

3

Idaho
ISAT

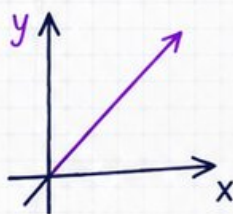
GRADE

7

MATH

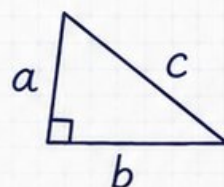
PRACTICE TESTS

- ✓ Standards Aligned
Problem Solving
For Comprehensive
Assessment Programs



$$y = mx + b$$

$$\frac{2}{3}x - \frac{4}{5} = \frac{1}{2}$$



$$3(x - 2) = 2x + 5$$

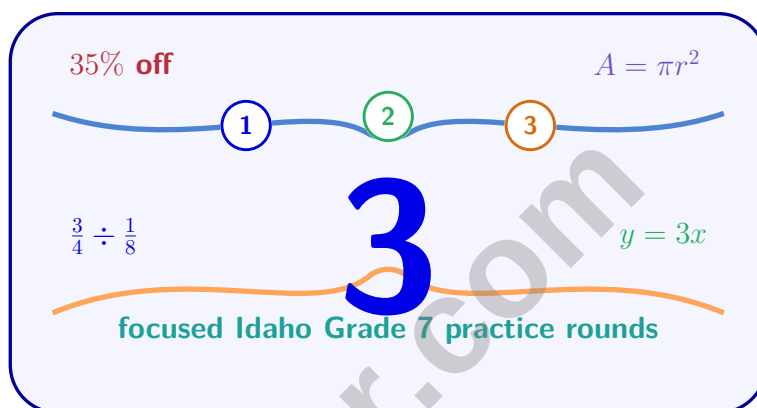
3 PRINTED
TESTS2 ONLINE
TESTS

USE THESE TWO
ADDITIONAL ONLINE
PRACTICE TESTS
FOR EXTRA REVIEW AFTER
THE PRINTED TESTS
IN THIS BOOK.

Build
ConfidenceStrengthen
Math SkillsDetailed Answers
& ExplanationsImprove Test
Performance

3 Idaho ISAT Grade 7 Math Practice Tests

Idaho Standards Practice with Keys and Clear Review



Three complete 40-question Grade 7 ISAT 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, Idaho Grade 7 Problem Solver!

Three focused rounds for sharper ISAT math thinking

This book gives you three full Grade 7 ISAT 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 Idaho 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 three-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.

Idaho 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?

Three ISAT tests, 120 questions, and a focused review path

Part	What You Will Practice
Tests 1–2	Proportional relationships, unit rates, percents, rational-number operations, and careful reading.
Test 3	Expressions, equations, inequalities, scale drawings, geometry, data, probability, and multi-step problem solving.
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	_____	27
★ Practice Test 3	_____	42
Practice Test Answer Keys	_____	55
Practice Test Answers and Explanations	_____	58

- 1) A right rectangular prism has dimensions $5\text{ cm} \times 7\text{ cm} \times 12\text{ cm}$. A plane cuts it at an angle, passing through one edge and an opposite edge. Which shape is LEAST likely as a cross-section?

☐ A. Triangle ☐ C. Hexagon
☐ B. Pentagon ☐ D. Rectangle

- 2) An athlete's predicted marathon time was 3.5 hours, but the actual time was 3.2 hours. What is the percent error?

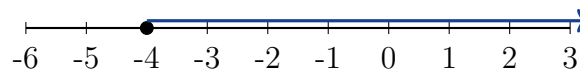
☐ A. 9.4% ☐ C. 8.6%
☐ B. 10.9% ☐ D. 91.4%

- 3) Expand and simplify: $5(x - 2) + 3(x + 4)$

☐ A. $8x + 22$ ☐ C. $5x + 7$
☐ B. $8x + 12$ ☐ D. $8x + 2$

- 4) At noon, the temperature is 3°C . By midnight, the temperature falls to -12°C . How many degrees did the temperature drop?

- 5) Identify the inequality.



☐ A. $x < -4$ ☐ C. $x \leq -4$
☐ B. $x > -4$ ☐ D. $x \geq -4$



6) Simplify: $\frac{7}{\frac{1}{\frac{8}{\frac{3}{5}}}}$

7) A student computed: $I = 600 \times 0.04 \times 2 = 4.8$. What mistake did she make?

- ☐ A. She forgot to convert the percentage to a decimal
- ☐ B. She computed correctly; no error was made
- ☐ C. She forgot the principal amount
- ☐ D. She placed the decimal incorrectly in her answer

8) Which expression is simplified?

- ☐ A. $3x + 2x - y$
- ☐ B. $5x + 2x - y + y$
- ☐ C. $5x - y$
- ☐ D. $2x + 3x + 4y$

9) A square pyramid has a square base with side length 6 in, and slant height 8 in. Find the surface area (include the base).

- ☐ A. 96 in^2
- ☐ B. 132 in^2
- ☐ C. 168 in^2
- ☐ D. 240 in^2

10) A simulation of rolling two dice uses two spinners, each with 6 equal sections numbered 1–6. If the simulation is performed 120 times, approximately how many times would you expect to see a sum of 7?

- ☐ A. 10 times
- ☐ B. 15 times
- ☐ C. 20 times
- ☐ D. 25 times



Scan me!
For more practice
& answers

11) A landscaper creates a scale model of a garden. The model shows a square garden with side length 5 inches. The actual garden has a side length of 25 feet. What is the scale?

☐ A. 1 : 5

☐ C. 5 : 25

☐ B. 1 : 120

☐ D. 1 : 60

12) What percent of 80 is 20?

☐ A. 20%

☐ C. 40%

☐ B. 60%

☐ D. 25%

13) A pair of shoes costs \$80. After a $\frac{1}{5}$ discount, what is the sale price?

☐ A. \$75

☐ C. \$16

☐ B. \$96

☐ D. \$64

14) On a number line, you start at 4 and move 11 units left. Where do you land?

☐ A. -15

☐ C. 7

☐ B. 15

☐ D. -7

h_1	$8x$	12
h_2	16	24
	w_1	w_2

15)

An area model has four rectangular sections with areas $8x$, 12, 16, and 24. What is the GCF of all four terms?

☐ A. 2

☐ C. 8

☐ B. 4

☐ D. 12

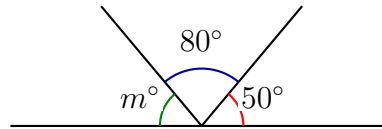

1) A circle has a diameter of $\frac{30}{7}$ meters. What is its radius?

☐ A. $\frac{15}{7}$ meters

☐ C. $\frac{60}{7}$ meters

☐ B. $\frac{30}{7}$ meters

☐ D. 7 meters



2)

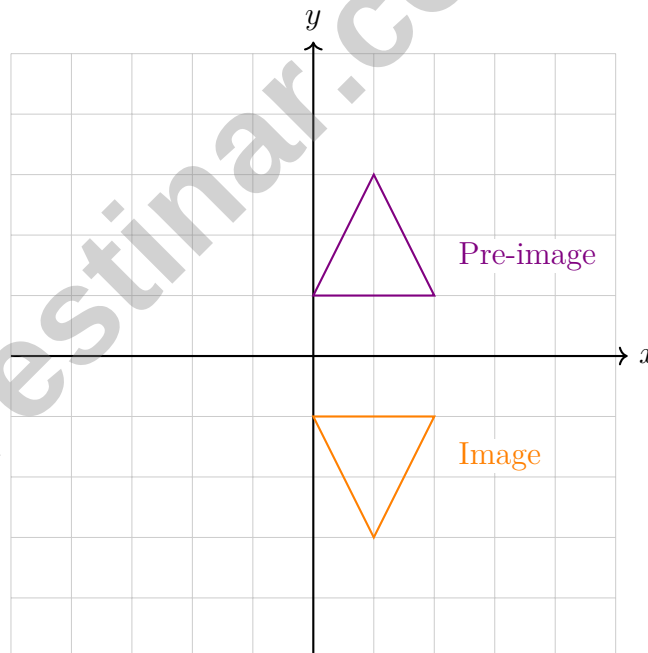
Three angles are formed around a point on a line. Two angles are 50° and 80° . What is the measure of angle m ?

☐ A. 30°

☐ C. 80°

☐ B. 50°

☐ D. 130°



3)

Which transformation maps the purple triangle to the orange triangle?

☐ A. Reflection over the x -axis

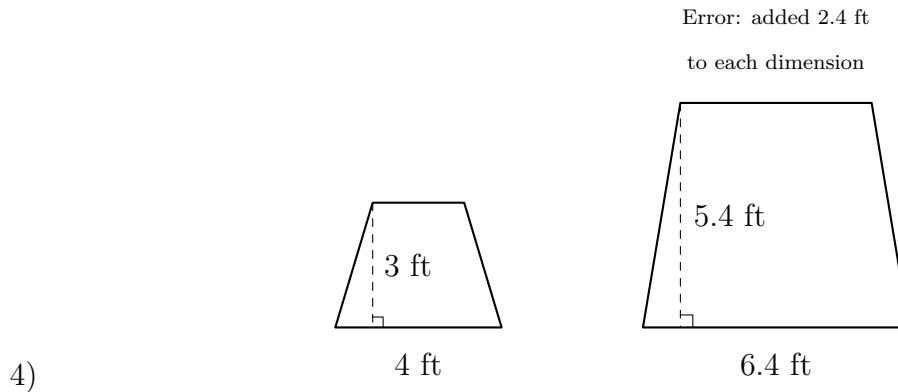
☐ C. Translation by $(0, -2)$

☐ B. Reflection over the y -axis

☐ D. Rotation of 90° clockwise



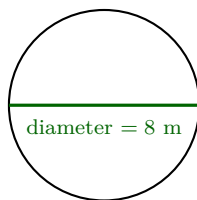
Scan me!
For more practice
& answers



A student was supposed to scale the left trapezoid by factor 1.6. Instead, they added 2.4 ft to each dimension to get the right trapezoid. How many dimensions are incorrect?

- ☐ A. 0 (both dimensions are correct by coincidence)
☐ B. 1 dimension is incorrect
☐ C. 2 dimensions are incorrect
☐ D. Cannot determine without more info
- 5) A plate has diameter 10 inches. Using $\pi \approx \frac{22}{7}$, approximately what is its circumference?

- ☐ A. $\frac{220}{7}$ in
☐ B. $\frac{110}{7}$ in
☐ C. $\frac{440}{7}$ in
☐ D. $\frac{80}{7}$ in



6)

A circle has a diameter of 8 meters. What is its area? Use $\pi \approx 3.14$.

- ☐ A. 25.12 m^2
☐ B. 50.24 m^2
☐ C. 100.48 m^2
☐ D. 200.96 m^2



1) Which inequality represents “a number plus 8 is less than 15”?

☐ A. $x + 8 < 15$

☐ C. $x - 8 < 15$

☐ B. $x + 8 > 15$

☐ D. $8x < 15$

2) A spinner has 10 equal sections. Find $P(\text{not landing on section 1})$.

☐ A. $\frac{1}{10}$

☐ C. $\frac{9}{10}$

☐ B. $\frac{1}{9}$

☐ D. $\frac{1}{2}$

3) A beauty salon charges \$50 for a haircut. If a stylist receives a 35% commission, how much does the stylist earn per cut?

☐ A. \$15.00

☐ C. \$20.00

☐ B. \$22.50

☐ D. \$17.50

4) Which statement correctly compares the purposes of checking and savings accounts?

☐ A. Checking is for saving money; savings is for daily transactions

☐ C. Checking earns higher interest than savings

☐ B. Savings accounts allow check writing but checking does not

☐ D. Checking is for daily payments and bills; savings is for long-term growth with interest

5) Tanya deposits \$800 in an account at 9% annual compound interest. What is the balance after 2 years?

☐ A. \$944.72

☐ C. \$952

☐ B. \$972

☐ D. \$950.48



- 6) A student's math score on a pretest was 65 points. On the posttest after tutoring, the score was 78 points. What is the percent increase?
- ☐ A. 13% ☐ C. 20%
- ☐ B. 16.7% ☐ D. 83.3%
- 7) A rectangular prism has base dimensions $9\text{ cm} \times 7\text{ cm}$ and height 2 cm . A student forgets to include one of the two side faces with dimensions $9 \times 2\text{ cm}$. If the correct surface area is SA_{correct} , what percentage of the correct surface area is their incorrect answer?
- ☐ A. 25% ☐ C. 75%
- ☐ B. 50% ☐ D. 91%
- 8) To create a simulation of selecting a random student from a class of 28 students, a researcher uses a die rolled 4 times. Is this an appropriate model?
- ☐ A. Yes, because a die can represent any number ☐ C. No, because the die produces at most 6 outcomes per roll
- ☐ B. Yes, because 4 rolls produce many different outcomes ☐ D. No, because the die does not produce equally likely outcomes for all values 1–28
- 9) A phone case costs \$15 and is discounted by \$3. What is the percent discount?
- ☐ A. 10% ☐ C. 15%
- ☐ B. 25% ☐ D. 20%



Scan me!
For more practice
& answers

Idaho ISAT 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 Idaho ISAT practice test.



Scan me!
For more practice
& answers

Practice Test Answers and Explanations

Practice Test 1 Answers and Explanations

- 1) **Choice C is correct.** (7.G.1-7.G.5) A rectangular prism has 6 faces. A plane through opposite edges typically intersects 4 or 5 faces, producing a quadrilateral or pentagon. A hexagon would require intersecting all 6 faces, which a plane through opposite edges cannot do.
- 2) **Choice A is correct.** (7.RP.3) Percent error = $\frac{|3.5-3.2|}{3.2} \times 100\% = \frac{0.3}{3.2} \times 100\% \approx 9.4\%$.
- 3) **Choice D is correct.** (7.EE.1-7.EE.2) Expand: $5x - 10 + 3x + 12 = 8x + 2$. Combine like terms.
- 4) **The correct answer is 15.** (7.NS.1-7.NS.3) The temperature drop is $3 - (-12) = 3 + 12 = 15$ degrees.
- 5) **Choice D is correct.** (7.EE.4b) A closed circle at -4 with a right-pointing arrow shows $x \geq -4$.
- 6) **The correct answer is $\frac{35}{24}$.** (7.RP.1-7.RP.3) $\frac{\frac{7}{8}}{\frac{3}{5}} = \frac{7}{8} \times \frac{5}{3} = \frac{35}{24}$.
- 7) **Choice D is correct.** (7.RP.3) The correct calculation is $600 \times 0.04 \times 2 = 48$, not 4.8. Since $0.04 \times 2 = 0.08$, $600 \times 0.08 = \$48$. The student moved the decimal point one place too far to the left.
- 8) **Choice C is correct.** (7.EE.1) A simplified expression has all like terms combined. Option C has no like terms remaining.
- 9) **Choice B is correct.** (7.G.4-7.G.6) Base area: $6^2 = 36 \text{ in}^2$. Four triangular sides: $4 \times \frac{1}{2}(6)(8) = 4 \times 24 = 96 \text{ in}^2$. Total: $36 + 96 = 132 \text{ in}^2$.
- 10) **Choice C is correct.** (7.SP.5-7.SP.8) Outcomes that sum to 7: (1, 6), (2, 5), (3, 4), (4, 3), (5, 2), (6, 1) — that's 6 out of 36 equally likely outcomes. Probability = $\frac{6}{36} = \frac{1}{6}$. Expected frequency = $\frac{1}{6} \times 120 = 20$.
- 11) **Choice D is correct.** (7.RP.1-7.RP.3) Convert 25 feet to inches: $25 \times 12 = 300$ inches. Scale = $5 : 300 = 1 : 60$.
- 12) **Choice D is correct.** (7.RP.3) $\frac{20}{80} = \frac{1}{4} = 0.25 = 25\%$.
- 13) **Choice D is correct.** (7.RP.3) Discount = $\frac{1}{5} \times 80 = \16 . Sale price = $80 - 16 = \$64$.
- 14) **Choice D is correct.** (7.NS.1b) Moving left on a number line means adding a negative: $4 + (-11) = -7$. You land at -7 .
- 15) **Choice B is correct.** (7.EE.1-7.EE.2) Find GCF of 8, 12, 16, 24. Factors of 8: 1, 2, 4, 8. Factors of 12: 1, 2, 3, 4, 6, 12. Factors of 16: 1, 2, 4, 8, 16. Factors of 24: 1, 2, 3, 4, 6, 8, 12, 24. The GCF of all four is 4.
- 16) **The correct answer is 1.5.** (7.RP.1-7.RP.3) The unit price is \$1.50 per apple, so the constant of proportionality is 1.5.
- 17) **Choice D is correct.** (7.NS.1-7.NS.3) Same denominator: $\frac{3}{10} + \frac{4}{10} = \frac{7}{10}$.
- 18) **Choice A is correct.** (7.NS.1-7.NS.3) $(50 + 12) \times 2 - 8 = 62 \times 2 - 8 = 124 - 8 = 116$.
- 19) **Choice B is correct.** (7.EE.1-7.EE.2) Substitute: $6 - 2(2 + 1) = 6 - 2(3) = 6 - 6 = 0$.
- 20) **Choice A is correct.** (7.EE.4a) This develops the habit of solving and then substituting back to verify. It also introduces realistic numbers for a cell phone bill context.
- 21) **Choice C is correct.** (7.EE.3-7.EE.4) Multiply both sides by $\frac{4}{3}$ (reciprocal): $x = 12 \times \frac{4}{3} = 16$. Check: $\frac{3}{4}(16) = \frac{3 \times 16}{4} = \frac{48}{4} = 12$ ✓. Reasonable: three-quarters of 16 is 12.
- 22) **The correct answer is A,C.** (7.SP.1-7.SP.4) Bread: $0.35 \times 400 = 140$ items, so A is correct. Pastries and cakes together make 200 items, not 50, so B is false. Other: $0.15 \times 400 = 60$ items, so C is correct. Pastries (28%) plus other (15%) equals 43%, not 45%.
- 23) **Choice B is correct.** (7.EE.4b) Subtract 2: $-4x > 8$. Divide by -4 and flip: $x < -2$ (not $x > -2$). The student forgot the flip rule.
- 24) **Choice C is correct.** (7.G.1-7.G.5) Multiply drawing width by scale factor: $10 \text{ cm} \times 0.4 \text{ m/cm} = 4 \text{ m}$.
- 25) **Choice C is correct.** (7.SP.1-7.SP.4) The sample is convenient (only website visitors) and people self-select to respond, creating both biases.
- 26) **Choice D is correct.** (7.SP.1-7.SP.4) Student A: Stem 6 (2 leaves) + Stem 7 (3 leaves) + Stem 8 (2 leaves) = 7 scores. Student B: Stem 6 (1 leaf) + Stem 7 (2 leaves) + Stem 8 (3 leaves) = 6 scores. Total = $7 + 6 = 13$ scores.
- 27) **Choice D is correct.** (7.RP.1-7.RP.3) The ratio is $\frac{12}{3} = 4$, $\frac{20}{5} = 4$, $\frac{32}{8} = 4$. The equation is $C = 4g$.



Hi, Number Sense Builder!

◇ Grade 7 numbers do more than sit on a page. They describe rates, changes, comparisons, distances, chances, and patterns. ◇

★ **Remember this:** You practiced listening to that story. When the answer makes sense in the situation, your math becomes much stronger. This version gave you 3 opportunities to rehearse test-day habits. ★

Number Sense Checks

- **Too Big?:** Compare with an estimate.
- **Too Small?:** Use the context to judge.
- **Right Sign?:** Positive and negative values matter.
- **Right Unit?:** A number needs meaning.

Grade 7 test-day tip: Before choosing an answer, ask whether it fits the story of the problem.

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

Jay Daie

Your Number-Sense Friend

PRACTICE TODAY. SUCCEED TOMORROW!

This book includes **3** 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:

3 Full-Length
Printed Tests

2 Online
Practice Tests

 Detailed Answers
& 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



Build Confidence

Practice regularly to feel prepared and test-ready.



Strengthen Math Skills

Develop key math concepts and problem solving abilities.



Detailed Answers & Explanations

Learn from clear explanations and step-by-step solutions.



Improve Test Performance

Apply your knowledge and achieve your best score!

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