

8

Missouri MAP

GRADE 7

MATH

PRACTICE TESTS

✓ Standards Aligned
Problem Solving

For Comprehensive
Assessment Programs



8 PRINTED
TESTS



2 ONLINE
TESTS



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



BUILD CONFIDENCE



STRENGTHEN SKILLS



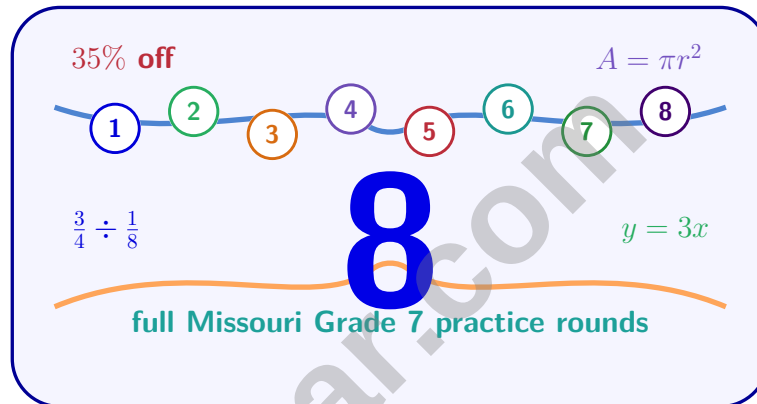
THINK SMARTER



BE TEST-READY

8 Missouri MAP Grade 7 Math Practice Tests

Flexible practice in Missouri Grade 7 percent applications, expressions, equations, geometry, data displays, and chance



Eight complete 40-question Grade 7 MAP practice rounds with proportional relationships, percents, rational numbers, expressions, equations, geometry, statistics, probability, answer keys, and clear explanations for every item.

Jay Daie and Reza Nazari



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Welcome, Missouri Grade 7 Problem Solver!

Eight focused rounds for sharper MAP math thinking

This book gives you eight full Grade 7 MAP math practice tests. Each round is built to help you notice structure, compare quantities, use proportional reasoning, handle rational numbers, and explain your thinking with care.

Your Missouri Practice Promise

I will read every question carefully, choose a strategy that fits, write enough work to prove my answer, and use corrections as training for the next test.

Read

Model

Verify

How to Use This Book

An eight-session plan for confident Grade 7 review

1. **Warm up with the review pages.** Notice the big ideas before starting the tests.
2. **Complete one test at a time.** Treat each 40-question round like a real practice session.
3. **Show your reasoning.** Jot a proportion, equation, diagram, number line, or quick estimate when it helps.
4. **Correct actively.** Rework missed items before reading the explanation.
5. **Choose the next target.** After each test, name one skill and one habit to improve.

Missouri review rhythm: Work a test, score it, study your misses, then come back ready for the next round with one clear goal.



What Is Inside?

Eight MAP tests, 320 questions, and a complete review path

Part	What You Will Practice
Tests 1–3	Proportional relationships, unit rates, percents, rational-number operations, and careful reading.
Tests 4–6	Expressions, equations, inequalities, scale drawings, geometry, and multi-step problem solving.
Tests 7–8	Statistics, probability, mixed review, stamina, and choosing efficient strategies.
Answer Pages	Compact keys and explanations that show why each answer works.

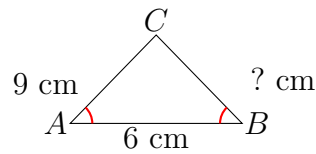
The tests are mixed on purpose. Grade 7 success means recognizing which idea is being tested even when the next question changes format.



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& answers

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1)

A triangle has side lengths of 6 cm and 9 cm. Which length CANNOT be the third side?

☐ A. 5 cm☐ C. 16 cm☐ B. 10 cm☐ D. 8 cm2) What is the GCF of $28xy$ and $42x$?☐ A. $14x$ ☐ C. $42x$ ☐ B. $28xy$ ☐ D. $7x$ 3) Convert $\frac{19}{25}$ to a decimal.☐ A. 0.19☐ C. 0.76☐ B. 0.25☐ D. 0.92

4) Express the coefficient when 0.0000625 is written in proper scientific notation.

☐ A. 0.625☐ C. 62.5☐ B. 6.25☐ D. 625

5) Starting with \$600, an account earns 8% annual compound interest. How much interest is earned after 3 years?



6) Evaluate: $(-4)^0$

☐ A. 0

☐ B. 1

☐ C. -4

☐ D. Undefined

7) A student is comparing two equations written by classmates for the same problem: "An online store charges \$6 per item plus \$3.50 shipping." Student A writes: $T = 6n + 3.50$. Student B writes: $T = 3.50 + 6n$. Which statement is true?

☐ A. Only Student A is correct.

☐ B. Only Student B is correct.

☐ C. Both are correct because addition is commutative.

☐ D. Neither is correct; the answer is $T = 6(n + 3.50)$.

8) Solve: $5(2x - 3) = 35$

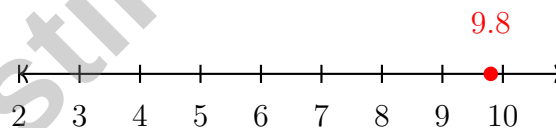
☐ A. $x = 2$

☐ B. $x = 4$

☐ C. $x = 5$

☐ D. $x = 7$

9) Which point represents $9.8 - 3.2$ on the number line below?



☐ A. 6.6

☐ B. 7.6

☐ C. 6.5

☐ D. 13.0

10) Over 5 weeks, an account loses \$12.50 per week. What is the total change in the account balance?

☐ A. -\$62.50

☐ B. -\$7.50

☐ C. \$7.50

☐ D. \$62.50



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11) Combine like terms: $(7a + 9) - (3a - 4)$

☐ A. $4a + 13$

☐ C. $10a + 5$

☐ B. $4a + 5$

☐ D. $4a - 13$

12) A pair of jeans costs \$80. After a 20% discount, express the final price in factored form.

☐ A. $80(1 - 0.2)$

☐ C. $0.8(80)$

☐ B. $80(0.2)$

☐ D. 80×20

13) What is the side length of a square with area 169 square units?

14) A baker's original recipe calls for $\frac{2}{3}$ cup of honey. First, she makes $\frac{3}{2}$ times the recipe. Then she uses $\frac{1}{4}$ of the total honey made for granola bars. How much honey (in cups) remains for the other desserts?

15) Solve: $-3x + 10 = 1$

☐ A. $x = -3$

☐ C. $x = 3$

☐ B. $x = 1$

☐ D. $x = 9$



1) Simplify: $(8u - 6) - (5u + 3)$

☐ A. $3u - 9$

☐ C. $13u - 9$

☐ B. $3u + 9$

☐ D. $3u - 3$

2) A scale drawing shows a rectangular garden with dimensions 6 cm $\times$ 4 cm. The scale is 1 cm : 2 m. What is the area of the actual garden?

☐ A. 48 m²

☐ C. 192 m²

☐ B. 96 m²

☐ D. 384 m²

3) What is $\frac{3}{10} + \frac{4}{10}$?

☐ A. $\frac{7}{20}$

☐ C. $\frac{12}{10}$

☐ B. $\frac{1}{2}$

☐ D. $\frac{7}{10}$

4) Solve for x : $2x + 7 = 19$

☐ A. $x = 4$

☐ C. $x = 6$

☐ B. $x = 5$

☐ D. $x = 13$

5) A pictograph shows monthly rainfall (in inches). Legend: one raindrop symbol = 2 inches. If March's bar has 4.5 raindrop symbols, how much rain fell in March?

☐ A. 4.5 inches

☐ C. 9 inches

☐ B. 6.5 inches

☐ D. 13.5 inches

6) A coin is flipped and a six-sided die is rolled. How many outcomes are in the sample space?

☐ A. 6

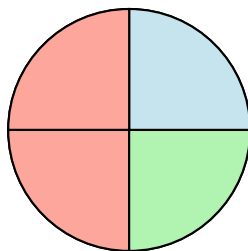
☐ C. 12

☐ B. 8

☐ D. 36



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7)

A spinner has four equal sections: one blue, two red, and one green. What is the probability of spinning red?

- ☐ A. $\frac{1}{4}$
☐ B. $\frac{1}{2}$

- ☐ C. $\frac{2}{3}$
☐ D. $\frac{3}{4}$

- 8) A bicycle wheel has diameter 0.6 meters. If the bike travels 30 meters, how many complete rotations did the wheel make? Use $\pi \approx 3.14$, round to the nearest whole number.

- 9) A spinner has 5 equal sections numbered 1 through 5. You spin twice. What is the probability of NOT spinning a 1 on either spin?

- ☐ A. $\frac{2}{5}$
☐ B. $\frac{8}{25}$

- ☐ C. $\frac{16}{25}$
☐ D. $\frac{1}{25}$

- 10) A bag contains only red and blue marbles. A marble is drawn 150 times with replacement. Red appears 84 times. Based on this experiment, which is the best estimate of the probability of drawing a red marble on the next draw?

- ☐ A. 0.44
☐ B. 0.50

- ☐ C. 0.56
☐ D. 0.84



1) A basketball player attempted 75 free throws and made 54 of them. What is the experimental probability that the player makes the next free throw?

☐ A. 0.54

☐ C. 0.67

☐ B. 0.60

☐ D. 0.72

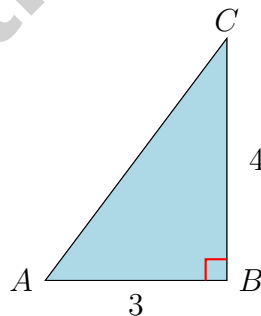
2) A bar graph shows: Salaries \$6M, Programs \$2M, Facilities \$1.5M, Admin \$0.5M. The bars extend to heights 6, 2, 1.5, and 0.5 respectively. However, the y-axis has no label indicating units. What makes this graph misleading?

☐ A. The y-axis label is missing, so readers cannot confirm the unit (millions versus thousands)

☐ B. The bars are not drawn to scale
☐ C. The title is unclear
☐ D. The colors are too similar

3) A probability model is used to predict tomorrow's weather: $P(\text{sunny}) = 0.55$, $P(\text{cloudy}) = 0.30$, $P(\text{rainy}) = 0.15$. Which statement is false?

☐ A. This is a valid non-uniform probability model.
☐ B. The most likely outcome is sunny.
☐ C. All probabilities sum to 1.
☐ D. Rainy is the least likely outcome, so it has probability 0.



4)

In the right triangle, one leg is 3 and the other is 4. Which choice is the length of the hypotenuse?

☐ A. 5

☐ C. 7

☐ B. 6

☐ D. $\sqrt{7}$


5) A store owner reads an advertisement incorrectly. The ad says “25% off all winter coats!” Instead, she marks coats down by \$25 each. A coat originally priced at \$125 is marked at \$100. What is the actual percent discount she gave?

☐ A. 25%☐ C. 20%☐ B. \$25☐ D. 50%

6) Which expression equals -7 ?

☐ A. $-2 - 5$ ☐ C. $-9 + 1$ ☐ B. $-1 - 5$ ☐ D. $3 - (-4)$

7) Which expression is simplified?

☐ A. $3x + 2x - y$ ☐ C. $5x - y$ ☐ B. $5x + 2x - y + y$ ☐ D. $2x + 3x + 4y$

8) What is the GCF of $10a$ and $15ab$?

☐ A. $5a$ ☐ C. $15a$ ☐ B. $10a$ ☐ D. $5ab$

9) A model railroad layout has a scale of $1 : 160$. If a real railroad track is 50 meters long, how long should the model track be in centimeters?



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Missouri MAP Grade 7 Practice Test Answer Keys**How to use this section with a Grade 7 student:**

1. check the answer first and circle any item that needs another look
2. retry the problem with fresh work before reading the explanation
3. write one short lesson learned from each missed or guessed item

A strong review routine turns every correction into a sharper plan for the next Missouri MAP practice test.



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Practice Test Answers and Explanations

Practice Test 1 Answers and Explanations

- 1) **Choice C is correct.** (7.G.1-7.G.5) By Triangle Inequality, $|9 - 6| < c < 9 + 6$ gives $3 < c < 15$. Choice C (16 cm) exceeds 15, so it fails. A: $5 > 3$ ✓. B: $10 < 15$ ✓. D: $8 < 15$ ✓.
- 2) **Choice A is correct.** (7.EE.1-7.EE.2) GCF of 28 and 42 is 14. Both terms have x . GCF is $14x$.
- 3) **Choice C is correct.** (7.NS.2d) Divide $19 \div 25 = 0.76$. Since $25 = 5^2$, this is a terminating decimal. Multiply numerator and denominator by 4: $\frac{19 \times 4}{25 \times 4} = \frac{76}{100} = 0.76$.
- 4) **Choice B is correct.** (7.NS.1-7.NS.3) In proper scientific notation, the coefficient must satisfy $1 \leq a < 10$. $0.0000625 = 6.25 \times 10^{-5}$.
- 5) **The correct answer is \$155.83.** (7.RP.3) Final balance: $600(1.08)^3 = 600 \times 1.2597 = 755.83$. Interest earned: $755.83 - 600 = 155.83$.
- 6) **Choice B is correct.** (7.EE.1-7.EE.2) The zero exponent rule applies to any non-zero base, including negative bases: $(-4)^0 = 1$.
- 7) **Choice C is correct.** (7.EE.4a) Although both forms are mathematically equivalent, in word-problem context, writing the fixed fee first ($3.50 + 6n$) is often clearer.
- 8) **Choice C is correct.** (7.EE.3-7.EE.4) Divide by 5: $2x - 3 = 7$. Add 3: $2x = 10$. Divide by 2: $x = 5$.
- 9) **Choice A is correct.** (7.NS.1-7.NS.3) Moving left 3.2 units from 9.8: $9.8 - 3.2 = 6.6$.
- 10) **Choice A is correct.** (7.NS.1-7.NS.3) Loss of \$12.50 per week for 5 weeks: $-12.50 \times 5 = -62.50$ dollars.
- 11) **Choice A is correct.** (7.EE.1-7.EE.2) Distribute the negative: $7a + 9 - 3a + 4 = (7a - 3a) + (9 + 4) = 4a + 13$.
- 12) **Choice A is correct.** (7.EE.1-7.EE.2) A 20% discount means you keep $100\% - 20\% = 80\%$ of the price. The factored form $80(1 - 0.2)$ emphasizes the scale factor $(1 - 0.2)$, which equals 0.8. This form reveals the structure of the discount.
- 13) **The correct answer is 13.** (7.NS.1-7.NS.3) Since the area is 169, the side length is $\sqrt{169} = 13$ units.
- 14) **The correct answer is $\frac{3}{4}$.** (7.NS.1-7.NS.3) Honey for scaled recipe $= \frac{2}{3} \times \frac{3}{2} = 1$ cup. Honey used for granola bars $= \frac{1}{4} \times 1 = \frac{1}{4}$ cup. Remaining: $1 - \frac{1}{4} = \frac{3}{4}$ cup.
- 15) **Choice C is correct.** (7.EE.3-7.EE.4) Subtract 10: $-3x = -9$. Divide by -3 : $x = 3$.
- 16) **Choice B is correct.** (7.EE.4a) Distribute: $6x - 4 = 14$. Add 4: $6x = 18$. Divide by 6: $x = 3$.
- 17) **Choice A is correct.** (7.G.1-7.G.5) A 180° rotation maps $(1, 1) \rightarrow (-1, -1)$, $(3, 2) \rightarrow (-3, -2)$, and $(2, 4) \rightarrow (-2, -4)$, matching Triangle B.
- 18) **Choice A is correct.** (7.SP.5-7.SP.8) Since $P(\text{Win}) + P(\text{Lose}) = 1$, we have $P(\text{Lose}) = 1 - 0.75 = 0.25$. (Negative probabilities are undefined.)
- 19) **The correct answer is A,D.** (7.NS.1-7.NS.3) Statement A is true: the opposite of -5 is 5 (positive). Statement D is true: -5 and 5 are each 5 units from zero. Statement B is false because opposites have the same absolute value. Statement C is false: $5 + (-5) = 0$, not 10.
- 20) **Choice C is correct.** (7.NS.2) First: $(-2) \times (-3) = 6$. Then: $6 + (-1) = 5$. Multiply first by order of operations, then add.
- 21) **Choice D is correct.** (7.RP.3) Daily rate for 5 days: $40 \times 5 = \$200$. Insurance premium: $0.15 \times 200 = \$30$. Total: $200 + 30 = \$230$.
- 22) **Choice C is correct.** (7.G.4-7.G.6) The L-shape is split into two rectangles: one is 7×5 , the other is 3×3 . Add their areas: $35 + 9 = 44 \text{ m}^2$.
- 23) **Choice D is correct.** (7.SP.1-7.SP.4) Each value appears exactly once, so there is no repeating value. There is no mode.
- 24) **Choice D is correct.** (7.RP.1-7.RP.3) Unit price $= \$15 \div 6 = \2.50 per notebook.
- 25) **Choice A is correct.** (7.G.4-7.G.6) $1 \text{ m} = 100 \text{ cm}$, so $1 \text{ m}^3 = (100)^3 = 1,000,000 \text{ cm}^3 = 10^6 \text{ cm}^3$. Thus $2 \text{ m}^3 = 2 \times 10^6 \text{ cm}^3$.
- 26) **Choice C is correct.** (7.G.4-7.G.6) You can draw a radius from the center to any point on the circle, so there are infinitely many radii.
- 27) **Choice B is correct.** (7.G.1-7.G.5) Given three specific side lengths that satisfy the Triangle Inequality, exactly one unique triangle (up to congruence) can be formed. In fact, this is a right triangle because $6^2 + 8^2 = 10^2$.



Hi, Persistent Problem Solver!

◇ Some Grade 7 questions ask you to hold several ideas in your mind at once. That can feel hard, and that is exactly why practice matters. ◇

★ **Remember this:** You showed persistence by continuing through the set. That habit is powerful because difficult problems often open after one more good attempt. You practiced across 8 full Grade 7 practice tests, and that repeated effort matters. ★

Persistence Tools

- **Try a Smaller Case:** Use an easier number to see the pattern.
- **Draw It:** Make the situation visible.
- **Restate It:** Say the question in your own words.
- **Check One Step:** Fix the first unclear place.

Grade 7 test-day tip: When stuck, do not restart everything. Find the first step you trust, then rebuild from there.

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

Jay Daie

Your Persistence Coach

PRACTICE TODAY. SUCCEED TOMORROW!

This book includes **8** full-length Math practice tests and **2** online tests to help Grade 7 students build confidence, strengthen skills, and excel on standardized assessments.

Each practice test is carefully crafted to reflect the latest standards and includes a variety of question types, realistic test conditions, and detailed answer explanations.

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



THIS BOOK INCLUDES:

8 Full-Length Printed Tests

2 Online Practice Tests

 Detailed Answer Explanations



MORE PRACTICE. GREATER RESULTS.

Give your child the tools to build strong math skills, confidence, and a positive attitude toward learning.

WHAT YOU'LL 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 with clear explanations and meaningful practice.



Test Confidence

Familiarize with test formats and improve accuracy and speed.



Achieve Success

Build confidence and perform your best on test day.

TOPICS COVERED

- ✓ Ratios & Proportions
- ✓ The Number System
- ✓ Expressions & Equations
- ✓ Geometry
- ✓ Percents & Decimals
- ✓ Statistics & Probability
- ✓ Data Analysis
- ✓ Measurement & Conversions
- ✓ Algebraic Thinking
- ✓ And More!



2 ONLINE TESTS

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



2 EXTRA ONLINE TEST ACCESS CODE IS INSIDE THE BOOK!

Don't lose it—your extra practice and success start here!



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