

8

FULL-LENGTH

Maine

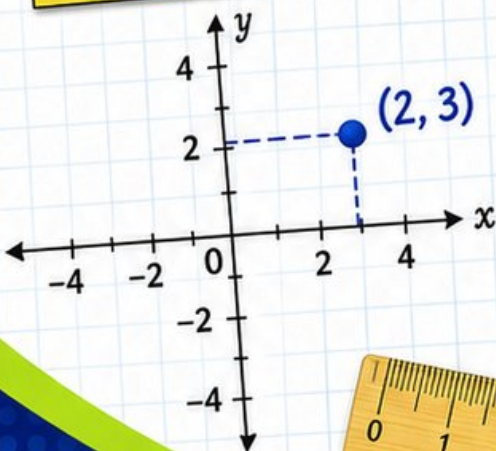
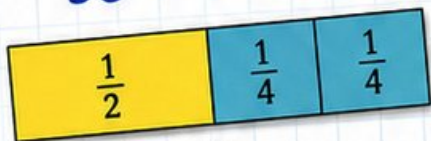
Through Year Assessment

GRADE 5

MATH PRACTICE TESTS

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

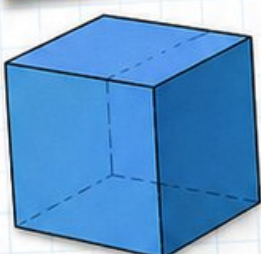
$$36 \div 4 = 9$$



$$2.4 \times 7 = 16.8$$

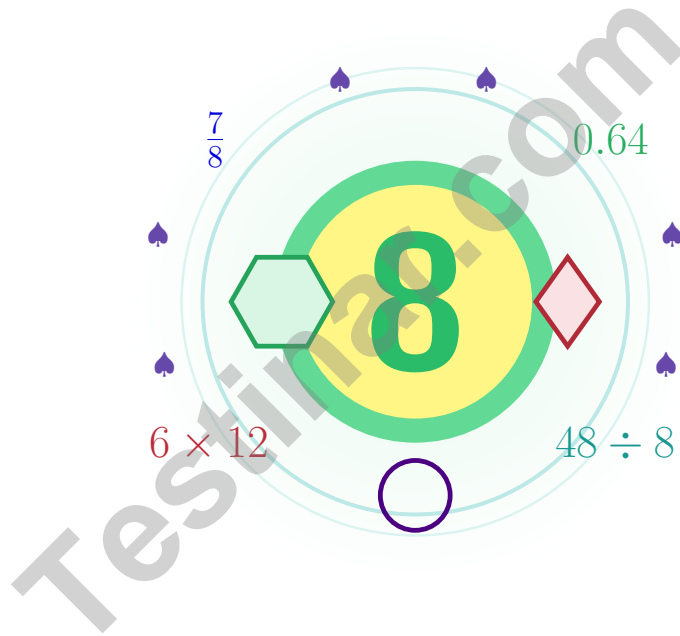
$$7 \times (12 - 5) = 49$$

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 Maine Through Year Assessment Grade 5 Math Practice Tests

Eight full tests, seven lessons, one stronger mathematician



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

Jay Daie and Reza Nazari



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Step Into the Practice Path, Maine

A eight-step expedition for curious Grade 5 thinkers

For Every Curious Mind in Maine

This practice book is your steady companion for eight tests, not a place to be perfect. Math is a lot like the rocky Maine coast – it looks tough at first, but careful steps and patient eyes reveal a steady path.

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.

Notice

Notice the numbers, units, and any tricky words.

Sketch

Sketch a picture, table, or quick number line.

Confirm

Confirm your answer with an estimate or check.

A strong habit for Maine 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.

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Eight Tests, Seven Lessons

A simple routine that turns practice into progress

Step 1: Plan

Plan a quiet hour for one full test.
Spend a few minutes waking up your memory before the test begins.

Step 2: Practice

Take the test with calm focus.
Work in a calm spot and focus on careful thinking before speed.

Step 3: Inspect

Inspect every answer like a careful builder.
Circle missed questions and notice which topics keep showing up.

Step 4: Adjust

Adjust what needs adjusting for 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

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Area of Rectangle $A = l \times w$

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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)

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

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TIME

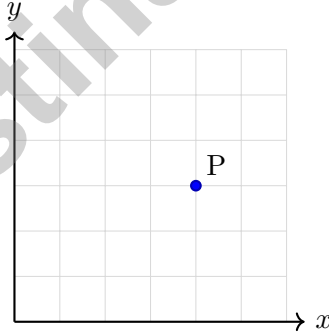
1 minute (min) = 60 seconds (sec) 1 week = 7 days

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- 1) A shipping crate: length 6 ft, width 5 ft, height 3 ft. If you double the height, new volume =?
- A. 90 ft^3 C. 45 ft^3
 B. 360 ft^3 D. 180 ft^3
- 2) A rectangular prism is made up of unit cubes arranged in 9 rows, 4 columns, and stacked 6 high. How many unit cubes (volume) are there?
- A. 180 cubes C. 240 cubes
 B. 216 cubes D. 288 cubes
- 3) Without calculating, which statement is true?
- A. $25 \times \frac{2}{5} > 25$ C. They cannot be compared
 B. $25 \times \frac{2}{5} = 25$ D. $25 \times \frac{2}{5} < 25$
- 4) Point P is shown inside Quadrant I, not on an axis. How many of its coordinates are positive?



Record your answer in the space provided.



5) A fabric roll has 4 yards. Each bookmark uses one eighth yard. Which division equation finds how many bookmarks can be made?

A. $4 \div \frac{1}{8} = n$

B. $\frac{1}{8} \div 4 = n$

C. $4 \times \frac{1}{8} = n$

D. $4 + \frac{1}{8} = n$

6) A science class measures 1.5 milliliters of liquid for each sample. How many milliliters are needed for 100 samples?

A. 15

B. 150

C. 1500

D. 15000

7) The output equals input \times input. What ordered pair has input 5?

A. (5, 10)

B. (5, 15)

C. (5, 20)

D. (5, 25)

8) Subtract: $16\frac{2}{6} - 9\frac{4}{6}$.

Minuend: $16\frac{2}{6}$

Subtrahend: $9\frac{4}{6}$

Since $\frac{2}{6} < \frac{4}{6}$, borrow 1:

$$15\frac{8}{6} - 9\frac{4}{6} = ?$$

A. $6\frac{1}{3}$

B. $6\frac{2}{3}$

C. $7\frac{1}{3}$

D. $7\frac{2}{3}$

9) A distance is 8.642 km. If rounded to the nearest tenth, what is it?

A. 8.6 km

B. 8.64 km

C. 8.7 km

D. 9 km



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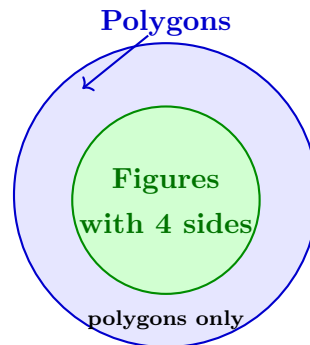
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- 1) A Venn diagram has a large circle for polygons and a smaller circle inside it for figures with 4 sides. Which figure belongs inside the large circle but outside the smaller circle?



- A. Rectangle
- B. Square
- C. Triangle
- D. Rhombus
- 2) What is $1\frac{1}{2} + 2\frac{3}{4} + 1\frac{1}{4}$?
- A. $4\frac{1}{2}$
- B. 5
- C. $5\frac{1}{2}$
- D. 6
- 3) A garden path is 150 meters long. What is this distance in kilometers?
- A. 0.15 km
- B. 1.5 km
- C. 15 km
- D. 150 km
- 4) A cube is built from 6 layers of unit cubes. Each layer is a 6×6 array. How many unit cubes are in the cube?
- A. 36 unit cubes
- B. 72 unit cubes
- C. 216 unit cubes
- D. 432 unit cubes



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1) A storage box measures 7 inches long, 3 inches wide, and 2 inches tall. What is its volume?

- A. 21 cubic inches C. 14 cubic inches
 B. 42 cubic inches D. 6 cubic inches

2) Estimate $\frac{11}{12} - \frac{1}{8}$ using 0, $\frac{1}{2}$, and 1 benchmarks.

Record your answer in the space provided.

3) A student claims $\frac{3}{5} = \frac{3}{10}$ by adding 5 to the denominator. What mistake did they make?

- A. They should multiply both numerator and denominator by the same number C. The fractions are actually equivalent
 B. They added to the denominator but forgot to add to the numerator D. They should have subtracted instead

4) A rectangular container has dimensions 15 cm, 10 cm, and 8 cm. A smaller container has dimensions 12 cm, 8 cm, and 5 cm. What is the difference in their volumes?

Container	Length	Width	Height	Volume
Large	15	10	8	1200
Small	12	8	5	480

- A. 480 cubic centimeters C. 720 cubic centimeters
 B. 600 cubic centimeters D. 900 cubic centimeters



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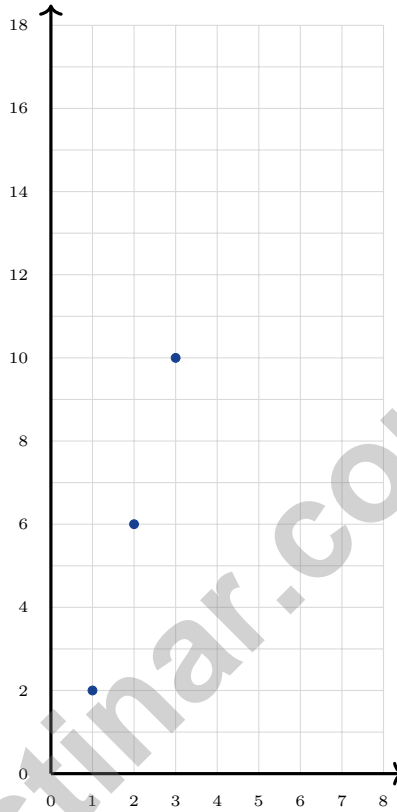
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- 1) A graph shows the first three ordered pairs. For each x -value, multiply by 4 and subtract 2 to get the y -value. Which point should be plotted next?



- A. (1, 3) C. (4, 14)
- B. (2, 6) D. (4, 15)
- 2) Which operation changes 2.5 to 250?
- A. $\times 10$ C. $\div 10$
- B. $\times 100$ D. $\div 100$



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 D is correct.** (5.MD.C.5b) New height = 6 ft. $V = 6 \times 5 \times 6 = 180 \text{ ft}^3$.
- 2) **Choice B is correct.** (5.MD.C.5b) Volume = $9 \times 4 \times 6 = 36 \times 6 = 216$ cubic units.
- 3) **Choice D is correct.** (5.NF.B.5a) $\frac{2}{5} < 1$, so multiplying makes the result smaller.
- 4) **The correct answer is 2.** (5.G.A.1) Point P is inside Quadrant I, so its x-coordinate and y-coordinate are both positive. Points on an axis can have a 0 coordinate, but this point is not on an axis.
- 5) **Choice A is correct.** (5.NF.B.7c) Use total amount divided by the size of one piece. The equation is $4 \div \frac{1}{8} = n$.
- 6) **Choice B is correct.** (5.NBT.A.2) $1.5 \times 100 = 150$.
- 7) **Choice D is correct.** (5.NBT.A.2) Use output = input \times input. With input 5, the output is $5 \times 5 = 25$, so the ordered pair is (5, 25).
- 8) **Choice B is correct.** (5.G.A.2) Borrow 1: $16\frac{2}{6} = 15\frac{8}{6}$. Then $15\frac{8}{6} - 9\frac{4}{6} = 6\frac{4}{6} = 6\frac{2}{3}$.
- 9) **Choice A is correct.** (5.NBT.A.4) The tenths digit is 6. The hundredths digit is 4. Since $4 < 5$, keep tenths as 6. So 8.642 rounds to 8.6 km.
- 10) **Choice D is correct.** (5.NBT.A.4) Count X marks at 4, 5, and 6. That is $3 + 4 + 1 = 8$ students who read at least 4 books.
- 11) **Choice B is correct.** (5.G.A.2) For each point: $2/2 = 1$, $4/2 = 2$, $6/2 = 3$, $8/2 = 4$. The y -value is half the x -value.
- 12) **Choice C is correct.** (5.MD.A.1) The meeting time is 1 hour 20 minutes + 15 minutes + 30 minutes = 2 hours 5 minutes. 9:15 AM plus 2:05 is 11:20 AM.
- 13) **Choice D is correct.** (5.OA.A.2) The difference of 10 and 4 must stay grouped as (10 - 4). Then multiply 9 by that whole difference.
- 14) **Choice A is correct.** (5.MD.C.5) Use the rectangular-prism volume formula: $5 \times 5 \times 2 = 50$. So the volume is 50 cubic centimeters.
- 15) **Choice C is correct.** (5.NF.B.7c) Each whole contains 6 pieces of size $\frac{1}{6}$. With 3 wholes, there are $3 \times 6 = 18$ pieces.
- 16) **Choice C is correct.** (5.NF.A.2) $\frac{4}{9} \approx \frac{1}{2}$ and $\frac{2}{5} \approx \frac{1}{2}$. Sum: $\frac{1}{2} + \frac{1}{2} = 1$.
- 17) **Choice A is correct.** (5.NF.A.2) $\frac{1}{3} = \frac{4}{12}$, $\frac{1}{4} = \frac{3}{12}$, and $\frac{1}{6} = \frac{2}{12}$. These are the correct denominator-12 forms.
- 18) **Choice D is correct.** (5.NBT.A.3a) "Two and thirty-seven hundredths" means 2 whole units and 37 hundredths: 2.37.
- 19) **Choice A is correct.** (5.NBT.A.3a) All ones digits are 4. Compare tenths and hundredths: $4.05 < 4.15 < 4.40 < 4.55$.
- 20) **The correct answer is $\frac{1}{4}$.** (5.NF.A.2) $\frac{2}{3} = \frac{8}{12}$. Difference: $\frac{3}{12} = \frac{1}{4}$.
- 21) **Choices A, B are correct.** (5.NF.A.2) $7 \times 10^2 = 700$ and $23 \times 10^3 = 23,000$. C should be 50,000, and D should be 600.
- 22) **The correct answer is 5.** (5.OA.B.3) $5 = 5 \times 1$, $10 = 5 \times 2$, etc. Each A term is 5 times its B term.
- 23) **The correct answer is 5.75.** (5.OA.B.3) Write $9.40 - 3.65$. Regroup 1 tenth as 10 hundredths, then subtract by place value: $9.40 - 3.65 = 5.75$.
- 24) **Choice D is correct.** (5.NBT.B.7) The base area is $14 \times 9 = 126$ square centimeters. Since $378 \div 126 = 3$, the height is 3 cm.
- 25) **Choice C is correct.** (5.NBT.B.7) 0.3×0.7 : Multiply $3 \times 7 = 21$. Both factors have 1 decimal place each, so total is $1 + 1 = 2$ places: 0.21, not 2.1.
- 26) **The correct answer is 20.** (5.NF.B.3) Each whole contains 5 one-fifth pieces. With 4 wholes, $4 \times 5 = 20$, so there are 20 fifths in all.
- 27) **Choice C is correct.** (5.NF.B.3) $7 \times \frac{3}{2} = \frac{21}{2} = 10\frac{1}{2}$ cm. The bar diagram shows the scaled length is longer, as $\frac{3}{2} > 1$.
- 28) **Choice D is correct.** (5.NF.B.6) Friend gets: $\frac{1}{4} \times 80 = 20$ cookies. Remainder: $80 - 20 = 60$ cookies. Neighbor gets: $\frac{2}{5} \times 60 = 24$ cookies.
- 29) **Choice D is correct.** (5.NF.B.3) All other expressions equal $\frac{1}{20}$: $\frac{1}{4} \div 5 = \frac{1}{20}$, $\frac{1}{5} \div 4 = \frac{1}{20}$, $\frac{1}{10} \div 2 = \frac{1}{20}$. But $\frac{1}{2} \div 5 = \frac{1}{10}$.
- 30) **Choice D is correct.** (5.NF.B.4b) In an area model, divide one dimension into 2 equal parts (for $\frac{1}{2}$) and the other into 3 equal parts (for $\frac{1}{3}$). The overlapping shaded region is 1 out of 6 total squares, so the product is $\frac{1}{6}$.



Notes From Your Math Architect

Dear Builder of Big Ideas,

◇ Across 8 practice tests, you laid down brick after brick of math skill. The foundation is solid. The walls are strong. The roof is in place. You've built yourself a study sturdy enough to stand any storm test day might bring. ◇

★ **What architects know:** a great building starts with a great plan. You've practiced planning—reading carefully, picking your strategy, and working step by step. That blueprint thinking is what turns hard problems into clear answers. ★

Builder's Inspection Checklist

- **Foundation:** ROCK SOLID! Number sense, fractions, decimals—all in place.
- **Frame:** STRONG! You can break down a problem into clear parts.
- **Walls:** TIGHT! Your work is organized and easy to follow.
- **Roof:** FINISHED! You always answer the question that was asked.

Architect's tip: on test day, build each answer like a small building. Foundation: read the question. Frame: pick the strategy. Walls: do the math. Roof: check the answer. Each piece matters. Each piece is yours.

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 Architect (Built to Last)

$45 \div 5 = ?$

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.

$7x - 4 = 17$

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

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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.

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- ✓ Fractions & Decimals
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- ✓ Measurement & Data
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