6 Utah RISE

GRADE 6 MATH

PRACTICE TESTS

Standards-Aligned Steady Southern Problem Solving for Comprehensive Assessment Program

BUILD SKILLS. GAIN CONFIDENCE. SUCCEED!

6 PRINTED TESTS
Realistic practice to build confidence and mastery

2 ONLINE TESTS
Extra practice for continued success

DETAILED ANSWER EXPLANATIONS
Learn with step-by-step solutions

FOCUSED & EFFECTIVE
Target key math skills with purposeful practice

6 PRINTED TESTS +2 ONLINE TESTS

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

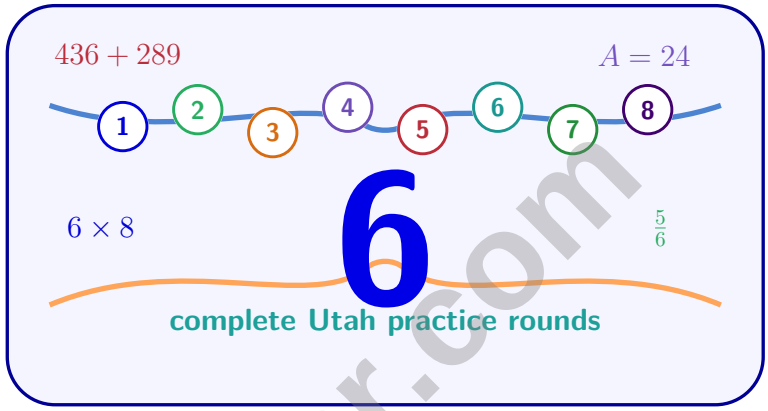
PRACTICE
Sharpen skills with targeted practice tests

REVIEW
Understand concepts and strengthen skills

SUCCEED
Build confidence and achieve your best

6 Utah RISE Grade 6 Math Practice Tests

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



Six 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 six 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.

How to Use This Book

A six-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 1–2	Foundation rounds for ratios, rational numbers, operations, and careful reading.
Tests 3–5	Skill-building rounds with expressions, equations, geometry, data, and problem models.
Test 6	Final stamina round 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.

Table of Contents

1) A store sells pens at a ratio of red to blue of 7 : 5. If there are 35 red pens, how many blue pens are there?

☐ A. 30 pens
☐ B. 49 pens
☐ C. 20 pens
☐ D. 25 pens

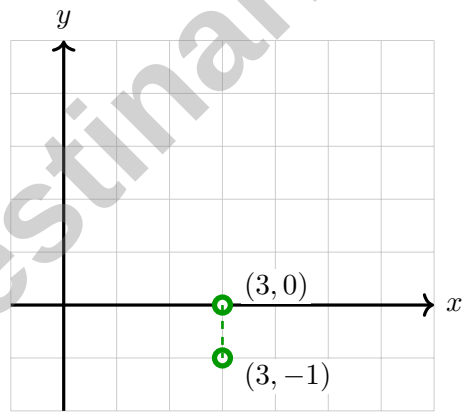
2) Which option correctly identifies all expressions shown that are equivalent to $40 + 24$?

☐ A. $8(5 + 3)$
☐ B. $4(10 + 6)$
☐ C. $2(20 + 12)$
☐ D. All of the above

3) Which expression is NOT equal to the others?

☐ A. $|-6|$
☐ B. The opposite of -6
☐ C. $|6|$
☐ D. The opposite of 6

4)



What is the distance between $(3, 0)$ and $(3, -1)$?

☐ A. 0 units
☐ B. 1 unit
☐ C. 2 units
☐ D. 3 units

5) A city's elevation is 385 feet above sea level. A valley is at −215 feet below sea level. What is the elevation difference between the city and the valley?

☐ A. 170 feet
☐ B. 385 feet
☐ C. 600 feet
☐ D. −215 feet

6) What is $\frac{-64}{8}$?

☐ A. 8
☐ B. −8
☐ C. 56
☐ D. −56

7) Write an expression for "twice the sum of a number c and 7".

☐ A. $2c + 7$
☐ B. $c + 7 + 2$
☐ C. $2c + 2 \cdot 7$
☐ D. $2(c + 7)$

8) What is the coefficient of x in the expression $-4x + 9 + 2y$?

☐ A. 4
☐ B. 2
☐ C. 9
☐ D. −4

9) Evaluate $\frac{2x+6}{2}$ when $x = 3$.

☐ A. 3
☐ B. 4
☐ C. 5
☐ D. 6

10) Which expression is equivalent to $6(3y - 2)$?

☐ A. $18y - 12$
☐ B. $9y - 2$
☐ C. $3y - 12$
☐ D. $18y - 2$

11) A school has s students. It also has $s + 25$ staff members. If the school has 600 students, how many staff members does it have?

12) Which equation is equivalent to $x - 9 = 5$?

☐ A. $x = 5 - 9$
☐ B. $x = 9 - 5$
☐ C. $x = 9 + 5$
☐ D. $x = 5 + 9$

13) Which value of x satisfies the inequality $x < 7$?

☐ A. $x = 7$
☐ B. $x = 8$
☐ C. $x = 5$
☐ D. $x = 9$

14) When graphing the inequality $x \geq -3$, should the circle at -3 be open or closed?

☐ A. Open, because $\geq$ means "greater than only"
☐ B. Closed, because the arrow always goes right
☐ C. Open, because -3 is negative
☐ D. Closed, because $\geq$ means "greater than or equal to"

15) In the relationship between hours worked and earnings, which is always the independent variable?

☐ A. Earnings
☐ B. Hours worked
☐ C. The hourly rate
☐ D. The day of the week

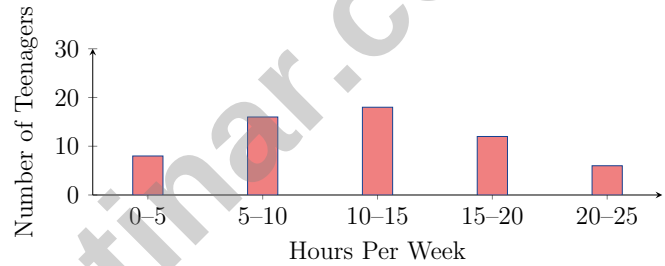
1) A pennant in the shape of a triangle has a base of 12 inches and an area of 60 in^2. What is its height?

☐ A. 5 in
☐ B. 10 in
☐ C. 15 in
☐ D. 20 in

2) What is the median of the unordered set: $15, 3, 9, 12, 6$?

☐ A. 3
☐ B. 6
☐ C. 9
☐ D. 12

3) The histogram shows the number of hours per week teenagers spend on social media. How many teenagers spend between 5 and 15 hours per week?



☐ A. 16 teenagers
☐ B. 34 teenagers
☐ C. 42 teenagers
☐ D. 50 teenagers

4) A box plot has the following values: min = 10, $Q_1 = 20$, median = 26, $Q_3 = 32$, max = 45. Which is the IQR?

☐ A. 6
☐ B. 12
☐ C. 22
☐ D. 35

5) Two classes' quiz scores (out of 20) have median of 16 but different ranges: Class X range = 8, Class Y range = 12. Which had more consistent performance?

☐ A. Class X
☐ B. Class Y
☐ C. Both equally consistent
☐ D. Cannot determine

6) To make "How old am I?" statistical, should the question ask about one person or a group?

7) A probability line goes from 0 to 1. Where would you place an event with probability $\frac{1}{4}$?

☐ A. At 0 (impossible).
☐ B. Between 0 and $\frac{1}{2}$ (unlikely).
☐ C. At $\frac{1}{2}$ (even chance).
☐ D. Between $\frac{1}{2}$ and 1 (likely).

8) Two recipes both use raisins and almonds. Recipe A has a ratio of raisins to almonds of 3 : 5. Recipe B has a ratio of raisins to almonds of 6 : 10. Which statement is true?

☐ A. Recipe A and Recipe B have different proportions; you cannot use them interchangeably.
☐ B. Recipe A has more almonds per raisin than Recipe B.
☐ C. Recipe B has more raisins per almond than Recipe A.
☐ D. Recipe A and Recipe B have the same proportion of raisins to almonds.

1) If IQR = 24 and $Q_3 = 56$, what is Q_1?

☐ A. 20
☐ B. 80
☐ C. 56
☐ D. 32

2) Keisha uses a debit card to purchase a video game for $45. What will happen to her bank account?

☐ A. The bank lends her $45
☐ B. The balance decreases by $45
☐ C. She earns $45 in interest
☐ D. The balance increases by $45

3) Jordan's ordered scores are 70, 75, 80, 85, 88, 88, 88, 90, 92, 92. Find the median.

4) Which is greater: $\frac{7}{10}$ or 65%?

☐ A. $\frac{7}{10}$
☐ B. 65%
☐ C. They are equal
☐ D. Cannot be determined

5) Write 0.15 as a percent.

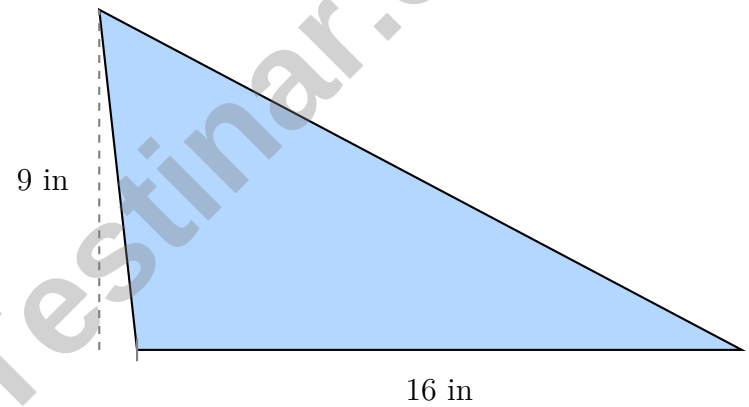
6) A recipe uses sugar and flour in a ratio of 1 : 3. If there is 2 cups of sugar, how much flour is there?

☐ A. 3 cups
☐ B. 4 cups
☐ C. 6 cups
☐ D. 9 cups

7) A worker divided 5,610 by 15 and got 374. Which statement correctly evaluates the worker's answer?

☐ A. The answer is correct; $15 \times 374 = 5{,}610$.
☐ B. The answer is wrong; the correct quotient is 374 remainder 0.
☐ C. The quotient should be 373 with remainder 15.
☐ D. The answer is wrong; the correct quotient is 375.

8) An obtuse triangle has a perpendicular height of 9 inches measured to the extended base line. The base is 16 inches. What is the area?



☐ A. 25 in^2
☐ B. 72 in^2
☐ C. 144 in^2
☐ D. 288 in^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 six 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.RP.3 Match 35 red pens to the 7 red parts: $35 \div 7 = 5$, so each part is worth 5 pens. Blue has 5 parts, so $5 \times 5 = 25$ blue pens.
2) **Choice D is correct.** 6.NS.4 A, B, and C all peel out different-but-valid common factors (8, 4, 2) yet land on $40 + 24$ every time—that is flexibility the distributive property gives you.
3) **Choice D is correct.** 6.SP.4 A: $|-6| = 6$. B: opposite of -6 is 6. C: $|6| = 6$. D: opposite of 6 is -6. Options A, B, C all equal 6; D equals -6.
4) **Choice B is correct.** 6.NS.8 Same x-coordinate (3): $|0 - (-1)| = |0 + 1| = 1$ unit.
5) **Choice C is correct.** 6.NS.3 Elevation difference: $385 - (-215) = 385 + 215 = 600$ feet.
6) **Choice B is correct.** 6.NS.3 Negative divided by positive is negative: $\frac{-64}{8} = -8$.
7) **Choice D is correct.** 6.EE.3 "The sum of c and 7" is $(c + 7)$. "Twice" that sum requires parentheses: $2(c + 7)$.
8) **Choice D is correct.** 6.EE.4 The coefficient includes the sign. Since the term is $-4x$, the coefficient is -4, not 4.
9) **Choice D is correct.** 6.EE.3 Substitute $x = 3$: $\frac{2(3)+6}{2} = \frac{6+6}{2} = \frac{12}{2} = 6$.
10) **Choice A is correct.** 6.EE.3 Distribute: $6(3y - 2) = 6 \cdot 3y - 6 \cdot 2 = 18y - 12$.
11) **The correct answer is 625.** 6.EE.6 If $s = 600$, then staff $= s + 25 = 600 + 25 = 625$.
12) **Choice D is correct.** 6.EE.5 Add 9 to both sides to isolate x: $x = 5 + 9 = 14$.
13) **Choice C is correct.** 6.EE.8 $x < 7$ means x must be less than 7. Only 5 is less than 7.
14) **Choice D is correct.** 6.EE.8 The symbol $\geq$ includes the boundary value, so we use a closed (filled) circle to show that -3 is part of the solution set.
15) **Choice B is correct.** 6.EE.9 Hours worked is the independent variable you control; earnings depend on how many hours you work.
16) **Choice C is correct.** 6.G.1 Area $= 9 \times 7 = 63$ in^2.
17) **Choice B is correct.** 6.G.1 Width: $6 - 2 = 4$ units. Height: $6 - 2 = 4$ units. Area $= 4 \times 4 = 16$ square units.
18) **The correct answer is 24.** 6.G.1 Solving: $84 = \frac{1}{2} \times b \times 7 \Rightarrow b = 24$ m.
19) **Choice D is correct.** 6.G.4 Original $SA = 2(7)(6) + 2(7)(2) + 2(6)(2) = 84 + 28 + 24 = 136$ cm^2. With height doubled to 4 cm, new $SA = 2(7)(6) + 2(7)(4) + 2(6)(4) = 84 + 56 + 48 = 188$ cm^2. The increase is $188 - 136 = 52$ cm^2.
20) **The correct answer is A uses the division method; E verifies the answer..** 6.NS.1 A correctly divides: $4 \div \frac{1}{3} = 12$ bottles. E checks: $12 \times \frac{1}{3} = 4$ gallons. B multiplies but gets total juice, not bottle count. C divides backwards. D is conceptually sound but cumbersome.
21) **Choice C is correct.** 6.SP.1 The student calculated $\pi r \approx 3.14 \times 4 = 12.56$ (which is the circumference formula). The correct area is $\pi r^2 \approx 3.14 \times 16 = 50.24$ m^2.
22) **Choice C is correct.** 6.SP.2 The different responses show that people exercise different amounts. This variability is expected and indicates the question is statistical. Variability is a defining feature of statistical questions.
23) **Choice B is correct.** 6.SP.2 Bimodal means the distribution has two distinct modes (peaks). A single peak is unimodal; symmetric peaks form a bimodal distribution.
24) **Choice C is correct.** 6.SP.3 Mean $= \frac{1.5 + 2.5 + 3.5 + 4.5}{4} = \frac{12}{4} = 3.5$. The dashed line marks the mean.
25) **Choice C is correct.** 6.SP.4 The mode (16 days, frequency 4), individual frequencies, and the median can be read directly from the dot plot. Total attendance (the sum of attendance × frequency) requires calculation and might vary based on interpretation; it cannot be determined without additional calculation.
26) **Choice D is correct.** 6.SP.4 If every data value is identical, then min, Q_1, median, Q_3, and max are all equal. In this edge case, Q_1 is not less than the median; they are equal.

Author's Note

From a Friend Who Believes in You

Hi, Friend!

◇ I just want to say something important: I am proud of you. You did 6 full practice tests. That takes time, hard work, and heart. ◇

⋆ **Friendly truth:** a test is just one part of your math journey. You are SO much more than a score. The work you did is the real win! ⋆

What I Want You to Know

- **You are smart.** Every test you finished proves it.
- **You are brave.** You tried hard problems.
- **You are growing.** Mistakes taught you new things.
- **You are ready.** The skills are inside you.

One more thing: on test day, take a deep breath. Smile. Remember that someone (me!) believes in you. You can do this!

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

Jay Daie

Your Math Friend

PRACTICE TODAY. SUCCEED TOMORROW!

This Grade 6 Math Practice Tests book is designed to help students strengthen their math skills, master important concepts, and build the confidence they need to excel on comprehensive assessments.

With 6 full-length printed tests and 2 online tests, students get the review, practice, and realistic test experience they need to improve accuracy, develop problem-solving abilities, and reach their full potential.

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

6 PRINTED TESTS

+

2 ONLINE TESTS

PERFECT FOR:

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

BUILD SKILLS. GAIN CONFIDENCE. SUCCEED!

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.

Deeper Understanding
Reinforce key concepts aligned with standards through meaningful practice.

Test Confidence
Become familiar with test formats and improve accuracy and speed.

Achieve Success
Build confidence and perform your best on test day.

TOPICS COVERED

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

2 ONLINE TESTS
Extra online practice to reinforce learning and build confidence.

MORE PRACTICE. GREATER RESULTS.

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

6 FULL-LENGTH PRINTED TESTS

2 ONLINE PRACTICE TESTS

DETAILED ANSWER EXPLANATIONS