

GRADE

6

MATH

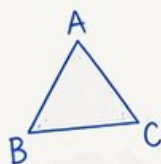
6

Minnesota MCA III

PRACTICE TESTS

Standards-Aligned
Steady Southern
Problem Solving for
Comprehensive
Assessment Program

$$2x + 3 = 11$$



$$7^2 = 49$$

BUILD SKILLS.
GAIN CONFIDENCE.
SUCCEED!



6 PRINTED TESTS

Realistic practice to build confidence and mastery



2 ONLINE TESTS

Extra practice for continued success



DETAILED ANSWER EXPLANATIONS

Learn with step-by-step solutions



FOCUSED & EFFECTIVE

Target key math skills with purposeful practice



6 PRINTED TESTS + 2 ONLINE TESTS

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



PRACTICE

Sharpen skills with targeted practice tests



REVIEW

Understand concepts and strengthen skills

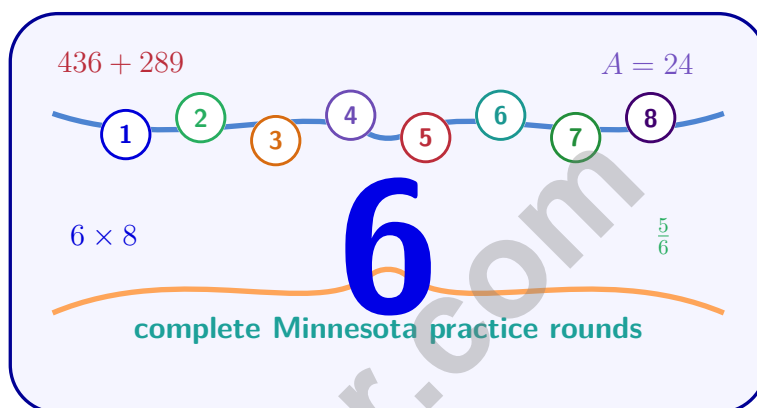


SUCCEED

Build confidence and achieve your best

6 Minnesota MCA-III Grade 6 Math Practice Tests

Standards-Aligned North Star Review Habits for Minnesota Comprehensive Assessments



Six 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 six 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 six-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 1–2	Foundation rounds for ratios, rational numbers, operations, and careful reading.
Tests 3–5	Skill-building rounds with expressions, equations, geometry, data, and problem models.
Test 6	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.



Scan me!
For more practice
& answers

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6) Which fraction is equivalent to -0.75 ?

A. $-\frac{1}{4}$

B. $-\frac{1}{2}$

C. $-\frac{2}{3}$

D. $-\frac{3}{4}$

7) How many quadrants have points with at least one positive coordinate?

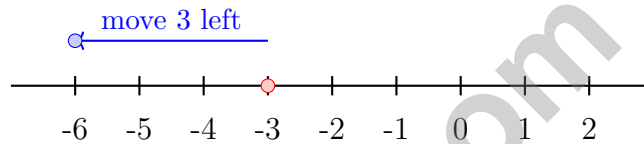
A. 1

B. 2

C. 3

D. 4

8) Which statement correctly describes the number line model shown?



A. Start at -3 , add 3, end at 0

B. Start at -3 , subtract 3, end at -6

C. Start at -3 , add 3, end at -6

D. Start at -3 , subtract 3, end at 0

9) A savings account earns \$15 per month. After 8 months, how much more money is in the account?

A. \$7

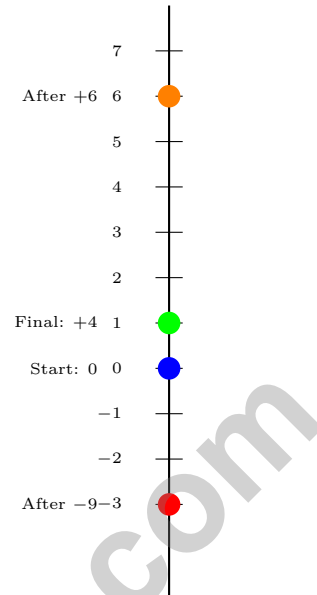
B. \$23

C. \$120

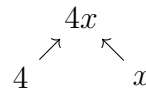
D. $-\$120$



- 10) An elevator in a building starts at ground level (floor 0), goes up 6 floors, then down 9 floors, then up 4 floors. What floor is it on?



- | | |
|--------------------------------------|--------------------------------------|
| <input type="checkbox"/> A. Floor -1 | <input type="checkbox"/> C. Floor 19 |
| <input type="checkbox"/> B. Floor 6 | <input type="checkbox"/> D. Floor 1 |



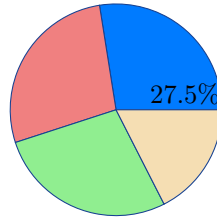
- 11) Product

This expression tree represents which phrase?

- | | |
|--|---|
| <input type="checkbox"/> A. The sum of 4 and x | <input type="checkbox"/> C. The quotient of 4 and x |
| <input type="checkbox"/> B. The product of 4 and x | <input type="checkbox"/> D. 4 divided by x |



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5)

A survey asked 360 people about favorite season. The circle graph shows 27.5% prefer summer. How many people prefer summer?

- A. 99 C. 108
 B. 90 D. 117

6) A stem-and-leaf plot shows test scores: Stem 6: Leaf 5, 7, 9 Stem 7: Leaf 1, 2, 2, 4, 4, 8 Stem 8: Leaf 0, 3, 6, 9 Stem 9: Leaf 2, 5
What is the median test score?

- A. 72 C. 78
 B. 80 D. 74

7) A classroom has 10 boys and 15 girls. Which statement correctly describes a ratio in the classroom?

- A. For every 2 boys there are 3 girls. C. For every 5 boys there are 3 girls.
 B. For every 3 boys there are 2 girls. D. For every 1 boy there are 5 girls.

8) Alina earns \$400 each month. She saves 15% of her income for college. How much does she save each month?

- A. \$15 C. \$60
 B. \$40 D. \$85



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1) Compute: $7 \times (-5)$

A. -35

C. -2

B. 35

D. 2

2) Marcus earns a commission of 5% on his sales. If he sold \$2000 worth of items, how much commission does he earn?

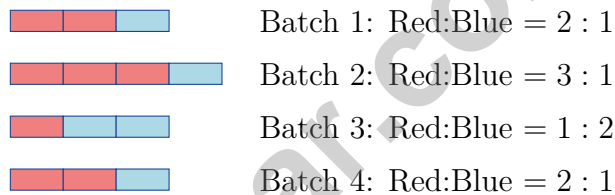
A. \$50

C. \$200

B. \$100

D. \$500

3) A paint shop mixes colors. The diagram shows four different batches.



Which two batches have the same ratio?

A. Batches 1 and 2

C. Batches 1 and 4

B. Batches 1 and 3

D. Batches 2 and 4

4) Two friends are saving money. Olivia starts with \$250 in savings and adds \$15 each week. Nathan starts with \$100 in savings and adds \$20 each week. After how many weeks will they have the same total amount of savings?

A. 20 weeks

C. 25 weeks

B. 22 weeks

D. 30 weeks



5) Simplify $10x - 2x - x$.

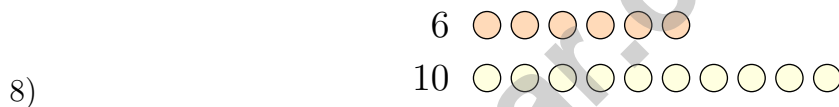
- A. $8x$
 C. $11x$
 B. $9x$
 D. $7x$

6) Which formula correctly finds the area of a triangle?

- A. $A = b + h$
 C. $A = \frac{1}{2}bh$
 B. $A = 2bh$
 D. $A = bh$

7) A dataset has 10 values. The smallest and largest values are removed, leaving 8 values. Which statement is always true?

- A. The new range is smaller
 C. The new mean is lower
 B. The new median is higher
 D. The new IQR must change



The diagram represents a ratio of 6 : 10. Which statement about the ratio 6 : 10 is FALSE?

- A. It simplifies to 3 : 5.
 C. It is equivalent to 12 : 20.
 B. It can be written as $\frac{6}{10}$ or $\frac{3}{5}$.
 D. It is equivalent to 5 : 6.

9) Find the mean absolute deviation of 70, 75, 80, 82, 85, 88, 90, 92, 95. Round to the nearest hundredth.



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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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& answers

Minnesota Practice Test Answers and Explanations

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

Practice Test 1 Answers and Explanations

- 1) **Choice A is correct.** (6.2.1.2) Left-skewed distributions have a tail of low values that pull the mean below the median.
- 2) **Choice B is correct.** (6.2.3.1) “Must not exceed” means at most 50: $w \leq 50$.
- 3) **Choice D is correct.** (6.1.1.2) The integers -7 and 7 satisfy all three conditions: they are each 7 units from zero, they are opposites, and they are on opposite sides of zero.
- 4) **Choice A is correct.** (6.1.1.1) The absolute value of a number is its distance from zero on a number line, always non-negative. $|-12| = 12$.
- 5) **The correct answer is 6.** (6.2.2.1) Combine like terms: $4x + 2x = 6x$.
- 6) **Choice D is correct.** (6.1.1.1) The decimal $0.75 = \frac{75}{100} = \frac{3}{4}$, so $-0.75 = -\frac{3}{4}$.
- 7) **Choice C is correct.** (6.1.1.1) Quadrants I, II, and IV have at least one positive coordinate. Only Quadrant III (where both coordinates are negative) does not.
- 8) **Choice B is correct.** (6.2.3.1) Moving left 3 units from -3 is subtracting 3: $-3 - 3 = -6$.
- 9) **Choice C is correct.** (6.1.2.4) Earning \$15 per month for 8 months: $15 \times 8 = 120$. The account gains \$120.
- 10) **Choice D is correct.** (6.2.2.1) Elevator position: $0 + 6 - 9 + 4 = 1$ (floor 1).
- 11) **Choice B is correct.** (6.2.2.1) The tree shows 4 and x combining via multiplication into $4x$. This represents the product of 4 and x .
- 12) **Choice A is correct.** (6.1.1.6) Sum: $6 + 2 + (-4) = 4$. Note: when including negative coefficients, add them with their signs.
- 13) **Choice C is correct.** (6.2.2.1) Substitute: $-2(-1) + (-5) - 3 = 2 - 5 - 3 = 0$.
- 14) **Choice B is correct.** (6.2.3.1) Base cost is \$40. Each text costs \$0.10, so t texts cost $0.10t$. Total: $40 + 0.10t$.
- 15) **Choice C is correct.** (6.2.2.1) Add 5 to both sides: $x = 12 + 5 = 17$.
- 16) **Choice D is correct.** (6.1.1.1) Numbers NOT less than 4 means $x \geq 4$ (greater than or equal). This requires a closed circle at 4 with an arrow pointing right.
- 17) **Choice D is correct.** (6.3.1.2) Using $A = b \times h$: $105 = 15 \times h$, so $h = 7$ in.
- 18) **Choice D is correct.** (6.3.2.3) Base: $7 - 1 = 6$ units. Height: $5 - 1 = 4$ units. Area = $\frac{1}{2} \times 6 \times 4 = 12$ square units.
- 19) **The correct answer is GCF of 16 and 24 is 8; prime factorization of 40 is $2^3 \times 5$.** (6.1.1.6) Statement A: Factors of 16 are 1, 2, 4, 8, 16 and factors of 24 are 1, 2, 3, 4, 6, 8, 12, 24; the GCF is 8 (TRUE). Statement B: LCM of 5 and 7 is 35, not 12 (FALSE). Statement C: $40 = 8 \times 5 = 2^3 \times 5$ (TRUE). Statement D is missing factor 10. Statement E is false because the LCM of 6 and 10 is 30.
- 20) **Choice A is correct.** (6.3.1.3) Translate: $(4, 5) \rightarrow (4 - 3, 5 + 2) = (1, 7)$.
- 21) **Choice C is correct.** (6.3.1.2) Radius $r = \frac{28}{2} = 14$ cm. Area = $\pi r^2 \approx \frac{22}{7} \times 14^2 = \frac{22}{7} \times 196 = 22 \times 28 = 616$ cm².
- 22) **Choice A is correct.** (6.3.2.2) IQR = $Q3 - Q1 = 14 - 6 = 8$. The student incorrectly used max - min, which is the range (12), not the IQR.
- 23) **The correct answer is 15.** (6.2.1.1) The cost increases by \$30 for every 2 hours. So the rate is $\frac{\$30}{2 \text{ hours}} = \15 per hour. Check: 2 h at \$15/h costs \$30; 4 h costs \$60; 6 h costs \$90.
- 24) **Choice C is correct.** (6.1.3.3) Total frequency: $1 + 4 + 6 + 3 + 1 = 15$. The median is the 8th value. Counting: $1 + 4 = 5$ (at 15 msg); continuing to 20 msg gives $5 + 6 = 11$. The 8th value is in the 20 message group.
- 25) **Choice A is correct.** (6.4.1.2) Probability of failing = $1 - \frac{4}{5} = \frac{1}{5}$.
- 26) **Choice A is correct.** (6.1.1.4) 11.25% of 880 is $0.1125 \times 880 = 99$ visitors.
- 27) **The correct answer is 130.** (6.3.2.3) Square area: $10 \times 10 = 100$ cm². Triangle area: $\frac{1}{2} \times 10 \times 6 = 30$ cm². Total: $100 + 30 = 130$ cm².



Scan me!
For more practice
& answers

Hi, Math Athlete!

◇ 6 practice tests done! That's serious training. Your math muscles are strong. You are in great shape for the big test. ◇

★ **Trainers know:** muscle memory is real. The more you practice, the more your brain knows what to do without thinking. You built that muscle memory! ★

Athlete Performance

- **Endurance:** TOP! You can finish a long test.
- **Strength:** STRONG! You handle hard problems.
- **Speed:** JUST RIGHT! You don't rush.
- **Recovery:** GOOD! You bounce back from tough questions.

Trainer tip: on test day, drink water, breathe deeply, and warm up with the easier questions first. Your training will carry you the rest of the way!

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

Jay Daie

Your Math Trainer

PRACTICE 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 6 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.

6
PRINTED
TESTS

+
2
ONLINE
TESTS

PERFECT FOR:

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

★ BUILD SKILLS.
GAIN CONFIDENCE.
SUCCEED!

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.



6 FULL-LENGTH
PRINTED TESTS



2 ONLINE
PRACTICE TESTS



DETAILED ANSWER
EXPLANATIONS