

9

Utah

RISE

GRADE 7

MATH

PRACTICE TESTS

Standards Aligned Problem Solving
For Comprehensive Assessment Programs

Program



9

**PRINTED
TESTS**

+



2

**ONLINE
TESTS**



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



BUILT FOR ACAP
Standards-Aligned



**STRENGTHEN
SKILLS**



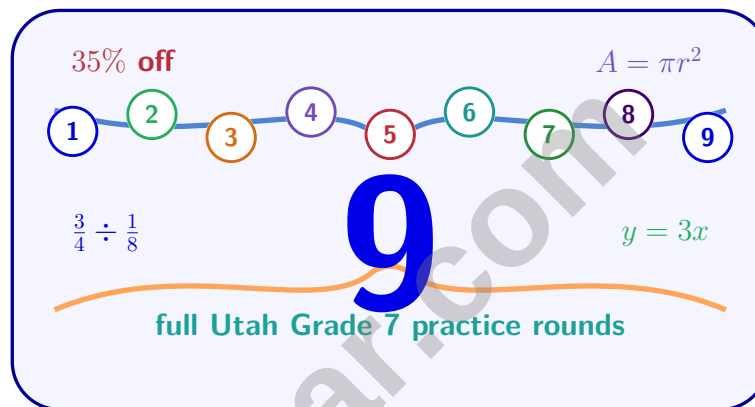
**SHARPEN
THINKING**



BE TEST-READY
Improve Performance

9 Utah RISE Grade 7 Math Practice Tests

Standards-Aligned Utah Practice for Proportional Reasoning, Expressions, Geometry, Statistics, and Probability



Nine complete 40-question Grade 7 RISE practice rounds with proportional relationships, percents, rational numbers, expressions, equations, geometry, statistics, probability, answer keys, and clear explanations for every item.

Jay Daie and Reza Nazari



Copyright ©

Testinar Inc



Published by Testinar Inc

Testinar.com

All rights reserved. No part of this publication may be reproduced, distributed, or transmitted in any form or by any means, including photocopying, recording, or other electronic or mechanical methods, without the prior written permission of the author, except in the case of brief quotations embodied in critical reviews and certain other noncommercial uses permitted by copyright law, including Section 107 or 108 of the 1976 United States Copyright Act.

This publication is independently produced and has no official connection to any state, district, or national testing program.

Test names and organizational names used herein are the property of their respective trademark holders.



Copyright ©

Welcome, Utah Grade 7 Problem Solver!

Nine focused rounds for sharper RISE math thinking

This book gives you nine full Grade 7 RISE math practice tests. Each round is built to help you notice structure, compare quantities, use proportional reasoning, handle rational numbers, and explain your thinking with care.

Your Utah Practice Promise

I will read every question carefully, choose a strategy that fits, write enough work to prove my answer, and use corrections as training for the next test.

Read

Model

Verify

How to Use This Book

A nine-session plan for confident Grade 7 review

1. **Warm up with the review pages.** Notice the big ideas before starting the tests.
2. **Complete one test at a time.** Treat each 40-question round like a real practice session.
3. **Show your reasoning.** Jot a proportion, equation, diagram, number line, or quick estimate when it helps.
4. **Correct actively.** Rework missed items before reading the explanation.
5. **Choose the next target.** After each test, name one skill and one habit to improve.

Utah review rhythm: Work a test, score it, study your misses, then come back ready for the next round with one clear goal.



What Is Inside?

Nine RISE tests, 360 questions, and a complete review path

Part	What You Will Practice
Tests 1–3	Proportional relationships, unit rates, percents, rational-number operations, and careful reading.
Tests 4–6	Expressions, equations, inequalities, scale drawings, geometry, and multi-step problem solving.
Tests 7–9	Statistics, probability, mixed review, stamina, and choosing efficient strategies.
Answer Pages	Compact keys and explanations that show why each answer works.

The tests are mixed on purpose. Grade 7 success means recognizing which idea is being tested even when the next question changes format.



Scan me!
For more practice
& answers

Table of Contents

★ Practice Test 1	_____	14
★ Practice Test 2	_____	29
★ Practice Test 3	_____	43
★ Practice Test 4	_____	59
★ Practice Test 5	_____	74
★ Practice Test 6	_____	88
★ Practice Test 7	_____	102
★ Practice Test 8	_____	117
★ Practice Test 9	_____	131
Practice Test Answer Keys	_____	146
Practice Test Answers and Explanations	_____	152

- 1) An event planner receives \$3,000 for planning a wedding. She must pay a 12% vendor coordination fee from her earnings. How much does she keep after the fee?

☐ A. \$360
☐ B. \$2,400
☐ C. \$2,640
☐ D. \$3,360

- 2) A punch recipe has a ratio of juice to water of 2 : 5. If you use 14 cups of juice, how many cups of water are needed?

- 3) Students were surveyed about after-school activities. The data:

Activity	Sports	Music	Art	Drama
Count	72	48	36	24

Based on this data, what is the experimental probability that a randomly selected student participates in either music or art?

☐ A. $\frac{48}{180}$
☐ B. $\frac{84}{180}$
☐ C. $\frac{48}{84}$
☐ D. $\frac{60}{180}$

- 4) A rectangular prism has length 15 cm and width 6 cm. If the height is tripled from 2 cm to 6 cm, how much does the volume increase?

☐ A. 180 cm^3
☐ B. 360 cm^3
☐ C. 540 cm^3
☐ D. 720 cm^3



5) In a circle, how many different radii can you draw?

☐ A. 1

☐ B. 2

☐ C. Infinitely many

☐ D. 10

6) Three events have probabilities: Event A = $\frac{1}{2}$, Event B = 0.6, Event C = 55%. Which event is most likely?

☐ A. Event A

☐ B. Event B

☐ C. Event C

☐ D. Events A and C are equally likely

7)

Category	Votes	Percent
Yes	56	70%
No	24	30%

In a class vote, 70% of students voted Yes. If there are 80 students total, how many voted Yes?

☐ A. 48

☐ B. 64

☐ C. 60

☐ D. 56

8) A scale model of a bridge has a ratio of 1 : 500 (model to real). If the real bridge is 150 meters long, how long is the model in centimeters?

☐ A. 3 cm

☐ B. 3000 cm

☐ C. 300 cm

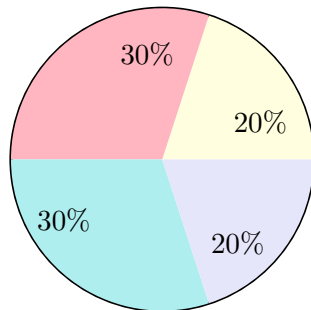
☐ D. 30 cm

9) A number line arrow starts at -6 and ends at 9. What integer was added?

☐ A. -15
☐ B. -3
☐ C. 3

☐ D. 15


Scan me!
For more practice
& answers

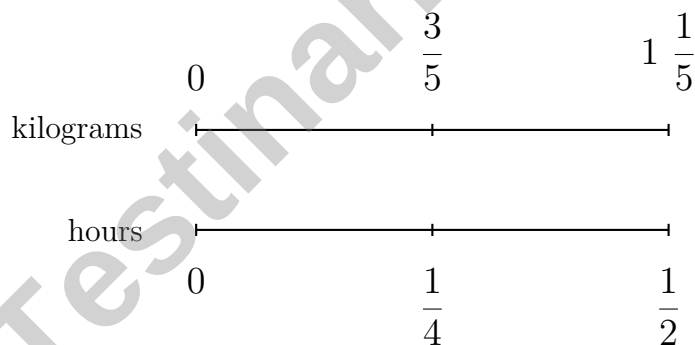


10)

The circle graph shows time allocation in a student's weekly schedule. Yellow is schoolwork (20%), pink is sports (30%), turquoise is study (30%), and lavender is free time (20%). If there are 168 hours in a week, how many are spent on sports?

☐ A. 30.4☐ C. 50.4☐ B. 33.6☐ D. 67.2

11) Use the double number line to find the unit rate in kilograms per hour.

☐ A. $\frac{20}{3}$ kg/hr☐ C. $\frac{3}{20}$ kg/hr☐ B. $\frac{5}{12}$ kg/hr☐ D. $\frac{12}{5}$ kg/hr

1) Without dividing, which fraction will **NOT** produce a terminating decimal?

☐ A. $\frac{9}{32}$

☐ C. $\frac{7}{30}$

☐ B. $\frac{5}{64}$

☐ D. $\frac{11}{80}$

2) A tile setter lays $\frac{5}{8}$ of a floor in $\frac{1}{2}$ hour. How many floors can be laid in 1 hour?

☐ A. $\frac{5}{16}$ floor

☐ C. $\frac{4}{5}$ floor

☐ B. 2 floors

☐ D. $\frac{5}{4}$ floors

3) Which situation describes a non-proportional relationship?

☐ A. Buying gas at \$3 per gallon

☐ C. Downloading files at 50 MB per second

☐ B. Walking at a constant speed of 3 mph

☐ D. Renting a movie with \$5 base fee plus \$1 per day

4) A babysitter charges hourly. The table shows total earnings for different hours worked.

Hours	Earnings (\$)
2	18
4	36
7	63

What is the hourly rate (constant of proportionality)?

☐ A. \$12 per hour

☐ C. \$8 per hour

☐ B. \$10 per hour

☐ D. \$9 per hour


Scan me!

For more practice
& answers

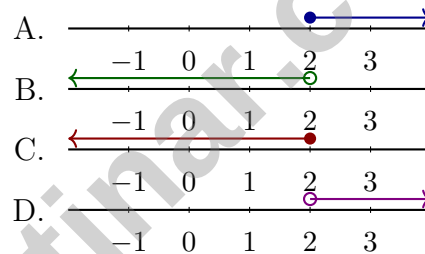
- 5) A student calculates the surface area of a rectangular prism with dimensions 5 cm, 3 cm, and 4 cm. They compute $5 \times 3 + 5 \times 4 + 3 \times 4 = 47 \text{ cm}^2$ and forget to multiply by 2. What error did they make?

- ☐ A. They calculated only one pair of faces instead of all pairs.
- ☐ B. They forgot to square each dimension.
- ☐ C. They used subtraction instead of addition.
- ☐ D. They included a face that doesn't exist.

- 6) Factor: $-14p + 35q$

- ☐ A. $-7(2p - 5q)$
- ☐ B. $7(-2p + 5q)$
- ☐ C. $7(2p + 5q)$
- ☐ D. $-7(2p + 5q)$

- 7) Which number line represents $x \leq 2$?



- 8) Compute $2\frac{1}{3} \div \frac{5}{9}$. Show all steps: convert mixed number, apply reciprocal rule, and simplify.



- 1) A simulation is designed to estimate the probability of getting exactly two tails in three coin flips. What is the theoretical probability that the simulation should approach?

☐ A. $\frac{1}{8}$
☐ B. $\frac{2}{8}$

☐ C. $\frac{3}{8}$
☐ D. $\frac{4}{8}$

- 2) Solve: $\frac{x}{2} - 6 = 4$

☐ A. $x = 4$
☐ B. $x = 8$

☐ C. $x = 16$
☐ D. $x = 20$

- 3) Solve for y : $2y - 8 = -14$ and check your answer makes sense.

☐ A. $y = -3$
☐ B. $y = 0$

☐ C. $y = 3$
☐ D. $y = 11$

- 4) A map uses a scale of 1 inch : 50 miles. Two cities are 3 inches apart on the map. What is the actual distance between the cities?

☐ A. 100 miles
☐ B. 150 miles

☐ C. 200 miles
☐ D. 250 miles

- 5) A baker's original recipe calls for $\frac{2}{3}$ cup of honey. First, she makes $\frac{3}{2}$ times the recipe. Then she uses $\frac{1}{4}$ of the total honey made for granola bars. How much honey (in cups) remains for the other desserts?



Scan me!
For more practice
& answers

6) A rectangular park boundary on a city map is 11 cm by 13 cm. The scale is 1 cm : 200 m. What is the perimeter of the actual park in meters?

☐ A. 4,800 m

☐ C. 2,400 m

☐ B. 9,600 m

☐ D. 4,400 m

7) A rectangular prism has a square base with side 6 cm and height 10 cm. A vertical plane cuts through the center, parallel to one pair of opposite rectangular faces. What is the area of the cross-section?

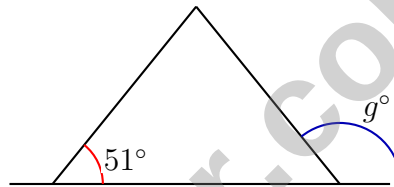
☐ A. 30 cm^2

☐ C. 36 cm^2

☐ B. 60 cm^2

☐ D. 360 cm^2

8)



Two rays extend upward from a horizontal line, forming angles of 51° and g° . These angles are supplementary. What is the measure of angle g ?

☐ A. 39°

☐ C. 129°

☐ B. 51°

☐ D. 139°

9) Simplify $\frac{1}{4}m + \frac{3}{4}m + 2n$, then evaluate when $m = 2$ and $n = 3$.



Utah RISE Grade 7 Practice Test Answer Keys**How to use this section with a Grade 7 student:**

1. check the answer first and circle any item that needs another look
2. retry the problem with fresh work before reading the explanation
3. write one short lesson learned from each missed or guessed item

A strong review routine turns every correction into a sharper plan for the next Utah RISE practice test.

Testinar.com



Practice Test Answers and Explanations

Practice Test 1 Answers and Explanations

- 1) **Choice C is correct.** (7.RP.3) Coordination fee = $0.12 \times 3000 = \$360$. Amount kept = $3000 - 360 = \$2,640$.
- 2) **The correct answer is 35.** (7.RP.1-7.RP.3) Ratio 2 : 5: if juice = 14, then $\frac{2}{5} = \frac{14}{x}$. Cross multiply: $2x = 70$, so $x = 35$ cups water.
- 3) **Choice B is correct.** (7.SP.6) Total students: $72 + 48 + 36 + 24 = 180$. Music or Art: $48 + 36 = 84$. Experimental probability = $\frac{84}{180} = \frac{7}{15}$.
- 4) **Choice B is correct.** (7.G.4-7.G.6) Original: $V_1 = 15 \times 6 \times 2 = 180 \text{ cm}^3$. New: $V_2 = 15 \times 6 \times 6 = 540 \text{ cm}^3$. Increase = $540 - 180 = 360 \text{ cm}^3$.
- 5) **Choice C is correct.** (7.G.4-7.G.6) You can draw a radius from the center to any point on the circle, so there are infinitely many radii.
- 6) **Choice B is correct.** (7.SP.5-7.SP.8) A = 0.5, B = 0.6, C = 0.55. Event B has the highest probability ($0.6 > 0.55 > 0.5$).
- 7) **Choice D is correct.** (7.RP.3) 70% of 80 is $0.70 \times 80 = 56$ students.
- 8) **Choice D is correct.** (7.RP.1-7.RP.3) 150 m = 15000 cm. Divide by scale: $15000 \div 500 = 30$ cm.
- 9) **Choice D is correct.** (7.NS.1b) If -6 plus an unknown value equals 9, then the unknown is 15 because $-6 + 15 = 9$. The distance from -6 to 9 is 15 units.
- 10) **Choice C is correct.** (7.SP.1-7.SP.4) 30% of 168 = $0.30 \times 168 = 50.4$ hours.
- 11) **Choice D is correct.** (7.RP.1-7.RP.3) From the line, $\frac{3}{5}$ kg in $\frac{1}{4}$ hr gives $\frac{3/5}{1/4} = \frac{3}{5} \times 4 = \frac{12}{5} = 2.4$ kg/hr.
- 12) **Choice D is correct.** (7.RP.1-7.RP.3) The line passes through (0,0) and (5,5), making it proportional with $k = 1$ or $y = x$.
- 13) **Choice D is correct.** (7.RP.1-7.RP.3) Distance equals speed times time. With speed $k = 8$ mph, the equation is $d = 8t$.
- 14) **Choice D is correct.** (7.RP.3) Using the proportion $\frac{12}{48} = \frac{p}{100}$, simplify $\frac{12}{48} = \frac{1}{4} = 0.25 = 25\%$.
- 15) **Choice A is correct.** (7.EE.1-7.EE.2) Combine: $(6v + 3v) + (2 - 8) = 9v - 6$.
- 16) **Choice B is correct.** (7.EE.3-7.EE.4) From the table, $3x = 15$, so dividing both sides by 3 gives $x = 5$.
- 17) **Choice B is correct.** (7.G.1-7.G.5) If $G + (-5, 2) = (1, -4)$, then $G = (1, -4) - (-5, 2) = (1 - (-5), -4 - 2) = (1 + 5, -6) = (6, -6)$.
- 18) **Choice C is correct.** (7.G.4-7.G.6) $A = \pi r^2 = 3.14 \times 5^2 = 3.14 \times 25 = 78.5 \text{ ft}^2$.
- 19) **The correct answer is A,C.** (7.G.4-7.G.6) Large square: $20 \times 20 = 400 \text{ m}^2$ (A). Small square: $5 \times 5 = 25 \text{ m}^2$. Remaining: $400 - 25 = 375 \text{ m}^2$ (C). The cutout is $\frac{25}{400} = \frac{1}{16}$ of the original area, not $\frac{1}{20}$.
- 20) **Choice A is correct.** (7.NS.1-7.NS.3) Final score = $-250 + 180 - 120 + 200 = 10$ points.
- 21) **Choice B is correct.** (7.EE.1-7.EE.2) Factoring uses the distributive property: $5(x - 2) = 5 \cdot x - 5 \cdot 2 = 5x - 10$. The property works both ways (distribute or factor).
- 22) **Choice C is correct.** (7.G.1-7.G.5) Map length: $450 \div 15 = 30$ cm.
- 23) **Choice B is correct.** (7.G.1-7.G.5) The side length of the square cross-section is half the length of a face diagonal. Since a face diagonal of a cube with edge length a is $a\sqrt{2}$, the side length is $\frac{a\sqrt{2}}{2}$. For $a = 6$, $\frac{6\sqrt{2}}{2} = 3\sqrt{2}$ cm.
- 24) **Choice A is correct.** (7.SP.5-7.SP.8) Odd cards: 1, 3, 5. $P(\text{first odd}) = \frac{3}{6} = \frac{1}{2}$. Given first is odd, $P(\text{second odd}) = \frac{2}{5}$. So $P(\text{both}) = \frac{1}{2} \times \frac{2}{5} = \frac{1}{5}$.
- 25) **Choice A is correct.** (7.NS.2) $\frac{3}{4} \times 8 = \frac{3 \times 8}{4} = \frac{24}{4} = 6$.
- 26) **The correct answer is 1600.** (7.SP.1-7.SP.4) Set up the proportion: $\frac{80}{250} = \frac{x}{5000}$. Solve: $x = \frac{80 \times 5000}{250} = 1600$.
- 27) **Choice D is correct.** (7.NS.1-7.NS.3) Side length: $s = \sqrt{256} = 16$ meters. Perimeter = $4s = 4(16) = 64$ meters.
- 28) **Choice B is correct.** (7.SP.1-7.SP.4) Group A: $3 + 2 = 5$ values. Group B: $3 + 3 + 3 = 9$ values. Group B has more.
- 29) **Choice C is correct.** (7.RP.3) Interest: $0.18 \times 500 = \$90$ per year.
- 30) **Choice D is correct.** (7.RP.3) Balance after 2 years: $2000 \times 1.08 \times 1.08 = 2332.80$. Interest earned: $2332.80 - 2000 = 332.80$.



Hi, Confident Learner!

◇ This high-stamina book gave you nine substantial Grade 7 practice tests, so you had repeated chances to build accuracy, pacing, and confidence. Grade 7 math can feel big because it brings together rational numbers, expressions, equations, geometry, probability, and data. ◇

★ **Remember this:** But big topics become manageable when you practice one skill at a time. That is what you have been doing with every test in this book. ★

Confidence Builders

- **Know the Goal:** Identify what the question asks.
- **Use Vocabulary:** Math words point to math actions.
- **Show Work:** Give yourself something to check.
- **Celebrate Effort:** Practice is proof that you are moving.

Grade 7 test-day tip: When reviewing, do not only mark wrong answers. Write one sentence about what you learned from each one.

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

Jay Daie

Your Confidence Coach

PRACTICE TODAY. SUCCEED TOMORROW!

This book includes **9** full-length Math practice tests and **2** online tests to help Grade 7 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:

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



2 ONLINE TESTS

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



2 EXTRA ONLINE TEST ACCESS CODE IS INSIDE THE BOOK!

Don't lose it—your extra practice and success start here!



VISIT **TESTINAR.COM/MATH7**
FOR MORE PRACTICE TESTS
AND LEARNING RESOURCES.



PRACTICE
REGULARLY



STAY
FOCUSED



SOLVE
CONFIDENTLY



SUCCEED
BRIGHTLY