

# 4 Kansas KAP

GRADE  
**6**  
MATH

## PRACTICE TESTS

Standards Aligned Problem Solving  
For Comprehensive Assessment Programs

**4**

**PRINTED  
TESTS**



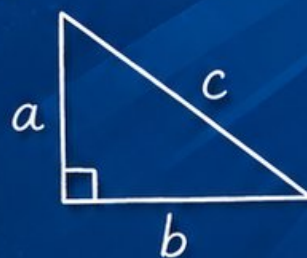
**2**

**ONLINE  
TESTS**



- ✓ Build Confidence
- ✓ Master Key Math Skills
- ✓ Answer Explanations for Every Question
- ✓ Test-Taking Strategies That Work

$$2x + 5 = 21$$
$$x = 8$$



$$\frac{3}{4} + \frac{1}{2} = \frac{5}{4}$$



**USE THESE TWO  
ADDITIONAL ONLINE  
PRACTICE TESTS**

**FOR EXTRA REVIEW AFTER  
THE PRINTED TESTS  
IN THIS BOOK.**

# 4 Kansas KAP Grade 6 Math Practice Tests

*Standards-Aligned Wide-Open Review Focus for Kansas Assessment Program*



Four complete 40-question Grade 6 practice rounds for KAP, built for wide-open review focus with ratios, rational numbers, expressions, equations, geometry, statistics, answer keys, and clear explanations for every item.

**Jay Daie and Reza Nazari**



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# Welcome, Kansas Math Explorer!

Four focused rounds using wide-open review focus

This book gives you four full Grade 6 practice tests for KAP. Each round uses open horizons, wind-swept routes, and direct math thinking as a fresh mental backdrop while you read closely, choose a smart strategy, show your work, and check whether your answer makes sense.

## Your Kansas Practice Promise

Keep the path straight: identify the question, write the model, and test the answer.

Read

Plan

Check

## How to Use This Book

A four-session routine for wide-open review focus

1. **Preview the skills.** Scan the quick review pages before beginning the first round.
2. **Work in order.** Take one 40-question test at a time in a quiet place.
3. **Mark confidence.** Put a small star beside problems where your plan felt strong.
4. **Correct actively.** Retry missed items before reading the full explanation.
5. **Plan the next round.** Use the growth log to choose one habit and one skill to practice.

**Kansas review rhythm:** Practice one round, review with a clear checklist, then return ready for the next test.



## What Is Inside?

Four KAP tests, 160 questions, and a full review path

Part	What You Will Practice
Tests 1–2	Foundation rounds for ratios, rational numbers, operations, and careful reading.
Tests 3–4	Skill-building and final stamina rounds with expressions, equations, geometry, data, and problem models.
Answer Pages	Compact keys and explanations that show why each answer works.

The tests are mixed on purpose. Wide-open review focus means recognizing the skill even when the next question changes topic, changes format, or asks for an explanation.



Scan me!  
For more practice  
& answers

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1) A park ranger uses a map where  $(5, 3)$  marks the trail start and  $(5, 9)$  marks the trail end. The scale is 1 unit = 150 meters. What is the length of the trail in meters?

- A. 600 m                                       C. 900 m  
 B. 750 m                                       D. 1050 m

2) Which list shows the fractions in order from least to greatest?

- A.  $\frac{1}{2}, \frac{2}{3}, \frac{3}{4}, \frac{4}{5}$                                        C.  $\frac{3}{4}, \frac{1}{2}, \frac{1}{4}, 0$   
 B.  $0, -\frac{1}{4}, -\frac{1}{2}, -\frac{3}{4}$                                        D.  $-\frac{3}{4}, -\frac{1}{2}, -\frac{1}{4}, 0$

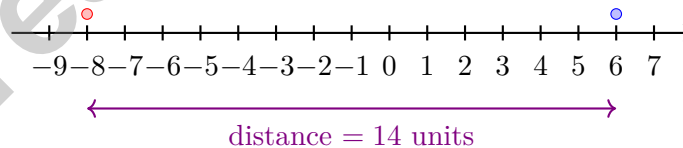
3) What is the reflection of  $(7, -2)$  across the  $y$ -axis?

- A.  $(-7, 2)$                                        C.  $(7, 2)$   
 B.  $(-7, -2)$                                        D.  $(2, 7)$

4) Marcus has \$5 and Jessica has a debt of \$3 (written as  $-3$ ). Who has more money?

- A. Marcus                                       C. They have the same  
 B. Jessica                                       D. Cannot determine

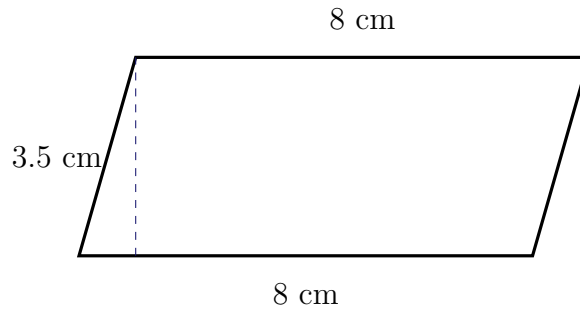
5) Which number line shows the distance between  $-8$  and  $6$ ?



- A. Distance is 2 units                                       C. Distance is 14 units  
 B. Distance is 8 units                                       D. Distance is 22 units



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6)

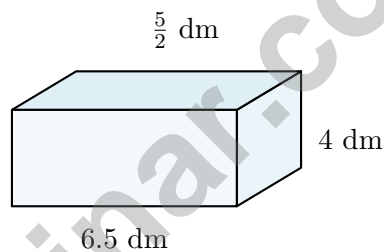
A parallelogram has a base of 8 cm and a height of 3.5 cm (shown by dashed lines). What is the area?

A.  $11.5 \text{ cm}^2$

B.  $19 \text{ cm}^2$

C.  $28 \text{ cm}^2$

D.  $56 \text{ cm}^2$



7)

An aquarium is 6.5 dm long, 4 dm wide, and  $\frac{5}{2}$  dm deep. What is its volume in cubic decimeters?

A.  $32.5 \text{ dm}^3$

B.  $52 \text{ dm}^3$

C.  $65 \text{ dm}^3$

D.  $130 \text{ dm}^3$

8) Three vertices of a rectangle are at (1, 1), (7, 1), and (7, 5). Where is the fourth vertex?

A. (1, 5)

B. (1, 7)

C. (5, 1)

D. (7, 1)



- 9) A student is calculating the area of a triangle with base 8 units and height 6 units. The student writes:  $\text{Area} = 8 \times 6 = 48$  square units. What is the student's error?
- A. The student used the wrong base and height.
- B. The student forgot to divide by 2. The correct area is 24 square units.
- C. The student should have added, not multiplied.
- D. The answer is correct; there is no error.
- 10) A triangular prism has a triangular base with sides 5 cm, 12 cm, and 13 cm. The area of the triangular base is  $30 \text{ cm}^2$ . The height of the prism is 10 cm. What is the total surface area?
- A.  $60 \text{ cm}^2$
- B.  $300 \text{ cm}^2$
- C.  $360 \text{ cm}^2$
- D.  $420 \text{ cm}^2$
- 11) In a family budget, the ratio of expenses for Food to Rent is 2 : 5. If Food costs \$300 per month, how much is Rent?
- A. \$600
- B. \$1200
- C. \$1000
- D. \$750
- 12) Find the value of  $3(a + b) - 2$  when  $a = 2$  and  $b = 3$ .
- A. 10
- B. 17
- C. 15
- D. 13



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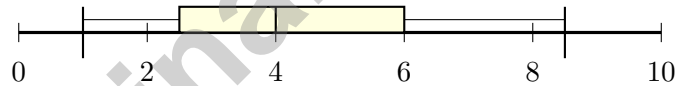
1) A student says the rate of 200 miles in 4 hours is 50 miles per hour, but another student says it is 200 miles per hour. Which student is correct and why?

- A. The first student is correct; divide  $200 \div 4 = 50$  miles per hour
- B. The first student is correct; multiply  $200 \times 4 = 800$
- C. The second student is correct; the distance is 200 miles
- D. Both students are equally correct

2) A library worker wants to know: “Which book genre do students like best?”  
To answer this question properly, the worker should:

- A. Ask one student.
- B. Survey many students and collect their responses.
- C. Look at what the librarian prefers.
- D. Count the total number of books.

3) Use the box plot below. What is the maximum value?



- A. 1
- B. 4
- C. 6
- D. 8.5

4) Two classes recorded the time (in seconds) each student spent on a warm-up. Summary statistics:

Class	Mean	Median	Range	IQR
Class A	45	42	30	12
Class B	48	50	25	8

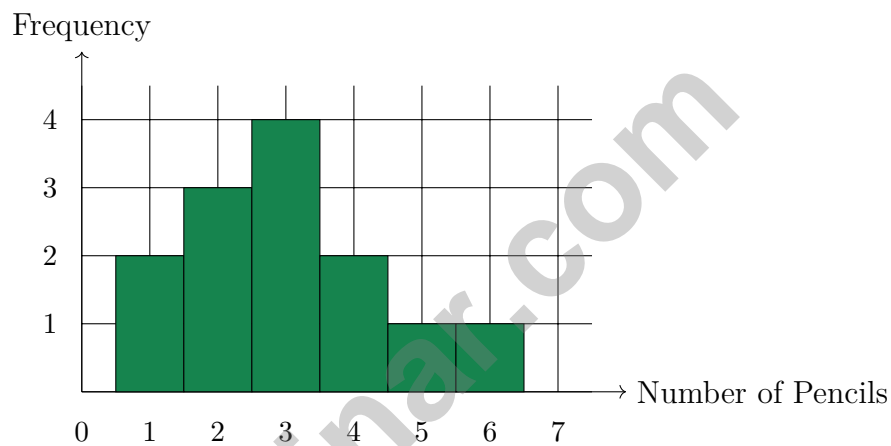
Which class had more consistent times?

- A. Class A
- B. Class B
- C. Both had the same variability.
- D. Cannot be determined.



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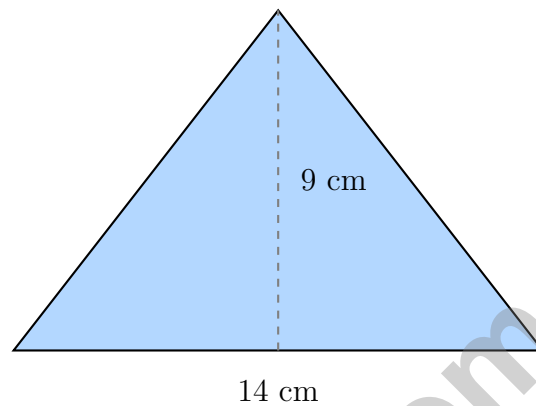
- 5) If the probability of success is 0.85, what is the probability of failure?
- A. 0.15                       C. 0.35  
 B. 0.25                       D. 0.50
- 6) Using the push-ups data from Question 11, what is the median number of push-ups?
- A. 34 push-ups                       C. 36 push-ups  
 B. 35 push-ups                       D. 37 push-ups



- 7)
- A class surveyed students about how many pencils they carry. The histogram shows the frequency distribution. How many students carry 2 pencils?
- A. 1 student                       C. 3 students  
 B. 2 students                       D. 4 students
- 8) Order the data and find the median: 45, 32, 50, 38, 42, 48, 55.



- 1) An isosceles triangle has a base of 14 cm. A perpendicular line from the top vertex to the base has length 9 cm. What is the area?



- A.  $23 \text{ cm}^2$                        C.  $56 \text{ cm}^2$   
 B.  $28 \text{ cm}^2$                        D.  $63 \text{ cm}^2$
- 2) Which expression represents the quotient when 6,048 is divided by 36?
- A. 168                                       C. 182  
 B. 178                                       D. 190
- 3) A student made an error. She computed  $5.2 \times 3 = 156$ . What should the correct answer be?
- A. 15.6                                       C. 2.17  
 B. 1.56                                       D. 156.0



4) Bus Route A stops every 8 minutes. Bus Route B stops every 12 minutes. If both buses just left the station, when will they both be at the station again at the same time?

- A. In 8 minutes                       C. In 20 minutes  
 B. In 12 minutes                       D. In 24 minutes

5) A thermometer reads  $-5^{\circ}\text{F}$  in the morning. By afternoon, the temperature has risen by  $8^{\circ}\text{F}$ . What is the new temperature?

- A.  $13^{\circ}\text{F}$                                    C.  $-13^{\circ}\text{F}$   
 B.  $3^{\circ}\text{F}$                                    D.  $-3^{\circ}\text{F}$

6) Which pair shows numbers with equal absolute values?

- A.  $-3$  and  $-5$                        C.  $4$  and  $-5$   
 B.  $2$  and  $-2$                        D.  $-6$  and  $-8$

7) How many quadrants have points with at least one positive coordinate?

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

8) Order from greatest to least:

$-2, 0.5, -0.75, 1$

- A.  $1, 0.5, -0.75, -2$                        C.  $-2, -0.75, 0.5, 1$   
 B.  $0.5, 1, -2, -0.75$                        D.  $1, -0.75, 0.5, -2$



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& answers

## Kansas KAP Practice Test Answer Keys

**How to use this Kansas KAP answer section with a Grade 6 student:**

1. check the answer first, then write one quick reason the choice is correct
2. mark questions to try again, especially the skills that feel connected to wide-open review focus
3. rework the problem before reading the full explanation, using this reminder:  
Keep the path straight: identify the question, write the model, and test the answer.

**A calm Kansas correction routine turns every missed item into useful practice. Practice one round, review with a clear checklist, then return ready for the next test.**



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## Kansas Practice Test Answers and Explanations

Review the four printed KAP tests with direct, steady, and ready for another horizon habits.

### Practice Test 1 Answers and Explanations

- 1) **Choice C is correct.** **(6.NS.8)** Distance on map:  $|9 - 3| = 6$  units. Actual trail length:  $6 \times 150 = 900$  meters.
- 2) **Choice D is correct.** **(6.NS.6c)** Negative fractions closest to zero are greater. Order:  $-0.75 < -0.5 < -0.25 < 0$ .
- 3) **Choice B is correct.** **(6.NS.8)** Reflecting across the  $y$ -axis changes the sign of the  $x$ -coordinate. The point  $(7, -2)$  becomes  $(-7, -2)$ .
- 4) **Choice A is correct.** **(6.NS.7c)**  $5 > -3$ , so Marcus has more money.
- 5) **Choice C is correct.** **(6.NS.3)** The distance from  $-8$  to  $6$  is  $6 - (-8) = 6 + 8 = 14$  units.
- 6) **Choice C is correct.** **(6.G.1)** Area =  $8 \times 3.5 = 28 \text{ cm}^2$ .
- 7) **Choice C is correct.** **(6.G.2)**  $V = 6.5 \times 4 \times 2.5 = 26 \times 2.5 = 65 \text{ dm}^3$ .
- 8) **Choice A is correct.** **(6.G.3)** A rectangle requires opposite corners. If three vertices are  $(1, 1)$ ,  $(7, 1)$ , and  $(7, 5)$ , the fourth must be  $(1, 5)$ .
- 9) **Choice B is correct.** **(6.G.1)** The formula for a triangle is Area =  $\frac{1}{2} \times \text{base} \times \text{height}$ . The student multiplied base and height but forgot the  $\frac{1}{2}$  factor. The correct area =  $\frac{1}{2} \times 8 \times 6 = 24$  square units.
- 10) **Choice C is correct.** **(6.G.4)** Two triangular bases:  $2 \times 30 = 60 \text{ cm}^2$ . Three rectangular faces:  $(5 \times 10) + (12 \times 10) + (13 \times 10) = 50 + 120 + 130 = 300 \text{ cm}^2$ . Total =  $60 + 300 = 360 \text{ cm}^2$ .
- 11) **Choice D is correct.** **(6.RP.1)** If Food : Rent =  $2 : 5$  and Food =  $\$300$ , then  $\frac{\$300}{\text{Rent}} = \frac{2}{5} \Rightarrow \text{Rent} = \frac{\$300 \times 5}{2} = \$750$ .
- 12) **Choice D is correct.** **(6.EE.2c)** Substitute:  $3(2 + 3) - 2 = 3(5) - 2 = 15 - 2 = 13$ .
- 13) **Choice A is correct.** **(6.NS.8)** Reflection over the  $x$ -axis keeps the  $x$ -coordinate the same and negates the  $y$ -coordinate.
- 14) **Choice A is correct.** **(6.EE.8c)** The 40% section is largest. 40% of 250 is  $0.40 \times 250 = 100$  people, which is more than either 30% section ( $0.30 \times 250 = 75$  each).
- 15) **Choice A is correct.** **(6.EE.8c)** The ratio of distance to time is  $100/2 = 50$  and  $200/4 = 50$  mph, confirming constant speed. The proportional equation is  $d = 50t$ , not  $d = 100t$ .
- 16) **Choice D is correct.** **(6.EE.8c)** If 15% of salary is  $\$180$ , then salary =  $\$180 \div 0.15 = \$1200$ .
- 17) **Choice C is correct.** **(6.RP.3)** Multiply:  $2.5 \times 6 = 15$  feet.
- 18) **Choice C is correct.** **(6.NS.1)** Rewrite the division as multiplication by flipping  $\frac{1}{3} : \frac{5}{6} \times \frac{3}{1} = \frac{15}{6}$ . Simplify  $\frac{15}{6}$  to  $\frac{5}{2}$  (or mixed form  $2\frac{1}{2}$ ).
- 19) **Choice A is correct.** **(6.NS.2)**  $2,856 \div 12 = 238$ . The long division shows quotient 238 with no remainder.
- 20) **Choice C is correct.** **(6.NS.3)** Reading the chart: the digit in the hundredths place is in the third column, which is 7.
- 21) **Choice C is correct.** **(6.NS.4)** Factors of 22: 1, 2, 11, 22. Factors of 33: 1, 3, 11, 33. Common factors: 1, 11. GCF is 11.
- 22) **The correct answer is The constant of proportionality is 4, and the cost per unit is \$4.** **(6.RP.3a)** A is correct because  $k = \frac{8}{2} = 4$ . B is correct because the cost per unit is  $\$4$ . The equation is  $y = 4x$ , so Choice C is false; Choice D is false because the graph passes through  $(0, 0)$ ; Choice E gives the wrong unit rate.
- 23) **Choice B is correct.** **(6.NS.5)** Descent below sea level is represented by a negative elevation. A descent of 12 meters is an elevation of  $-12$  meters.
- 24) **Choice B is correct.** **(6.NS.7c)** The distance is  $6 - (-6) = 12$  units, which is the largest among the choices.
- 25) **The correct answer is 30%.** **(6.RP.3b)**  $\frac{15}{50} = \frac{30}{100} = 30\%$  (multiply numerator and denominator by 2).
- 26) **Choice B is correct.** **(6.NS.3)** A drop of  $4^\circ$  repeated 3 times:  $(-4) \times 3 = -12^\circ$ .
- 27) **The correct answer is 25%.** **(6.RP.3b)** Increase is  $93.75 - 75 = 18.75$ . Percent increase is  $\frac{18.75}{75} = 0.25 = 25\%$ .



## Hi, Math Champion!

◇ You trained hard! 4 full practice tests is real practice. Your math game is way better now than when you started. ◇

★ **Coach's truth:** kids who practice get better. You practiced. You got better. That's how it works!

★

### Your Game Stats

- **Energy:** HIGH! You can finish a long test.
- **Smart Plays:** You know lots of strategies.
- **Calm Head:** You stay cool with hard problems.
- **Game-Day Ready:** You feel strong and prepared.

**Coach's tip:** the night before the test, get good sleep. Eat a good breakfast. Bring a sharp pencil. Trust your training!

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 Coach

# PRACTICE TODAY. SUCCEED TOMORROW!

This book includes 4 full-length Math practice tests and 2 online tests to help Grade 6 students build confidence, strengthen skills, and excel on standardized assessments.

Each practice test is carefully crafted to reflect the latest standards and includes a variety of question types, realistic test conditions, and detailed answer explanations.

Perfect for classroom use, homework, test preparation, and extra practice at home.

## THIS BOOK INCLUDES:

**4** Full-Length  
Printed Tests

**2** Online Practice  
Tests

 Detailed Answer  
Explanations

 **MORE PRACTICE.  
GREATER RESULTS.**

Give your child the tools to build strong math skills, confidence, and a positive attitude toward learning.

## WHAT YOU'LL GAIN



### Stronger Math Skills

Build a solid foundation through targeted practice and review.



### Better Problem Solving

Develop logical thinking and effective solution strategies.



### Deeper Understanding

Reinforce key concepts with clear explanations and meaningful practice.



### Test Confidence

Familiarize with test formats and improve accuracy and speed.



### Achieve Success

Build confidence and perform your best on test day.

## TOPICS COVERED

- ✓ Ratios & Rates
- ✓ Percents
- ✓ The Number System
- ✓ Statistics & Probability
- ✓ Expressions & Equations
- ✓ Data Analysis
- ✓ Geometry
- ✓ Measurement & Conversions
- ✓ Fractions & Decimals
- ✓ And More!



### 2 ONLINE TESTS

Use these two additional online practice tests for extra review after the printed tests in this book.



**VISIT [TESTINAR.COM/MATH6](https://www.testinar.com/math6)**  
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AND LEARNING RESOURCES



PRACTICE  
REGULARLY



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SUCCEED  
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