

4

COMPLETE

Montana MAST

Grade

MATH

5

PRACTICE TESTS

Standards-Based Test Prep with
Mixed Review, Word Problems,
and **Full Answer Key**



- ✓ **4 COMPLETE PRACTICE TESTS**
Built to reflect the test format and rigor



- ✓ **COVERS ALL ESSENTIAL TOPICS**
Numbers & Operations, Fractions, Decimals, Geometry, Measurement, Data & Probability, and more



- ✓ **STRENGTHEN SKILLS & CONFIDENCE**
Mixed review, challenging questions, and strategic practice



- ✓ **FULL ANSWER KEY INCLUDED**
Detailed explanations for every question



**BUILD STRONG
MATH SKILLS
& TEST READINESS**



**IMPROVE ACCURACY,
SPEED, AND
PROBLEM SOLVING**



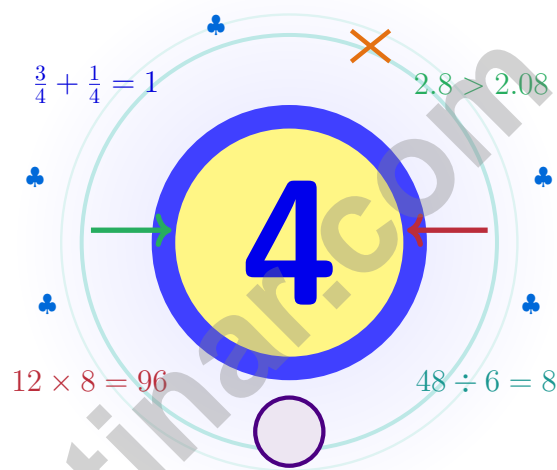
**PERFECT FOR
CLASSROOM,
HOME, OR
SELF-STUDY**



**ALIGNED TO
MONTANA
STATE STANDARDS
(MAST)**

4 Montana MAST Grade 5 Math Practice Tests

Four steady test-day rehearsals, woven into one strong routine



Four full tests, a smart quick review, mission-style strategy pages, and student-tested support that help Grade 5 mathematicians from The Treasure State build calm, careful, confident habits.

Jay Daie and Reza Nazari



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Open the Map, Montana – Math Mission Time

Four practice tests woven into one calm, steady routine

Welcome Letter for Montana Math Crew

This book gives you four chances to read closely, solve carefully, and level up your math thinking. Math is like the Montana sky: wide, open, and full of room for clear, careful thinking.

You do not need to feel perfect before you begin. You just need to stay curious, use strategies, and learn from every correction. That is how confident mathematicians are built.

Read Slow

Read each word twice and underline what is asked.

Choose Smart

Pick the operation, model, or sketch that fits.

Grow

Use missed questions as clues for what to learn next.



A strong mission habit for Montana: keep your work neat, estimate when it helps, label units carefully, and never let one hard question decide your mood for the whole page.

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A Map of the Pages

A four-step routine that turns practice into real improvement

Step 1: Warm Up

Sharpen your math brain with the quick review.

Wake up the big Grade 5 ideas before the test starts so your brain is already warmed up.

Step 2: Mission Run

Take a full practice test in a calm spot.

Find a calm corner, settle in, and aim for careful, honest choices before quick ones.

Step 3: Debrief

Score honestly and circle missed questions.

Circle missed questions, sort out what went sideways, and notice which skills are calling for attention.

Step 4: Repair Kit

Fix the missed work and lock the lesson in.

Read the explanation, fix the work, and carry that lesson into the very next test.

A Four-Week Montana Mission Map

Week	Mission Focus
Week 1	Take Test 1 like a wide-sky morning. Notice everything.
Week 2	Take Test 2 and lift word problems and step-showing.
Week 3	Take Test 3 to polish fractions, decimals, and conversions.
Week 4	Take Test 4 with calm focus from start to finish.



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Grade 5 Mathematics Reference Materials

PERIMETER AND AREA

Perimeter of Rectangle $P = 2l + 2w$ or $P = 2(l + w)$

Area of Rectangle $A = l \times w$

Area of Triangle $A = \frac{1}{2} \times b \times h$

Volume of Rectangular Prism $V = l \times w \times h$

LENGTH

Customary

1 foot (ft) = 12 inches (in.)

1 yard (yd) = 3 feet (ft)

1 yard (yd) = 36 inches (in.)

Metric

1 meter (m) = 100 centimeters (cm)

1 centimeter (cm) = 10 millimeters (mm)

1 kilometer (km) = 1,000 meters (m)

CAPACITY

Customary

1 cup (c) = 8 fluid ounces (fl oz)

1 pint (pt) = 2 cups (c)

1 quart (qt) = 2 pints (pt)

1 gallon (gal) = 4 quarts (qt)

Metric

1 liter (L) = 1,000 milliliters (mL)

WEIGHT AND MASS

Customary

1 pound (lb) = 16 ounces (oz)

Metric

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TIME

1 minute (min) = 60 seconds (sec) 1 week = 7 days

1 hour (hr) = 60 minutes (min) 1 year = 12 months

1 day = 24 hours (hr) 1 year = 52 weeks



- 1) A painter buys three cans of paint: Can 1: 2.5 gallons, Can 2: 3.75 gallons, Can 3: 1.25 gallons.

How many cups of paint is that in total?

Use: 1 gallon = 16 cups

- A. 90 cups C. 110 cups
 B. 100 cups D. 120 cups
- 2) Pattern X: 0, 1, 2, 3, 4. Pattern Y: 0, 3, 6, 9, 12. What is the 4th ordered pair (X, Y) ?

Record your answer in the space provided.

- 3) A box holds 12 bags of 8 crayons each. Which expression represents total crayons?

- A. $12 + 8$ C. $12 - 8$
 B. 12×8 D. $12 \div 8$
- 4) What digit is in the hundredths place in 4.06?

Record your answer in the space provided.

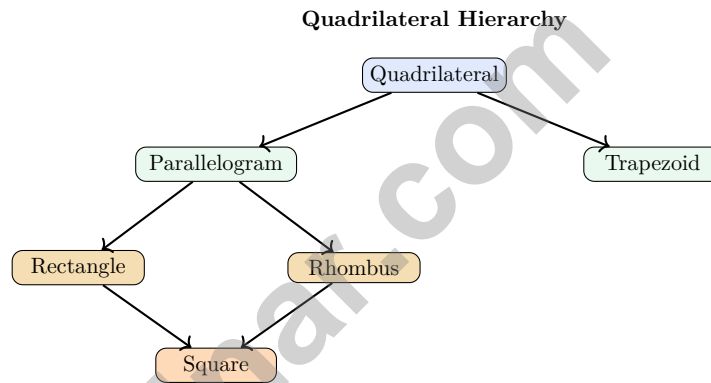


5) A store stacks 4 identical rectangular boxes. Each box measures 5 feet by 3 feet by 2 feet. What is the total volume of all the boxes?

- A. 30 cubic feet
- B. 34 cubic feet
- C. 150 cubic feet
- D. 120 cubic feet

6) Add: $3\frac{1}{4} + 1\frac{3}{4}$

- A. $4\frac{1}{2}$
- B. $4\frac{3}{4}$
- C. 5
- D. $5\frac{1}{4}$



7)

According to the hierarchy, which is true?

- A. Every rectangle is a square.
- B. Every parallelogram is a trapezoid.
- C. Every trapezoid is a parallelogram.
- D. Every square is a rectangle.

8) A toy store receives a shipment of toy cars. There are 24 boxes with 35 cars in each box. How many toy cars are in the shipment?

- A. 830
- B. 840
- C. 850
- D. 860



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1) Evaluate: $5 \times [(2 + 3) + (6 \div 2)]$

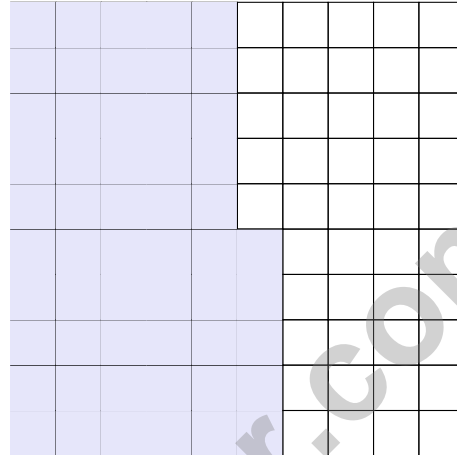
A. 25

C. 35

B. 30

D. 40

2) Decimal-grid visual: 55 shaded squares (out of 100). Which decimal is shown?



A. 0.55

C. 5.5

B. 0.65

D. 55

3) What is the best unit for measuring the volume of a sugar cube?



Sugar cube

A. Cubic meters

C. Cubic feet

B. Cubic kilometers

D. Cubic centimeters



Grade 5 Mathematics Reference Materials

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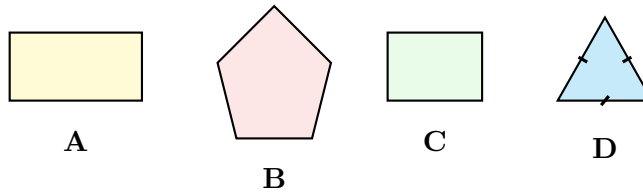
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1) Which polygon is regular?

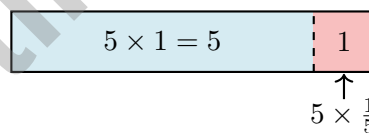


- A. A C. C
 B. B D. D

2) Find the product: 3.4×100 .

Record your answer in the space provided.

3) Multiply: $5 \times 1\frac{1}{5}$



- A. 7 C. 6
 B. $6\frac{1}{5}$ D. 5

4) A solid is built with 5 equal layers. Each layer has 12 unit cubes. What is the total volume?

Record your answer in the space provided.



Practice Test Answer Keys

How to use this section:

1. check your answer
2. circle missed questions
3. rework them before reading the explanation

Good correction habits build strong scores.

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Practice Test Answers and Explanations

Practice Test 1 Answers and Explanations

- 1) **Choice D is correct.** **(5.MD.1)** Add the gallons first: $2.5 + 3.75 + 1.25 = 7.5$ gallons. Each gallon has 16 cups, so $7.5 \times 16 = 120$ cups.
- 2) **The correct answer is (3, 9).** **(5.G.2)** Match the terms in the same positions from Pattern X and Pattern Y. The first four pairs are (0, 0), (1, 3), (2, 6), and (3, 9). Accept equivalent spacing or comma formatting.
- 3) **Choice B is correct.** **(5.OA.2)** A box has 12 bags, and each bag has 8 crayons. That means there are 12 equal groups of 8, which is represented by 12×8 .
- 4) **The correct answer is 6.** **(5.NBT.3)** In 4.06, the 6 is in the hundredths place.
- 5) **Choice D is correct.** **(5.MD.5)** One box has volume $5 \times 3 \times 2 = 30$ cubic feet. There are 4 boxes, so $30 \times 4 = 120$ cubic feet.
- 6) **Choice C is correct.** **(5.NF.1)** Add whole parts: $3 + 1 = 4$. Add fractions: $\frac{1}{4} + \frac{3}{4} = 1$. Total: $4 + 1 = 5$.
- 7) **Choice D is correct.** **(5.G.4)** The hierarchy shows that Square is a child of Rectangle, meaning every square is also a rectangle. Not every rectangle is a square.
- 8) **Choice B is correct.** **(5.NBT.5)** Multiply: $24 \times 35 = 24 \times (30 + 5) = (24 \times 30) + (24 \times 5) = 720 + 120 = 840$ cars.
- 9) **Choice D is correct.** **(5.G.2)** Substitute $x = 6$ into the rule. First double 6 to get 12, then subtract 1: $12 - 1 = 11$.
- 10) **Choice C is correct.** **(5.MD.5)** Choose the operation from the story, then keep the unit with the answer. Subtract: $64.75 - 8.50 = 56.25$ dollars. This confirms the answer.
- 11) **Choice A is correct.** **(5.MD.4)** The base area is 18 square centimeters. Since $144 \div 18 = 8$, the height is 8 cm.
- 12) **Choice A is correct.** **(5.NBT.7)** Annex zeros: $5.00 - 2.37 = 2.63$. Borrow from ones place.
- 13) **Choice D is correct.** **(5.NF.5)** $\frac{1}{4} < 1$, so the result is less than 20.
- 14) **Choice D is correct.** **(5.MD.3)** Prism A: $3 \times 4 \times 5 = 60$ cu. in. Prism B: $3 \times 4 \times 3 = 36$ cu. in. Difference: $60 - 36 = 24$ cu. in.
- 15) **Choice D is correct.** **(5.NF.6)** $\frac{1}{4} \times \frac{8}{9} = \frac{8}{36}$, which simplifies to $\frac{2}{9}$ gallon.
- 16) **Choice A is correct.** **(5.NF.7)** Each whole contains 4 pieces of size $\frac{1}{4}$. With 3 wholes, there are $3 \times 4 = 12$ pieces.
- 17) **Choice B is correct.** **(5.NBT.2)** $0.19 \times 100 = 19$ (decimal moves 2 places right).
- 18) **Choice C is correct.** **(5.OA.1)** Division comes first: $18 \div 6 = 3$. Now the expression is $3 + 3 - 1$, which equals 5.
- 19) **Choice C is correct.** **(5.NBT.2)** $12 \times 100 = 1200$. Append two zeros to 12.
- 20) **The correct answer is 720000.** **(5.NBT.2)** Use $8 \times 9 = 72$. The factors 80 and 9,000 have four zeros total, so the product is 720,000.
- 21) **Choice B is correct.** **(5.MD.4)** Check each product carefully. A: $4 \times 3 \times 6 = 72$. B: $6 \times 2 \times 7 = 84$. C: $5 \times 3 \times 6 = 90$. D: $4 \times 5 \times 4 = 80$. Only the second prism has volume 84 cm^3 .
- 22) **Choices A, B are correct.** **(5.OA.3)** C reverses growth; D is false ($15 \neq 30$).
- 23) **Choice C is correct.** **(5.NBT.2)** A power of 10 tells how many factors of 10 to use. $10^3 = 10 \times 10 \times 10 = 1000$. This confirms the answer.
- 24) **Choice C is correct.** **(5.MD.4)** Volume = $20 \times 15 \times 6 = 1800$ cubic feet.
- 25) **Choice C is correct.** **(5.MD.5)** The base area is $13 \times 5 = 65$ square inches. Since $325 \div 65 = 5$, the height is 5 in.
- 26) **Choice C is correct.** **(5.G.4)** An equilateral triangle has all angles equal to 60 degrees (acute). It cannot be obtuse. All other pairs are possible.
- 27) **Choice C is correct.** **(5.NBT.1)** 0.005 is five thousandths and 0.05 is five hundredths. They are not equal: $0.005 < 0.05$.
- 28) **Choice C is correct.** **(5.NF.4)** $3 \times 2\frac{2}{5} = 3 \times \frac{12}{5} = \frac{36}{5} = 7\frac{1}{5}$.
- 29) **Choice C is correct.** **(5.NBT.2)** Multiplying by 100 moves the decimal two places right, so 3.7 becomes 370.
- 30) **Choice C is correct.** **(5.NF.7)** $3 \div \frac{1}{6} = 3 \times 6 = 18$. There are 18 slices in 3 pizzas.
- 31) **The correct answer is 30 apples.** **(5.G.2)** The x -coordinate is 5, so it represents 5 bags. The y -coordinate is 30, so it represents 30 apples.
- 32) **Choice C is correct.** **(5.NF.7)** $12 \div \frac{1}{2} = 12 \times 2 = 24$ pieces.



Authors' Notes

A Message From Your Math Partner

Hey there, Problem Solver!

◇ Incredible work! You've journeyed through 4 complete practice tests, and that's no small accomplishment! Each question you tackled strengthened your mathematical thinking. When you began, some problems might have felt overwhelming, but now you've developed the skills to break them down systematically. You've transformed into a confident mathematician who understands that persistence beats perfection every single time! ◇

★ **Here's something mathematicians understand:** mistakes are simply opportunities to learn something new. The greatest problem-solvers in history made countless errors before their breakthroughs. Through these 4 tests, you've practiced that same growth mindset. You've discovered that every challenging problem teaches you something valuable, and that knowledge stays with you forever! ★

Your Mathematical Growth Journey

- **Problem-Solving Skills:** EXCEPTIONALLY DEVELOPED! You can analyze complex situations with confidence!
- **Strategic Thinking:** SIGNIFICANTLY STRENGTHENED! You recognize patterns and apply effective strategies!
- **Persistence Level:** REMARKABLY HIGH! You've proven you can work through any challenge!
- **Test Readiness:** COMPLETELY PREPARED! You have all the tools you need to succeed!

Remember this: test day is your opportunity to demonstrate everything you've learned! You've completed 4 comprehensive practice tests; that's substantial preparation! You've analyzed problems, applied strategies, and developed mathematical confidence. Now it's time to showcase your abilities! Take a calming breath, trust your preparation, and remember that every skill you've built is ready to support you. You've got this!

If you'd like to share your experience or have questions, please email me at reza@testinar.com. I'd love to hear from you!

Reza Nazari & Jay Daie

Math Teacher and Your Cheer Squad

4 COMPLETE TESTS. CONFIDENCE. SUCCESS.



Give your child the practice and confidence they need to excel in **Grade 5 Math**. This book includes **4 full-length** practice tests designed to build skills, improve test readiness, and help students reach their full potential.

WHAT'S INSIDE:



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BUILD CONFIDENCE & IMPROVE SCORES

Practice consistently, reduce test anxiety, and achieve your best score!



PRACTICE SMART. LEARN MORE. ACHIEVE YOUR BEST.



Strengthen
Math Skills



Improve
Accuracy
& Speed



Master
Essential
Concepts



Boost
Confidence
on Test Day



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