

8

Utah RISE

GRADE 6

MATH

PRACTICE TESTS

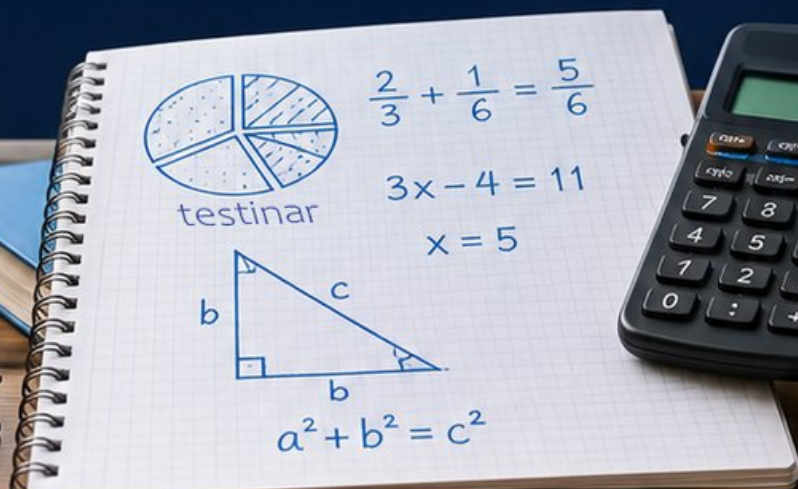
8
PRINTED
TESTS

+

2
ONLINE
TESTS

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

Standards-Aligned *Steady Southern* Problem Solving for Comprehensive Assessment Program



BUILT FOR
ACAP SUCCESS



REALISTIC TESTS
& QUESTION TYPES



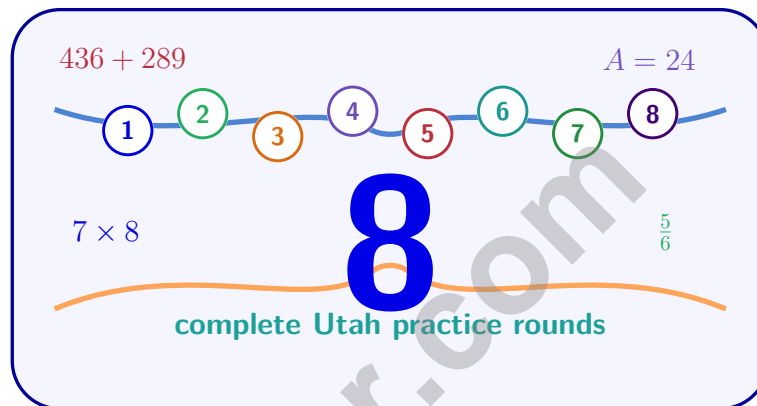
STRENGTHEN
MATH SKILLS



REVIEW, PRACTICE,
AND IMPROVE

8 Utah RISE Grade 6 Math Practice Tests

Standards-Aligned Canyon-Clear Review for Readiness Improvement Success Empowerment



Eight complete 40-question Grade 6 practice rounds for RISE, built for canyon-clear review 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, Utah Math Explorer!

Eight focused rounds using canyon-clear review

This book gives you eight full Grade 6 practice tests for RISE. Each round uses red-rock canyons, mountain roads, and clean strategy steps as a fresh mental backdrop while you read closely, choose a smart strategy, show your work, and check whether your answer makes sense.

Your Utah Practice Promise

Follow the layers: understand the question, choose a representation, and check the answer.

Read

Plan

Check

How to Use This Book

A eight-session routine for canyon-clear review

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

Utah review rhythm: Finish a round, review the rough edges, and sharpen one tool for the next test.



What Is Inside?

Eight RISE tests, 320 questions, and a full review path

Part	What You Will Practice
Tests 1–3	Foundation rounds for ratios, rational numbers, operations, and careful reading.
Tests 4–6	Skill-building rounds with expressions, equations, geometry, data, and problem models.
Tests 7–8	Final stamina rounds for mixed review, neat work, and flexible strategy choices.
Answer Pages	Compact keys and explanations that show why each answer works.

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



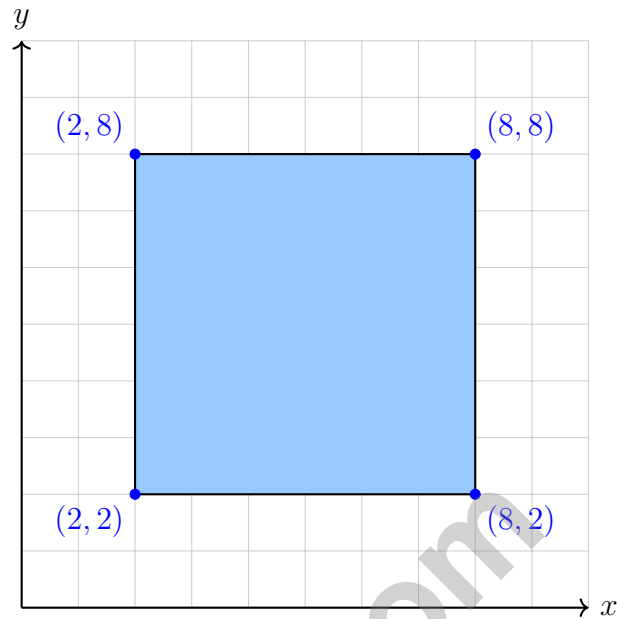
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For more practice
& answers

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- 1) If a rectangular prism has length 12 cm, width 9 cm, and height 6 cm, what is the lateral surface area (area of the 4 vertical faces, not including top and bottom)?
- A. 108 cm^2 C. 216 cm^2
 B. 180 cm^2 D. 252 cm^2
- 2) A student measured a trapezoid with bases of 14 m and 10 m and a height of 7 m. What is the area?
- A. 84 m^2 C. 70 m^2
 B. 98 m^2 D. 140 m^2
- 3) Maya is building a garden box with dimensions $3\frac{1}{2}$ ft long, 2 ft wide, and $1\frac{1}{2}$ ft deep. How many cubic feet of soil does she need?
- A. 7 ft^3 C. 10.5 ft^3
 B. 8.5 ft^3 D. 14 ft^3





4)

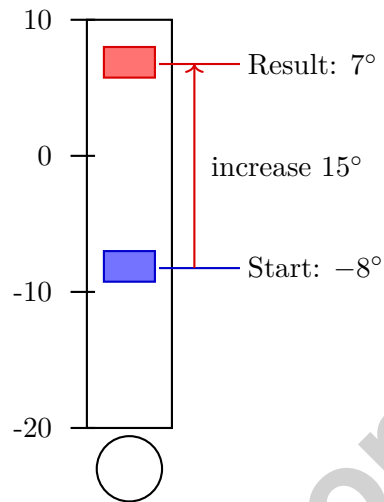
What is the area of this square?

- A. 24 square units C. 36 square units
 B. 32 square units D. 48 square units



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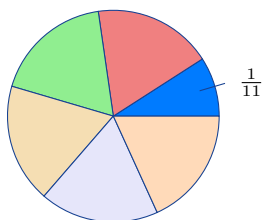
- 5) Which statement correctly translates: “Temperature starts at -8°C and increases by 15°C ”?



- A. $-8 + 15 = 7$
 C. $8 + 15 = 23$
 B. $-8 - 15 = -23$
 D. $-8 + (-15) = -23$
- 6) Evaluate: $\frac{-72}{-9}$
- A. 8
 C. -63
 B. -8
 D. 63
- 7) Which expression correctly translates “4 more than the quotient of a number b and 6”?

- A. $\frac{b}{6+4}$
 C. $\frac{b+4}{6}$
 B. $(4+b) \div 6$
 D. $4 + \frac{b}{6}$





6)

A movie theater has 550 patrons. The circle graph shows $\frac{1}{11}$ bought popcorn. How many bought popcorn?

- A. 50 C. 60
 B. 40 D. 70

7) A student recorded the average temperature change. It dropped 3° every 2 hours for 8 hours. What was the total change?

- A. -12° C. 12°
 B. -8° D. 8°

8) Write an expression for “8 less than twice a number d ”.

- A. $2d - 8$ C. $2 - d - 8$
 B. $2(d - 8)$ D. $8 - 2d$

9) Study the labeled expression diagram below:

$$\begin{array}{ccccccc}
 4x & + & 7 & + & 2y & & \\
 \downarrow & & \downarrow & & \downarrow & & \\
 \text{Term 1} & & \text{Term 2} & & \text{Term 3} & &
 \end{array}$$

What is the coefficient in Term 3?

- A. 2 C. y
 B. 7 D. 4



1) Simplify $2x + 5 + 3x + 1$.

A. $6x$

C. $6x + 6$

B. $5x + 6$

D. $5x + 5$

2) A debt of \$75 is represented as $-\$75$. If the debt is paid down by \$30, what is the remaining debt?

Starting debt: $-\$75$

↓ Pay \$30 (add $+\$30$)

Remaining debt: ?

A. $-\$105$

C. \$45

B. $-\$45$

D. \$105

3) What is $\frac{-20}{4}$?

A. 5

C. -4

B. 4

D. -5

4) In the expression $5p + 7p + 10$, what is the coefficient of p in the first term?

A. 10

C. 5

B. 7

D. 12

5) An online store calculates total cost as $T = 12.5p + 8$ where p is the number of items. What is T when $p = 4$?

A. \$45

C. \$58

B. \$50

D. \$62



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6) A shop has some apples. After selling 12 apples, there are 28 left. Write an equation and solve for the original number of apples x .

A. $x + 12 = 28$; $x = 16$

B. $x - 12 = 28$; $x = 40$

C. $12x = 28$; $x = 2.33$

D. $\frac{x}{12} = 28$; $x = 336$

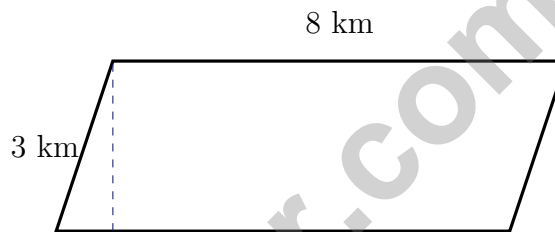
7) A minimum wage in a region is at least \$15 per hour. Which inequality represents this?

A. $w > 15$

B. $w \geq 15$

C. $w < 15$

D. $w \leq 15$



8) 8 km

What is the area of this parallelogram?

A. 11 km^2

B. 16 km^2

C. 24 km^2

D. 64 km^2



Utah RISE Practice Test Answer Keys**How to use this Utah RISE 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 canyon-clear review
3. rework the problem before reading the full explanation, using this reminder:
Follow the layers: understand the question, choose a representation, and check the answer.

A calm Utah correction routine turns every missed item into useful practice. Finish a round, review the rough edges, and sharpen one tool for the next test.



Utah Practice Test Answers and Explanations

Review the eight printed RISE tests with clear, balanced, and ready for the next canyon habits.

Practice Test 1 Answers and Explanations

- 1) **Choice D is correct.** **(6.G.4)** Lateral surface area = $2LH + 2WH = 2(12)(6) + 2(9)(6) = 144 + 108 = 252 \text{ cm}^2$. (The top and bottom, each $12 \times 9 = 108 \text{ cm}^2$, are excluded.)
- 2) **Choice A is correct.** **(6.G.1)** Area = $\frac{1}{2}(14 + 10) \times 7 = \frac{1}{2}(24)(7) = 84 \text{ m}^2$.
- 3) **Choice C is correct.** **(6.G.2)** $V = 3.5 \times 2 \times 1.5 = 7 \times 1.5 = 10.5 \text{ ft}^3$.
- 4) **Choice C is correct.** **(6.G.3)** Side length = $8 - 2 = 6$ units. Area = $6 \times 6 = 36$ square units.
- 5) **Choice A is correct.** **(6.NS.3)** Increases by means adding. Start at -8 and add 15: $-8 + 15 = 7^\circ\text{C}$.
- 6) **Choice A is correct.** **(6.NS.3)** Negative divided by negative is positive: $\frac{-72}{-9} = 8$.
- 7) **Choice D is correct.** **(6.EE.3)** “The quotient of b and 6” is $\frac{b}{6}$. “4 more than” that quotient means add 4: $4 + \frac{b}{6}$.
- 8) **Choice D is correct.** **(6.EE.4)** Since x does not appear in the expression 15, there is no coefficient of x . The correct answer acknowledges this.
- 9) **Choice B is correct.** **(6.EE.3)** Substitute $x = 6$: $10 - \frac{6}{2} = 10 - 3 = 7$.
- 10) **Choice C is correct.** **(6.EE.3)** Distribute: $5(2y + 4) = 5 \cdot 2y + 5 \cdot 4 = 10y + 20$.
- 11) **The correct answer is 101.** **(6.EE.8)** The least whole number greater than 100 is 101.
- 12) **Choice A is correct.** **(6.EE.5)** Subtract 11 from both sides: $x = 24 - 11 = 13$.
- 13) **Choice B is correct.** **(6.EE.8)** $x \geq 3$ means x is at least 3. $x \leq 7$ means x is at most 7. Only 5 falls in the range $[3, 7]$.
- 14) **Choice D is correct.** **(6.EE.9)** From week 1 to week 2, the total increases from 25 to 50 books, a change of 25. So 25 books are donated per week.
- 15) **The correct answer is (2, 1).** **(6.NS.8)** Translate: $(4, 0) \rightarrow (4 - 2, 0 + 1) = (2, 1)$.
- 16) **The correct answer is 25.** **(6.SP.3)** Sum of five numbers = $25 \times 5 = 125$. Sum of four = $20 + 22 + 28 + 30 = 100$. Fifth number = $125 - 100 = 25$.
- 17) **Choice D is correct.** **(6.SP.1)** Area = $\pi r^2 \approx 3.14 \times 2^2 = 3.14 \times 4 = 12.56 \text{ ft}^2$.
- 18) **Choice D is correct.** **(6.SP.2)** The population is the entire group being studied. The 12 players are a sample from the full population of all basketball players in the league.
- 19) **Choice B is correct.** **(6.SP.5)** The median is the middle value and is unaffected by extreme outliers. The mean, range, and standard deviation all respond strongly to outliers.
- 20) **The correct answer is B and C are correct. The absolute value of zero is 0, and opposites like 5 and -5 both have absolute value 5.** **(6.SP.4)** A is incorrect because $|0| = 0$, not positive. D is incorrect because the opposite of -5 is 5, which is positive. E is incorrect because absolute value is the distance from zero, not the opposite.
- 21) **Choice D is correct.** **(6.NS.3)** White or striped marbles = $3 + 3 = 6$. Probability = $\frac{6}{8} = \frac{3}{4}$.
- 22) **Choice D is correct.** **(6.RP.3)** The 3 lemonade parts stand for 18 cups, so each part is $18 \div 3 = 6$ cups. Iced tea is 2 parts, so $2 \times 6 = 12$ cups.
- 23) **Choice D is correct.** **(6.RP.3)** Yes. If apples to oranges is $7 : 3$, then reversing the order to oranges to apples also reverses the numbers, giving $3 : 7$.
- 24) **Choice C is correct.** **(6.RP.2)** Divide distance by gallons: $225 \div 9 = 25$ miles per gallon.
- 25) **Choice C is correct.** **(6.RP.3)** The rate is $45 \div 1.5 = 30$ pages per hour. In 4.5 hours: $30 \times 4.5 = 135$ pages.
- 26) **Choice D is correct.** **(6.RP.2)** Columns 0–6 (7 columns) \times 10 rows = 70 squares = 70%.
- 27) **Choice D is correct.** **(6.RP.3)** Multiply: $3 \times 1000 = 3000$ meters.
- 28) **Choice A is correct.** **(6.NS.2)** $8,190 \div 26 = 315$. Check: $26 \times 315 = 8,190$.
- 29) **Choice A is correct.** **(6.NS.7)** City A has the lowest temperature at -5°C . Ordering: $-5 < -1 < 0 < 2$.



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For more practice
& answers

Hi, Math Champion!

◇ Look what you did! 8 full practice tests. That's hundreds of math problems. You started as a learner. You are now a math athlete. ◇

★ **Champions know:** hard work pays off. You did the hard work. Your math skills are strong because you practiced. ★

Champion's Stats

- **Focus:** HIGH! You stay on task.
- **Speed:** STRONG! You move at the right pace.
- **Accuracy:** SHARP! You catch your own mistakes.
- **Mindset:** CHAMPION! You believe in yourself.

Champion tip: on test day, walk in proud. You trained for this. You are ready!

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

Jay Daie

Your Math Coach

MASTER MATH. ACE YOUR TESTS.

This Grade 6 Math Practice Tests book is designed to help students build confidence, strengthen math skills, and excel on comprehensive assessments.

With 8 full-length printed tests and 2 online tests, this resource provides realistic practice, a variety of question types, and detailed answer explanations to help students achieve their best.

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



PERFECT FOR

- ✓ Classroom Practice
- ✓ Homework & Review
- ✓ Independent Learning
- ✓ Test Preparation
- ✓ Skill Reinforcement
- ✓ Building Confidence



**PRACTICE TODAY.
SUCCEED TOMORROW.**

WHAT STUDENTS WILL GAIN



Stronger Math Skills

Build a solid foundation through targeted practice and review.



Better Problem Solving

Develop logical thinking and effective solution strategies.



Understand Key Concepts

Reinforce important math ideas aligned with standards.



Test Confidence

Get familiar with test formats and improve accuracy.



Achieve Success

Build confidence and perform your best on test day.

TOPICS COVERED

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



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8 FULL-LENGTH
PRACTICE TESTS



2 ONLINE
PRACTICE TESTS



DETAILED ANSWER
EXPLANATIONS