

FULL-LENGTH

8

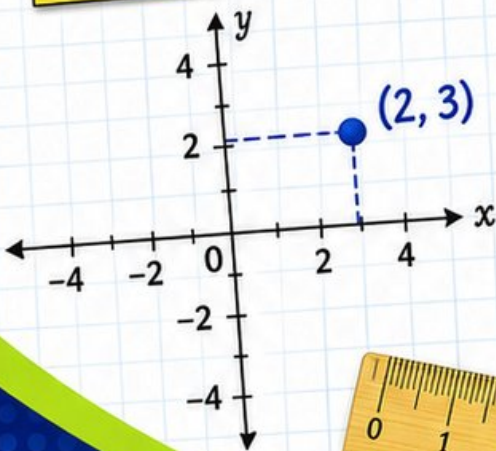
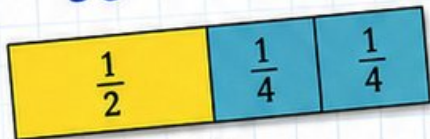
New York  
NYSTP

GRADE 5

MATH PRACTICE TESTS

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

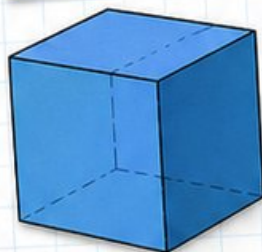
$$36 \div 4 = 9$$



$$2.4 \times 7 = 16.8$$

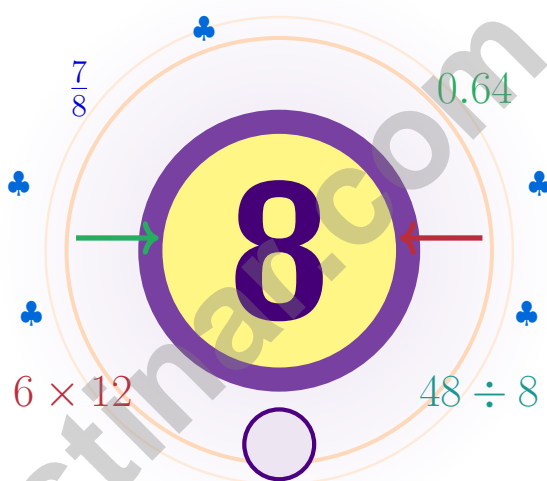
$$7 \times (12 - 5) = 49$$

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 New York NYSTP Grade 5 Math Practice Tests

*A eight-step adventure for New York Grade 5 thinkers*



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

**Jay Daie and Reza Nazari**



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# New York Mathematicians, Lace Up

A eight-step trail built for steady, brave thinking

## An Invitation to Grade 5 in New York

This practice book is your steady companion for eight tests, not a place to be perfect. Math is a lot like a New York skyline – it grows tall because every floor was framed with care.

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 New York 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 Simple Path Through Eight Tests

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)

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### TIME

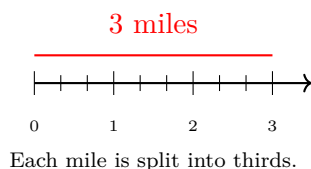
1 minute (min) = 60 seconds (sec)    1 week = 7 days

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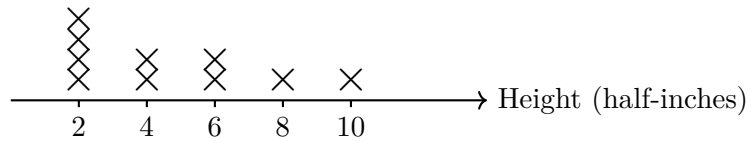
- 1) A trail is divided into  $\frac{1}{3}$ -mile segments. How many segments are in 3 miles?



- A. 3
- B. 6
- C. 9
- D. 12
- 2) Which expression represents a number with the digit 5 in the ten-thousands place?
- A.  $5 \times 10^3$
- B.  $5 \times 10^1$
- C.  $5 \times 10^2$
- D.  $5 \times 10^4$
- 3) Three identical rectangular prisms each have dimensions 4 in  $\times$  5 in  $\times$  3 in. What is the total volume of all three?
- A.  $180 \text{ in}^3$
- B.  $240 \text{ in}^3$
- C.  $300 \text{ in}^3$
- D.  $360 \text{ in}^3$
- 4) One sixth of a chocolate bar is split among 5 friends. Which division equation finds each share?
- A.  $5 \div \frac{1}{6} = n$
- B.  $\frac{1}{6} \times 5 = n$
- C.  $\frac{1}{6} \div 5 = n$
- D.  $5 + \frac{1}{6} = n$



- 5) The line plot shows the heights (in half-inches) of plant seedlings in a garden:



What is the total height of all seedlings in inches?

- A. 21 inches
- B. 22 inches
- C. 23 inches
- D. 24 inches
- 6) A strip shows one eighth split into 3 equal parts. Which equation matches the model?
- A.  $3 \div \frac{1}{8} = ?$
- B.  $\frac{1}{8} \times 3 = ?$
- C.  $\frac{1}{8} \div 3 = ?$
- D.  $3 + \frac{1}{8} = ?$
- 7) Tailor has two cloth pieces:  $3\frac{2}{5}$  yd and  $2\frac{3}{5}$  yd. Total?
- A. 5 yd
- B. 6 yd
- C.  $6\frac{1}{5}$  yd
- D.  $6\frac{3}{5}$  yd
- 8) Find:  $0.4 \div 10$ .

*Record your answer in the space provided.*



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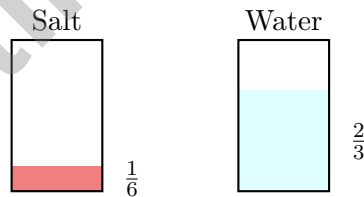
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- 1) Pattern Iota: 3, 6, 9, 12, 15. Pattern Kappa: 9, 18, 27, 36, 45. Which student correctly identifies the relationship?
- A. Maria: Kappa is 6 more than Iota
- B. Leo: Kappa is 3 less than Iota
- C. Sophie: Kappa is twice Iota, then 3 more
- D. Juan: Kappa is 3 times Iota
- 2) A farmer harvests  $\frac{3}{5}$  of his wheat crop. The crop weighs 120 pounds. How many pounds did he harvest?
- A. 36 pounds
- B. 48 pounds
- C. 72 pounds
- D. 80 pounds
- 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
- B. \$6.03
- C. \$6.13
- D. \$6.93
- 4) A soup recipe calls for  $\frac{1}{6}$  cup of salt and  $\frac{2}{3}$  cup of water. Which amount is more?



- A. Salt is more
- B. Cannot determine
- C. They are equal
- D. Water is more



## Grade 5 Mathematics Reference Materials

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

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



1) Subtract:  $10 - 3\frac{2}{7}$ .

A.  $6\frac{5}{7}$

B.  $6\frac{4}{7}$

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

D.  $7\frac{5}{7}$

2) What is the x-coordinate of (5, 2)?

*Record your answer in the space provided.*

3) A water tank holds 250 liters. It currently has 165.5 liters. How many more liters are needed to fill the tank completely?

A. 74.5 liters

B. 94.5 liters

C. 84.5 liters

D. 104.5 liters

4) Pattern:  $15 \times 10 = 150$ ;  $15 \times 100 = 1,500$ ;  $15 \times 1,000 = ?$

A. 150

B. 1,500

C. 15,000

D. 150,000

5) A warehouse has 27 packs of 100 boxes each. How many boxes total?

A. 127

B. 270

C. 27000

D. 2700



## 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 C is correct.** (5.NF.7b)  $3 \div \frac{1}{3} = 3 \times 3 = 9$ . There are 9 segments.
- 2) **Choice D is correct.** (5.NBT.2)  $5 \times 10^4 = 50000$  has 5 in the ten-thousands place.
- 3) **Choice A is correct.** (5.MD.5a) One prism:  $4 \times 5 \times 3 = 60 \text{ in}^3$ . Three prisms:  $60 \times 3 = 180 \text{ in}^3$ .
- 4) **Choice C is correct.** (5.NF.7c) The unit fraction is the amount being shared, so divide  $\frac{1}{6}$  by 5. The equation is  $\frac{1}{6} \div 5 = n$ .
- 5) **Choice C is correct.** (5.MD.2) The labels are in half-inches. The total is  $(2 \times 4) + (4 \times 2) + (6 \times 2) + (8 \times 1) + (10 \times 1) = 46$  half-inches. Since 2 half-inches make 1 inch,  $46 \div 2 = 23$  inches.
- 6) **Choice C is correct.** (5.NF.7c) The strip starts with one eighth, then shares that small amount into 3 parts. So the matching division equation is  $\frac{1}{8} \div 3 = ?$ .
- 7) **Choice B is correct.** (5.NF.1) Add:  $3\frac{2}{5} + 2\frac{3}{5} = 5\frac{5}{5} = 6$  yd.
- 8) **The correct answer is 0.04.** (5.NBT.2) Move the decimal point one place left:  $0.4 \rightarrow 0.04$ .
- 9) **Choice D is correct.** (5.NBT.2) 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.
- 10) **Choice C is correct.** (5.NF.2) The list for 10 reaches 90, and the list for 9 also reaches 90. No smaller number appears in both lists, so the LCD is 90.
- 11) **Choice B is correct.** (5.MD.5) The base layer has  $8 \times 4 = 32$  square units. Divide the volume by the base area:  $128 \div 32 = 4$ , so the height is 4 inches.
- 12) **The correct answer is 3.** (5.G.2) For nonzero terms,  $9 \div 3 = 3$ ,  $18 \div 6 = 3$ , and  $27 \div 9 = 3$ .
- 13) **Choice B is correct.** (5.G.2)  $\frac{1}{6} \div 2 = \frac{1}{12}$  m.
- 14) **Choice C is correct.** (5.NF.5b) Since  $\frac{5}{3} > 1$ , multiplying by it makes the result greater than 12.
- 15) **Choice B is correct.** (5.G.4) A rhombus is a quadrilateral with all sides equal. If opposite angles are also equal, it is a rhombus (not necessarily a square).
- 16) **Choice B is correct.** (5.G.2) Point X is 9 units right and 1 unit up, matching the coordinates (9, 1).
- 17) **Choice D is correct.** (5.NF.2) Multiply both the numerator and the denominator of  $\frac{3}{5}$  by 2:  $\frac{3 \times 2}{5 \times 2} = \frac{6}{10}$ . So  $\frac{3}{5}$  and  $\frac{6}{10}$  are equivalent.
- 18) **Choices A, B are correct.** (5.NBT.4) 3.17 and 3.24 both round to 3.2 to the nearest tenth. 3.25 rounds up to 3.3, and 3.09 rounds to 3.1.
- 19) **Choice C is correct.** (5.MD.5a) Compute each volume: P =  $5 \times 4 \times 6 = 120$ ; Q =  $10 \times 3 \times 5 = 150$ ; R =  $8 \times 6 \times 2 = 96$ ; S =  $4 \times 4 \times 6 = 96$ . Only R and S have the same volume (96 cubic units).
- 20) **Choice C is correct.** (5.NF.2) Use a common denominator of 24:  $\frac{5}{6} = \frac{20}{24}$  and  $\frac{3}{8} = \frac{9}{24}$ . Then  $\frac{20}{24} - \frac{9}{24} = \frac{11}{24}$  yard.
- 21) **Choice D is correct.** (5.G.2) First ordered pair: (Pattern 1 first value, Pattern 2 first value) = (5, 2).
- 22) **Choice D is correct.** (5.NBT.2) The blank must make the product end with exactly 2 zeros.  $3 \times 200 = 600$ , and 600 has exactly 2 zeros.
- 23) **Choice C is correct.** (5.NBT.7) Multiply:  $56 \times 15 = 840$ , then place decimal two places from right:  $8.40 = 8.4$ .
- 24) **Choice A is correct.** (5.NBT.7) Round:  $823 \approx 800$  and  $41 \approx 40$ . So  $800 \div 40 = 20$ . Actual:  $823 \div 41 = 20 \text{ R}3$ .
- 25) **Choice A is correct.** (5.G.4) An equilateral triangle is classified by its side lengths: all three sides are equal.
- 26) **The correct answer is 60.** (5.MD.4) Multiply the number of cubes in each layer by the number of layers:  $12 \times 5 = 60$ . The volume is 60 cubic units.
- 27) **Choice D is correct.** (5.MD.4) Since 1 pound = 16 ounces, multiply 4 by 16:  $4 \times 16 = 64$  ounces.
- 28) **The correct answer is 25000.** (5.NBT.2) Multiplying by a power of 10 shifts the value to a larger place.  $250 \times 100 = 25,000$  (attach two zeros). This confirms the answer.
- 29) **Choice A is correct.** (5.NBT.2) Count the X marks above each height. The height  $2\frac{1}{4}$  cm has only 1 mark, so it is the least common.



### 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](mailto: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.

$7x - 4 = 17$

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

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### REALISTIC PRACTICE

Tests mirror Grade 5 math standards and real assessment formats.



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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
- ✓ Algebraic Thinking
- ✓ Geometry
- ✓ Measurement & Data
- ✓ Number Patterns
- ✓ Word Problems
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