9 Idaho ISAT

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

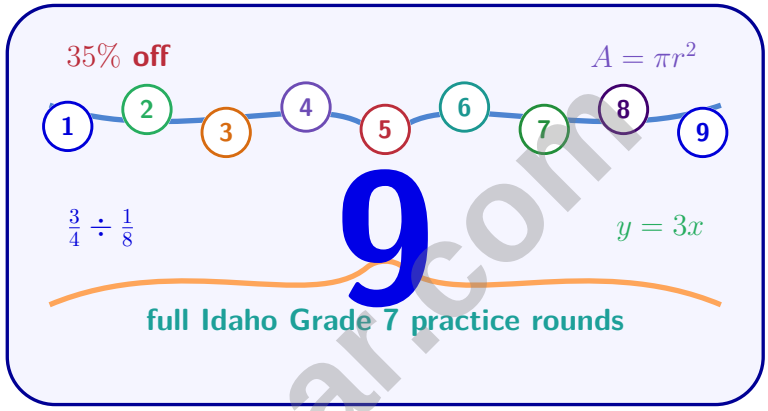
STRENGTHEN SKILLS

SHARPEN THINKING

BE TEST-READY
Improve Performance

9 Idaho ISAT Grade 7 Math Practice Tests

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



Nine 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

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Welcome, Idaho Grade 7 Problem Solver!

Nine focused rounds for sharper ISAT math thinking

This book gives you nine 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.

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.

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?

Nine ISAT 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.

Table of Contents

1) Solve for x: $x \div \frac{2}{3} = 9$.

☐ A. 6
☐ B. $13\frac{1}{2}$
☐ C. $\frac{2}{3}$
☐ D. $\frac{1}{6}$

2) A credit card company charges a $95 annual fee. After 2 years, how much has the cardholder paid in fees?

☐ A. $95
☐ B. $380
☐ C. $285
☐ D. $190

3) A researcher rolled a number cube 500 times and recorded the results:

Face	1	2	3	4	5	6
Times	82	88	79	85	90	96

Which face has an experimental probability closest to the theoretical probability of $\frac{1}{6}$?

☐ A. Face 1
☐ B. Face 3
☐ C. Face 5
☐ D. Face 6

4) A rectangular prism with a volume of 360 m^3 has a base area of 40 m^2. Find the height.

☐ A. 4 m
☐ B. 7 m
☐ C. 9 m
☐ D. 14400 m

5) In a circle, the diameter is 18 cm. A chord in the same circle has a length of 18 cm. What can you conclude?

☐ A. The chord must be a radius
☐ B. The chord must be a diameter
☐ C. The chord is longer than the diameter
☐ D. The chord is impossible

6) A probability is 0.4. Which fraction is equivalent and simplified?

☐ A. $\frac{1}{4}$
☐ B. $\frac{2}{5}$
☐ C. $\frac{1}{3}$
☐ D. $\frac{3}{5}$

7) In the simple interest formula $I = Prt$, if all variables except the rate are held constant, which statement is true?

☐ A. Interest is inversely proportional to the rate
☐ B. The rate does not affect the interest amount
☐ C. Doubling the rate cuts the interest in half
☐ D. Interest is directly proportional to the rate

8) Evaluate: $10 - (-5)$

☐ A. 5
☐ B. -15
☐ C. -5
☐ D. 15

9) A model train set uses a scale of $1 : 87$. If a real train car is 26 meters long, which is closest to the model length?

☐ A. 0.3 cm
☐ B. 30 cm
☐ C. 3 cm
☐ D. 22.6 m

10) Find the sum: $-3 + (-2) + 8$.

☐ A. -13
☐ B. -3
☐ C. 3
☐ D. 13

11) A price increases from \$50 to \$65. What is the percent increase?

☐ A. 20%
☐ B. 25%
☐ C. 30%
☐ D. 35%

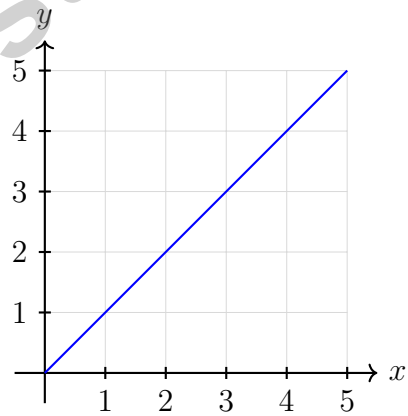
12) A hat is priced at \$28. After a $\frac{1}{4}$ discount, what is the sale price?

☐ A. \$35
☐ B. \$14
☐ C. \$7
☐ D. \$21

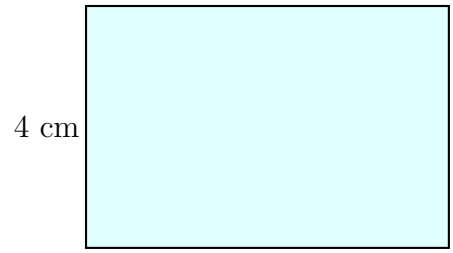
13) A factory produces $\frac{5}{8}$ ton of steel in $\frac{1}{12}$ day. How many tons does it produce in 2 days at this rate?

☐ A. $\frac{10}{96}$ tons
☐ B. $\frac{5}{4}$ tons
☐ C. 30 tons
☐ D. 15 tons

14) Which graph represents a proportional relationship?



☐ A. Only if $x > 0$
☐ B. No, line does not go through origin
☐ C. Cannot determine from graph
☐ D. Yes, line goes through origin



Scale: 1 cm : 3 m

1) A scale drawing shows a field with dimensions 6 cm by 4 cm. What is the perimeter of the actual field in meters?

☐ A. 20 m
☐ B. 30 m
☐ C. 60 m
☐ D. 120 m

2) What is $4 - (-7)$?

☐ A. -11
☐ B. -3
☐ C. 3
☐ D. 11

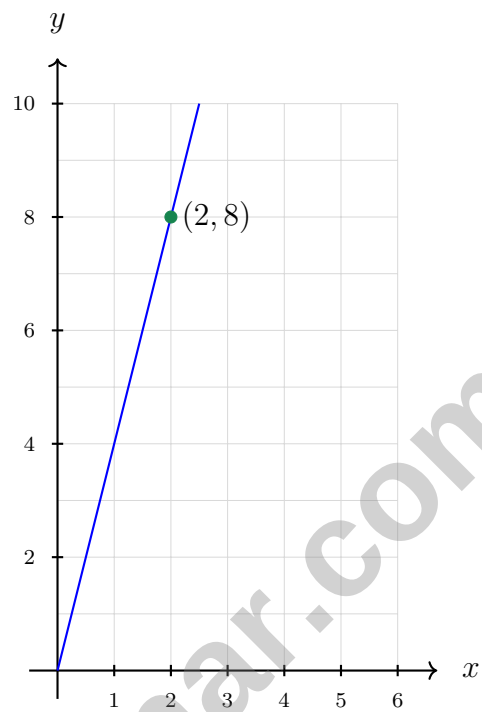
3) A printer produces $\frac{2}{3}$ ream of paper in $\frac{1}{4}$ hour. How many reams can it produce in 3 hours?

☐ A. 6 reams
☐ B. $\frac{2}{3}$ reams
☐ C. 2 reams
☐ D. 8 reams

4) The constant of proportionality between d (distance) and t (time) is 55 mph. Which equation models this relationship?

☐ A. $d = 55 + t$
☐ B. $d = \frac{t}{55}$
☐ C. $t = 55d$
☐ D. $d = 55t$

5) The graph represents a proportional relationship, $y = kx$. One point on the graph is $(2, 8)$. What is the constant of proportionality, k?



☐ A. 2
☐ B. 8
☐ C. 6
☐ D. 4

6) A rectangular prism has length 11 cm, width 5 cm, and height 3 cm. What is its surface area?

☐ A. 166 cm^2
☐ B. 206 cm^2
☐ C. 222 cm^2
☐ D. 330 cm^2

1) What does MAD (Mean Absolute Deviation) measure?

☐ A. The average distance of data points from the mean
☐ B. The middle value in an ordered dataset
☐ C. The most frequently occurring value
☐ D. The difference between max and min

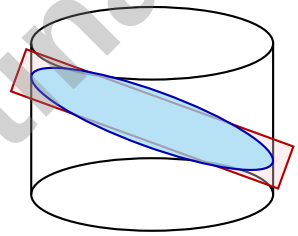
2) Solve: $\frac{-x}{3} \leq 4$

☐ A. $x \leq -12$
☐ B. $x \geq -12$
☐ C. $x < 4$
☐ D. $x > -12$

3) If a scale drawing has a scale of $2 : 5$, which of the following is true?

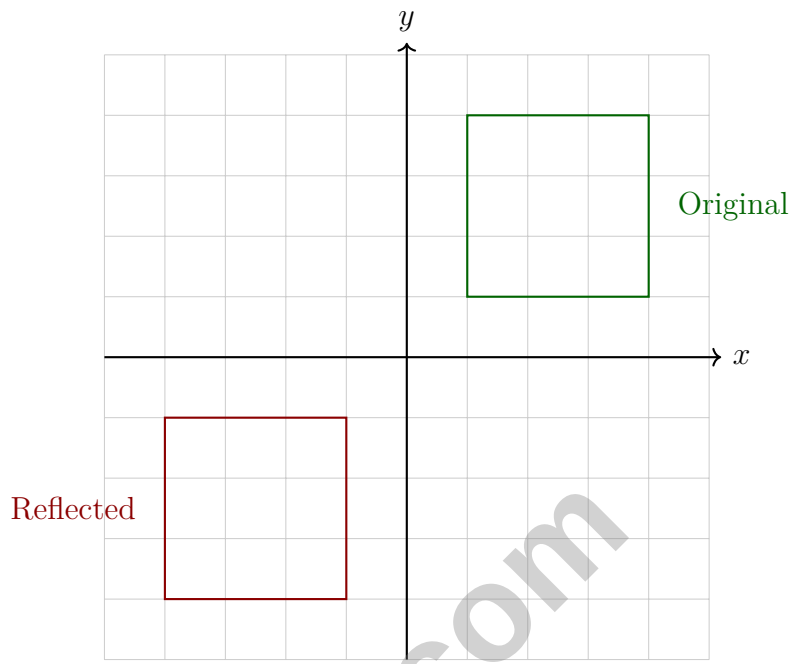
☐ A. The drawing is smaller than the actual object.
☐ B. The drawing is larger than the actual object.
☐ C. The drawing and the object are the same size.
☐ D. Cannot be determined without more information.

4)



A cylinder is sliced by an oblique plane, as shown. What is the shape of the resulting cross-section?

☐ A. Circle
☐ B. Rectangle
☐ C. Ellipse
☐ D. Parabola



5)

The dark green square is transformed to the dark red square. Which line of reflection was used?

☐ A. The line $y = x$
☐ B. The line $y = -x$
☐ C. The x-axis
☐ D. The y-axis

6) Two similar triangles have a scale factor of $1 : 3$. The smaller triangle has a side of 5 cm. What is the length of the corresponding side in the larger triangle?

☐ A. 5 cm
☐ B. 10 cm
☐ C. 15 cm
☐ D. 35 cm

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.

Practice Test Answers and Explanations

Practice Test 1 Answers and Explanations

1) **Choice A is correct.** 7.NS.1-7.NS.3 $x = 9 \times \frac{2}{3} = 6$.
2) **Choice D is correct.** 7.RP.3 Total fees $= 95 \times 2 = \$190$.
3) **Choice B is correct.** 7.SP.6 Face 3: $\frac{79}{500} = 0.158$. Theoretical: $\frac{1}{6} \approx 0.167$. Difference: $|0.158 - 0.167| \approx 0.009$, smallest among all faces.
4) **Choice C is correct.** 7.G.4-7.G.6 $h = \frac{V}{B} = \frac{360}{40} = 9$ m.
5) **Choice B is correct.** 7.G.4-7.G.6 A chord with length equal to the diameter must be the diameter itself, as the diameter is the longest possible chord in a circle.
6) **Choice B is correct.** 7.SP.5-7.SP.8 $0.4 = \frac{4}{10} = \frac{2}{5}$ (simplified form).
7) **Choice D is correct.** 7.RP.3 In $I = Prt$, with P and t constant, I scales linearly with r. If r doubles, I doubles.
8) **Choice D is correct.** 7.NS.1-7.NS.3 $10 - (-5) = 10 + 5 = 15$. Always convert subtraction of a negative to addition.
9) **Choice C is correct.** 7.RP.1-7.RP.3 Divide actual length by scale: $26 \text{ m} \div 87 \approx 0.299 \text{ m} \approx 30$ cm. The closest option is 3 cm (or 0.03 m, noting that 30 cm would overestimate).
10) **Choice C is correct.** 7.NS.1b Combine: $-3 + (-2) = -5$, then $-5 + 8 = 3$. The positive number outweighs the combined negatives.
11) **Choice C is correct.** 7.RP.3 The increase is $65 - 50 = 15$. Percent: $\frac{15}{50} = 0.30 = 30\%$.
12) **Choice D is correct.** 7.RP.3 Discount $= \frac{1}{4} \times 28 = \$7$. Sale price $= 28 - 7 = \$21$.
13) **Choice D is correct.** 7.RP.1-7.RP.3 Unit rate: $\frac{5/8}{1/12} = \frac{5}{8} \times 12 = \frac{60}{8} = \frac{15}{2} = 7.5$ tons/day. In 2 days: $\frac{15}{2} \times 2 = 15$ tons.
14) **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 $y = x$.
15) **Choice D is correct.** 7.RP.1-7.RP.3 The constant is $\frac{y}{x} = \frac{3}{9} = \frac{1}{3}$.
16) **Choice B is correct.** 7.NS.1-7.NS.3 Total flour $= 4 \times \frac{5}{8} = \frac{20}{8} = \frac{5}{2} = 2\frac{1}{2}$ cups.
17) **Choice C is correct.** 7.RP.3 Final price $= \$80 - (15\% \times \$80) = \$80 - \$12 = \$68$.
18) **Choice D is correct.** 7.NS.1-7.NS.3 Side length: $s = \sqrt{256} = 16$ meters. Perimeter $= 4s = 4(16) = 64$ meters.
19) **Choice A is correct.** 7.EE.1-7.EE.2 Add: $(2i + 6i) + (4 - 1) = 8i + 3$.
20) **The correct answer is A,C.** 7.G.4-7.G.6 Large square: $20 \times 20 = 400$ m^2 (A). Small square: $5 \times 5 = 25$ m^2. Remaining: $400 - 25 = 375$ m^2 (C). The cutout is $\frac{25}{400} = \frac{1}{16}$ of the original area, not $\frac{1}{20}$.
21) **The correct answer is 20 .** 7.RP.1-7.RP.3 Cross multiply: $7 \times 100 = 35 \times x$. So $700 = 35x$, giving $x = 20$.
22) **The correct answer is 2800 .** 7.SP.1-7.SP.4 $\frac{56}{160} = \frac{x}{8000}$. Reduce: $\frac{7}{20} = \frac{x}{8000} \Rightarrow x = 2800$.
23) **Choice A is correct.** 7.EE.1-7.EE.2 Distribute: $3(x+5)-2x = 3x+15-2x$. Combine like terms: $3x-2x+15 = x+15$.
24) **Choice A is correct.** 7.EE.4a Distribute: $3x + 12 = 27$. Subtract 12: $3x = 15$. Divide by 3: $x = 5$. (Distractor D: forgetting to distribute gives $x + 4 = 27 \Rightarrow x = 23$.)
25) **Choice C is correct.** 7.G.1-7.G.5 Set up: $\frac{2 \text{ in}}{5 \text{ miles}} = \frac{x}{20 \text{ miles}}$. Cross-multiply: $5x = 40$, so $x = 8$ in.
26) **Choice C is correct.** 7.G.1-7.G.5 Supplementary angles sum to 180°: $g = 180 - 51 = 129°$.
27) **Choice A is correct.** 7.SP.5-7.SP.8 $0.3 + 0.5 + 0.2 = 1$, so probabilities sum to 1 (valid). Outcomes have different probabilities (non-uniform). Also, $P(\text{not sunny}) = 0.3 + 0.5 = 0.8$.
28) **Choice C is correct.** 7.NS.2 $(-4) \times (-5) = 20$ dollars. Negative debt times negative removal (reduction) yields a positive gain. Negative times negative is positive.
29) **Choice B is correct.** 7.SP.1-7.SP.4 There are 14 values. Lower half: $43, 47, 52, 55, 58, 61, 64$ (7 values). Median of lower half (Q1) is the 4th value: 55.
30) **Choice D is correct.** 7.RP.3 Apply the compound interest formula $A = P(1 + r)^t$: $P = 10000$, $r = 0.04$. So $A = 10000(1 + 0.04)^t = 10000(1.04)^t$. (A is linear; C is simple interest; D confuses the base with the time variable.)

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.

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2 ONLINE TESTS

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