7 Minnesota MCA III

Grade 6 MATH

PRACTICE TESTS

7 PRINTED TESTS + 2 ONLINE 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

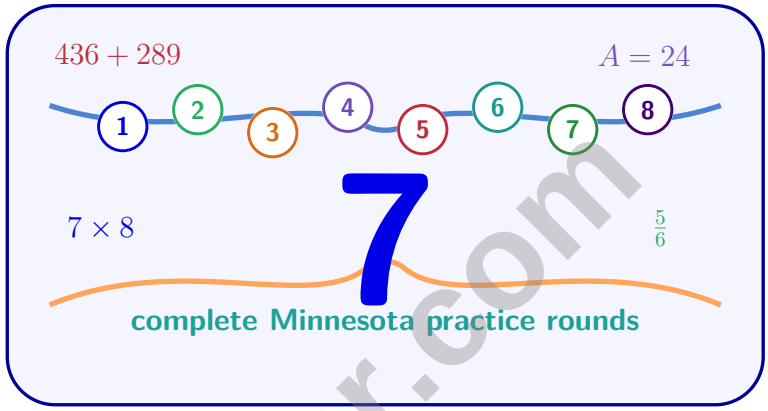
- 7 Full-Length Printed Tests
- Standards-Aligned Math Practice
- Detailed Answer Keys and Explanations
- Build Confidence. Achieve Success.

You've Got This!

PREPARE PRACTICE SUCCEED | PRACTICE WITH PURPOSE | STRENGTHEN MATH SKILLS | REVIEW, IMPROVE, AND SUCCEED

7 Minnesota MCA-III Grade 6 Math Practice Tests

Standards-Aligned North Star Review Habits for Minnesota Comprehensive Assessments



Seven 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!

Eight focused rounds using North Star review habits

This book gives you seven 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.

How to Use This Book

A seven-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?

Eight MCA-III 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.
Test 7	Final stamina round for mixed review, neat work, and flexible strategy choices.
Answer Pages	Compact keys and explanations that show why each answer works.

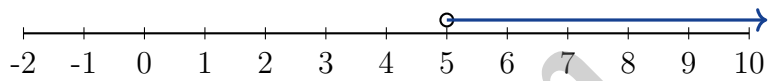
The tests are mixed on purpose. North star review habits means recognizing the skill even when the next question changes topic, changes format, or asks for an explanation.

Table of Contents

1) Which of these is a statistical question?

☐ A. How tall am I?
☐ B. What is the capital of Texas?
☐ C. How many minutes do students in my class spend on homework each night?
☐ D. How many days are in a year?

2) Examine this number line. Which inequality does it represent?

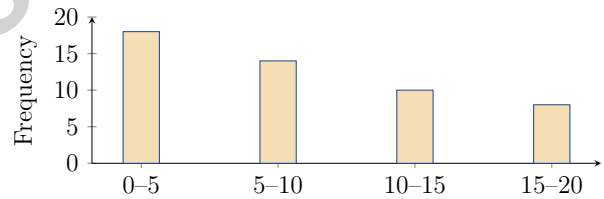


☐ A. $x \leq 5$
☐ B. $x < 5$
☐ C. $x > 5$
☐ D. $x \geq 5$

3) A box plot of test scores shows Q1 = 72, median = 80, and Q3 = 88. Which value represents the interquartile range?

☐ A. 8
☐ B. 16
☐ C. 20
☐ D. 88

4) The histogram below shows a data distribution. Which statement is accurate?



☐ A. The distribution is skewed left
☐ B. The distribution is bimodal
☐ C. The distribution is symmetric
☐ D. The distribution is skewed right

5) Which fraction best represents an event that is **very likely** to occur?

☐ A. $\frac{1}{10}$
☐ B. $\frac{2}{5}$
☐ C. $\frac{4}{5}$
☐ D. $\frac{1}{20}$

6) A fitness center surveyed 420 members. The circle graph shows $33\frac{1}{3}\%$ have annual memberships. How many have annual memberships?

☐ A. 140
☐ B. 120
☐ C. 100
☐ D. 160

7) Find $|-18|$.

8) A store sells shirts regularly at \$35 each. During a clearance, they are 60% off. What is the clearance price?

☐ A. \$14
☐ B. \$15
☐ C. \$20
☐ D. \$21

9) Three vertices of a rectangle are at $(1, 1)$, $(7, 1)$, and $(7, 5)$. Where is the fourth vertex?

☐ A. $(1, 5)$
☐ B. $(1, 7)$
☐ C. $(5, 1)$
☐ D. $(7, 1)$

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

11) A real estate agent says the MEDIAN home price in a neighborhood is \$250,000, but the MEAN is \$280,000. What does this suggest?

☐ A. All homes cost the same
☐ B. Most homes are expensive
☐ C. A few very expensive homes pull the mean up
☐ D. Homes are fairly evenly priced

12) A science class recorded temperatures: $18, 20, 22, 24, 26, 28$. What is the median?

☐ A. 22
☐ B. 23
☐ C. 24
☐ D. 25

13) Two datasets have box plots with identical boxes but different whiskers. The first dataset's whiskers are much longer. What does this indicate?

☐ A. The first dataset has a higher median.
☐ B. The first dataset has a larger minimum and maximum, but the same IQR.
☐ C. The first dataset has more data points overall.
☐ D. The first dataset is skewed differently.

1) A point is located at $(1, -6)$. If you move this point to $(1, 6)$, which transformation occurred?

☐ A. Reflection across the y-axis
☐ B. A translation up
☐ C. A 90-degree rotation
☐ D. Reflection across the x-axis

2) A teacher wants to divide 24 students into equal groups with no students left over. Which group size is NOT possible?

☐ A. 3 students per group
☐ B. 8 students per group
☐ C. 6 students per group
☐ D. 5 students per group

3) A thermometer reads $-5°$F in the morning. By afternoon, the temperature has risen by $8°$F. What is the new temperature?

☐ A. $13°$F
☐ B. $3°$F
☐ C. $-13°$F
☐ D. $-3°$F

4) A map has a scale of 1 inch = 10 miles. If two cities are 3.5 inches apart on the map, how far apart are they in reality?

☐ A. 30 miles
☐ B. 31.5 miles
☐ C. 35 miles
☐ D. 40 miles

5) Preston has: a bike worth \$250, a phone worth \$400, cash savings of \$150, and a debt of \$200 (money owed). What is his net worth?

☐ A. \$400
☐ B. \$600
☐ C. \$800
☐ D. \$1000

6) A store charges \$5 per notebook. An employee has a discount and gets the first notebook free, then pays \$5 for each additional one. For n notebooks, the total cost is $c = 5(n - 1)$. Is this a proportional relationship?

☐ A. Yes; the equation is linear
☐ B. Cannot determine without the graph
☐ C. Yes; the cost depends on notebooks
☐ D. No; the ratio of cost to notebooks is not constant

7) What is the GCF of 18 and 24?

☐ A. 2
☐ B. 3
☐ C. 6
☐ D. 12

8) Which decimal is equivalent to $-\frac{2}{5}$?

☐ A. -0.2
☐ B. -0.25
☐ C. -0.4
☐ D. -0.5

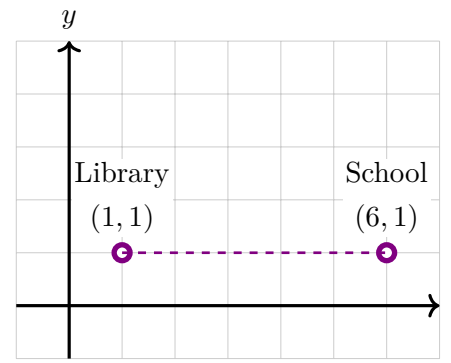
9) Simplify $4a + 3b + 2a - b$.

☐ A. $6a + 2b$
☐ B. $9ab$
☐ C. $6a + 4b$
☐ D. $7a + 2b$

10) Comparing two triangles: Triangle A has base 20 inches and height 3 inches. Triangle B has base 10 inches and height 6 inches. Which has the larger area?

☐ A. Triangle A by 10 in^2
☐ B. Triangle B by 10 in^2
☐ C. They have equal areas.
☐ D. Triangle A by 20 in^2

1)



On a map, the library is at $(1, 1)$ and the school is at $(6, 1)$. If each unit is 200 meters, what is the distance?

☐ A. 600 m
☐ B. 800 m
☐ C. 1000 m
☐ D. 1200 m

2) A book club reads pages at a constant rate. The table shows how many pages are read in different times:

Pages Read	Time (hours)
45	1.5
90	3
?	4.5

☐ A. 120
☐ B. 130
☐ C. 135
☐ D. 150

3) A printer prints 120 pages in 3 minutes. At this rate, how many pages will it print in 10 minutes?

☐ A. 200 pages
☐ B. 300 pages
☐ C. 500 pages
☐ D. 400 pages

4) Jonas budgeted $150 for groceries but actually spent $180. What percentage more did he spend than planned?

☐ A. 15%
☐ B. 18%
☐ C. 30%
☐ D. 20%

5) Expand $11(2+5)$.

☐ A. $22+55$
☐ B. $22+5$
☐ C. $11+7$
☐ D. 77

6) Compute: $(-4)\times(-2)\times 3$

☐ A. -24
☐ B. -9
☐ C. 9
☐ D. 24

7) A student says the rate of 200 miles in 4 hours is 50 miles per hour, but another student says it is 200 miles per hour. Which student is correct and why?

☐ A. The first student is correct; divide $200 \div 4 = 50$ miles per hour
☐ B. The first student is correct; multiply $200 \times 4 = 800$
☐ C. The second student is correct; the distance is 200 miles
☐ D. Both students are equally correct

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.

Minnesota Practice Test Answers and Explanations

Review the seven 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.** 6.1.2.2 A statistical question anticipates variability and is answered by collecting data. Homework time varies across students, so that question is statistical; the others have a single fixed answer.
2) **Choice C is correct.** 6.1.1.1 The open circle at 5 indicates 5 is not included. The arrow points right (toward greater values), so $x > 5$.
3) **Choice B is correct.** 6.3.2.2 IQR $= Q3 - Q1 = 88 - 72 = 16$. The IQR tells us the spread of the middle half of the scores.
4) **Choice D is correct.** 6.1.3.3 The bars show a peak on the left and a tail extending to the right, which characterizes a right-skewed distribution.
5) **Choice C is correct.** 6.4.1.2 A "very likely" event has probability close to 1. Choice C ($\frac{4}{5} = 0.8 = 80\%$) best represents this. The others are all unlikely.
6) **Choice A is correct.** 6.1.1.4 $33\frac{1}{3}\%$ of 420 is $\frac{1}{3} \times 420 = 140$ members.
7) **The correct answer is** 18. 6.1.1.1 Absolute value is distance from zero, so $|-18| = 18$.
8) **Choice A is correct.** 6.1.3.5 60% of \$35 $= 0.60 \times 35 =$ \$21. Clearance price is \$35 − \$21 = \$14.
9) **Choice A is correct.** 6.1.1.1 A rectangle requires opposite corners. If three vertices are $(1, 1)$, $(7, 1)$, and $(7, 5)$, the fourth must be $(1, 5)$.
10) **The correct answer is** 0. 6.1.1.1 All points on the x-axis have a y-coordinate of 0. For the negative x-axis specifically, the x-coordinate is negative but y is always 0.
11) **Choice C is correct.** 6.2.2.1 When mean > median, larger outliers pull the mean higher. This means a few very expensive homes skew the distribution right.
12) **Choice B is correct.** 6.1.3.3 With 6 values, median is the average of the 3rd and 4th values: $\frac{22 + 24}{2} = 23$.
13) **Choice B is correct.** 6.2.1.2 Identical boxes mean the same Q_1, median, and Q_3 (hence same IQR). Longer whiskers indicate the min and max values are further from the box.
14) **Choice B is correct.** 6.3.2.2 Stem 5: 56, 58, 59 (3 leaves); stem 6: 61, 62, 63, 65 (4 leaves). Stem 6 has more.
15) **Choice A is correct.** 6.2.1.2 A histogram can group related ratings (1–2 as "low," 3 as "medium," 4–5 as "high") to clearly show that 28 out of 50 people were satisfied. The other displays would show individual ratings but not emphasize the grouping.
16) **Choice D is correct.** 6.2.2.1 The tape diagram shows two equal parts of length $2v$ placed end-to-end. This represents the sum: $2v + 2v = 4v$.
17) **Choice A is correct.** 6.1.1.6 The coefficient is the number (including fractions) multiplied by the variable. Here it is $\frac{3}{4}$.
18) **Choice C is correct.** 6.2.2.1 Substitute $x = 5$: $2(5 + 3) = 2(8) = 16$.
19) **Choice C is correct.** 6.2.3.1 In the expression $s - 8$, s represents the starting amount before giving away any stickers.
20) **The correct answer is Gains are positive (B is correct), and debts/losses are negative (D is correct). Choice A incorrectly represents a loss as positive. Choice C is false because breaking even is represented by 0. Choice E is false..** 6.1.1.2 Choice B correctly shows that a gain is positive. Choice D correctly shows that a debt (owed amount) is negative. Choice A misrepresents loss as positive; losses should be negative. Choice C is incorrect because breaking even is represented by 0, not +1. Choice E is incorrect because losses are represented by negative integers, which are less than zero.
21) **Choice D is correct.** 6.2.2.1 To undo addition, we subtract. Adding gave the wrong answer. Subtracting 8 from both sides gives $x = 7$.
22) **Choice A is correct.** 6.2.2.1 Choice A works because 4 : 6 simplifies to 2 : 3 when both parts are divided by 2. The other pairs simplify to different ratios.
23) **Choice A is correct.** 6.3.1.1 Food is 25% of the budget: $0.25 \times \$1200 = \$300$.

Hi, Math Champion!

◇ Look what you did! 7 full practice tests. That's hundreds of math problems. You started as a learner. You are now a math athlete. ◇

⋆ **Champions know:** hard work pays off. You did the hard work. Your math skills are strong because you practiced. ⋆

Champion's Stats

- **Focus:** HIGH! You stay on task.
- **Speed:** STRONG! You move at the right pace.
- **Accuracy:** SHARP! You catch your own mistakes.
- **Mindset:** CHAMPION! You believe in yourself.

Champion tip: on test day, walk in proud. You trained for this. You are ready!

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

Jay Daie

Your Math Coach

MASTER TODAY.
SUCCEED TOMORROW.

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 comprehensive assessments.

With 7 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.

7 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.

Deeper Understanding
Reinforce key concepts aligned with standards through meaningful practice.

Test Confidence
Become familiar with test formats and improve accuracy and speed.

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.

7 FULL-LENGTH PRINTED TESTS

STANDARDS-ALIGNED PRACTICE

DETAILED ANSWER KEYS & EXPLANATIONS