

# 8

FULL-LENGTH

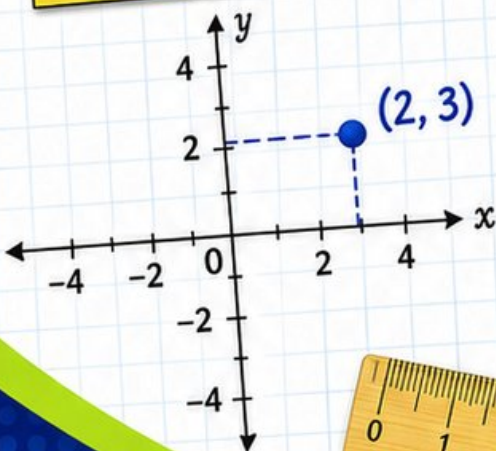
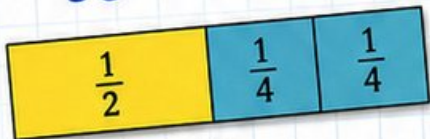
# Oregon OSAS

## GRADE 5

# MATH PRACTICE TESTS

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

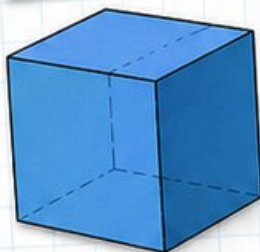
$$36 \div 4 = 9$$



$$2.4 \times 7 = 16.8$$

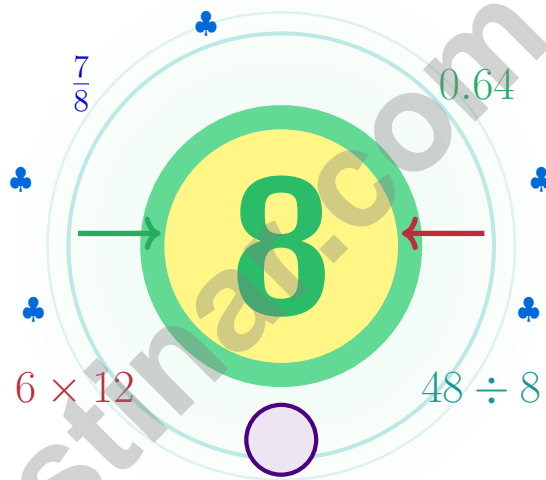
$$7 \times (12 - 5) = 49$$

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 Oregon OSAS Grade 5 Math Practice Tests

*A eight-step expedition for curious Grade 5 thinkers*



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

Jay Daie and Reza Nazari



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# Strap In, Oregon – Eight-Test Journey

Eight full tests and a coach's voice on every page

## Oregon Mathematicians, Read This First

This practice book is your steady companion for eight tests, not a place to be perfect. Math thinking is like Crater Lake – it looks calm on the surface, and goes a long way down once you start exploring.

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 every word twice and underline what is asked.

### Solve

Choose the cleanest method and show your steps.

### Reflect

Look back to find what worked and what to fix.

**A strong habit for Oregon 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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# From Cover to Final Test

A simple routine that turns practice into progress

## Step 1: Power Up

**Sharpen your math brain with the quick review.**

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

## Step 2: Trail Run

**Take a full practice test in a quiet spot.**

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

## Step 3: Debrief

**Score honestly and circle missed questions.**

Circle missed questions and notice which topics keep showing up.

## Step 4: Repair

**Fix the missed work and lock the lesson in.**

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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#### 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

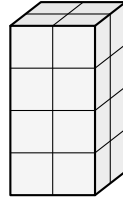
1 hour (hr) = 60 minutes (min)      1 year = 12 months

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





- 6) Which rectangular prism holds exactly 16 unit cubes?



- A.  $3 \times 3 \times 2$                        C.  $2 \times 2 \times 5$   
 B.  $2 \times 3 \times 3$                        D.  $2 \times 2 \times 4$
- 7) A pool is 8 m long, 6 m wide, and has a volume of  $192 \text{ m}^3$ . How deep is it?
- A. 2 m                                       C. 4 m  
 B. 3 m                                       D. 5 m
- 8) Find the difference:  $6\frac{1}{4} - 2\frac{5}{8}$ .

*Record your answer in the space provided.*

- 9) Pattern Gamma: 5, 10, 15, 20. Pattern Delta: 1, 2, 3, 4. Express Gamma in terms of Delta.
- A. Gamma is 4 more than Delta                       C. Gamma is 2 times Delta  
 B. Gamma is 2 more than Delta                       D. Gamma is 5 times Delta
- 10) A piece of string is 24 inches. If you take  $\frac{5}{6}$  of it, how long is the piece you take?
- A. 4 inches                                       C. 20 inches  
 B. 12 inches                                       D. 30 inches



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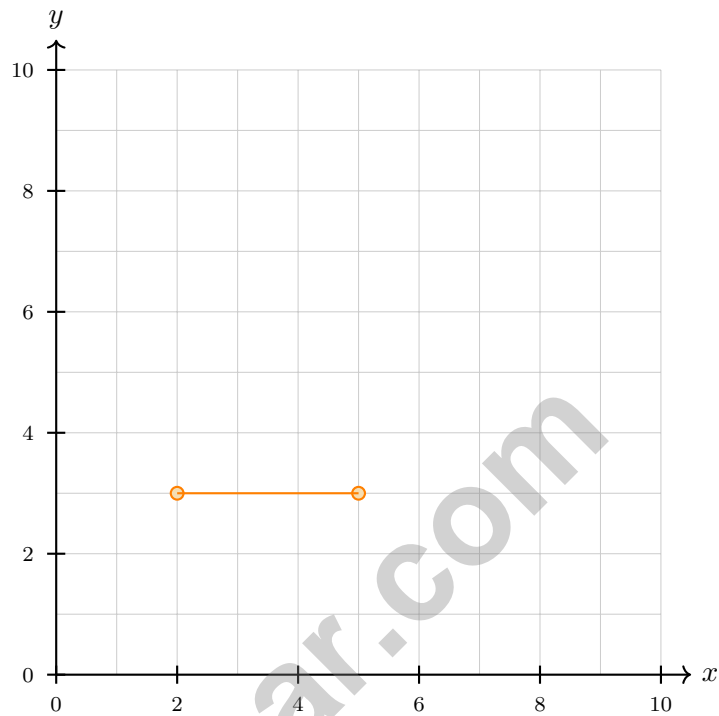
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- 1) Which set of points would form a horizontal line segment on the coordinate plane?



- A. (2, 3) and (5, 3)                       C. (4, 1) and (6, 4)
- B. (2, 3) and (2, 7)                       D. (1, 5) and (7, 2)
- 2) Find the product:  $7 \times 100,000$ .

*Record your answer in the space provided.*



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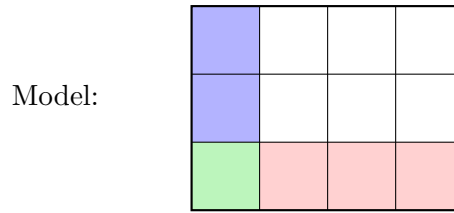
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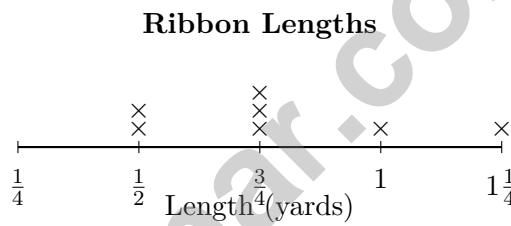


1) Which statement does NOT correctly describe the area model?



$$\frac{1}{4} \times \frac{1}{3}$$

- A. The overlap has 1 square.
  - B. The product is  $\frac{1}{12}$ .
  - C. The model shows a  $4 \times 3$  grid.
  - D. The denominator should be 7, not 12.
- 2) The line plot shows ribbon lengths measured by students:



What is the total length of the three ribbons that are each  $\frac{3}{4}$  yard long?

- A.  $1\frac{1}{2}$  yards
  - B.  $2\frac{1}{4}$  yards
  - C.  $\frac{3}{4}$  yard
  - D. 3 yards
- 3) A recipe uses  $\frac{3}{8}$  cup of sugar,  $\frac{1}{4}$  cup of butter,  $\frac{1}{8}$  cup of vanilla. Total?
- A.  $\frac{5}{8}$  cup
  - B.  $\frac{3}{8}$  cup
  - C.  $\frac{5}{4}$  cups
  - D.  $\frac{3}{4}$  cup



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1) A distance-time pattern begins at (0, 0). Each step increases time by 1 and distance by 2. Which rule describes this pattern?

- A. Distance equals time                       C. Distance is 2 more than time  
 B. Distance is twice the time               D. Distance is half the time

2) A baker needs 80 ounces of flour for a recipe. How many pounds is that? (Use: 1 pound = 16 ounces)

80 ounces of flour                      → ? pounds

(1 lb = 16 oz)

- A. 4 pounds                                       C. 6 pounds  
 B. 5 pounds                                       D. 8 pounds
- 3) Multiplying 2.5 by 100 moves the decimal point two places to the right. What is  $2.5 \times 100$ ?
- A. 25     C. 2,500  
 B. 250     D. 25,000
- 4) A book has 60 pages. If you read  $\frac{2}{3}$  of the book, how many pages have you read?

$\frac{2}{3}$  read



60 pages

- A. 20 pages                                       C. 40 pages  
 B. 30 pages                                       D. 50 pages



## 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

- Choice B is correct.** (5.NBT.A.2)  $1.5 \times 100 = 150$ .
- Choice C is correct.** (5.NBT.A.2) At 10 gallons: 2 drivers, at 15 gallons: 2 drivers. Between 10 and 15 (inclusive):  $2 + 2 = 4$  drivers.
- Choice B is correct.** (5.NF.B.6)  $\frac{4}{9} \times \frac{3}{5} = \frac{12}{45} = \frac{4}{15}$  (divide by 3).
- Choice A is correct.** (5.NF.B.6)  $\frac{1}{2} \times \frac{7}{8} = \frac{7}{16}$  liter.
- Choice D is correct.** (5.NBT.A.2)  $11 \times 100 = 1100$ . Append two zeros to 11.
- Choice D is correct.** (5.GM.D.6)  $2 \times 2 \times 4 = 16$  unit cubes. (A: 18, B: 18, C: 20)
- Choice C is correct.** (5.GM.D.7) The base area is  $8 \times 6 = 48$  square meters. Since  $192 \div 48 = 4$ , the pool is 4 m deep.
- The correct answer is  $3\frac{5}{8}$ .** (5.GM.D.7)  $6\frac{1}{4} = 6\frac{2}{8} = 5\frac{10}{8}$ . Subtract:  $(5 - 2) + (\frac{10}{8} - \frac{5}{8}) = 3\frac{5}{8}$ .
- Choice D is correct.** (5.NF.A.1) Each Gamma value is 5 times the matching Delta value:  $1 \times 5 = 5$ ,  $2 \times 5 = 10$ , and so on.
- Choice C is correct.** (5.NF.B.5)  $24 \times \frac{5}{6} = 20$  inches. Multiplying by  $\frac{5}{6}$  (less than 1) gives a smaller result, but still close to the original.
- Choice A is correct.** (5.NBT.A.1) One-tenth of 3.6 is  $\frac{1}{10} \times 3.6 = 3.6 \div 10 = 0.36$ .
- Choice A is correct.** (5.NBT.A.1) The correct answer is  $7,500 \div 100 = 75$ . The student's answer of 750 is what you get when dividing by 10 instead.
- Choice D is correct.** (5.GM.C.4) Total needed: 3 liters = 3,000 mL. Chef has: 2 liters 250 mL = 2,250 mL. Remaining:  $3,000 - 2,250 = 750$  mL.
- Choice C is correct.** (5.NF.A.1) 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.
- Choice C is correct.** (5.GM.D.5) Original:  $4 \times 3 \times 4 = 48$ . Remove one layer: height becomes 3. New volume:  $4 \times 3 \times 3 = 36$  cubic units.
- Choice A is correct.** (5.NF.B.4) The overlap region has 2 shaded squares out of 20 total squares, giving  $\frac{1}{4} \times \frac{2}{5} = \frac{2}{20} = \frac{1}{10}$ .
- Choice D is correct.** (5.NF.A.2)  $\frac{5}{16}$  is not equivalent to  $\frac{1}{3}$  because  $1 \times 16 \neq 3 \times 5$ . The other choices simplify to  $\frac{1}{3}$ .
- Choice D is correct.** (5.NF.B.7) Start with one unit fraction,  $\frac{1}{5}$ , and share it into 4 equal parts. Each part is  $\frac{1}{5} \div 4 = \frac{1}{20}$  of the whole.
- Choice D is correct.** (5.GM.C.4) Since 1 pint = 16 fl oz, multiply 2 by 16:  $2 \times 16 = 32$  fl oz.
- Choices A, B are correct.** (5.OA.A.2) A and B both start with twice 9 and then take away 7. C puts the 7 first, and D subtracts before doubling, so those do not match the words.
- Choice A is correct.** (5.OA.A.1) The student added before multiplying. Multiplication should happen first:  $6 \times 2 = 12$ , and then  $4 + 12 = 16$ .
- Choice D is correct.** (5.GM.D.6) New height = 6 ft.  $V = 6 \times 5 \times 6 = 180$  ft<sup>3</sup>.
- Choice C is correct.** (5.GM.A.1) For (2, 6): x-coordinate 2 means 2 units right; y-coordinate 6 means 6 units up.
- Choice B is correct.** (5.GM.D.7) Use the rectangular-prism volume formula:  $11 \times 5 \times 7 = 385$ . So the volume is 385 cubic inches.
- Choice A is correct.** (5.GM.B.3) All three sides measure 8 cm, so all sides are equal. Since each angle is less than 90°, the triangle is acute.
- The correct answer is  $\frac{11}{12}$ .** (5.NF.A.2) LCD 12:  $\frac{8}{12} + \frac{3}{12} = \frac{11}{12}$ .
- Choice B is correct.** (5.NF.A.2)  $31 \times 45 = 1,395$ , so  $1,395 \div 31 = 45$  with no stickers left over.
- Choice A is correct.** (5.NBT.A.2) When dividing by 100, move the decimal point 2 places to the left:  $83.5 \rightarrow 8.35 \rightarrow 0.835$ . So  $83.5 \div 100 = 0.835$ .
- Choice A is correct.** (5.NBT.A.2) Both expressions multiply 16 by a fraction with denominator 4. Since  $\frac{5}{4} > \frac{3}{4}$ ,  $\frac{5}{4} \times 16$  has the larger value.



### From Your Math Family

#### Dear Member of the Math Family,

◇ Welcome to a special note from your math family. You finished 8 full practice tests, and that hard work matters more than any single score. We see you. We're proud of you. ◇

★ **What our math family knows:** math is a journey, not a one-time event. You've taken many steps already. The test is just one stop on a much longer path. Every skill you've built is yours forever. ★

#### What Your Math Family Sees

- **Effort:** STRONG! You showed up again and again.
- **Growth:** REAL! You can solve problems today you couldn't before.
- **Courage:** BRIGHT! You faced hard problems with brave thinking.
- **Future:** BIG! Your math journey is just beginning.

**Family tip:** on test day, picture us standing behind you, smiling and rooting for you. You're not alone. Your math family is with you. Now go show what you've learned.

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 Family (Always With You)

$45 \div 5 = ?$

# 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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- ✓ 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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