

6

Vermont VTCAP

GRADE 3

MATH

PRACTICE TESTS

Standards-Aligned Practice with
Review, Answer Keys, and Explanations



6 Full-Length
Practice Tests



Detailed Answer Keys
and Explanations



Master Skills.
Boost Scores.
Succeed!

6 Vermont VTCAP Grade 3 Math Practice Tests

Standards-Aligned Review with Mixed Practice and Answer Key



Six complete 30-question practice labs for Grade 3 math: operations, fractions, measurement, data, area, shapes, answer keys, and clear explanations for every item.

Jay Daie and Reza Nazari



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Welcome to the Six Skill Labs

Six full tests, six focused resets, and a stronger Grade 3 problem solver



Notice the pattern. Choose a tool. Explain the answer.

To the Grade 3 Math Builder

This book gives you six practice labs for the Vermont VTCAP. Each lab is a complete 30-question test, so students can practice accuracy, stamina, and clear mathematical thinking.

Vermont brings maple woods, covered bridges, ski hills, and green valleys. Strong math uses that same care: read the task, select a strategy, build the solution, and check each step like a careful trail marker.

Decode

Find the question, the units, and the useful numbers.

Design

Use an equation, array, number line, graph, or sketch.

Confirm

Make sure the answer matches the question.

Six-lab promise: I will work with patience, show useful thinking, and treat corrections as part of learning.

How to Use This Book

A six-lab routine for steady Grade 3 growth

Use one practice lab at a time. The goal is not only to finish more pages. The goal is to finish, review, repair, and bring a smarter habit to the next test. For Vermont students, each lab is a short route through maple woods, covered bridges, ski hills, and green valleys: steady, alert, and ready for the next clue.

1. **Warm up.** Skim the reference materials and remind yourself of common tools.
2. **Take one test.** Work steadily and mark problems that need a second look.
3. **Check answers.** Use the compact answer keys first.
4. **Read explanations.** Study missed items and any lucky guesses.
5. **Redo two problems.** Rewrite the work cleanly without peeking.
6. **Set the next lab goal.** Choose one skill or habit to improve.

Best review habit: A mistake is most useful when you can say why it happened and what you will do differently next time.



What Is Inside?

Six complete practice tests with review support

Part	What You Do	Why It Helps
Practice Tests 1–6	Solve six different 30-question tests.	Build stamina and see Grade 3 skills mixed together.
Answer Keys	Check each answer in compact boxes.	Find mistakes quickly without losing your place.
Explanations	Read why each answer works.	Turn missed items into a clear next step.
Standards Reference	See how Vermont Grade 3 standards connect to practice.	Understand the skills behind the questions.

Each test has 26 multiple-choice questions, 1 select-all question, and 3 open-ended questions. This gives students practice with quick decisions, careful reading, and short written math answers for the Vermont VTCAP path.



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For more practice
& answers

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1) What is 899 rounded to the nearest 10?

- A. 890 C. 900
 B. 899 D. 910

2) Otto divides 72 items into 8 equal groups. To find how many items in each group, which multiplication helps him?

- A. $8 \times 8 = 64$ C. $9 \times 7 = 63$
 B. $10 \times 8 = 80$ D. $8 \times 9 = 72$

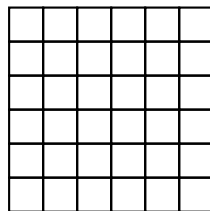
3) A recipe calls for 3 eggs. If Chloe wants to make 8 batches, how many eggs does she need?

- A. 11 eggs C. 30 eggs
 B. 27 eggs D. 24 eggs

4) Which fraction equals the whole number 2?

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

5) Maya is laying square tiles on her kitchen floor. The floor is shaped like a large square with 6 tiles along one edge. Here is the layout:

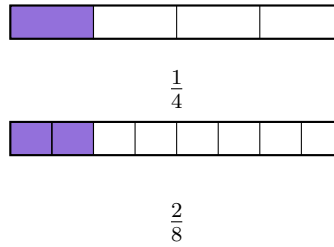


How many square tiles cover the entire floor?

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



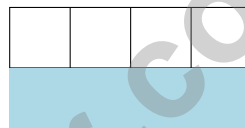
6) Which fraction is equivalent to $\frac{2}{8}$?



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

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

7) Look at the rectangle divided into 8 equal parts. Which fraction in eighths describes the shaded part?



- A. $\frac{1}{8}$
 B. $\frac{2}{8}$

- C. $\frac{4}{8}$
 D. $\frac{3}{8}$

8) Let n be the unknown. A restaurant has 80 chairs. They remove 8 chairs. The remaining chairs are arranged equally in 8 rows. How many chairs are in each row?

- A. 8
 B. 12

- C. 10
 D. 9

9) What is $54 \div 9$?



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1) A store has boxes of toy cars. Each box holds 9 cars. How many cars are in 6 boxes?

A. 48 cars

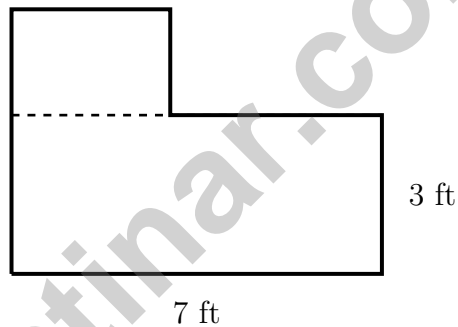
C. 56 cars

B. 60 cars

D. 54 cars

2) A teacher has 40 pencils. She gives them equally to 8 students. How many pencils does each student get?

3) An L-shaped patio is shown with dashed decomposition lines:



Bottom: 7 ft by 3 ft. Top: 3 ft by 2 ft. What is the total area?

A. 6 sq ft

C. 21 sq ft

B. 27 sq ft

D. 42 sq ft

4) A parking lot has 4 sections. Each section has 8 rows. Each row has 3 cars. How many cars can fit in the lot?

A. 48

C. 72

B. 64

D. 96



5) Which shows why 4×20 equals 80?

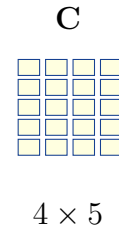
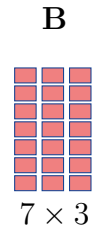
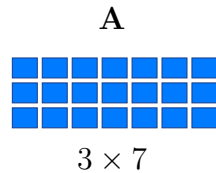
A. $(4 + 2) \times 10 = 60$

C. $4 \times (2 + 10) = 48$

B. $4 + 2 + 10 = 16$

D. $(4 \times 2) \times 10 = 8 \times 10 = 80$

6) Which pair of arrays both show the same product?



A. Arrays A and B

C. Arrays B and C

B. Arrays A and C

D. All three arrays

7) A pie is cut into 6 equal slices. Ava eats one slice. What fraction of the pie does Ava eat?

A. $\frac{5}{6}$

C. $\frac{1}{6}$

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

D. $\frac{1}{5}$

8) A unit square can be measured in different units. A unit square measured in inches is how many square inches?

A. 1 square inch

C. 4 square inches

B. 2 square inches

D. 0.5 square inches



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& answers

1) Which list does NOT follow a skip-counting pattern that adds the same amount each time?

A. 5, 10, 15, 20, 25

C. 2, 4, 6, 8, 10

B. 3, 6, 9, 12, 15

D. 1, 2, 4, 7, 11

2) A square has a perimeter of 20 feet. What is the length of one side?

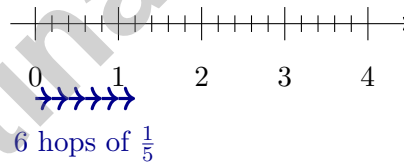
A. 5 ft

C. 10 ft

B. 4 ft

D. 20 ft

3) A circle is divided into 6 equal parts. Write the fraction that represents one part of the circle.



4)

A frog makes 6 equal hops of size $\frac{1}{5}$ on a number line divided into fifths. Where does the frog land after 6 hops?

A. At $\frac{1}{5}$

C. At 1

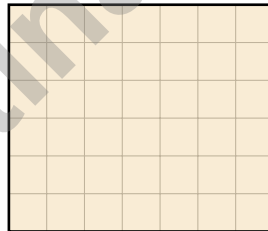
B. At $\frac{6}{5}$ (between 1 and 2)

D. At $\frac{5}{6}$



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& answers

- 5) A square rug has side length 5 meters. What is its area?
- A. 10 sq m C. 25 sq m
 B. 20 sq m D. 30 sq m
- 6) Emma measured twig lengths in inches. At the 4 inch mark, there are 5 X's. At the $4\frac{1}{4}$ inch mark, there are 3 X's. How many more twigs are exactly 4 inches long than $4\frac{1}{4}$ inches long?
- A. 1 C. 3
 B. 2 D. 8
- 7) Noah had 300 cookies. He gave away 145 cookies to his friends. How many cookies does Noah have left?
- A. 155 C. 445
 B. 165 D. 245
- 8) On a grid, a rectangle covers 6 rows and 7 columns of unit squares.



What is the area?

- A. 26 sq units C. 42 sq units
 B. 36 sq units D. 48 sq units



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.NBT.A.1)** The ones digit is 9. Since $9 \geq 5$, round up: 899 rounds to 900.
- 2) **Choice D is correct.** **(3.OA.B.6)** To solve $72 \div 8 = \square$, find $\square \times 8 = 72$. The multiplication fact $8 \times 9 = 72$ tells us the answer is 9 items per group.
- 3) **Choice D is correct.** **(3.OA.A.1)** 8 batches with 3 eggs each means 8 groups of 3. So $8 \times 3 = 24$ eggs.
- 4) **Choice C is correct.** **(3.NF.A.3c)** 2 equals $\frac{2}{1}$ (two wholes divided into one part each).
- 5) **Choice C is correct.** **(3.MD.C.5b)** Count the rows: 6 rows. Count down: 6 tiles in each row. Total: $6+6+6+6+6+6 = 36$ square tiles.
- 6) **Choice A is correct.** **(3.NF.A.3)** $\frac{2}{8}$ and $\frac{1}{4}$ both equal one-quarter of a whole.
- 7) **Choice C is correct.** **(3.NF.A.3b)** The rectangle has 8 equal parts and 4 are shaded, so the shaded fraction written in eighths is $\frac{4}{8}$.
- 8) **Choice D is correct.** **(3.OA.D.8)** Step 1: Subtract: $80 - 8 = 72$ chairs. Step 2: Divide by rows: $72 \div 8 = 9$ chairs per row.
- 9) **The correct answer is 6.** **(3.OA.C.7)** $54 \div 9 = 6$ because $6 \times 9 = 54$.
- 10) **Choice B is correct.** **(3.NF.A.1)** When a whole is divided into 3 equal pieces, each piece is $\frac{1}{3}$ (one-third).
- 11) **Choice B is correct.** **(3.NF.A.2a)** Splitting from 0 to 1 into three equal parts gives $\frac{1}{3}$ for each.
- 12) **Choice C is correct.** **(3.MD.C.6)** Area = $9 \times 7 = 63$ square feet.
- 13) **Choices A and B are correct.** **(3.MD.A.2)** Choices A and B are both true. Choice C is false: 2500 g is greater than 2000 g. Choice D requires unit conversion (not Grade 3). Choice E is false: 750 mL is less than 1000 mL.
- 14) **Choice C is correct.** **(3.NF.A.2b)** $\frac{2}{8}$ means 2 out of 8 equal parts. Count 2 ticks from 0.
- 15) **Choice B is correct.** **(3.NF.A.3d)** $\frac{3}{8} < \frac{3}{4}$ because eighths are smaller parts than fourths. Also, $\frac{2}{2} = 1$, so the order is $\frac{3}{8}, \frac{3}{4}, \frac{2}{2}$.
- 16) **Choice D is correct.** **(3.OA.D.9)** Any number times 2 is even. Products: $2 \times 1 = 2$, $2 \times 2 = 4$, etc., are all even.
- 17) **Choice D is correct.** **(3.OA.A.3)** Divide: $54 \div 9 = 6$ flowers per bouquet.
- 18) **Choice D is correct.** **(3.OA.A.4)** Divide: $18 \div 2 = 9$. Each box weighs 9 units. Check: $2 \times 9 = 18$.
- 19) **Choice B is correct.** **(3.MD.C.7c)** Use the distributive property: multiply 6 by each part, then add.
- 20) **Choice D is correct.** **(3.OA.A.2)** This is measurement division: How many groups of 10 fit in 30? $30 \div 10 = 3$.
- 21) **Choice B is correct.** **(3.NF.A.2)** $\frac{2}{4} = \frac{1}{2}$, so $\frac{2}{4}$ and $\frac{1}{2}$ are the same point on the number line.
- 22) **Choice A is correct.** **(3.MD.C.7b)** Area = width \times height = $11 \times 9 = 99$ square inches.
- 23) **Choice D is correct.** **(3.G.A.1)** A square is a special rhombus that also has all right angles. If a rhombus has 4 right angles, it becomes a square.
- 24) **Choice A is correct.** **(3.OA.B.5)** Option A shows 6 rows and 3 columns. By the commutative property, $3 \times 6 = 6 \times 3 = 18$. Flipping rows and columns shows the same product in a different order.
- 25) **Choice A is correct.** **(3.NBT.A.2)** Ones: $0 - 5$ requires regrouping, so $10 - 5 = 5$. Tens: $4 - 2 = 2$. Hundreds: $7 - 3 = 4$. Answer: 425.
- 26) **Choice B is correct.** **(3.MD.A.1)** $7 : 20 + 87 \text{ min} = 7 : 20 + 60 \text{ min} + 27 \text{ min} = 8 : 20 + 27 \text{ min} = 8 : 47 \text{ PM}$.
- 27) **Choice B is correct.** **(3.G.A.2)** One vertical line and one horizontal line create 4 equal parts. One part is $\frac{1}{4}$.
- 28) **The correct answer is 4 plants.** **(3.MD.B.4)** At least 9 inches means $9, 9\frac{1}{2}$, and 10 inches: $0 + 1 + 3 = 4$ plants.
- 29) **Choice C is correct.** **(3.MD.C.5a)** The grid is 2 units wide and 4 units tall: $2 \times 4 = 8$ unit squares = 8 square units.
- 30) **Choice D is correct.** **(3.NF.A.3a)** $\frac{3}{6} = \frac{1}{2}$. Both mark the halfway point on a number line.

Practice Test 2 Answers and Explanations



Notes From the Math Gardener

Hi, Math Gardener!

◇ Look at how much you grew! 6 tests is like 6 weeks of taking care of your math garden. Every problem was a seed. Every try was water. ◇

★ **Gardeners say:** growth takes time. You can't see roots, but they are there. You can't always feel smarter, but you are. Your math garden is full! ★

Garden Check-Up

- **Roots:** STRONG! Your basic math is solid.
- **Stems:** STURDY! You can do step-by-step problems.
- **Leaves:** GREEN! You have lots of math tools.
- **Flowers:** BRIGHT! You feel proud of your work.

Gardener tip: keep watering your math garden long after the test. Every habit you built will grow with you for years!

If you want to share something or ask a question, please email me at jay@testinar.com.

Jay Daie

Your Math Gardener

BUILD CONFIDENCE. MASTER MATH. ACHIEVE SUCCESS!



This **Grade 3 Math Practice Tests** book is the perfect companion for students who want to strengthen their math skills and excel in school. With **6** full-length practice tests designed to reflect real test formats, students get the practice they need to understand key concepts, build problem-solving skills, and tackle any challenge with confidence.

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- ✓ Ratio & Proportion
- ✓ Perimeter, Area & Volume
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