

# 4

# Tennessee TCAP

## 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 Tennessee TCAP 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 Tennessee 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 Tennessee TCAP. 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.

Tennessee has mountain music, river roads, and city lights where rhythm and patterns meet. 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 Tennessee TCAP: 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 TCAP work looks like:** the answer matches the question, the units make sense, and the work is clear enough to check.



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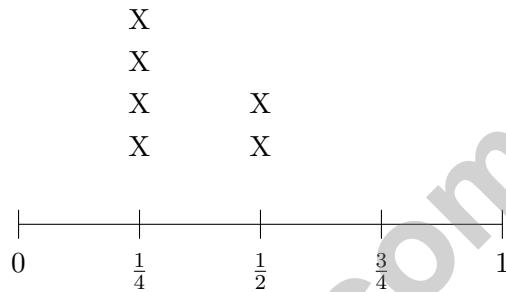
# Table of Contents

★ Practice Test 1	_____	15
★ Practice Test 2	_____	26
★ Practice Test 3	_____	39
★ Practice Test 4	_____	51
Practice Test Answer Keys	_____	63
Practice Test Answers and Explanations	_____	66



7) Find the missing number:  $? + 256 = 781$ . What is the missing addend?

8) Ava measured rainfall amounts in inches:  $0, \frac{1}{4}, \frac{1}{2}, \frac{3}{4}, 1$ .

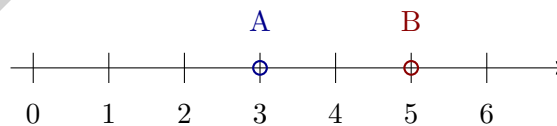


How many more days had  $\frac{1}{4}$  inch of rain than  $\frac{1}{2}$  inch of rain?

- |                                    |                                    |
|------------------------------------|------------------------------------|
| <input type="checkbox"/> A. 1 day  | <input type="checkbox"/> C. 3 days |
| <input type="checkbox"/> B. 2 days | <input type="checkbox"/> D. 4 days |

9) Which number rounds to 70 when rounded to the nearest 10?

- |                                |                                |
|--------------------------------|--------------------------------|
| <input type="checkbox"/> A. 64 | <input type="checkbox"/> C. 75 |
| <input type="checkbox"/> B. 76 | <input type="checkbox"/> D. 67 |

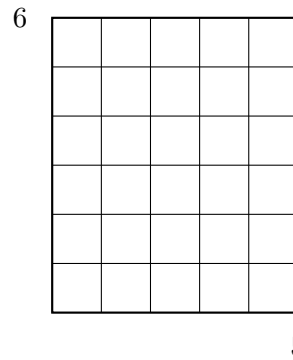


10)

The number line from 0 to 6 has points  $A$  at 3 and  $B$  at 5. Write  $A$  and  $B$  as fractions of the total distance.

- |  |  |
|--|--|
| <input type="checkbox"/> A. $A = \frac{1}{2}, B = \frac{5}{6}$ | <input type="checkbox"/> C. $A = \frac{6}{3}, B = \frac{6}{5}$ |
| <input type="checkbox"/> B. $A = \frac{3}{6}, B = \frac{6}{5}$ | <input type="checkbox"/> D. $A = \frac{3}{6}, B = \frac{5}{6}$ |





11)

What is the area of this tiled rectangle?

- A. 11  
 B. 20

- C. 30  
 D. 56

12) When a whole is divided into equal parts, what does the denominator (bottom number) tell us?

- A. How many equal parts the whole is divided into  
 B. How many parts are shaded

- C. The color of the shape  
 D. How big the whole is

13) A composite shape breaks into three rectangles: one 5 units by 3 units, and two 2 units by 3 units each. What is the total area?

- A. 15 sq units  
 B. 6 sq units

- C. 27 sq units  
 D. 90 sq units

14) Which repeated addition matches  $5 \times 10$ ?

- A.  $5 + 5 + 5$   
 B.  $10 + 5$

- C.  $10 + 10 + 10 + 10 + 10$   
 D.  $5 + 10$



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1) Ava makes 5 sets of picture cards. Each set has 20 cards. How many cards does Ava make?

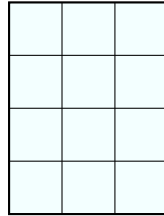
A. 25

C. 100

B. 52

D. 1000

2) Ben counts unit squares to find the area of a shape. He counts 12 unit squares. What is the area?



A. 6 square units

C. 12 square units

B. 10 square units

D. 24 square units

3) On this grid, how many unit squares cover the rectangle?



A. 11 sq units

C. 30 sq units

B. 22 sq units

D. 35 sq units

4) Which fraction is equivalent to  $\frac{3}{4}$ ?

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

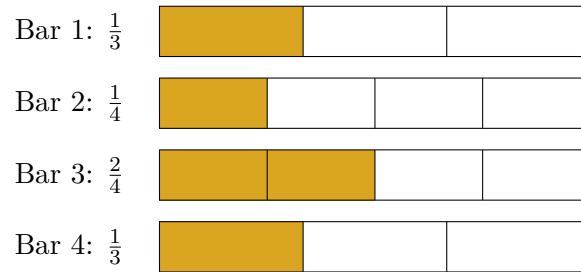
C.  $\frac{6}{8}$

B.  $\frac{3}{6}$

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



5) Look at the bars. Which pair shows the same-size shaded region?



A. Bar 1 and Bar 4

C. Bar 1 and Bar 2

B. Bar 2 and Bar 3

D. Bar 3 and Bar 4

6) Round 476 to the nearest 100.

A. 400

C. 475

B. 470

D. 500

7) A library has 8 shelves with 7 books on each shelf. They add 6 more books. Which of these is the correct total?

A.  $8 + 7 + 6 = 21$

C.  $8 + 7 \times 6 = 50$

B.  $8 \times 7 \times 6 = 336$

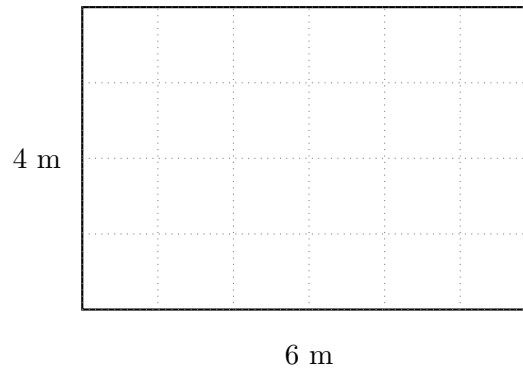
D.  $(8 \times 7) + 6 = 62$

8) What is  $54 \div 9$ ?



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- 1) A rectangular rug is 6 meters long and 4 meters wide. What is the area of the rug?



- A. 10 sq m                       C. 20 sq m  
 B. 24 sq m                       D. 12 sq m
- 2) A teacher has 40 pencils. She gives them equally to 8 students. How many pencils does each student get?

- 3) Lily has a tile that is 6 centimeters by 6 centimeters. What is the area of Lily's tile?
- A. 12 square centimeters                       C. 30 square centimeters  
 B. 24 square centimeters                       D. 36 square centimeters
- 4) A floor has unit tiles arranged in 4 rows and 8 columns. How many unit tiles cover the floor?
- A. 12     C. 24  
 B. 32     D. 48



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## 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 A is correct.** (3.NF.A.2a) One mark in the middle divides into 2 equal parts, each  $\frac{1}{2}$ .
- 2) **Choice B is correct.** (3.MD.C.7) Rectangle A:  $6 \times 3 = 18$  sq units. Rectangle B:  $5 \times 4 = 20$  sq units.  $20 > 18$ , so B is larger.
- 3) **Choice D is correct.** (3.OA.B.5) The expanded distributive equation is  $3 \times 4 + 3 \times 3 = 12 + 9 = 21$ .
- 4) **Choice D is correct.** (3.MD.C.5b)  $9 \times 4 = 36$  unit squares.
- 5) **Choice C is correct.** (3.OA.C.7) 6 baskets with 7 apples each:  $6 \times 7 = 42$ .
- 6) **Choice D is correct.** (3.OA.B.6) The missing factor is 9 because  $9 \times 7 = 63$ . This is the same as saying  $63 \div 7 = 9$ .
- 7) **The correct answer is 525.** (3.NBT.A.2) Subtract to find the missing addend:  $781 - 256 = 525$ . Check:  $525 + 256 = 781$ .
- 8) **Choice B is correct.** (3.MD.B.4) At  $\frac{1}{4}$  inch there are 4 X's. At  $\frac{1}{2}$  inch there are 2 X's. The difference is  $4 - 2 = 2$  days.
- 9) **Choice D is correct.** (3.NBT.A.1) Numbers from 65 to 74 round to 70. The number 67 has ones digit  $7 \geq 5$ , so it rounds up to 70.
- 10) **Choice D is correct.** (3.NF.A.2b) On a 0-to-6 number line, point A at 3 is  $\frac{3}{6}$  and point B at 5 is  $\frac{5}{6}$ .
- 11) **Choice C is correct.** (3.MD.C.7a)  $5 \times 6 = 30$  square units.
- 12) **Choice A is correct.** (3.NF.A.1) The denominator (bottom number) tells us how many equal parts the whole is divided into. For example, in  $\frac{1}{4}$ , the 4 means the whole is divided into 4 equal parts.
- 13) **Choice C is correct.** (3.MD.C.7d) First:  $5 \times 3 = 15$  sq units. Two others:  $2 \times 3 = 6$  each. Total:  $15 + 6 + 6 = 27$  sq units.
- 14) **Choice C is correct.** (3.NBT.A.3)  $5 \times 10$  means 5 groups of 10, which is the same as adding 10 five times:  $10 + 10 + 10 + 10 + 10 = 50$ . This shows that multiplication is repeated addition.
- 15) **Choice B is correct.** (3.G.A.1) In a square (and all rectangles and rhombuses), both pairs of opposite sides are parallel.
- 16) **The correct answer is 20.** (3.MD.A.1)  $6 : 35$  is 20 minutes after  $6 : 15$ .
- 17) **Choices B and D are correct.** (3.NF.A.3d) With numerator 1, smaller denominators give larger pieces. Thirds and halves are larger than fourths. A and C have larger denominators (sixths and eighths) so they are smaller. E equals  $\frac{1}{4}$  (not greater).
- 18) **Choice D is correct.** (3.OA.A.1) The picture shows 3 columns with 4 rectangles in each column. So  $3 \times 4 = 12$  rectangles.
- 19) **Choice D is correct.** (3.MD.C.7c) The distributive property uses addition:  $5 \times (6 + 3) = (5 \times 6) + (5 \times 3) = 30 + 15 = 45$ , not subtraction.
- 20) **Choice A is correct.** (3.OA.A.2) The picture shows 12 items split into 6 equal groups. The division sentence is  $12 \div 6 = 2$ .
- 21) **The correct answer is 24 square inches.** (3.MD.C.5)  $8 \times 3 = 24$  square inches.
- 22) **Choice B is correct.** (3.MD.A.2) Subtract:  $6 - 2 = 4$  L.
- 23) **Choice A is correct.** (3.MD.B.3) Soccer:  $3 \times 5 = 15$ . Basketball:  $4 \times 5 = 20$ . Tag:  $2 \times 5 = 10$ . Total:  $15 + 20 + 10 = 45$ .
- 24) **Choice B is correct.** (3.MD.C.5a)  $4 \text{ cm} \times 2 \text{ cm} = 8$  square centimeters, which equals 8 unit squares of 1 cm each.
- 25) **Choice A is correct.** (3.OA.A.4) Both  $6 \times 7 = 42$  and  $42 \div 6 = 7$  are in the same fact family.
- 26) **Choice A is correct.** (3.OA.A.3) Each shelf has the same number of games, so multiply the equal groups:  $4 \times 7 = 28$  video games.
- 27) **Choice C is correct.** (3.NF.A.3c)  $\frac{6}{3}$  means 6 thirds; 3 thirds make 1, so 6 thirds = 2 wholes. (A) is false:  $\frac{5}{1} = 5$ . (B) is false:  $\frac{4}{4} = 1$ . (D) is false:  $\frac{3}{1} = 3$  and  $\frac{1}{3}$  is a unit fraction.
- 28) **Choice B is correct.** (3.NF.A.2)  $\frac{2}{6}$  is between  $\frac{1}{6}$  (tick 1) and  $\frac{3}{6}$  (tick 3). It's the middle tick.
- 29) **Choice B is correct.** (3.NF.A.3b) The denominator was multiplied by 2 (from 2 to 4). Multiply the numerator by 2:  $1 \times 2 = 2$ . So  $\frac{1}{2} = \frac{2}{4}$ .
- 30) **Choice D is correct.** (3.OA.D.9) Each number increases by 6. These are multiples of 6:  $36 + 6 = 42$ .



Trail Guide's Final Note

## Hi, Brave Trail-Walker!

◇ You walked all 4 miles of the practice trail. Smooth paths, steep climbs, narrow passes. Every step taught you something. ◇

★ **Trail guides know:** the most important thing is to keep moving. Slow steps still get you there. You have a steady stride now. ★

### Trail Survey

- **Route Knowledge:** You know lots of problem types.
- **Steady Pace:** You don't rush. You don't stop.
- **Pack Loaded:** You have all the math tools you need.
- **Confidence:** You trust your training.

**Guide's tip:** on test day, stay on the trail you've walked before. Use the strategies you've practiced. Trust the route. The summit is one steady walk away!

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 Trail Guide

# Build Skills. Achieve More.

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

## What's Inside?



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Questions designed to match Grade 3 math standards.



### Variety of Question Types

Build skills with multiple formats and challenges.



### Real-World Applications

Engaging problems that connect math to life.



### Step-by-Step Progress

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- ✓ Fractions & Decimals
- ✓ Algebraic Thinking
- ✓ Geometry
- ✓ Measurement & Data
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