

FULL-LENGTH

8

Massachusetts

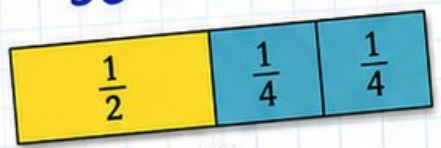
MCAS

GRADE 5

MATH PRACTICE TESTS

Mixed Practice Questions with Answer Key for Students, Parents, and Teachers

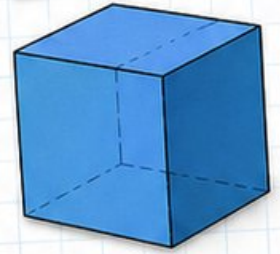
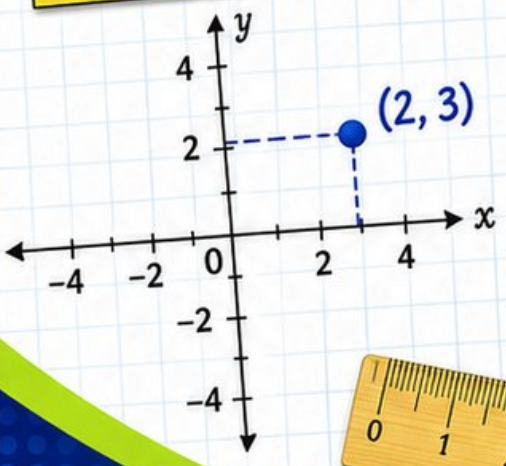
$36 \div 4 = 9$



$2.4 \times 7 = 16.8$

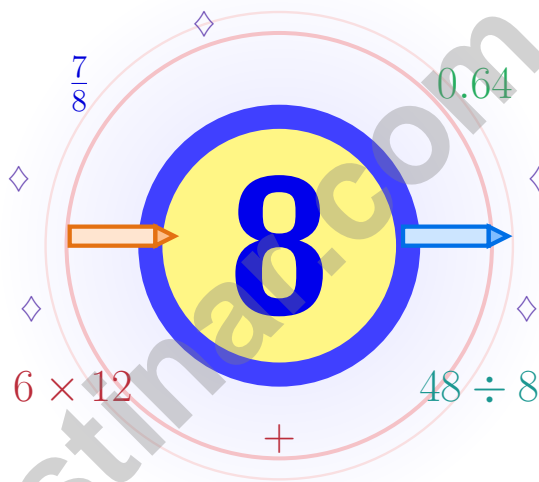
$7 \times (12 - 5) = 49$

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100



8 Massachusetts MCAS Grade 5 Math Practice Tests

A eight-step adventure for Massachusetts Grade 5 thinkers



Eight full tests, a focused quick review, and helpful support that turns Grade 5 practice in The Bay State into steady, confident growth from page one to the final check.

Jay Daie and Reza Nazari



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Massachusetts Mathematicians, Lace Up

A eight-step trail built for steady, brave thinking

An Invitation to Grade 5 in Massachusetts

This practice book is your steady companion for eight tests, not a place to be perfect. Math is a lot like the Freedom Trail – one careful step leads to the next, and every stop adds something to the story.

Use these eight tests like stepping-stones. Take one test at a time, check your answers honestly, and notice which skills need more attention. Small improvements add up across seven rounds.

Read

Read with care – math problems hide their gifts.

Try

Try a strategy that fits the size of the numbers.

Reflect

Reflect after each problem to lock the lesson in.

A strong habit for Massachusetts mathematicians: read carefully, estimate when it helps, show your steps, and keep going even when a question feels tricky. That is how steady math confidence is built.

Testinar.com



Scan me



A Simple Path Through Eight Tests

A simple routine that turns practice into progress

Step 1: Notice

Notice the structure: warm-up, test, review, repair.

Spend a few minutes waking up your memory before the test begins.

Step 2: Practice

Practice one full test in quiet conditions.

Work in a calm spot and focus on careful thinking before speed.

Step 3: Honest Check

Check honestly without rushing.

Circle missed questions and notice which topics keep showing up.

Step 4: Polish

Polish the rough spots before the next test.

Read the explanation, repair the work, and bring that lesson into the next test.



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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

1 kilogram (kg) = 1,000 grams (g)

1 gram (g) = 1,000 milligrams (mg)

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) Compare: $\frac{500}{20} \square \frac{500}{25}$

 A. > B. < C. = D. Cannot tell2) Marcus says that 45×100 has 2 zeros. Is he correct? A. No; the product has 1 zero. B. No; the product has 3 zeros. C. No; the product has 4 zeros. D. Yes, he is correct.3) In the expression $(8 + 4) + 17$, how does the value compare with $(8 + 4)$? Write a short phrase.*Record your answer in the space provided.*

4) A class reward chart tracks two patterns. Tickets start at 20 and add 5 each week. Points start at 4 and add 1 each week. Which relationship is shown?

Week	Tickets	Points
0	20	4
1	25	5
2	30	6
3	35	7

 A. Tickets are 5 times the points each week B. Tickets are 4 times the points each week C. Points are 5 times the tickets each week D. Tickets and points are equal each week

5) A measurement is 11.549 cm. Round to nearest tenth for a woodworking project.

- A. 11.5 cm C. 11.6 cm
 B. 11.54 cm D. 12 cm

6) Place-value chart for 3.915: identify the digit in the tenths place.

Ones	Tenths	Hundredths	Thousandths
3	9	1	5

- A. 3 C. 1
 B. 9 D. 5

7) A store sells 2500 bananas. This equals 25×10^n . Find n .

- A. 1 C. 4
 B. 3 D. 2

8) Multiply: $\frac{1}{5} \times \frac{2}{7}$

- A. $\frac{1}{7}$ C. $\frac{2}{12}$
 B. $\frac{3}{12}$ D. $\frac{2}{35}$

9) Compare the fractions $\frac{2}{5}$ and $\frac{1}{3}$ by finding a common denominator. Which statement is true?

- A. $\frac{2}{5} < \frac{1}{3}$ C. $\frac{2}{5} = \frac{1}{3}$
 B. $\frac{2}{5} > \frac{1}{3}$ D. Cannot compare



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1) Estimate by rounding each mixed number to the nearest whole number: $8\frac{5}{6} - 3\frac{4}{7}$.

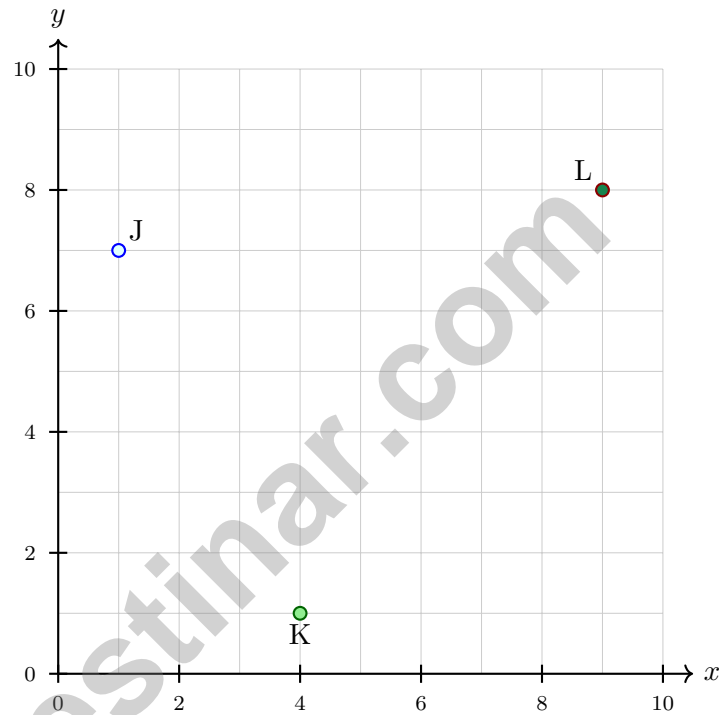
A. 4

C. 6

B. 5

D. 7

2) Which ordered pair corresponds to the letter K on this grid?



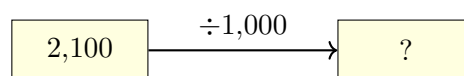
A. (1, 7)

C. (9, 8)

B. (4, 1)

D. (7, 4)

3) Show the division with an arrow diagram:



What is $2,100 \div 1,000$?

A. 2.1

C. 210

B. 21

D. 2,100



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 A is correct.** **(5.OA.A.2)** Both fractions start with the same total, 500. Splitting it into 20 equal parts makes each part larger than splitting it into 25 equal parts.
- 2) **Choice D is correct.** **(5.NBT.A.2)** Yes. Multiplying by 100 gives 4,500, and that product ends with exactly 2 zeros.
- 3) **The correct answer is 17 more.** **(5.OA.A.2)** The expression $(8 + 4) + 17$ is exactly $(8 + 4)$ with 17 added. Accept equivalent wording that says the value is 17 more, including that 17 is added after finding $8 + 4$.
- 4) **Choice A is correct.** **(5.OA.B.3)** At each week, the number of tickets is 5 times the number of points: $20 = 5 \times 4$, $25 = 5 \times 5$, $30 = 5 \times 6$, and $35 = 5 \times 7$.
- 5) **Choice A is correct.** **(5.NBT.A.4)** The tenths digit is 5. The hundredths digit is 4. Since $4 < 5$, keep tenths as 5. So 11.549 rounds to 11.5 cm.
- 6) **Choice B is correct.** **(5.NBT.A.3)** The tenths place is the first position after the decimal point. In 3.915, the tenths digit is 9.
- 7) **Choice D is correct.** **(5.NBT.A.2)** $25 \times 10^2 = 25 \times 100 = 2500$, so $n = 2$.
- 8) **Choice D is correct.** **(5.NBT.A.2)** $\frac{1}{5} \times \frac{2}{7} = \frac{1 \times 2}{5 \times 7} = \frac{2}{35}$.
- 9) **Choice B is correct.** **(5.NF.B.4)** Common denominator is 15. $\frac{2}{5} = \frac{6}{15}$ and $\frac{1}{3} = \frac{5}{15}$. Since $6 > 5$, $\frac{2}{5} > \frac{1}{3}$.
- 10) **Choice A is correct.** **(5.NF.B.6)** Area = $\frac{7}{8} \times \frac{3}{5} = \frac{21}{40}$ m².
- 11) **Choice D is correct.** **(5.NBT.B.5)** Multiply: $304 \times 2 = (300 \times 2) + (4 \times 2) = 600 + 8 = 608$.
- 12) **Choice A is correct.** **(5.NBT.B.5)** A rectangle has four right angles. If it is not a square, it does not have four equal sides.
- 13) **Choice A is correct.** **(5.NF.A.2)** The fractions need a common denominator: $\frac{1}{4} = \frac{3}{12}$ and $\frac{2}{3} = \frac{8}{12}$, so the correct sum is $\frac{11}{12}$. The student incorrectly added both numerators and denominators.
- 14) **Choice D is correct.** **(5.NBT.A.1)** In 1.482, the digit 2 is in the thousandths place, which is the smallest (rightmost) place value. (Ones > tenths > hundredths > thousandths.)
- 15) **Choice D is correct.** **(5.NF.B.4)** $1\frac{1}{2} \times 3 = \frac{3}{2} \times 3 = \frac{9}{2} = 4\frac{1}{2}$ cups.
- 16) **The correct answer is 18.** **(5.NBT.B.7)** $36 \times 5 = 180$. Place the decimal one digit from the right: $18.0 = 18$.
- 17) **Choice B is correct.** **(5.NBT.B.7)** Marcus needs $285 - 147 = 138$ additional dollars. Each week he earns $\$25 + \$12 = \$37$. Dividing: $138 \div 37 \approx 3.73$, so he needs 4 full weeks. Check: $147 + 4 \times 37 = 295 \geq 285$.
- 18) **Choice D is correct.** **(5.NF.A.1)** Add: $5\frac{1}{6} + 1\frac{5}{6} = 6\frac{6}{6} = 7$.
- 19) **Choice C is correct.** **(5.NF.A.1)** 8:30 AM to 1:15 PM: from 8:30 to 12:30 is 4 hours, 12:30 to 1:15 is 45 minutes. Total: 4 hours 45 minutes.
- 20) **Choice D is correct.** **(5.G.B.4)** All three angles (50° , 60° , 70°) are less than 90 degrees, making this an acute triangle.
- 21) **Choice A is correct.** **(5.G.A.2)** The plotted point is at 6 on the time axis and 150 on the distance axis. It represents 6 hours and 150 miles.
- 22) **Choices A, B are correct.** **(5.MD.C.4)** Pair A gives 24 and 24, and Pair B also gives 24 and 24. Pair C gives 24 and 15, and Pair D gives 20 and 18, so those pairs do not match.
- 23) **The correct answer is $\frac{8}{20}$.** **(5.NF.A.2)** Multiply numerator and denominator by 4: $\frac{2 \times 4}{5 \times 4} = \frac{8}{20}$.
- 24) **Choice C is correct.** **(5.NF.A.2)** Work one prism at a time: $11 \times 3 \times 4 = 132$, $9 \times 5 \times 4 = 180$, and $8 \times 2 \times 4 = 64$. Add the non-overlapping volumes: $132 + 180 + 64 = 376$ cubic meters.
- 25) **Choice C is correct.** **(5.OA.B.3)** Start with 2 and multiply by 5 each time. The terms are 2, 10, 50, 250, so the 4th term is 250.
- 26) **Choice D is correct.** **(5.G.A.2)** The points are (2, 2), (4, 4), (6, 6), and (8, 8). The fourth point is (8, 8).
- 27) **Choice B is correct.** **(5.NBT.B.7)** Write 5.00 as 4 ones, 9 tenths, and 10 hundredths. Then subtract by place value: $10 - 3 = 7$ hundredths, $9 - 2 = 7$ tenths, and $4 - 1 = 3$ ones. So $5.00 - 1.23 = 3.77$.
- 28) **Choice C is correct.** **(5.NF.B.6)** Start with one unit fraction, $\frac{1}{4}$, and share it into 5 equal parts. Each part is $\frac{1}{4} \div 5 = \frac{1}{20}$ of the whole.



Captain's Log—Voyage Complete

First Mate, Well Done!

◇ You sailed through 8 practice tests with steady hands and a sharp eye. The waters got rough sometimes, but you kept your course. That's what good sailors do. Now the harbor (test day) is in sight, and you are ready to dock with confidence. ◇

★ **Captain's wisdom:** a good sailor doesn't fight the wind—they read it and adjust. On a test, the same thing is true. When a problem feels tricky, don't panic. Read it again. Try a new strategy. Adjust the sails of your thinking. ★

Captain's Skills Inventory

- **Steady Steering:** EXCELLENT! You stay on course even when problems get tough.
- **Wind Reading:** STRONG! You can spot what a problem is really asking.
- **Crew Spirit:** HIGH! You believe in your own ability.
- **Harbor Approach:** READY! You know how to finish a test calmly.

Final captain's note: the best voyages combine planning with courage. You have both. Trust the chart you built through these 8 tests. Trust your hands on the wheel. Then sail confidently into test day.

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

Your Math Captain (Smooth Sailing Ahead)

$45 \div 5 = ?$

PRACTICE TODAY.

$\frac{3}{5} + \frac{1}{10} = ?$



ACHIEVE TOMORROW!



$3^2 + 4^2 = 25$

This book includes **8** full-length **Grade 5** math practice tests to help students master essential skills, build confidence, and achieve success. Each test is carefully designed to reflect real math standards and cover a variety of question types with detailed answer explanations.

$7x - 4 = 17$

$1\frac{1}{2} + 2\frac{1}{3} = ?$

8 FULL-LENGTH MATH PRACTICE TESTS



REALISTIC PRACTICE

Tests mirror Grade 5 math standards and real assessment formats.



ANSWER KEY INCLUDED

Detailed answer explanations help students understand and learn.



BUILD CONFIDENCE & SKILLS

Strengthens problem-solving abilities and reinforces key math concepts.



IMPROVE & TRACK PROGRESS

Identify strengths and focus on areas that need improvement.



ACHIEVE SUCCESS

Boosts test readiness and helps students achieve their best results.

COVERS ALL KEY GRADE 5 MATH TOPICS

- ✓ Whole Numbers & Operations
- ✓ Fractions & Decimals
- ✓ Algebraic Thinking
- ✓ Geometry
- ✓ Measurement & Data
- ✓ Number Patterns
- ✓ Word Problems
- ✓ Ratio & Proportion
- ✓ Perimeter, Area & Volume
- ✓ Graphing & Data Analysis

...and More!



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ALIGNED TO STANDARDS

Great for Students, Parents, and Teachers!

Practice with purpose. Succeed with confidence!