

# 10 COMPLETE

# Ohio

# OST

## GRADE 5

# MATH

## PRACTICE TESTS

Standards-Based Review with  
Mixed Practice and Detailed Answer Key



### 10 Complete Practice Tests

Build confidence and test readiness



### Standards-Based Review

Covers key Grade 5 math standards



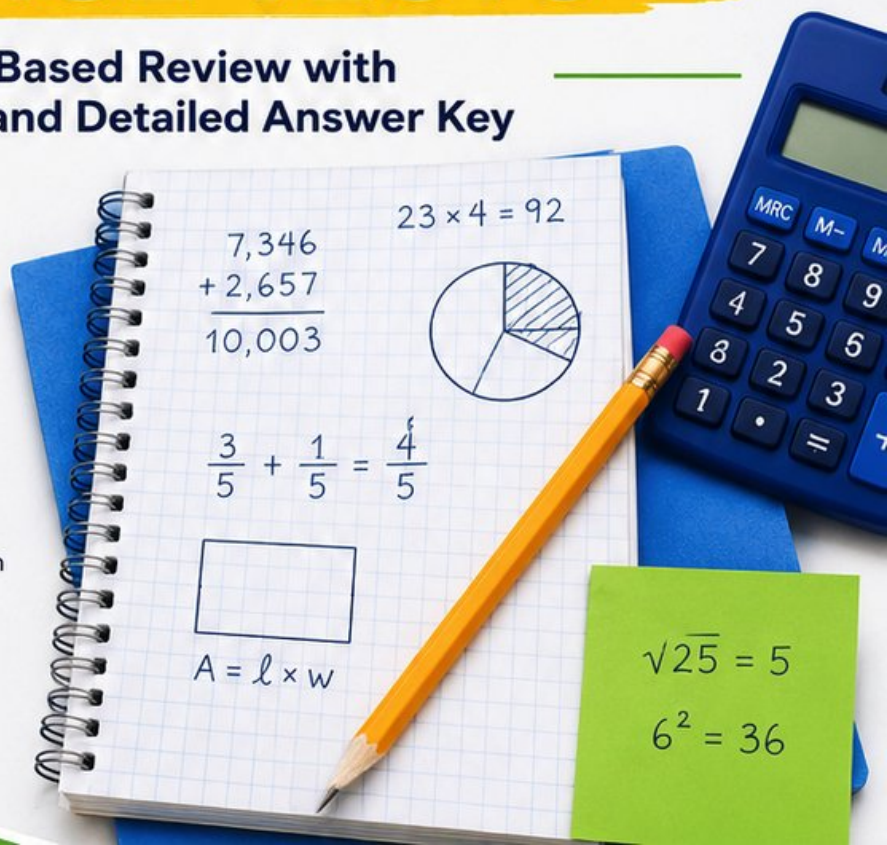
### Mixed Practice

Variety of question types to strengthen skills



### Detailed Answer Key

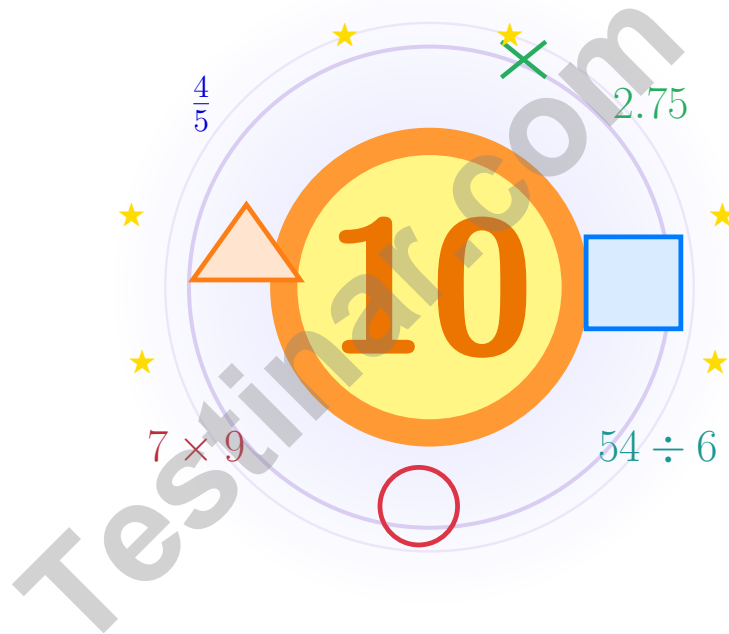
Step-by-step explanations for every question



**PREPARE.  
PRACTICE.  
SUCCEED!**

# 10 Ohio OST Grade 5 Math Practice Tests

*Bright review, thoughtful practice, and steady confidence for Grade 5*



Ten full tests, a focused quick review, and student-friendly support that keeps practice clear and encouraging.

**Jay Daie and Reza Nazari**



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# Welcome!

This book is a place to practice bravely and think clearly

## Dear Grade 5 Mathematician

This book gives you ten chances to read carefully, solve thoughtfully, and build steady math confidence. Some problems will feel friendly right away. Some will take more patience. Both kinds help you grow.

The goal is not to feel perfect before you begin. The goal is to practice honest effort, learn from corrections, and notice how much stronger your thinking becomes over time.

### Read

Slow down and understand the task.

### Solve

Show clear steps and good choices.

### Learn

Use mistakes as clues for what comes next.

**A strong habit from the start:** keep your work neat, estimate when it helps, write units carefully, and do not let one hard problem decide your mood for the whole page.



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# How to Use This Book

A simple routine that turns practice into real progress

## Step 1

**Warm up with the quick review.**  
Spend a few minutes refreshing the ideas before the test begins.

## Step 2

**Take one full practice test.**  
Work in a calm spot and aim for careful thinking before speed.

## Step 3

**Check your work honestly.**  
Circle missed questions and notice which skills need another look.

## Step 4

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



**A Good 10-Week Rhythm**

<b>Week 1</b>	Take Test 1 and notice your starting strengths.
<b>Week 2</b>	Take Test 2 and slow down on word problems.
<b>Week 3</b>	Take Test 3 and sharpen multiplication and division checks.
<b>Week 4</b>	Take Test 4 and focus on fractions and decimals.
<b>Week 5</b>	Take Test 5 and watch your labels and units closely.
<b>Week 6</b>	Take Test 6 and practice calmer pacing.
<b>Week 7</b>	Take Test 7 and compare your habits with the earlier weeks.
<b>Week 8</b>	Take Test 8 and focus on tidy, checkable work.
<b>Week 9</b>	Take Test 9 and compare your progress with the way you worked in the earlier weeks.
<b>Week 10</b>	Take Test 10 and finish with steady, confident effort while using every strong habit you built.



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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

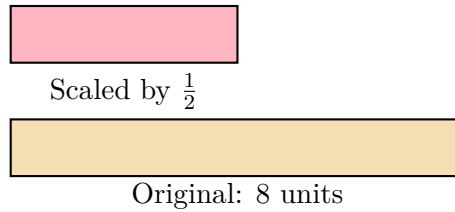
1 hour (hr) = 60 minutes (min)

1 year = 12 months

1 day = 24 hours (hr)

1 year = 52 weeks





1)

If the original length is 8 units and it is scaled by  $\frac{1}{2}$ , what is the new length?

- A. 2 units                       C. 6 units  
 B. 4 units                       D. 12 units

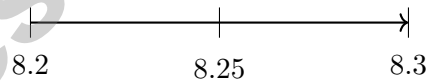
2) Estimate:  $6.8 \times 4.9$ . Which is the best estimate?

- A. 20                               C. 30  
 B. 25                               D. 35

3) Four fractions are listed:  $\frac{1}{2}$ ,  $\frac{2}{3}$ ,  $\frac{3}{4}$ ,  $\frac{5}{6}$ . What is the least common denominator if they are rewritten together?

- A. 48                               C. 36  
 B. 24                               D. 12

4) Which decimal rounds to 8.3 when rounding to the nearest tenth?



- A. 8.24                               C. 8.35  
 B. 8.29                               D. 8.36



- 5) A place-value chart shows a mystery number. Use the chart to identify it.

Ones	Tenths	Hundredths	Thousandths
9	4	2	8

Express this in expanded form.

- A.  $9 + 4 + 2 + 8$ 
 C.  $90 + 4 + 0.2 + 0.008$   
 B.  $9 + 0.4 + 0.02 + 0.008$ 
 D.  $9 + 0.04 + 0.002 + 0.008$
- 6) Which decimal is equivalent to  $7 \div 10$ ?
- A. 70
  C. 7  
 B. 0.07
  D. 0.7
- 7) A factory makes 100 units per day. After 19 days, how many units are made?

Days	19
Units per Day	100
Total	?

- A. 119
  C. 19000  
 B. 1900
  D. 190
- 8) What is  $4 \div \frac{1}{4}$ ?
- A. 16
  C. 8  
 B. 1
  D. 4



## Grade 5 Mathematics Reference Materials

### PERIMETER AND AREA

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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



1) Three friends share \$63.45 equally. How much does each friend get?

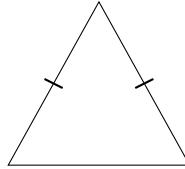
A. \$19.15

C. \$21.15

B. \$20.15

D. \$18.15

2) Look at the triangle. Two sides are marked with tick marks. What kind of triangle is it based on its sides?



A. Scalene

C. Equilateral

B. Isosceles

D. Right

3) Which expression is greater:  $4 \times (15 + 7)$  or  $4 \times 15 + 7$ ?

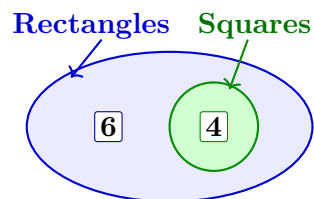
A.  $4 \times (15 + 7)$

C. The expressions are equal.

B.  $4 \times 15 + 7$

D. Cannot be determined.

4) A Venn diagram shows squares inside rectangles. There are 6 rectangles that are not squares and 4 squares. How many rectangles are shown in all?



A. 4

C. 14

B. 6

D. 10



40) In decimal notation, write three and eight hundredths.

A. 3.8

C. 3.008

B. 3.08

D. 38

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### End of Practice Test

Nice work. Pause, breathe, and check your answers with care.



Grade 5 Mathematics

10

Questions: 40 Duration: No time limit

Calculator Policy: Calculators are not allowed



## 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 B is correct.** **(5.NF.5b)**  $8 \times \frac{1}{2} = 4$  units. Scaling by  $\frac{1}{2}$  halves the length.
- 2) **Choice D is correct.** **(5.NBT.7)** Round  $6.8 \approx 7$  and  $4.9 \approx 5$ . Then  $7 \times 5 = 35$ .
- 3) **Choice D is correct.** **(5.NF.2)** LCM of 2, 3, 4, and 6 is 12, so the least common denominator is 12.
- 4) **Choice B is correct.** **(5.NBT.4)** 8.29 has tenths=2 and hundredths=9. Since  $9 \geq 5$ , round tenths up:  $2 \rightarrow 3$ , giving 8.3. The other choices round to 8.2 or 8.4.
- 5) **Choice B is correct.** **(5.NBT.1)** The number is 9.428. In expanded form:  $9 + 0.4 + 0.02 + 0.008$ .
- 6) **Choice D is correct.** **(5.NBT.2)** Dividing by 10 moves each digit one place to the right in the place-value chart, so  $7 \div 10 = 0.7$ .
- 7) **Choice B is correct.** **(5.NBT.2)**  $19 \times 100 = 1900$ . Append two zeros to 19.
- 8) **Choice A is correct.** **(5.NF.7c)**  $4 \div \frac{1}{4} = 4 \times 4 = 16$ . Multiply the whole number by the denominator.
- 9) **Choice D is correct.** **(5.MD.5)** The known length and height make groups of  $15 \times 9 = 135$  cubic centimeters. Since  $540 \div 135 = 4$ , the width is 4 cm.
- 10) **Choice C is correct.** **(5.NF.2)**  $\frac{4}{11} \approx \frac{1}{2}$  and  $\frac{6}{13} \approx \frac{1}{2}$ . So  $\frac{4}{11} + \frac{6}{13} \approx \frac{1}{2} + \frac{1}{2} = 1$ .
- 11) **Choice D is correct.** **(5.MD.2)** Count X marks at  $3\frac{1}{2}$ , 4, and  $4\frac{1}{2}$  miles. That is  $4 + 2 + 1 = 7$  swimmers.
- 12) **Choice C is correct.** **(5.NBT.2)**  $0.25 \times 100 = 25$  (move decimal 2 places right).
- 13) **The correct answer is 180 cm<sup>3</sup>.** **(5.MD.5c)** The first prism has volume  $8 \times 5 \times 3 = 120$  cubic centimeters. The second has volume  $4 \times 5 \times 3 = 60$  cubic centimeters. Add them to get 180 cubic centimeters.
- 14) **The correct answer is (3, 6).** **(5.G.2)** Move 3 units right for the x-coordinate and 6 units up for the y-coordinate, so the point is (3, 6).
- 15) **Choice B is correct.** **(5.OA.2)** The phrase “the sum of a number and six” means group  $3 + 6$ . “Four times” means multiply that entire group by 4.
- 16) **Choice B is correct.** **(5.G.4)** The hierarchy shows Square under both Rectangle and Rhombus, so a square has the properties of both. The other statements reverse or overstate the hierarchy.
- 17) **The correct answer is 33.** **(5.OA.1)** Start with  $12 - 4 = 8$ . Then  $3 \times 8 = 24$  and  $18 \div 2 = 9$ , so  $24 + 9 = 33$ .
- 18) **Choice A is correct.** **(5.G.2)** The student plotted (Rule B, Rule A), but the correct order is (Rule A, Rule B). The first correct pair is (2, 1).
- 19) **Choice C is correct.** **(5.NF.1)**  $\text{LCM}(6, 4) = 12$ .  $\frac{5}{6} = \frac{10}{12}$  and  $\frac{3}{4} = \frac{9}{12}$ .  $\frac{10}{12} + \frac{9}{12} = \frac{19}{12} = 1\frac{7}{12}$ .
- 20) **Choice D is correct.** **(5.NBT.7)**  $100.50 - 67.83 = 32.67$ . Requires careful borrowing.
- 21) **Choice B is correct.** **(5.NBT.7)** B is correct because  $4.26 + 1.53 = 5.79$ . A should be 5.49, C should be 8.43, and D should be 8.65.
- 22) **Choices A, B are correct.** **(5.NF.1)** A is true because the whole parts make 3 and the fractions make  $\frac{5}{6}$ . B is true because 6 is a common denominator. C and D add denominators or miscompute.
- 23) **Choice C is correct.** **(5.NF.1)** In C,  $\frac{1}{6} < \frac{5}{6}$ , so borrowing is required. The others have larger fractional parts in the minuend.
- 24) **Choice D is correct.** **(5.NF.5b)**  $\frac{9}{9} = 1$ , so  $1 \times 14 = 14$ .
- 25) **Choice D is correct.** **(5.NF.7c)** Divide a unit fraction by a whole number:  $\frac{1}{2} \div 4 = \frac{1}{2} \times \frac{1}{4} = \frac{1}{8}$  pound per batch.
- 26) **Choice B is correct.** **(5.OA.3)** Odd numbers increase by 2 each time. The 10th odd number is 19, so the 20th odd number is 20 more: 39.
- 27) **Choice A is correct.** **(5.NF.7c)** The unit fraction is the amount being shared, so divide  $\frac{1}{10}$  by 2. The equation is  $\frac{1}{10} \div 2 = n$ .
- 28) **Choice D is correct.** **(5.NBT.2)** Dividing by a power of 10 shifts the value to a smaller place.  $6,300 \div 10 = 630$  items per box. This confirms the answer.
- 29) **Choice B is correct.** **(5.MD.5a)** The base area tells how many square units are in one layer. Multiplying by the height counts all the layers, so  $V = B \times h$ .



### Notes From the Math Gardener

#### Dear Math Gardener,

◇ Look at how much you've grown! 10 practice tests is like 10 seasons of planting and harvesting. Each problem was a seed, each effort was water, and each "aha!" was sunshine. Your math garden is strong now—and it shows. ◇

★ **What gardeners know:** growth is steady, not sudden. You don't see roots growing, but they are. You don't always feel yourself getting smarter, but you are. The proof is in the questions you can solve today that felt impossible 10 tests ago. ★

#### Garden Inspection Report

- **Roots (foundation):** DEEP! Your basic skills are solid.
- **Stems (structure):** STURDY! Your problem-solving steps hold up.
- **Leaves (skills):** LUSH! You have many strategies to draw on.
- **Flowers (confidence):** BLOOMING! You believe in your skills.

**Gardener's wisdom:** keep watering your math garden long after the test. Every habit you built (read carefully, plan, check) will grow with you for years. The test is just one harvest. Your garden keeps growing.

If you want to share a proud moment or ask a question, please email me at [jay@testinar.com](mailto:jay@testinar.com). I'd love to hear from you!

**Jay Daie**

Your Math Gardener (Keep Growing!)

# PRACTICE TODAY. MASTER TOMORROW.

Give your child the confidence to excel in **Grade 5 Math!**  
This book includes **10 complete practice tests** designed to build strong skills, improve test readiness, and achieve success.



# 10

## COMPLETE PRACTICE TESTS

- ✓ Realistic. Rigorous.
- ✓ Results-Driven.

More practice today for a **stronger** tomorrow.



## THIS BOOK HELPS YOUR CHILD:



### Build Confidence

Familiar, focused practice reduces anxiety and boosts self-belief.



### Strengthen Skills

Reinforces key math concepts through high-quality, standards-aligned questions.



### Improve Test Readiness

Full-length tests help students understand test format, pacing, and question types.



### Track Progress

Identify strengths and target areas with purposeful practice.



### Achieve Success

Better preparation leads to higher scores and bright futures.

## COVERS ALL ESSENTIAL TOPICS

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



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