

# 4

# Missouri MAP

## Grade 3

# MATH

## PRACTICE TESTS

Standards-Aligned Practice



### STANDARDS-ALIGNED

Practice to build skills and boost confidence



### 4 FULL-LENGTH TESTS

Realistic questions to prepare for test day



### ANSWER KEYS & EXPLANATIONS

Detailed solutions to learn and improve



# 4 Missouri MAP Grade 3 Math Practice Tests

*Standards-Aligned Review with Mixed Practice and Answer Key*



Four focused 30-question missions for Grade 3 math: number facts, fractions, measurement, data, area, shapes, answer keys, and clear explanations for every item.

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# Welcome to the Missouri Math Launch

Four missions, careful work, and a stronger Grade 3 thinker



Read the mission. Show the work. Check the answer. Launch again.

## To the Grade 3 Mission Leader

This book is a four-mission practice launch for the Missouri MAP. Each test gives you a fresh chance to multiply, divide, read graphs, compare fractions, measure, find area, and explain math in a way someone else can follow.

Missouri has river crossings, city arches, and Ozark paths that reward flexible thinking. Good math uses the same habit: pause, check the details, and move forward with a steady plan.

### Notice

Find the numbers, units, and question before choosing a path.

### Model

Draw an array, number line, table, or quick equation.

### Verify

Ask whether your answer fits the story and the unit.

**Launch promise:** I will slow down at the important moments, show the work I can, and use every miss as a clue for the next mission.

# How to Use This Book

A four-mission routine for steady Grade 3 growth

## 1. Warm Up the System

Read the review pages first. Remind your brain how equal groups, fractions, clocks, graphs, and area models work.

## 2. Fly One Mission

Take one complete 30-question test. Keep your work neat enough that you can check it later.

## 3. Review the Flight

Use the answer key, then pause. A wrong answer is useful when you can name what happened.

## 4. Repair and Relaunch

Rework a few missed questions before starting the next test. The repair step is where the score begins to move.

### A Four-Session Plan

<b>Session 1</b>	Take Test 1 and mark the topics that need attention.
<b>Session 2</b>	Take Test 2 and focus on showing every step clearly.
<b>Session 3</b>	Take Test 3 and watch for units, labels, and two-step problems.
<b>Session 4</b>	Take Test 4 and finish with calm, careful checking.

**Best mission habit:** After checking answers, write one sentence: “Next time I will pay attention to \_\_\_\_\_.”



# Test Overview

## What each Grade 3 math mission asks you to do

Each practice test has 30 questions. Across four tests, you will practice the kind of Grade 3 math thinking used on the Missouri MAP: reading carefully, choosing a strategy, doing accurate computation, and explaining enough work to make your answer clear.

### Multiple Choice

Look for the best answer. Estimate first when you can, cross out choices that do not fit, and reread the question before you choose.

### Open Response

Write the answer and show the reason. A good Grade 3 response may use a drawing, equation, table, number line, or a few clear words.

### Math Ideas Inside the Four Tests

- multiplication, division, arrays, missing factors, and two-step word problems
- place value, rounding, addition, subtraction, and multiplying by tens
- unit fractions, number lines, equivalent fractions, and comparing fractions
- time, mass, liquid volume, picture graphs, bar graphs, and line plots
- area, perimeter, unit squares, rectangles, and shape categories

**What strong MAP work looks like:** the answer matches the question, the units make sense, and the work is clear enough to check.

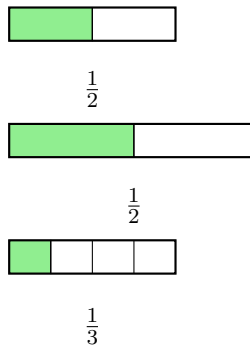


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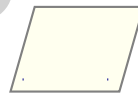
1) Look at the bars. Which statement is **NOT** true?



- A. The first and second are equivalent       C. All three show the same amount  
 B. The first bar shows  $\frac{1}{2}$                        D. The third bar is smaller

2) Ben has 5 bags with 6 pencils in each bag. He gives away 10 pencils. How many pencils does Ben have left?

- A. 20     C. 30  
 B. 25     D. 35



Parallelogram

3)

A parallelogram always has which property?

- A. All sides equal                               C. Opposite sides parallel  
 B. 4 right angles                                 D. No right angles



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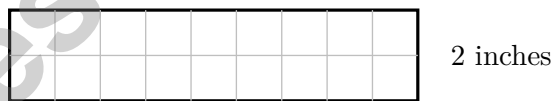
**Addition**

4)

Hundreds	Tens	Ones
4	7	8
+	+	+
2	5	4

Using the place-value chart, what is  $478 + 254$ ?

- A. 722
  - B. 742
  - C. 832
  - D. 732
- 5) Mia measures juice in three containers. Container 1 has 1000 mL, Container 2 has 500 mL, and Container 3 has 500 mL. What is the total?
- A. 1000 mL
  - B. 1500 mL
  - C. 2000 mL
  - D. 3000 mL
- 6) Round 734 to the nearest 10.
- A. 730
  - B. 734
  - C. 740
  - D. 800



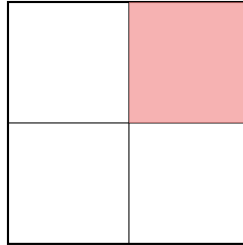
7)

9 inches

Count the unit squares in the grid. What is the area?

- A. 11 sq in
- B. 20 sq in
- C. 18 sq in
- D. 36 sq in

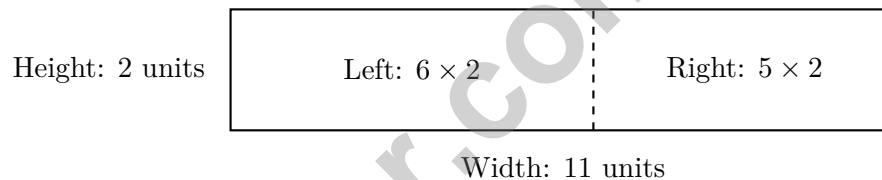
- 8) A rectangle is divided into 2 equal parts vertically. Then it is divided into 2 equal parts horizontally making 4 smaller equal parts. What fraction is one small part?



- A.  $\frac{1}{2}$   
 B.  $\frac{1}{4}$

- C.  $\frac{1}{3}$   
 D.  $\frac{2}{4}$

- 9) This shows a distributive property example:



What is the equation in distributive form?

- A.  $2 \times (6 + 5) = 22$   
 B.  $(2 \times 6) + (2 \times 5) = 12 + 10 = 22$
- C.  $6 + 5 = 11$   
 D.  $(6 \times 5) + (2) = 32$
- 10) Ava's dentist appointment is at 3 : 45 PM. She arrives 12 minutes early. What time does Ava arrive?
- A. 3 : 30 PM  
 B. 3 : 33 PM
- C. 3 : 57 PM  
 D. 4 : 00 PM



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1) Ben colors  $\frac{2}{6}$  of a picture. Which is equivalent?

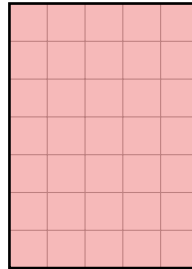
A.  $\frac{1}{2}$

B.  $\frac{2}{4}$

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

D.  $\frac{2}{3}$

2) This shape is made of unit squares on a grid.



Count the unit squares. What is the area?

A. 24 sq units

B. 30 sq units

C. 35 sq units

D. 40 sq units

3) Which fraction equals  $\frac{1}{4}$ ?

A.  $\frac{2}{4}$

B.  $\frac{2}{8}$

C.  $\frac{1}{8}$

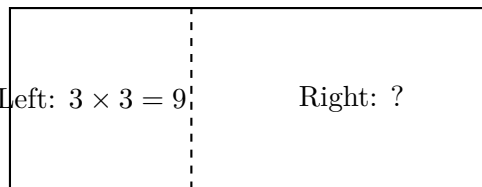
D.  $\frac{3}{8}$

4) A rectangle shown with a split:

Height: 3 units

Left:  $3 \times 3 = 9$

Right: ?



Width: 8 units

If the total area is 24, what is the right part's area?

A. 15 square units

B. 5 square units

C. 12 square units

D. 8 square units



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5)

What repeated addition matches this array?

A.  $4 + 3 + 3 = 10$

C.  $3 + 4 = 7$

B.  $3 + 3 + 3 = 9$

D.  $4 + 4 + 4 = 12$

6) Ben has 24 crackers to share equally among 6 friends. How many crackers does each friend get?

A. 4

C. 3

B. 6

D. 5

7) How many unit squares fit along the length of a 7 cm side?

A. 5 unit squares

C. 7 unit squares

B. 6 unit squares

D. 8 unit squares

8) Which division sentence is matched by “18 apples put into bags of 6 apples each”?

A.  $6 \div 18$

C.  $18 + 6$

B.  $6 \times 18$

D.  $18 \div 6$

9) Compare two fractions on a number line from 0 to 1 divided into 4 equal parts:  $\frac{1}{4}$  and  $\frac{3}{4}$ . Which is closer to 1?

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

C. They are equally close

B.  $\frac{3}{4}$

D. Neither is close to 1



1) A bar graph shows candies. Each bar height represents units. The scale is 5 candies per unit. Red bar is 2 units, blue is 3 units, green is 4 units. How many candies in total?

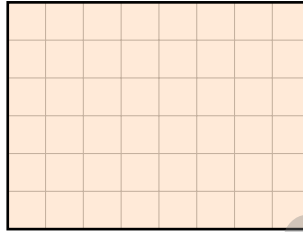
A. 45

C. 35

B. 40

D. 50

2) On a grid, a rectangle is 8 units long and 6 units wide.



How many unit squares fill it?

A. 28 sq units

C. 48 sq units

B. 42 sq units

D. 56 sq units

3) Noah is tiling a rectangular floor. The floor is 9 feet long and 2 feet wide. How many square feet of tiles does he need?

A. 18 sq ft

C. 11 sq ft

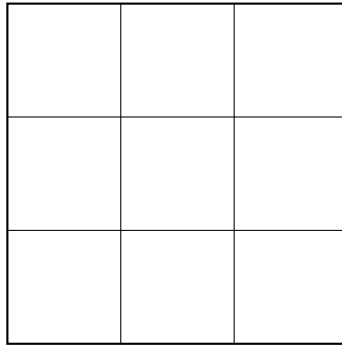
B. 13 sq ft

D. 27 sq ft



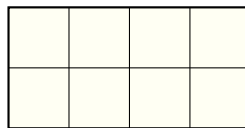
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- 4) A square is divided into a  $3 \times 3$  grid (2 horizontal and 2 vertical lines making 9 equal small squares). What fraction is one small square?



- A.  $\frac{1}{6}$                        C.  $\frac{1}{9}$   
 B.  $\frac{1}{8}$                        D.  $\frac{1}{4}$
- 5) Write a fraction with numerator 3 that is larger than  $\frac{3}{8}$ .

- 6) How many unit squares ( $1 \text{ cm} \times 1 \text{ cm}$ ) are needed to cover a 4 cm by 2 cm rectangle?



4 cm

- A. 6 unit squares                       C. 10 unit squares  
 B. 8 unit squares                       D. 12 unit squares



## Practice Test Answer Keys

**How to use this section with a Grade 3 student:**

1. check the answer first
2. mark questions to try again
3. rework the problem before reading the full explanation

**A calm correction routine turns every missed item into useful practice.**

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## Practice Test Answers and Explanations

### Practice Test 1 Answers and Explanations

- 1) **Choice C is correct.** **(3.NF.A.3)** The first and second bars are equivalent. But the third bar shows  $\frac{1}{3}$ , which is larger than  $\frac{1}{2}$ , so all three do NOT show the same amount. Answer C is false.
- 2) **Choice A is correct.** **(3.OA.D.8)** Step 1: Find total pencils:  $5 \times 6 = 30$ . Step 2: Subtract:  $30 - 10 = 20$  pencils. (Choice C is the answer to step 1 only—students must complete both steps.)
- 3) **Choice C is correct.** **(3.G.A.1)** By definition, a parallelogram has two pairs of opposite sides that are parallel. Not all parallelograms have right angles or equal sides.
- 4) **Choice D is correct.** **(3.NBT.A.2)** Ones:  $8 + 4 = 12$  (write 2, carry 1). Tens:  $7 + 5 + 1 = 13$  (write 3, carry 1). Hundreds:  $4 + 2 + 1 = 7$ . Answer: 732.
- 5) **Choice C is correct.** **(3.MD.A.2)** Add:  $1000 + 500 + 500 = 2000$  mL.
- 6) **Choice A is correct.** **(3.NBT.A.1)** The ones digit is 4. Since  $4 < 5$ , round down: 734 rounds to 730.
- 7) **Choice C is correct.** **(3.MD.C.7)** The grid has 9 columns and 2 rows. Area =  $9 \times 2 = 18$  square inches. You can also add:  $9 + 9 = 18$  (two rows of nine).
- 8) **Choice B is correct.** **(3.G.A.2)** One vertical line and one horizontal line create 4 equal parts. One part is  $\frac{1}{4}$ .
- 9) **Choice B is correct.** **(3.MD.C.7c)** Add the two areas:  $(2 \times 6) + (2 \times 5) = 12 + 10 = 22$  square units.
- 10) **Choice B is correct.** **(3.MD.A.1)**  $3 : 45 - 12 \text{ min} = 3 : 33 \text{ PM}$ .
- 11) **Choice D is correct.** **(3.OA.B.5)** The identity property of multiplication says any number times 1 equals itself.  $6 \times 1 = 6$ .
- 12) **Choice C is correct.** **(3.MD.C.5b)** Count the rows: 3 rows. Count across: 8 tiles per row. Total:  $8 + 8 + 8 = 24$  square tiles are needed to cover the floor.
- 13) **Choices A and C are correct.** **(3.NF.A.3c)** When numerator = denominator, the fraction always equals 1 whole. (B)  $\frac{3}{1} = 3$ , not 1. (D) and (E) are less than 1.
- 14) **Choice D is correct.** **(3.OA.B.6)**  $36 \div 6 = \square$  means  $\square \times 6 = 36$ . Since  $6 \times 6 = 36$ , Sam earned 6 points per game.
- 15) **Choice A is correct.** **(3.OA.A.3)** Divide:  $9 \div 3 = 3$  slices per friend.
- 16) **The correct answer is  $\frac{1}{4}$ .** **(3.NF.A.2a)** Each part has length  $\frac{1}{4}$ .
- 17) **Choice B is correct.** **(3.MD.B.3)** Piano:  $6 \times 2 = 12$ . Guitar:  $4 \times 2 = 8$ . More:  $12 - 8 = 4$ .
- 18) **Choice C is correct.** **(3.MD.C.5a)** Count rows and columns: 4 units wide and 2 units tall equals  $4 \times 2 = 8$  unit squares covering the rectangle with no gaps or overlaps.
- 19) **Choice B is correct.** **(3.NF.A.1)** Sam eats  $\frac{1}{4}$  and Mia eats  $\frac{1}{4}$ . Together:  $\frac{1}{4} + \frac{1}{4} = \frac{2}{4}$  is eaten, so  $\frac{2}{4}$  remains.
- 20) **The correct answer is  $1\frac{1}{4}$ .** **(3.NF.A.2b)**  $\frac{5}{4} = 1\frac{1}{4}$ .
- 21) **Choice C is correct.** **(3.MD.C.5)** Rectangle:  $9 \times 1 = 9$  square inches. Square:  $3 \times 3 = 9$  square inches. Shape doesn't matter; area is what counts.
- 22) **Choice A is correct.** **(3.OA.A.2)** The picture shows 18 items shared into 3 equal groups of 6 each. So  $18 \div 3 = 6$ .
- 23) **Choice A is correct.** **(3.NF.A.2)** The first tick out of 3 equal parts is  $\frac{1}{3}$  of the way from 0 to 1.
- 24) **Choice D is correct.** **(3.OA.D.9)**  $20 + 5 = 25$ ,  $25 + 5 = 30$ ,  $30 + 5 = 35$ , etc. Each number increases by 5.
- 25) **Choice C is correct.** **(3.MD.C.7d)** Top:  $8 \times 3 = 24$  sq units. Bottom:  $5 \times 2 = 10$  sq units. Total:  $24 + 10 = 34$  sq units.
- 26) **Choice C is correct.** **(3.MD.C.7a)**  $7 \times 5 = 35$  square units.
- 27) **Choice C is correct.** **(3.NF.A.3a)**  $\frac{1}{2} = \frac{3}{6}$  because both represent one-half of the ribbon.
- 28) **Choice C is correct.** **(3.NF.A.3d)** Same numerator (3), different denominators: fourths are bigger pieces than sixths (the bar is cut into fewer, larger pieces). Three fourths covers more area than three sixths.
- 29) **The correct answer is 1 inch.** **(3.MD.B.4)** Range = max - min =  $8 - 7 = 1$  inch.
- 30) **Choice D is correct.** **(3.NF.A.3b)**  $\frac{3}{6} = \frac{1}{2}$ . Choices A, B, and C are all equivalent to  $\frac{1}{2}$ . Only  $\frac{2}{3}$  is not equivalent.



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From Your Math Family

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Hi, Math Family Member,

◇ Welcome to a special note from your math family. You finished 4 full practice tests, and that hard work matters more than any score. We see you. We are proud of you. ◇

★ **Our math family knows:** math is a journey. You have taken many steps already. The test is just one stop. Every skill you built is yours forever. ★

**What Your Math Family Sees**

- **Hard Work:** You keep showing up.
- **Real Growth:** You can do problems today you couldn't before.
- **Brave Heart:** You face hard problems with brave thinking.
- **Bright Future:** Your math journey is just beginning.

**Family tip:** on test day, picture us standing behind you, smiling and rooting for you. You are not alone. Your math family is with you!

If you want to share something or ask a question, please email me at [jay@testinar.com](mailto:jay@testinar.com).

**Jay Daie**

Your Math Family

# Build Skills. Achieve More.

This book gives **Grade 3** students the focused practice they need to master math concepts with confidence.

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