

# Idaho ISAT

## GRADE 6

# MATH

# PRACTICE TESTS

Standards Aligned Problem Solving  
For Comprehensive Assessment Programs



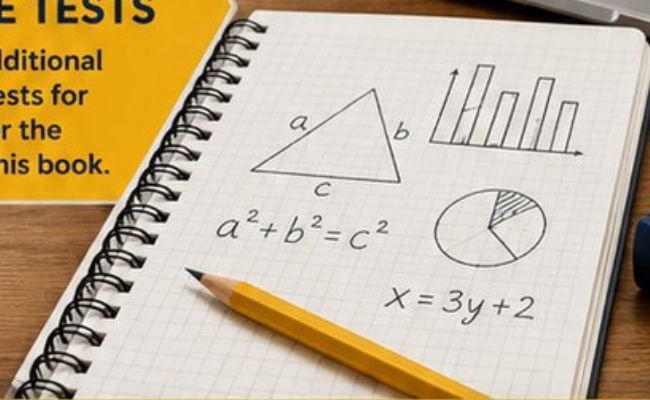
### 5 PRINTED TESTS

- ✓ Full-Length Practice Tests
- ✓ Realistic Questions
- ✓ Answer Key & Explanations



### + 2 ONLINE TESTS

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



PREPARE • PRACTICE • SUCCEED



# 5 Idaho ISAT Grade 6 Math Practice Tests

*Standards-Aligned Mountain-Valley Math Focus for Idaho Standards Achievement Test*



Five complete 40-question Grade 6 practice rounds for ISAT, built for mountain-valley math focus 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, Idaho Math Explorer!

Eight focused rounds using mountain-valley math focus

This book gives you five full Grade 6 practice tests for ISAT. Each round uses valley fields, mountain roads, and practical problem setup as a fresh mental backdrop while you read closely, choose a smart strategy, show your work, and check whether your answer makes sense.

## Your Idaho Practice Promise

Build the setup before the calculation: list facts, choose the operation, and check reasonableness.

Read

Plan

Check

## How to Use This Book

A five-session routine for mountain-valley math focus

1. **Preview the skills.** Scan the quick review pages before beginning the first round.
2. **Mark confidence.** Put a small star beside problems where your plan felt strong.
3. **Work in order.** Take one 40-question test at a time in a quiet place.
4. **Plan the next round.** Use the growth log to choose one habit and one skill to practice.
5. **Correct actively.** Retry missed items before reading the full explanation.

**Idaho review rhythm:** Move through one test, harvest the missed skills, and practice those before the next round.



## What Is Inside?

Eight ISAT 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 3–4	Skill-building rounds with expressions, equations, geometry, data, and problem models.
Test 5	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. Mountain-valley math focus means recognizing the skill even when the next question changes topic, changes format, or asks for an explanation.



Scan me!  
For more practice  
& answers

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1) Which expression with a negative number equals 10?

- A.  $|-10|$                        C.  $|10|$   
 B. The opposite of 10             D.  $-10$

2) When displaying temperature data that varies seasonally throughout a year, which display would be LEAST effective?

- A. Line graph with months on x-axis     C. Histogram grouping temperatures into ranges  
 B. Dot plot of all 365 daily temperatures     D. Bar graph with one bar per month

3)

Item	Quantity
Apples	15
Bananas	25

What ratio correctly compares bananas to the total fruit in simplest form?

- A.  $5 : 3$                                C.  $15 : 25$   
 B.  $25 : 40$                              D.  $5 : 8$

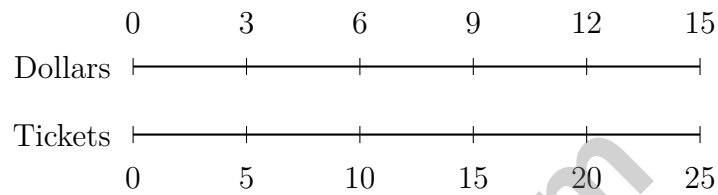
4) A dataset's five-number summary is:  $\min = 9$ ,  $Q_1 = 14$ ,  $\text{median} = 19$ ,  $Q_3 = 26$ ,  $\max = 35$ . Calculate the upper whisker length (from  $Q_3$  to  $\max$ ).





9) A garden has 4 red flowers and 6 yellow flowers. Which statement correctly describes the ratio of red to yellow flowers?

- A. For every 2 red flowers there is 1 yellow flower.
- B. For every 1 red flower there are 2 yellow flowers.
- C. For every 2 red flowers there are 3 yellow flowers.
- D. For every 3 red flowers there are 4 yellow flowers.



10)

Based on the double number line, which statements are true?

- A. 1 ticket costs \$0.60
- B. 5 tickets cost \$3
- C. 25 tickets cost \$15
- D. All of the above

11)

Row	Ratio	Equivalent
A	4 : 12	?
B	6 : 18	2 : 6
C	3 : 9	1 : 3
D	8 : 24	2 : 6

What is the missing equivalent ratio for Row A?

- A. 1 : 3
- B. 2 : 6
- C. 2 : 4
- D. 3 : 6

1) Two classes took the same test. Class A's scores have a mean of 80 and MAD of 4. Class B's scores have a mean of 80 and MAD of 7. What does this tell you?

- A. Class A performed better overall.       D. Class B's scores are more consistent.
- B. Class B performed better overall.
- C. Class A's scores are more consistent.

2) A student asks: "Do sixth graders prefer soccer or basketball?"

This is a statistical question. What is the population?

- A. Soccer players       C. All sixth graders
- B. Basketball players       D. Students who answered the survey

3) A mountaineer climbs from sea level to an elevation of 4000 feet, then descends 2500 feet. At what elevation is the mountaineer now?

4) Two box plots represent Class A and Class B. Both have the same median, but Class A has a smaller box. What does this tell us about Class A?

- A. Class A has a higher average score.       C. Class A has all higher scores.
- B. Class A has less variability in the middle 50% of data.       D. Class A's median is not reliable.





1) Two adjacent sides of a rectangle are on the lines  $x = 2$  and  $y = 5$ . One vertex is at  $(2, 5)$ . Another is at  $(6, 5)$ . Where is a third vertex?

A.  $(2, 2)$

C.  $(2, 9)$

B.  $(6, 8)$

D.  $(6, 2)$

2) Four friends spent \$12, \$15, \$18, and \$19 on groceries. What is the mean amount spent per friend?

A. \$15

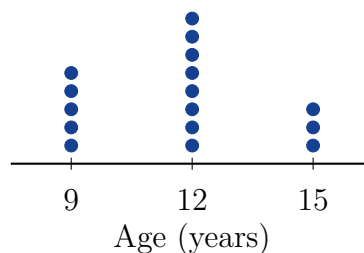
C. \$16.50

B. \$16

D. \$17

3) Evaluate  $2n - 7$  when  $n = 15$ .

4) A dot plot displays the ages of people visiting an ice cream shop. The dot plot shows 5 people aged 9 years old, 8 people aged 12 years old, and 3 people aged 15 years old. How many total people are represented in the dot plot?



A. 16

C. 20

B. 25

D. 18



5) A data analyst looks at two side-by-side box plots. Plot A has  $Q_1 = 10$ , median = 20,  $Q_3 = 30$ . Plot B has  $Q_1 = 15$ , median = 20,  $Q_3 = 25$ . Which conclusion is INCORRECT?

- A. Both datasets have the same median.
- B. Dataset A has a larger IQR than Dataset B.
- C. Dataset B's lower whisker is longer than Dataset A's.
- D. Both datasets have the same spread.

6) Which statement describes an **unlikely** event (probability between 0 and 0.5)?

- A. The probability is 0.9.
- B. The probability is 0.15.
- C. The probability is 0.6.
- D. The probability is 1.0.

7) A teacher scores 15 quizzes:

Stem	Leaf
7	0, 5, 8
8	1, 2, 4, 6, 7, 9
9	0, 2, 3, 5, 6

How many scores are in the 80s?

- A. 3
- B. 5
- C. 6
- D. 7

8) A library surveyed 1000 patrons about book genre. The circle graph shows 18% prefer mystery. How many patrons prefer mystery?

- A. 160
- B. 140
- C. 180
- D. 200



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## Idaho ISAT Practice Test Answer Keys

**How to use this Idaho ISAT 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 mountain-valley math focus
3. rework the problem before reading the full explanation, using this reminder:  
Build the setup before the calculation: list facts, choose the operation, and check reasonableness.

**A calm Idaho correction routine turns every missed item into useful practice. Move through one test, harvest the missed skills, and practice those before the next round.**



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## Idaho Practice Test Answers and Explanations

Review the five printed ISAT tests with grounded, careful, and ready for more growth habits.

### Practice Test 1 Answers and Explanations

- 1) **Choice A is correct.** **(6.SP.B.4)**  $|-10| = 10$  because absolute value is distance from zero.
- 2) **Choice B is correct.** **(6.RP.A.3)** A dot plot with 365 data points would be too crowded to read or interpret meaningfully. Line graphs, histograms, and bar graphs all organize data more effectively for large datasets.
- 3) **Choice D is correct.** **(6.RP.A.1)** First find the total fruit:  $15 + 25 = 40$ . Bananas to total is  $25 : 40$ , and dividing both parts by 5 gives  $5 : 8$ .
- 4) **The correct answer is 9.** **(6.RP.A.1)** Upper whisker length =  $\max - Q_3 = 35 - 26 = 9$ .
- 5) **Choice C is correct.** **(6.RP.A.3)** Divide:  $24 \div 12 = 2$  feet.
- 6) **Choice D is correct.** **(6.NS.C.7d)** After first discount:  $\$100 - 0.20 \times 100 = \$80$ . After second discount:  $\$80 - 0.10 \times 80 = \$72$ .
- 7) **Choice B is correct.** **(6.NS.B.3)** Moving left 3 units from  $-3$  is subtracting 3:  $-3 - 3 = -6$ .
- 8) **Choice D is correct.** **(6.G.A.1)** Since  $A = \frac{1}{2}bh$ , doubling  $b$  doubles the area.
- 9) **Choice C is correct.** **(6.RP.A.3)** Red comes first and yellow comes second, so write  $4 : 6$ . Dividing both parts by 2 gives  $2 : 3$ , which means for every 2 red flowers there are 3 yellow flowers.
- 10) **Choice D is correct.** **(6.RP.A.1)** The unit rate is  $3 \div 5 = 0.60$  dollars per ticket. Statements A, B, and C are all correct: one ticket at \$0.60, five tickets at \$3.00, and twenty-five tickets at \$15.00.
- 11) **Choice A is correct.** **(6.RP.A.3)** Row A is  $4 : 12$ , which simplifies to  $1 : 3$  by dividing both terms by 4. All rows show equivalent ratios that simplify to  $1 : 3$ .
- 12) **Choice A is correct.** **(6.RP.A.3)** From the table, the ratio is 1:4 (lemon juice:water). When  $x = 1$  (lemon juice),  $y = 4$  (water). The equation is  $y = 4x$ .
- 13) **Choice B is correct.** **(6.RP.A.3)**  $80\% = \frac{80}{100} = 0.80$ .
- 14) **Choice D is correct.** **(6.RP.A.3)** On the number line,  $100\% = 200$  items. So  $75\% = 0.75 \times 200 = 150$  items.
- 15) **Choice D is correct.** **(6.RP.A.3)** The unit rate is  $30 \div 5 = 6$  pages per minute. In 12 minutes the printer prints  $6 \times 12 = 72$  pages.
- 16) **Choice B is correct.** **(6.EE.C.9)** Proportional equations have the form  $y = kx$  with no constant term. Only  $y = 3x$  fits this form. Option A has a constant (+2), C is quadratic, and D has a constant term.
- 17) **Choice C is correct.** **(6.EE.A.2)** Total:  $\$1200 + \$400 + \$250 + \$150 = \$2000$ .
- 18) **Choice C is correct.** **(6.RP.A.3)** Multiply:  $2.5 \times 6 = 15$  feet.
- 19) **Choice B is correct.** **(6.NS.A.1)** Invert  $\frac{4}{5}$  to  $\frac{5}{4}$ , then multiply:  $\frac{2}{3} \times \frac{5}{4} = \frac{10}{12}$ . That reduces nicely to  $\frac{5}{6}$ .
- 20) **Choice A is correct.** **(6.NS.B.3)** Add:  $2.25 + 3.75 = 6.0$  km.
- 21) **Choice B is correct.** **(6.NS.B.4)**  $50 = 2 \times 25 = 2 \times 5 \times 5 = 2 \times 5^2$ . Options A and C use composite numbers; D is not factored.
- 22) **The correct answer is A statistical question anticipates variability and is answered by collecting data..** **(6.SP.A.3)** Options B and C are correct: statistical questions expect varied answers and require data collection. Option A is wrong (statistical questions do NOT have single answers). Option D is irrelevant (statistical questions can be about unfamiliar topics). Option E partially overlaps with B and C but is less precise.
- 23) **The correct answer is 3.** **(6.NS.B.3)** Number of green marbles =  $\frac{1}{3} \times 9 = 3$ .
- 24) **The correct answer is 5.** **(6.SP.B.4)** Fewer than 110 pages: 102, 105, 108, so 3 students. At least 110 pages: 110, 113, 116, 119, 121, 124, 127, 128, so 8 students. The difference is  $8 - 3 = 5$ .
- 25) **Choice A is correct.** **(6.NS.B.4)** The rectangle shows a common factor of 6 with addends 3 and 8. The area is  $6 \times 3 + 6 \times 8 = 18 + 48 = 66 = 6(3 + 8)$ . Choice A is correct.



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## Hi, Brave Explorer!

◇ What a trip! You explored 5 full tests. You went to many math places: multiplication, fractions, area, time, and more. ◇

★ **Smart explorers know:** every trip teaches something. Through 5 tests, you learned a lot. You are a stronger math explorer now. ★

### Your Explorer Tools

- **Map Reading:** You read problems carefully.
- **Trail Skills:** You take steps in the right order.
- **Backpack:** You have many math tools.
- **Brave Heart:** You explore even hard problems.

**Explorer tip:** on test day, use the tools you packed. You have the skills. You are ready!

If you want to share something or ask a question, please email me at [jay@testinar.com](mailto:jay@testinar.com).

**Jay Daie**

Your Math Trail Guide

# PRACTICE MORE. ACHIEVE MORE.

This book provides **5 full-length Math practice tests** designed to help Grade 6 students strengthen their skills, build confidence, and excel on standardized assessments.

Each test is carefully crafted to reflect the latest standards and covers a wide range of math topics with realistic questions and detailed answer explanations.



#### BUILD CONFIDENCE

Practice builds familiarity and reduces test anxiety.



#### IMPROVE ACCURACY

Sharpen skills and avoid common mistakes.



#### ACHIEVE SUCCESS

Consistent practice leads to greater results.

## WHAT'S INSIDE?



#### 5 Full-Length Practice Tests

Realistic tests designed to mirror actual exam conditions.



#### Realistic Questions

A variety of question types to strengthen problem-solving skills.



#### Answer Keys & Explanations

Detailed solutions to help students learn and improve.



#### Performance Tracking

Track progress and identify areas that need improvement.



#### Comprehensive Coverage

All essential topics aligned with Grade 6 math standards.



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