

7

Kentucky

KSA

Grade 3 MATH

PRACTICE TESTS

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



7 Full-Length
Practice Tests



Standards-Aligned
Math Practice



Detailed Answer Keys
and Explanations



Build Confidence.
Achieve Success.

PREPARE
PRACTICE
SUCCEED



$4 \times 6 = 24$

$2 + 3 = 5$



7 Kentucky KSA Grade 3 Math Practice Tests

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



Seven complete 30-question practice trails 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 Seven Math Trails

Seven full tests, seven fresh chances, and one braver Grade 3 thinker



Read the trail. Mark the clues. Solve with care.

To the Grade 3 Math Trail Leader

This book gives you seven complete practice trails for the Kentucky KSA. Each trail is a full 30-question test, so students can practice accuracy, stamina, and clear explanations over time.

Kentucky has bluegrass fields, cave paths, horse farms, river overlooks, and thoughtful school days, where careful steps matter. Strong math follows that same path: notice the question, choose a tool, show the work, and follow the evidence from question to answer.

Scout

Find what the problem is asking before you calculate.

Solve

Pick an equation, model, array, graph, or number line.

Prove

Check the answer and explain the thinking clearly.

Seven-trail promise: I will work with patience, use my scratch space wisely, and let every correction make my next test stronger.

How to Use This Book

A seven-trail routine for steady Grade 3 growth

Use one practice trail at a time. The goal is not to rush through more pages. The goal is to finish, check, repair, and bring a stronger habit to the next test. For Kentucky students, each trail moves through bluegrass fields, cave paths, horse farms, river overlooks, and thoughtful school days: steady, alert, and ready for the next clue.

1. **Preview the tools.** Skim the reference page before each test.
2. **Take one test.** Work steadily and mark problems that need another look.
3. **Check the key.** Use the compact answer boxes first.
4. **Study explanations.** Read missed items and lucky guesses.
5. **Redo three problems.** Rewrite the work cleanly without copying.
6. **Name one habit.** Choose a focus such as labels, facts, fractions, or checking.
7. **Start the next trail.** Bring that habit into the next full test.

Best review habit: A missed problem is a trail marker. It shows where to slow down, look again, and choose a better step.



What Is Inside?

Seven complete practice tests with review support

| Part | What You Do | Why It Helps |
|---------------------|---|---|
| Practice Tests 1–7 | Solve seven different 30-question tests. | Build stamina and see Grade 3 skills mixed together. |
| Reference Materials | Review measurement and time facts before each test. | Keep common tools close without turning pages backward. |
| 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 Kentucky 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 Kentucky KSA path.



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& answers

Table of Contents

| | | |
|---|-------|------------|
| ★ Practice Test 1 | _____ | 14 |
| ★ Practice Test 2 | _____ | 26 |
| ★ Practice Test 3 | _____ | 38 |
| ★ Practice Test 4 | _____ | 51 |
| ★ Practice Test 5 | _____ | 64 |
| ★ Practice Test 6 | _____ | 77 |
| ★ Practice Test 7 | _____ | 88 |
| Practice Test Answer Keys | _____ | 101 |
| Practice Test Answers and Explanations | _____ | 106 |

1) Sam tiles a rectangle that is 4 tiles long and 3 tiles wide. How many tiles does he use in all?

A. 7

C. 14

B. 12

D. 24

2) A baker needs to multiply 400 g of sugar by 2 to make a bigger batch. How many grams of sugar does he need?

A. 400 g

C. 800 g

B. 600 g

D. 1000 g

3) What is 9×9 ?

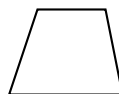
4) A soccer game starts at 10 : 25 AM. It ends at 11 : 20 AM. How many minutes long is the game?

A. 55 minutes

C. 65 minutes

B. 50 minutes

D. 60 minutes



Shape R

5)

Shape R is a quadrilateral with one pair of parallel sides. What is Shape R called?

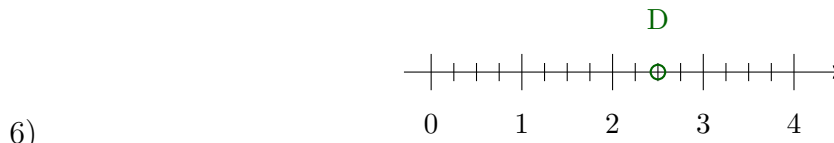
A. Square

C. Trapezoid

B. Rectangle

D. Rhombus

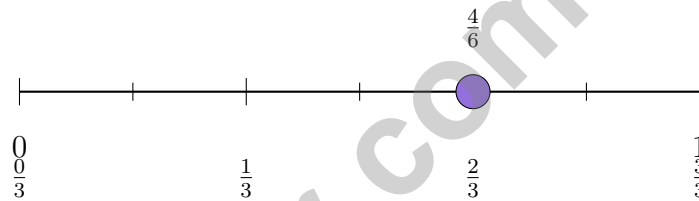




The number line from 0 to 4 is divided into fourths. Point D is shown. What mixed number is point D ?

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

7) Look at the number line. What fraction equals $\frac{4}{6}$?



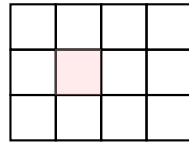
- A. $\frac{1}{3}$ C. $\frac{1}{2}$
 B. $\frac{2}{3}$ D. $\frac{1}{4}$

8) What is 9×40 ? Show how you decompose the 40 and use place value to find your answer.



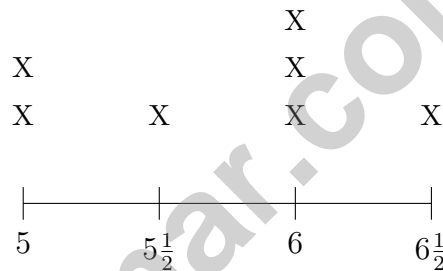
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- 9) Look at this shape made of unit squares. One square is shaded pink to help you see it:



How many distinct unit squares cover the shape?

- A. 11 unit squares C. 13 unit squares
 B. 12 unit squares D. 24 unit squares
- 10) Ava measured the heights of plant stems in inches using halves: $5, 5\frac{1}{2}, 6, 6\frac{1}{2}$.



How many plant stems are 6 inches or taller?

- A. 2 C. 4
 B. 3 D. 5
- 11) 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. $8 \times 9 = 72$



1) This area model shows 4×60 . What is the missing part?

| | | | |
|---------------|---------------|---------------|---------------|
| 6×10 | 6×10 | 6×10 | 6×10 |
|---------------|---------------|---------------|---------------|

$$4 \times 60 = (4 \times 6 \times 10) = ?$$

A. 24

C. 240

B. 60

D. 2400

2) What is $28 \div 4$?

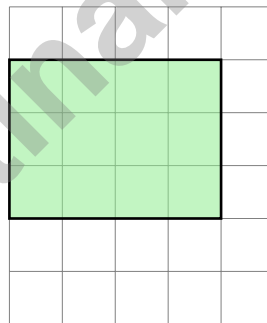
A. 6

C. 8

B. 7

D. 4

3) Look at the shaded squares on the grid. Count the unit squares.



A. 10 square units

C. 11 square units

B. 12 square units

D. 13 square units



4) Ben has a chocolate bar. He divides it into 3 equal pieces. What fraction is each piece?

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

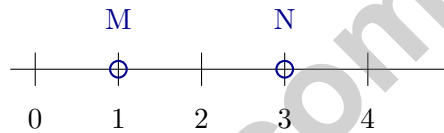
- C. $\frac{3}{1}$
- D. $\frac{1}{2}$

5) A bar graph shows games played. Soccer bar is 3 units, basketball bar is 4 units, tag bar is 2 units. Each unit is 5 games. How many total games were played?

- A. 45
- B. 50

- C. 55
- D. 60

6)

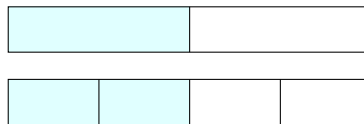


Two points M and N are marked on a number line from 0 to 4. Point M is at 1 and point N is at 3. What fraction of the whole distance from 0 to 4 is point N ?

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

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

7) Two identical length strips. Strip P has 2 equal parts with 1 shaded. Strip Q has 4 equal parts with 2 shaded. Which statement is correct?



Strip P: $\frac{1}{2}$

Strip Q: $\frac{2}{4}$

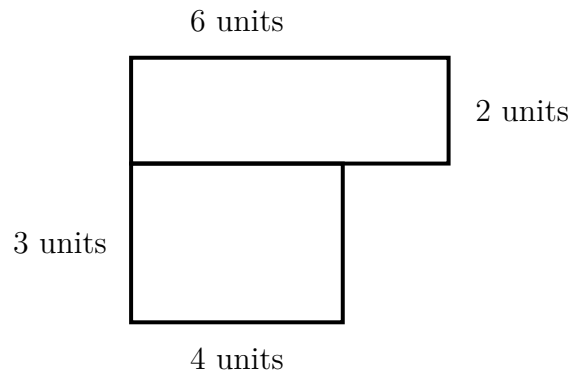
- A. Strip Q has more.
- B. Strip P has more.

- C. They shade the same amount.
- D. Cannot be compared.

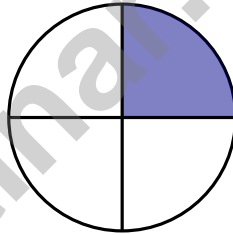


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- 1) A floor plan shows an L-shaped room. One part is 4 units long and 3 units wide. The other part is 6 units long and 2 units wide. What is the total floor area?



- A. 24 sq units C. 12 sq units
 B. 18 sq units D. 36 sq units
- 2) Look at the circle. It is divided into 4 equal parts. One part is shaded.

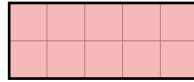


What fraction is shaded?

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



3) This rectangle is divided into unit squares.



Which multiplication sentence shows the area?

- A. $5 \times 2 = 10$
 C. $2 \times 2 = 4$
 B. $5 \times 5 = 25$
 D. $7 \times 2 = 14$
- 4) Eli eats breakfast at 7 : 33 AM. He eats lunch 3 hours and 17 minutes later. What time does Eli eat lunch?
- A. 10 : 30 AM
 C. 11 : 00 AM
 B. 10 : 45 AM
 D. 10 : 50 AM
- 5) Mia's line plot shows snack weights in ounces: $1, 1\frac{1}{4}, 1\frac{1}{2}, 1\frac{3}{4}, 2$.



What is the difference between the largest and smallest numbers of X's?

- A. 1
 C. 3
 B. 2
 D. 4



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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

- Choice B is correct.** (KY.3.OA.2) Multiply length \times width: $4 \times 3 = 12$ tiles. Shows tiling result matches multiplication.
- Choice C is correct.** (KY.3.MD.1) Multiply: $400 \times 2 = 800$ g.
- The correct answer is 81.** (KY.3.OA.9) $9 \times 8 = 72$, and $72 + 9 = 81$.
- Choice A is correct.** (KY.3.MD.1) From 10 : 25 to 11 : 25 is 60 minutes. The game ends at 11 : 20, which is 5 minutes earlier: $60 - 5 = 55$ minutes. Distractor C (off-by-10), distractor B (confusion with minutes only).
- Choice C is correct.** (KY.3.G.2) A trapezoid has exactly one pair of parallel sides. The other quadrilaterals shown have two pairs of parallel sides or other properties.
- Choice D is correct.** (KY.3.NF.2) Point D is at 2.5. Count from 0: the 10th fourth-mark is at $\frac{10}{4} = 2\frac{2}{4} = 2\frac{1}{2}$.
- Choice B is correct.** (KY.3.NF.3) $\frac{4}{6}$ and $\frac{2}{3}$ mark the same point on the line.
- The correct answer is 360.** (KY.3.NBT.3) Students should show that they break 40 into 4×10 , multiply $9 \times 4 = 36$ first, then multiply by 10 to get 360. Decomposition and place-value strategy are key.
- Choice B is correct.** (KY.3.MD.5) The pink square is still one of the unit squares. The rectangle has $4 \times 3 = 12$ distinct unit squares.
- Choice C is correct.** (KY.3.OA.2) At 6 inches there are 3 X's and at $6\frac{1}{2}$ inches there is 1 X. Total: $3 + 1 = 4$.
- Choice D is correct.** (KY.3.OA.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.
- Choice D is correct.** (KY.3.OA.2) The array shows 6 columns and 2 rows. So $6 \times 2 = 12$ or $2 \times 6 = 12$.
- Choice D is correct.** (KY.3.OA.2) $10 \div 5 = 2$. The picture shows 5 equal groups, each with 2 items.
- Choices A and C are correct.** (KY.3.NF.2) A: $\frac{1}{3} = \frac{2}{6}$ (both equal one-third). C: $\frac{3}{4} = \frac{6}{8}$ (both equal three-fourths). B is false because $\frac{4}{8} = \frac{1}{2}$. D is false because $\frac{1}{4} \neq \frac{3}{8}$. E is false because $\frac{2}{4} = \frac{1}{2} \neq \frac{3}{8}$.
- Choice D is correct.** (KY.3.OA.7) Skip-counting by 3s: 0, 3, 6, 9. So $3 \times 3 = 9$.
- Choice C is correct.** (KY.3.G.2) $2 \times (9 + 1) = 2 \times 10 = 20$ or $(2 \times 9) + (2 \times 1) = 18 + 2 = 20$.
- Choice C is correct.** (KY.3.OA.8) Step 1: Multiply for shelf books: $3 \times 12 = 36$ books. Step 2: Add table books: $36 + 9 = 45$ books. (Choice B is step 1 only.)
- Choice D is correct.** (KY.3.NF.3) $\frac{2}{4} = \frac{1}{2}$. Choices A, B, and C are all equivalent. Only $\frac{3}{4}$ is different.
- Choice A is correct.** (KY.3.OA.3) Divide: $36 \div 4 = 9$ pounds per animal.
- Choice A is correct.** (KY.3.NBT.2) Ones: $6 + 4 = 10$ (write 0, carry 1). Tens: $1 + 8 + 1 = 10$ (write 0, carry 1). Hundreds: $2 + 3 + 1 = 6$. Answer: 600.
- The correct answer is $\frac{3}{6}$.** (KY.3.NF.3) With the same numerator, a smaller denominator makes a larger fraction.
- Choice C is correct.** (KY.3.MD.7) Adding the width 3 four times: $3 + 3 + 3 + 3 = 12$. This is the same as $4 \times 3 = 12$ square units.
- Choice B is correct.** (KY.3.NBT.3) Summer: $5 \times 8 = 40$. Winter: $3 \times 8 = 24$. Difference: $40 - 24 = 16$.
- Choice C is correct.** (KY.3.MD.5) Add the areas: $25 + 14 = 39$ square units.
- Choice C is correct.** (KY.3.G.2) $\frac{20}{4} = 5$, $\frac{7}{1} = 7$, $\frac{8}{8} = 1$. Only $\frac{3}{2} = 1\frac{1}{2}$ is not a whole.
- Choice A is correct.** (KY.3.OA.4) Think: $32 \div 8 = 4$. Check: $8 \times 4 = 32$.
- Choice A is correct.** (KY.3.NF.1) The first tick mark on a number line with 3 equal parts is at $\frac{1}{3}$.
- Choice C is correct.** (KY.3.MD.6) A 5 cm \times 4 cm rectangle is covered by $5 \times 4 = 20$ unit squares of 1 cm each.
- Choice D is correct.** (KY.3.NBT.1) The ones digit is 3. Since $3 < 5$, round down: 513 rounds to 510.
- Choice B is correct.** (KY.3.NF.2) Sam is at tick 1 and Maya is at tick 3. The distance between them is $3 - 1 = 2$ parts.

Practice Test 2 Answers and Explanations



A Quiet Word From Your Mentor

Hi, Thoughtful Student,

◇ I want to take a moment to tell you something true: you did excellent work. 7 practice tests is a real promise that you kept to yourself. That matters. ◇

★ **Mentors notice:** growth is quiet. It doesn't shout. But it shows up in how you handle a problem today vs how you did weeks ago. That growth is your real prize. ★

What I See in You

- **Hard Work:** You don't quit when problems are tough.
- **Curiosity:** You wonder why and how.
- **Kindness:** You are patient with yourself.
- **Brave Heart:** You try things that scare you.

Mentor's note: on test day, treat yourself like you would a friend. Be kind. Be patient. Be encouraging. The skills are inside you!

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

Jay Daie

Your Math Mentor

PRACTICE TODAY. MASTER TOMORROW.

This book is designed to help **Grade 3** students strengthen their math skills through focused practice and real progress.

- ✓ 7 full-length practice tests
- ✓ Aligned to Grade 3 standards
- ✓ Build confidence and achieve success
- ✓ Review, answer keys, and explanations



EACH PRACTICE TEST INCLUDES:



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Question
Types



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Tracking



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Confidence

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