

7

Utah RISE

Grade 7 Math Practice Tests



ONLINE

7 PRINTED TESTS + 2 ONLINE TESTS

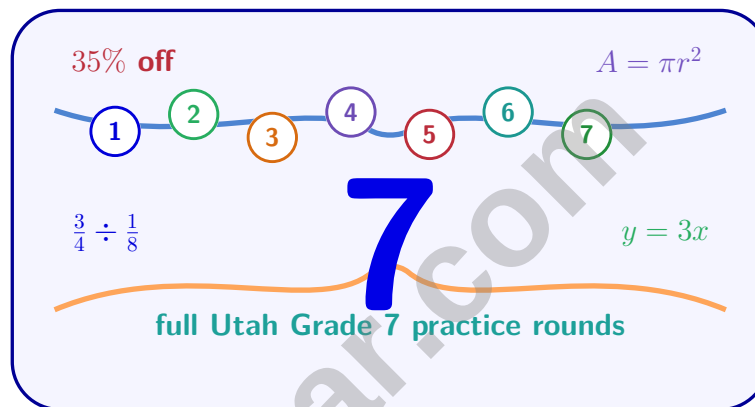


**Standards Aligned Problem Solving
For Comprehensive Assessment Programs**



8 Utah RISE Grade 7 Math Practice Tests

A sturdy preparation path for Utah Grade 7 rational numbers, proportional relationships, equations, scale drawings, statistics, and chance



Eight 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!

Eight focused rounds for sharper RISE math thinking

This book gives you seven 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

An eight-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?

Eight RISE tests, 280 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 7–8	Statistics, probability, mixed review, stamina, and choosing efficient strategies.
Answer Pages	Compact keys and explanations that show why each answer works.

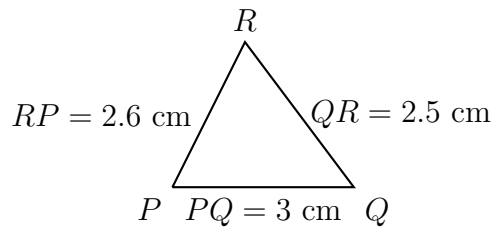
The tests are mixed on purpose. Grade 7 success means recognizing which idea is being tested even when the next question changes format.



Scan me!
For more practice
& answers

Table of Contents

★ Practice Test 1	_____	14
★ Practice Test 2	_____	29
★ Practice Test 3	_____	43
★ Practice Test 4	_____	57
★ Practice Test 5	_____	72
★ Practice Test 6	_____	87
★ Practice Test 7	_____	102
Practice Test Answer Keys	_____	116
Practice Test Answers and Explanations	_____	121



1)

For triangle PQR with sides $PQ = 3$, $QR = 2.5$, $RP = 2.6$ cm, is the triangle acute, right, or obtuse? Check: $3^2 \stackrel{?}{<} 2.5^2 + 2.6^2$

☐ A. Acute: $9 < 13.01$
☐ C. Obtuse: $9 > 13.01$
☐ B. Right: $9 = 13.01$
☐ D. Cannot be determined

2) A bag contains 3 red marbles, 2 blue marbles, and 5 green marbles. To simulate drawing one marble, which probability does rolling a standard die best represent?

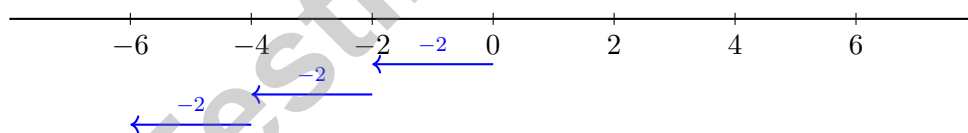
☐ A. Probability of drawing red

☐ D. Probability of drawing blue or green

☐ B. Probability of drawing blue

☐ C. Probability of drawing green

3) The number line shows repeated additions. What does $3 \times (-2)$ equal?


☐ A. -8

☐ C. 6

☐ B. -6

☐ D. 8


4) A mortgage broker charges a 1% origination fee on a loan of \$300,000. What is the origination fee?

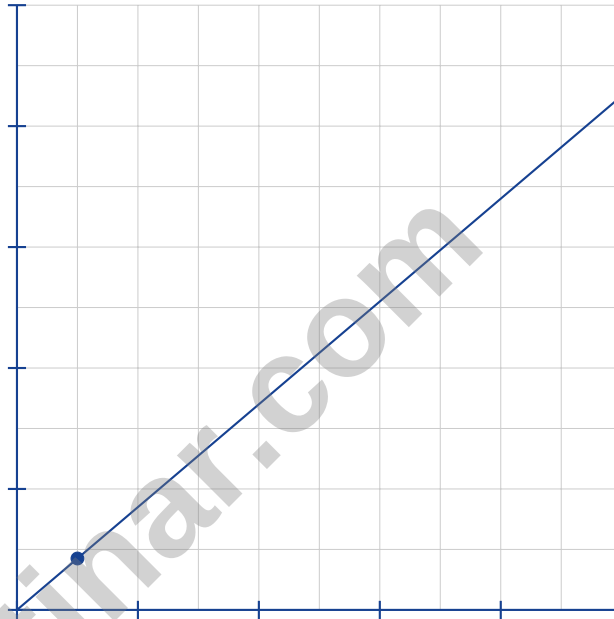
☐ A. \$1,000

☐ C. \$30,000

☐ B. \$300,000

☐ D. \$3,000

Total cost (\$)



Number of items

5)

From this proportional relationship graph, identify the unit-rate point and find the cost per item.



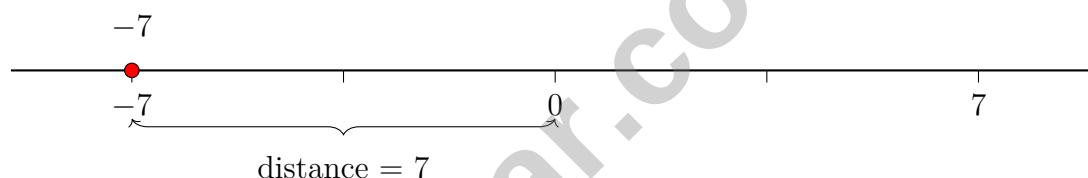
Scan me!
For more practice
& answers

6) Compare the interest earned on \$1,000 over 3 years at 6% simple vs. compound interest. The compound interest earns approximately how much more?

- ☐ A. \$0 (they are the same) ☐ C. \$11.02
☐ B. \$10.42 ☐ D. \$180

7) On a map where 2.5 cm represents 50 km, how many kilometers does 1 cm represent?

8) What is $|-7|$?



- ☐ A. -7 (confuses absolute value with the original number) ☐ C. 0 (misplaces absolute value at the origin)
☐ B. -14 (incorrectly applies a sign reversal) ☐ D. 7 (correct; distance is always non-negative)

9) Which of the following is NOT a like term with $6xy$?

- ☐ A. $-4xy$ ☐ C. $2xy^2$
☐ B. $9yx$ ☐ D. $10xy$



1) Solve: $\frac{1}{2}x + 3 = 8$

☐ A. $x = 5$

☐ C. $x = 10$

☐ B. $x = 8$

☐ D. $x = 16$

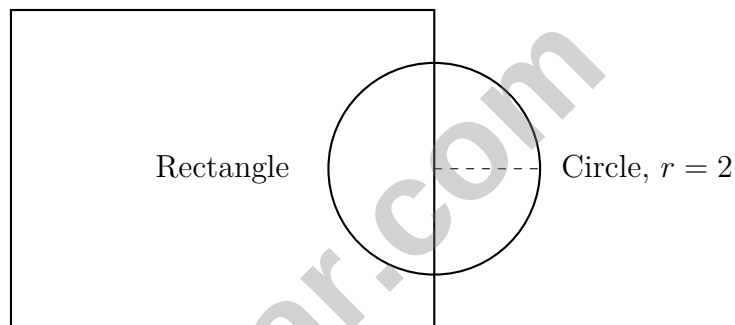
- 2) A construction worker needs to find the side of a square concrete pad with area 289 square feet. What is the side length?

☐ A. 15 feet

☐ C. 17 feet

☐ B. 16 feet

☐ D. 18 feet



3)

A composite figure has a rectangle ($8\text{ m} \times 6\text{ m}$) with a circle (radius 2 m) attached to one side. Using $\pi \approx 3.14$, what is the total area?

☐ A. 12.56 m^2

☐ C. 60.56 m^2

☐ B. 48 m^2

☐ D. 98.24 m^2

- 4) The temperature in the morning was -8°C . It rose 15°C by afternoon. Then it dropped 5°C by evening. What was the evening temperature?



Scan me!
For more practice
& answers

5) A triangular prism has a right-triangular base with legs 7 cm and 4 cm, and a depth of 9 cm. What is the volume?

☐ A. 20 cm^3

☐ C. 126 cm^3

☐ B. 63 cm^3

☐ D. 252 cm^3

6) A triangle has two sides of 5 m and 8 m with an included angle of 45° . How many congruent triangles can be drawn with these measurements?

☐ A. 0

☐ C. 2

☐ B. 1

☐ D. Infinitely many

7) A student claims: $\frac{-4}{5} \div \frac{2}{3} = \frac{-8}{15}$ because “you multiply the numerators and denominators.” What is the correct quotient?

8) Write the decimal $0.\overline{4}$ (where 4 repeats) as a fraction.

9) An arc is a portion of:

☐ A. The radius

☐ C. The circumference

☐ B. The diameter

☐ D. The sector



1) What is 0.4×0.5 ?

☐ A. 0.2

☐ C. 1.8

☐ B. 0.9

☐ D. 2

2) Maria scored 85% on a test with 40 questions. How many questions did she answer correctly?

☐ A. 24

☐ C. 34

☐ B. 30

☐ D. 36

3) The table shows a proportional relationship between hours worked and earnings.

Hours	Earnings (\$)
2	18
4	36
6	54

What is the constant of proportionality?

☐ A. $k = 36$

☐ C. $k = 2$

☐ B. $k = 18$

☐ D. $k = 9$

4) Evaluate $(2^3)^2$.



- 5) A basketball team scores 96 points. If 33.33% came from three-pointers, approximately how many points came from three-pointers? (Round to the nearest whole number.)
- ☐ A. 23 points ☐ C. 64 points
☐ B. 96 points ☐ D. 32 points
- 6) A student's test score improved from 72 to 90. What is the percent increase in the score?
- ☐ A. 18% ☐ C. 25%
☐ B. 20% ☐ D. 80%
- 7) A freezer must stay at most -5°C to preserve food. If the current temperature is -2°C , by how many degrees must it drop?
- ☐ A. $d \geq 3$ ☐ C. $d \geq -3$
☐ B. $d \leq -3$ ☐ D. $d < -7$
- 8) Which situation best describes a *random sample*?
- ☐ A. Surveying the first 30 people at a public event ☐ C. Asking volunteers to participate in a study
☐ B. Drawing names from a hat containing all members' names ☐ D. Interviewing people at a shopping mall on a Saturday
- 9) A fabric pattern shows a rectangular motif 12 cm by 18 cm. A designer wants to scale it to 1 cm : 4 cm. What will be the dimensions of the scaled motif?
- ☐ A. 3 cm by 4.5 cm ☐ C. 12 cm by 18 cm
☐ B. 4 cm by 6 cm ☐ D. 48 cm by 72 cm



Scan me!
For more practice
& answers

**Readiness Improvement Success Empowerment 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 Readiness Improvement Success Empowerment practice test.

Practice Test Answers and Explanations

Practice Test 1 Answers and Explanations

- 1) **Choice A is correct.** (7.G.1-7.G.5) Check: $3^2 = 9$ and $2.5^2 + 2.6^2 = 6.25 + 6.76 = 13.01$. Since $9 < 13.01$, the square of the longest side is less than the sum of squares of the other two sides, so the triangle is acute.
- 2) **Choice C is correct.** (7.SP.5-7.SP.8) There are 5 green marbles out of 10 total, giving probability $\frac{5}{10} = \frac{1}{2}$. Rolling 1–3 on a die simulates this (or rolling odd/even).
- 3) **Choice B is correct.** (7.NS.2) Three groups of -2 : $3 \times (-2) = -6$. The arrows move left 2 units, 3 times, landing on -6 .
- 4) **Choice D is correct.** (7.RP.3) Origination fee = $0.01 \times 300000 = \$3,000$.
- 5) **The correct answer is 0.85.** (7.RP.1-7.RP.3) The marked point is $(1, 0.85)$, which is the unit-rate point. This means the constant of proportionality is $k = 0.85$, so the cost is \$0.85 per item.
- 6) **Choice C is correct.** (7.RP.3) Simple: $1000 \times 0.06 \times 3 = 180$. Compound: $1000(1.06)^3 = 1191.02$; interest = 191.02. Difference: $191.02 - 180 = 11.02$.
- 7) **The correct answer is 20.** (7.RP.1-7.RP.3) If $2.5 \text{ cm} = 50 \text{ km}$, then $1 \text{ cm} = 50 \div 2.5 = 20 \text{ km}$.
- 8) **Choice D is correct.** (7.NS.1-7.NS.3) The absolute value of any number is its distance from zero, which is always non-negative. $|-7| = 7$.
- 9) **Choice C is correct.** (7.EE.1) Like terms must have the same variables with the same exponents. $2xy^2$ has x^1y^2 , while $6xy$ has x^1y^1 . The exponents on y differ, so they are not like terms. Options A and D are clearly like $6xy$. Option B, $9yx$, equals $9xy$ by commutativity, so it is also a like term with $6xy$.
- 10) **Choice B is correct.** (7.G.4-7.G.6) First cube: $6s_1^2 = 294 \Rightarrow s_1^2 = 49 \Rightarrow s_1 = 7 \text{ cm}$. Second cube: $s_2 = 2 \times 7 = 14 \text{ cm}$. $SA = 6(14)^2 = 6(196) = 1176 \text{ cm}^2$.
- 11) **Choice D is correct.** (7.NS.1b) Adding zero to any number leaves it unchanged (additive identity). $-7 + 0 = -7$.
- 12) **The correct answer is \$124.** (7.RP.3) Markup = $0.55 \times 80 = \$44$. Selling price = $80 + 44 = \$124$.
- 13) **Choice C is correct.** (7.EE.1-7.EE.2) Product of 2 and n is $2n$. Three more than $2n$ is $3 + 2n$.
- 14) **Choice A is correct.** (7.EE.1-7.EE.2) GCF of 10, 15, and 5 is 5. Factor: $10xy + 15y + 5 = 5(2xy + 3y + 1)$.
- 15) **Choice A is correct.** (7.EE.4b) Add 2: $5x \geq 20$. Divide by 5: $x \geq 4$.
- 16) **Choice C is correct.** (7.SP.1-7.SP.4) A sample of 100 students balances accuracy with practicality. Samples of 10 and 25 are too small to reliably represent the whole school; 1000 would give similar accuracy but be costly and time-consuming to conduct.
- 17) **Choice B is correct.** (7.NS.1-7.NS.3) Distance from zero: $|-3| = 3$ and $|2| = 2$. Since $3 > 2$, -3 is further from zero.
- 18) **The correct answer is A,D.** (7.RP.1-7.RP.3) A and D are true. Relationship A ($y = 4x$) is proportional and has y -intercept 0. Relationship B has constant term 2, so it is not proportional and has y -intercept 2.
- 19) **Choice C is correct.** (7.NS.1-7.NS.3) Division by zero is undefined in mathematics. You cannot divide any number (positive, negative, or zero) by zero. Therefore $(-18) \div 0$ is **undefined**.
- 20) **Choice B is correct.** (7.NS.1-7.NS.3) $83,500 = 8.35 \times 10,000 = 8.35 \times 10^4$. Decimal moved 4 places left.
- 21) **Choice C is correct.** (7.EE.1-7.EE.2) An even exponent makes a negative base positive: $(-3)^2 = (-3) \cdot (-3) = 9$.
- 22) **Choice A is correct.** (7.EE.4a) Distribute: $-3x + 6 = 15$. Subtract 6: $-3x = 9$. Divide by -3 : $x = -3$.
- 23) **Choice A is correct.** (7.G.1-7.G.5) Zoom ratio: $10/8 = 1.25$. Drawing is enlarged by 1.25 times, so the new scale is $5 \text{ m}/1.25 = 4 \text{ m per cm}$, or $1 \text{ cm} : 4 \text{ m}$.
- 24) **Choice A is correct.** (7.G.1-7.G.5) Let angles be $2k$ and $7k$. Then $2k + 7k = 180^\circ$, so $9k = 180^\circ$ and $k = 20^\circ$. Supplement is $7(20) = 140^\circ$.
- 25) **Choice C is correct.** (7.G.1-7.G.5) Scale factor = $\frac{10.5}{7} = 1.5$. Height = $3 \times 1.5 = 4.5 \text{ cm}$.
- 26) **The correct answer is 30.** (7.RP.3) Months = $\$1,200 \div \$40 = 30$ months.
- 27) **Choice B is correct.** (7.G.4-7.G.6) From $A = \pi r^2$, we have $78.5 = 3.14 \times r^2$, so $r^2 = 25$ and $r = 5$ inches.
- 28) **Choice B is correct.** (7.SP.1-7.SP.4) When mean (60) < median (65), low outliers pull the mean down, indicating outliers are likely on the low end.



Scan me!
For more practice
& answers

Hi, Momentum Builder!

◇ Finishing a Grade 7 practice book is not a small thing. It means you practiced persistence, patience, and flexible problem solving. ◇

★ **Remember this:** Some questions were quick. Others probably made you stop and think. Both kinds helped you grow because practice turns effort into confidence. This version gave you 7 opportunities to rehearse test-day habits. ★

Momentum Habits

- **Start Clean:** Write down what the problem gives you.
- **Pick a Tool:** Use a table, model, equation, or graph.
- **Keep Moving:** Skip and return when needed.
- **Review Smart:** Study mistakes without judging yourself.

Grade 7 test-day tip: If a problem feels stuck, change tools. A graph, table, or sketch can make the same idea clearer.

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

Jay Daie

Your Math Momentum Partner

Practice Today. Succeed Tomorrow!

This book includes **7** 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:

7 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!



PRACTICE
REGULARLY



STAY
FOCUSED



SOLVE
CONFIDENTLY



SUCCEED
BRIGHTLY



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