

# 8

FULL-LENGTH

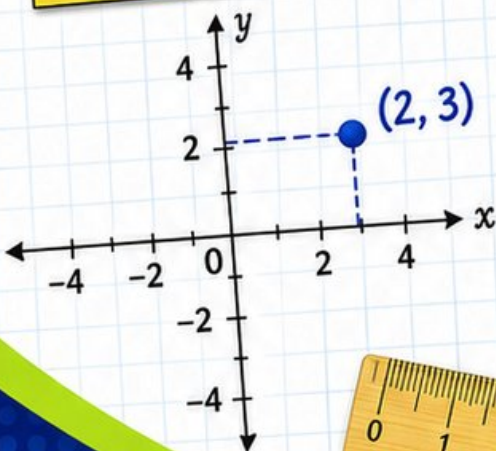
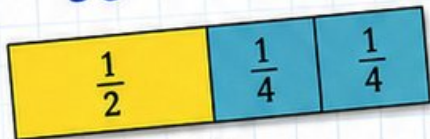
# Wisconsin Forward Exam

## GRADE 5

# MATH PRACTICE TESTS

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

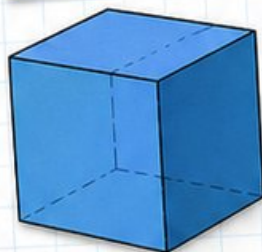
$$36 \div 4 = 9$$



$$2.4 \times 7 = 16.8$$

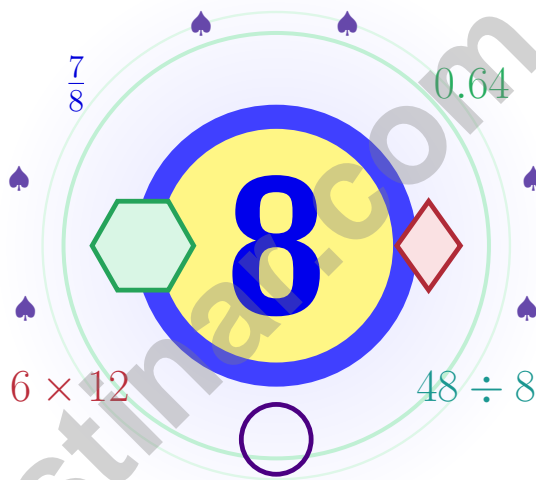
$$7 \times (12 - 5) = 49$$

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 Wisconsin Forward Exam Grade 5 Math Practice Tests

*Seven chances to read carefully, solve smartly, and grow stronger*



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

**Jay Daie and Reza Nazari**



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# Wisconsin Math Crew, Welcome to the Path

Seven steps, seven growth checks, one calm routine

## To the Grade 5 Mathematician

This practice book is your steady companion for eight tests, not a place to be perfect. Math is like a Wisconsin lake at sunrise – calm on top, full of life underneath, and rewarding for anyone who pays attention.

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 with care – math problems hide their gifts.

### Try

Try a strategy that fits the size of the numbers.

### Reflect

Reflect after each problem to lock the lesson in.

**A strong habit for Wisconsin 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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# How to Get the Most Out

A simple routine that turns practice into progress

## Step 1: Notice

**Notice the structure: warm-up, test, review, repair.**

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

## Step 2: Practice

**Practice one full test in quiet conditions.**

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

## Step 3: Honest Check

**Check honestly without rushing.**

Circle missed questions and notice which topics keep showing up.

## Step 4: Polish

**Polish the rough spots before 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

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)

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### WEIGHT AND MASS

#### Customary

1 pound (lb) = 16 ounces (oz)

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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

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5) Order these decimals from least to greatest:

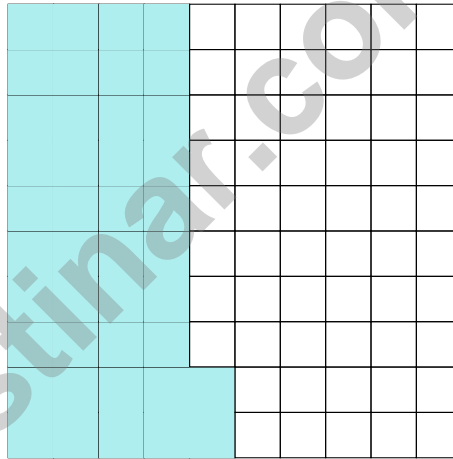
5.1, 5.01, 5.11, 5.001

- A. 5.11, 5.1, 5.01, 5.001       C. 5.1, 5.01, 5.001, 5.11  
 B. 5.001, 5.01, 5.11, 5.1       D. 5.001, 5.01, 5.1, 5.11

6) A water bottle holds  $\frac{2}{3}$  liter. How much water is in 5 bottles?

- A.  $\frac{10}{3}$  liters or  $3\frac{1}{3}$  liters       C.  $\frac{10}{15}$  liters  
 B.  $\frac{2}{15}$  liters       D.  $\frac{7}{3}$  liters

7) Decimal-grid visual: 42 shaded squares (out of 100). Write the decimal and its word form.



- A. 0.42; forty-two tenths       C. 4.2; forty-two tenths  
 B. 0.024; twenty-four thousandths       D. 0.42; forty-two hundredths

8) A craft uses three pieces of string:  $\frac{1}{4}$  meter,  $\frac{1}{3}$  meter,  $\frac{1}{6}$  meter. Total?

- A.  $\frac{3}{13}$  meter       C.  $\frac{3}{24}$  meter  
 B.  $\frac{1}{2}$  meter       D.  $\frac{3}{4}$  meter



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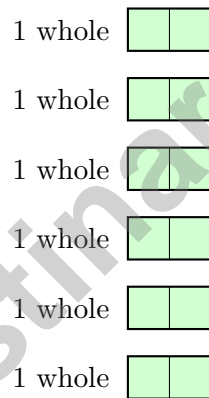
1) A recipe calls for 6 cups of sugar. If you multiply the recipe by  $\frac{1}{2}$ , will you use more or less sugar?

- A. More sugar  
 B. Cannot determine  
 C. The same amount  
 D. Less sugar

2) A garden planter measures 11 inches long, 5 inches wide, and 7 inches tall. What is its volume?

- A. 55 cubic inches  
 B. 385 cubic inches  
 C. 77 cubic inches  
 D. 35 cubic inches

3) The model shows 6 wholes, with each whole cut into pieces of size  $\frac{1}{2}$ . How many pieces of size  $\frac{1}{2}$  are there in all?



6 wholes, each cut into pieces of size  $\frac{1}{2}$

- A. 8  
 B. 12  
 C. 2  
 D. 6



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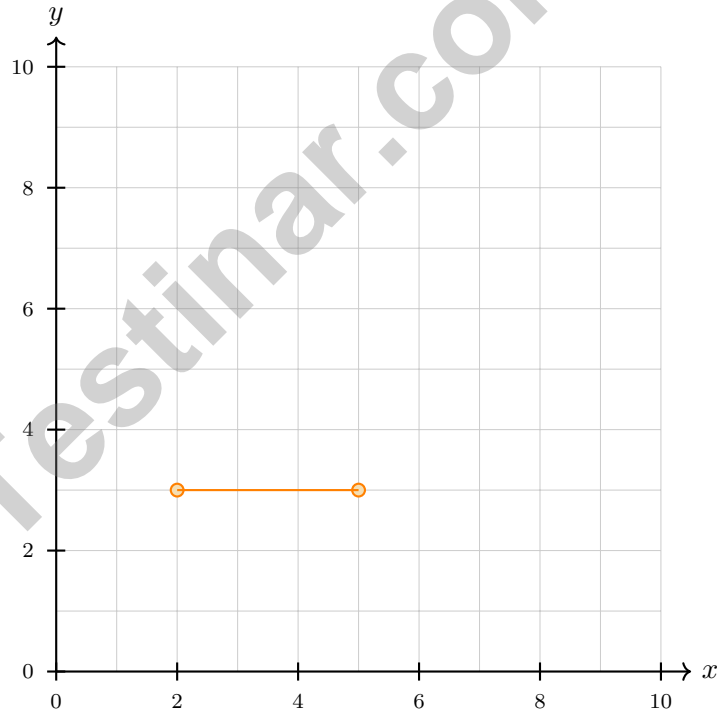
1 minute (min) = 60 seconds (sec)    1 week = 7 days

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- 1) Which statement about volume is true?
- A. A  $5 \times 4 \times 3$  prism has volume 12
- B. Volume is measured in square units
- C. A  $6 \times 5 \times 4$  prism has volume 120
- D. Doubling one dimension triples the volume
- 2) Pattern A is 1, 2, 3, 4, ... and Pattern B is 3, 6, 9, 12, ... . If Pattern A gives the  $x$ -value and Pattern B gives the  $y$ -value, what ordered pair comes next?
- A. (4, 15)
- B. (5, 12)
- C. (6, 15)
- D. (5, 15)
- 3) Which set of points would form a horizontal line segment on the coordinate plane?



- A. (2, 3) and (5, 3)
- B. (2, 3) and (2, 7)
- C. (4, 1) and (6, 4)
- D. (1, 5) and (7, 2)



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

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



1) What is  $1\frac{1}{6} + \frac{1}{4} + \frac{1}{12}$ ?

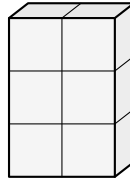
A.  $1\frac{1}{4}$

B.  $1\frac{1}{3}$

C.  $1\frac{5}{12}$

D.  $1\frac{1}{2}$

2) How many unit cubes are in the prism shown below?



A. 4 unit cubes

B. 12 unit cubes

C. 8 unit cubes

D. 6 unit cubes

3) How many pounds are in 32 ounces?

A. 1 pound

B. 4 pounds

C. 3 pounds

D. 2 pounds

4) Maria ate  $\frac{1}{4}$  of a pizza and Juan ate  $\frac{1}{3}$  of the same pizza. What fraction of the pizza did they eat together?

A.  $\frac{7}{12}$

B.  $\frac{3}{7}$

C.  $\frac{2}{12}$

D.  $\frac{5}{12}$



## 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.** (M.5.NF.B.7b)  $4 \div \frac{1}{5} = 4 \times 5 = 20$ . We can make 20 packages.
- 2) **Choice B is correct.** (M.5.MD.C.5a) Volume is always measured in cubic units (three dimensions), not square units (two dimensions) or linear units (one dimension).
- 3) **Choice B is correct.** (M.5.MD.A.1) First find the number of sections:  $12 \div 2 = 6$ . Then find the tape used:  $6 \times 8 = 48$  inches. Convert 48 inches to feet:  $48 \div 12 = 4$  feet.
- 4) **Choice A is correct.** (5.G.A.2) Subtract 1 (start 10): 10, 9, 8... Divide by 2 (start 16): 16, 8, 4...
- 5) **Choice D is correct.** (5.NBT.A.3b) All have ones place = 5. Compare tenths: 5.001 and 5.01 have 0; 5.1 and 5.11 have 1. Then hundredths and thousandths refine order.
- 6) **Choice A is correct.** (M.5.NF.B.6)  $5 \times \frac{2}{3} = \frac{10}{3} = 3\frac{1}{3}$  liters.
- 7) **Choice D is correct.** (5.NBT.A.3a) 42 out of 100 squares =  $\frac{42}{100} = 0.42$ , read as “forty-two hundredths”.
- 8) **Choice D is correct.** (5.NF.A.2) Common denominator 12:  $\frac{1}{4} = \frac{3}{12}$ ,  $\frac{1}{3} = \frac{4}{12}$ ,  $\frac{1}{6} = \frac{2}{12}$ . Total:  $\frac{9}{12} = \frac{3}{4}$  meter.
- 9) **Choice C is correct.** (M.5.OA.A.1) Evaluate each expression carefully: A = 20, B = 14, C = 36, and D = 22. Since 36 is the greatest value, choice C is correct.
- 10) **Choice D is correct.** (M.5.MD.C.3b) The base is  $7 \times 6 = 42$  square feet. With a height of 2 feet, the volume is  $42 \times 2 = 84$  cubic feet.
- 11) **The correct answer is 1.** (5.G.B.4) The description says exactly one pair of parallel sides, so the answer is 1 pair.
- 12) **Choice B is correct.** (5.G.B.4) Longest is  $\frac{5}{8}$ , shortest is  $\frac{1}{4}$ . Difference:  $\frac{5}{8} - \frac{1}{4} = \frac{5}{8} - \frac{2}{8} = \frac{3}{8}$ .
- 13) **Choice A is correct.** (5.NBT.A.2) Move the decimal 1 place right:  $0.08 \times 10 = 0.8$ .
- 14) **The correct answer is 6.78.** (5.NBT.A.2) Subtracting with borrowing:  $15.05 - 8.27 = 6.78$ .
- 15) **The correct answer is  $(7 + 8) \times 4$ .** (M.5.NBT.B.7) Rubric note: accept  $(7 + 8) \times 4$ ,  $4 \times (7 + 8)$ , or any equivalent expression that clearly shows 7 and 8 are added first and that the resulting sum is multiplied by 4.
- 16) **Choice A is correct.** (M.5.OA.A.2) The first prism is  $6 \times 4 \times 4 = 96$  cubic meters. The second is  $6 \times 4 \times 3 = 72$  cubic meters. Together they make 168 cubic meters.
- 17) **Choice B is correct.** (M.5.NF.B.7c) One slice is  $\frac{1}{4}$  of the pie. Dividing it between 2 friends:  $\frac{1}{4} \div 2 = \frac{1}{8}$ .
- 18) **Choice D is correct.** (M.5.NF.A.1) Borrow 1 from 7:  $6\frac{12}{10} - 3\frac{7}{10} = 3\frac{5}{10}$ . Simplify  $\frac{5}{10}$  to  $\frac{1}{2}$ , so the difference is  $3\frac{1}{2}$ .
- 19) **Choice B is correct.** (5.NF.B.5) Any positive number multiplied by a factor between 0 and 1 produces a smaller result than the original number.
- 20) **Choice C is correct.** (5.G.A.1) To find the farthest right point, look for the largest x-coordinate. Point J at (9, 8) has x-coordinate 9, which is the largest.
- 21) **Choice A is correct.** (5.NF.B.7c) Use total amount divided by the size of one piece. The equation is  $4 \div \frac{1}{8} = n$ .
- 22) **Choices A, B are correct.** (M.5.OA.A.1) Check the other choices too: C gives 22, and D gives 26, so they should not be selected.
- 23) **Choice D is correct.** (M.5.NBT.B.5) Multiply:  $213 \times 3 = (200 \times 3) + (10 \times 3) + (3 \times 3) = 600 + 30 + 9 = 639$ .
- 24) **Choice C is correct.** (M.5.NBT.B.5)  $32 \times 10$  gives 320, which has 1 zero.  $320 \times 100$  gives 32,000, which has 3 zeros, so that is 2 more zeros.
- 25) **Choice C is correct.** (M.5.G.A.2) The x-coordinate (4) is the number of hours, and the y-coordinate (32) is the number of cupcakes sold. So 32 cupcakes were sold.
- 26) **Choice C is correct.** (M.5.G.B.4) The side marks show all three sides are equal. The angle marks also match. A triangle with all sides equal is equilateral.
- 27) **The correct answer is  $\frac{1}{12}$ .** (5.NF.B.4b) Splitting into 3 rows and 4 columns gives 12 equal parts; the overlapping region is 1 of those parts:  $\frac{1}{12}$ .
- 28) **Choice D is correct.** (5.G.A.2) For each point, multiply the first coordinate by 4:  $1 \times 4 = 4$ ,  $2 \times 4 = 8$ , and  $3 \times 4 = 12$ .
- 29) **Choice A is correct.** (M.5.NF.B.5a) Grid:  $5 \times 4 = 20$  cells total. Shaded (1 of 4 rows, 3 of 5 columns):  $1 \times 3 = 3$  cells. Answer:  $\frac{3}{20}$ .



**Champion's Training Log**

---

**Dear Math Champion,**

◇ Look at what you did. 8 full practice tests. Hundreds of math problems. Every one of them strengthened your mind. You walked into this prep series as a learner, and you are walking out as a math athlete who knows how to compete. ◇

★ **What champions know:** talent is helpful, but training is everything. You trained. You showed up. You did the work. That is why your skills are sharp today. ★

**Champion's Skill Card**

- **Focus:** MAXED OUT! You can lock onto a problem and stay there.
- **Speed:** CALIBRATED! You move quickly without rushing.
- **Accuracy:** HIGH! You catch your own mistakes.
- **Mindset:** CHAMPION-LEVEL! You believe in your skills.

**Final champion tip:** on test day, walk in like you have trained for it—because you have. Sit down. Breathe. Read carefully. Work steadily. Check confidently. You will be amazed at how prepared you actually are.

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 Coaches (Champion-in-Training)

$45 \div 5 = ?$

# 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

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