4.2.
- 19) **Choice A is correct.** (6.2.2.1) The median is the middle value and is not affected by how extreme outliers are. The mean is pulled by outliers; range includes them; mode may or may not be.
- 20) **The correct answer is 7.** (6.1.1.1) The constant of proportionality is $k = \frac{y}{x} = \frac{21}{3} = 7$ or $\frac{49}{7} = 7$. The unit rate is 7.
- 21) **Choice D is correct.** (6.2.1.2) Plot A has IQR = 20; Plot B has IQR = 10. Since the IQR values differ, the datasets have different spreads in the middle 50% of data. Both have the same median (20), but their variability is different.
- 22) **Choice B is correct.** (6.2.1.2) Sum $= 2 + 3 + 4 + 4 + 5 + 5 + 5 + 6 + 7 + 8 = 49$. Mean $= 49/10 = 4.9$.
- 23) **Choice B is correct.** (6.2.2.1) For each x value: $x = 1 \rightarrow 2(1) - 1 = 1$; $x = 2 \rightarrow 2(2) - 1 = 3$; $x = 3 \rightarrow 2(3) - 1 = 5$; $x = 4 \rightarrow 2(4) - 1 = 7$. Option B is correct.
- 24) **The correct answer is 9.** (6.1.2.4) Ratio $5 : 3$ with 15 red marbles: each part is $15 \div 5 = 3$ marbles. Blue marbles: $3 \times 3 = 9$.
- 25) **Choice B is correct.** (6.2.2.1) To undo division, multiply. This isolates x on the left side.
- 26) **Choice D is correct.** (6.1.1.1) "Greater than or equal to" uses the \geq symbol, so the inequality is $x \geq -5$.
- 27) **Choice B is correct.** (6.3.2.3) Base: $8 - 2 = 6$ units. Height: $6 - 1 = 5$ units. Area $= \frac{1}{2} \times 6 \times 5 = 15$ square units.



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Hi, Brave Explorer!

◇ What a trip! You explored 9 full tests. You went to many math places: multiplication, fractions, area, time, and more. ◇

★ **Smart explorers know:** every trip teaches something. Through 9 tests, you learned a lot. You are a stronger math explorer now. ★

Your Explorer Tools

- **Map Reading:** You read problems carefully.
- **Trail Skills:** You take steps in the right order.
- **Backpack:** You have many math tools.
- **Brave Heart:** You explore even hard problems.

Explorer tip: on test day, use the tools you packed. You have the skills. You are ready!

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

Jay Daie

Your Math Trail Guide

PRACTICE MORE. ACHIEVE MORE.

This **Grade 6 Math Practice Tests** book is designed to help students strengthen their math skills, master important concepts, and build the confidence they need to excel on any test.

With 9 full-length printed tests and 2 online tests, students get the review, practice, and realistic test experience they need to improve accuracy, develop problem-solving abilities, and reach their full potential.

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

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

★ PRACTICE TODAY.
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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.



Deeper Understanding

Reinforce key math concepts 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.



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DETAILED ANSWER
EXPLANATIONS