

8

FULL-LENGTH

Virginia

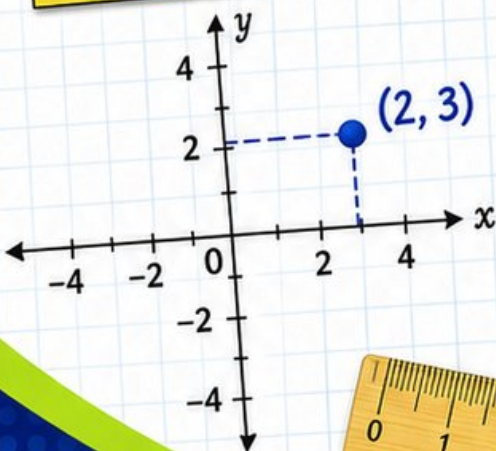
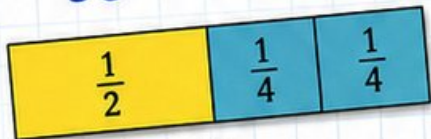
SOL

GRADE 5

MATH PRACTICE TESTS

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

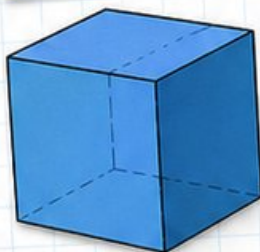
$$36 \div 4 = 9$$



$$2.4 \times 7 = 16.8$$

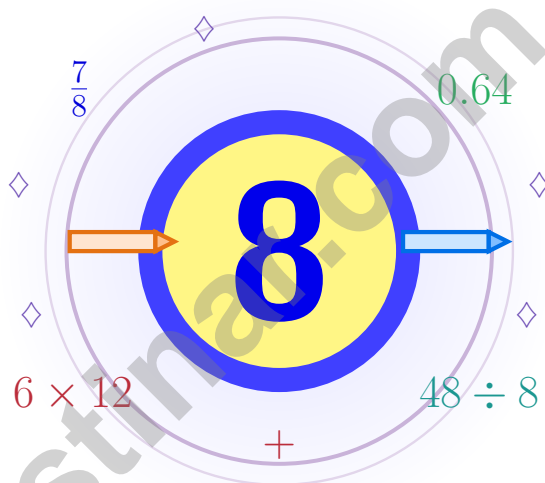
$$7 \times (12 - 5) = 49$$

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 Virginia SOL Grade 5 Math Practice Tests

This book is here to help you practice, reflect, and rise across eight tests



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

Jay Daie and Reza Nazari



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Open the Trail, Virginia

Seven practice tests woven into one calm routine

Welcome Letter for Virginia Math Trail Crew

This practice book is your steady companion for eight tests, not a place to be perfect. Math is like the Blue Ridge Parkway – the careful drive rewards every curve with a wider view.

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.

Watch

Watch what the problem actually wants from you.

Choose

Choose the operation, model, or table that fits.

Polish

Check labels, units, and the final word of the question.

A strong habit for Virginia 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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A Map of the Pages

A simple routine that turns practice into progress

Step 1: Open

Open the warm-up review and use it.

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

Step 2: Test

Take the test with steady focus.

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

Step 3: Reflect

Notice what was sharp and what was shaky.

Circle missed questions and notice which topics keep showing up.

Step 4: Sharpen

Practice the shaky skills before the next round.

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

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TIME

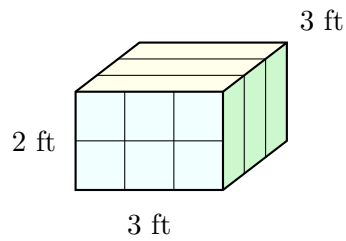
1 minute (min) = 60 seconds (sec) 1 week = 7 days

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- 1) How many cubic feet of space does a storage box with dimensions $3\text{ ft} \times 3\text{ ft} \times 2\text{ ft}$ contain?



- A. 8 cubic feet
- B. 12 cubic feet
- C. 18 cubic feet
- D. 24 cubic feet
- 2) What is the x-coordinate of $(5, 2)$?

Record your answer in the space provided.

- 3) What is 45×7 ?
- A. 305
- B. 315
- C. 325
- D. 350
- 4) Without computing: how many trailing zeros does 500×300 have?
- A. 3
- B. 4
- C. 5
- D. 6



5) A student writes $6 \div \frac{1}{3} = \frac{1}{18}$. What is the mistake?

- A. The quotient should be smaller than 6.
 B. The student should count thirds in 6 wholes: $6 \times 3 = 18$.
 C. The expression should be $\frac{1}{3} \div 6$ for this story.
 D. The expression uses addition, not division.

6) Compare $\frac{3}{4}$ and $\frac{5}{6}$ by rewriting with a common denominator. Which is greater?

Fraction	LCD	Equivalent
$\frac{3}{4}$	12	$\frac{9}{12}$
$\frac{5}{6}$	12	$\frac{10}{12}$

- A. $\frac{3}{4}$
 B. Cannot tell
 C. They are equal
 D. $\frac{5}{6}$

7) A baker has 1 pound of cookie dough. Each cookie uses $\frac{1}{5}$ pound of dough. How many cookies can she make?

1 pound of dough



each $\frac{1}{5}$ lb

- A. 5 cookies
 B. 3 cookies
 C. 6 cookies
 D. 9 cookies

8) Evaluate the expression: $\{[(8 + 2) \times 3] - 5\} \times 2$

Record your answer in the space provided.



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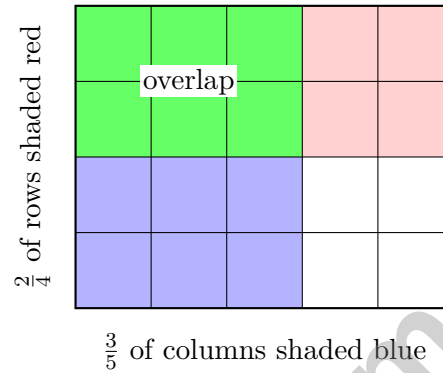
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- 1) Use the area model to find $\frac{3}{5} \times \frac{2}{4}$. The grid is split into 5 columns and 4 rows. The first factor marks 3 of the 5 columns, and the second factor marks 2 of the 4 rows. The overlap is the part counted for the product.



What is the product?

- A. $\frac{3}{10}$
 C. $\frac{6}{9}$
 B. $\frac{5}{9}$
 D. $\frac{7}{20}$
- 2) A rectangular prism has volume 280 in^3 and dimensions $10 \text{ in} \times 7 \text{ in} \times ?$. What is the missing dimension?
- A. 2 in
 C. 4 in
 B. 3 in
 D. 5 in
- 3) At a farmers' market, apples cost \$3.29 per lb and oranges cost \$2.74 per lb. If you buy 1 lb of each, what is the total cost?
- A. \$5.93
 C. \$6.13
 B. \$6.03
 D. \$6.93



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1) Which phrase matches $8 \times (6 - 2)$?

- A. 8 times 6 minus 2 C. The difference of 8 times 6 and 2
 B. 8 times the difference of 6 and 2 D. 2 less than 8 times 6

2) Which division is performed incorrectly?

Problem	Work
A	$650 \div 25 = 26$
B	$576 \div 18 = 32$
C	$847 \div 22 = 38 \text{ R}10$
D	$1,000 \div 40 = 25$

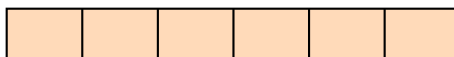
- A. A C. C
 B. B D. D

3) Which subtraction result is NOT in simplest form?

- A. $7\frac{3}{8} - 2\frac{2}{8}$ gives $5\frac{1}{8}$ C. $8\frac{6}{9} - 3\frac{2}{9}$ gives $5\frac{4}{9}$
 B. $6\frac{4}{10} - 1\frac{1}{10}$ gives $5\frac{3}{10}$ D. $9\frac{8}{12} - 4\frac{5}{12}$ gives $5\frac{3}{12}$

4) A library has 6 boxes of books. Each display stack uses $\frac{1}{6}$ of a box. How many display stacks can the librarian make?

Each box makes 6 one-sixth-box stacks



6 boxes total

- A. 36 stacks C. 24 stacks
 B. 30 stacks D. 40 stacks



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1) To add $\frac{1}{8}$ and $\frac{3}{12}$, what common denominator should you use?

A. 12

C. 96

B. 24

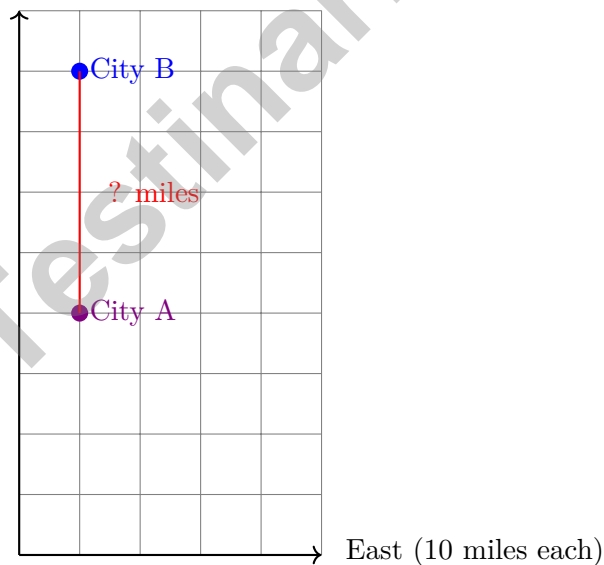
D. 8

2) What ordered pair is 6 units right and 4 units up from the origin?

Record your answer in the space provided.

3) Two cities on a map are located at (1, 4) and (1, 8). If each grid square represents 10 miles, what is the distance between the cities?

North (10 miles each)



A. 20 miles

C. 40 miles

B. 30 miles

D. 50 miles



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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.

Testinar.com



Practice Test Answers and Explanations

Practice Test 1 Answers and Explanations

- 1) **Choice C is correct.** **(5.MG.1)** $V = 3 \times 3 \times 2 = 18$ cubic feet.
- 2) **The correct answer is 5.** **(5.MG.1)** The first number in an ordered pair is the x-coordinate.
- 3) **Choice B is correct.** **(5.MG.1)** Break 45 into 40 and 5: $(40 \times 7) + (5 \times 7) = 280 + 35 = 315$.
- 4) **Choice B is correct.** **(5.MG.2)** $5 \times 3 = 15$, which does not end in zero. The four factor zeros make 150,000, and that product has 4 trailing zeros.
- 5) **Choice B is correct.** **(5.CE.2)** Dividing a whole number by a unit fraction counts pieces. Six wholes have $6 \times 3 = 18$ thirds, so the student's quotient is too small.
- 6) **Choice D is correct.** **(5.CE.2)** $\frac{3}{4} = \frac{9}{12}$ and $\frac{5}{6} = \frac{10}{12}$. Since $\frac{10}{12} > \frac{9}{12}$, $\frac{5}{6}$ is greater.
- 7) **Choice A is correct.** **(5.CE.2)** Think, "How many one-fifth-pound groups are in one pound?" Since $1 \div \frac{1}{5} = 5$, she can make 5 cookies.
- 8) **The correct answer is 50.** **(5.CE.4)** Innermost first: $8 + 2 = 10$. Then $10 \times 3 = 30$. Then $30 - 5 = 25$. Finally $25 \times 2 = 50$.
- 9) **Choice A is correct.** **(5.CE.4)** The blue region shows 3 out of 7 columns. The red region shows 2 out of 4 rows. The overlap is $\frac{3}{7} \times \frac{1}{2} = \frac{3}{14}$.
- 10) **Choice C is correct.** **(5.MG.3)** An octagon has 8 sides and 8 vertices. (A pentagon has 5, a hexagon has 6, a nonagon has 9.)
- 11) **Choice D is correct.** **(5.MG.3)** The question counts how many fourth-size pieces fit in 3 wholes. So the matching division equation is $3 \div \frac{1}{4} = ?$.
- 12) **Choice B is correct.** **(5.CE.2)** Total poured out: $\frac{2}{5} + \frac{1}{5} = \frac{3}{5}$. Remaining: $1 - \frac{3}{5} = \frac{2}{5}$ liter.
- 13) **The correct answer is $\frac{1}{18}$.** **(5.CE.2)** $\frac{1}{6} \times \frac{1}{3} = \frac{1}{18}$.
- 14) **The correct answer is 3.** **(5.CE.2)** First simplify $\frac{2}{6}$ to $\frac{1}{3}$. Then $9 \times \frac{1}{3} = \frac{9}{3} = 3$.
- 15) **Choice A is correct.** **(5.CE.2)** $\frac{4}{5} < 1$, so multiplying 35 by it gives a smaller result.
- 16) **Choice A is correct.** **(5.PFA.1)** On a 10×10 hundredths grid, shading 7 columns (width) and 8 rows (height) gives $7 \times 8 = 56$ shaded squares, representing 0.56 or 56%.
- 17) **Choice D is correct.** **(5.MG.1)** 1 km = 1,000 m. Multiply: $42 \times 1000 = 42000$ m.
- 18) **Choice C is correct.** **(5.MG.1)** Multiply: $18.50 \times 20 = 370$ dollars per week.
- 19) **Choice D is correct.** **(5.CE.2)** $25 \times \frac{4}{5} = 20$ grams. Scaling by $\frac{4}{5}$ reduces the amount because the fraction is less than 1.
- 20) **Choice C is correct.** **(5.PS.1)** Count X marks at 4, $4\frac{1}{2}$, and 5 inches. That is $2 + 1 + 2 = 5$ ribbon lengths that are 4 inches or longer.
- 21) **Choices A, B are correct.** **(5.NS.1)** C is about $\frac{7}{10}$; D is $\frac{3}{4}$.
- 22) **Choice D is correct.** **(5.MG.2)** Breakfast is 1 cup 2 fluid ounces, or 10 fluid ounces. Dinner is 1 cup 6 fluid ounces, or 14 fluid ounces, so the total is $10 + 14 = 24$ fluid ounces.
- 23) **Choice D is correct.** **(5.MG.1)** Move 3 units right for the x-coordinate and 2 units up for the y-coordinate. Point P is at (3, 2), so P matches the description.
- 24) **Choice D is correct.** **(5.CE.2)** $7 \div \frac{1}{2} = 7 \times 2 = 14$. We need 14 bottles.
- 25) **Choice A is correct.** **(5.NS.2)** In 9.16, the 1 is in the tenths place (0.1) and the 6 is in the hundredths place (0.06). So $9.16 = 9 + 0.1 + 0.06$.
- 26) **Choice C is correct.** **(5.MG.2)** Volume = $11 \times 9 \times 7 = 693$ cubic meters.
- 27) **Choice A is correct.** **(5.NS.2)** A is true. B, C, and D do not match the stated products.
- 28) **Choice D is correct.** **(5.NS.2)** Find each part first: Prism A is $7 \times 4 \times 6 = 168$ cubic inches, and Prism B is $6 \times 4 \times 2 = 48$ cubic inches. Because the parts do not overlap, add them: $168 + 48 = 216$ cubic inches.
- 29) **Choice A is correct.** **(5.CE.2)** The overlap covers 2 of the 10 equal cells. Since $\frac{2}{10} = \frac{1}{5}$, the product is $\frac{1}{5}$.
- 30) **Choice B is correct.** **(5.NS.2)** Dividing by 10 moves the decimal one place left, so 2,478 becomes 247.8.



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.

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- ✓ Fractions & Decimals
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- ✓ Geometry
- ✓ Measurement & Data
- ✓ Number Patterns
- ✓ Word Problems
- ✓ Ratio & Proportion
- ✓ Perimeter, Area & Volume
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...and More!



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ALIGNED TO STANDARDS

Great for Students, Parents, and Teachers!

Practice with purpose. Succeed with confidence!