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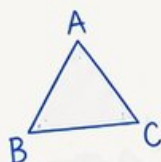
Idaho ISAT

GRADE
6
MATH

PRACTICE TESTS

Standards-Aligned
Steady Southern
Problem Solving for
Comprehensive
Assessment Program

$$2x + 3 = 11$$



$$7^2 = 49$$

BUILD SKILLS.
GAIN CONFIDENCE.
SUCCEED!



6 PRINTED TESTS

Realistic practice to build confidence and mastery



2 ONLINE TESTS

Extra practice for continued success



DETAILED ANSWER EXPLANATIONS

Learn with step-by-step solutions



FOCUSED & EFFECTIVE

Target key math skills with purposeful practice



6 PRINTED TESTS +2 ONLINE TESTS

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



PRACTICE

Sharpen skills with targeted practice tests



REVIEW

Understand concepts and strengthen skills



SUCCEED

Build confidence and achieve your best

6 Idaho ISAT Grade 6 Math Practice Tests

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



Six 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 six 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 six-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 3–5	Skill-building rounds with expressions, equations, geometry, data, and problem models.
Test 6	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.

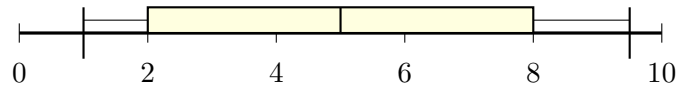


Scan me!
For more practice
& answers

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1) Using the box plot, find the value of the third quartile (Q_3):



A. 2

C. 8

B. 5

D. 9.5

2) Factor $14 + 21$ using the GCF.

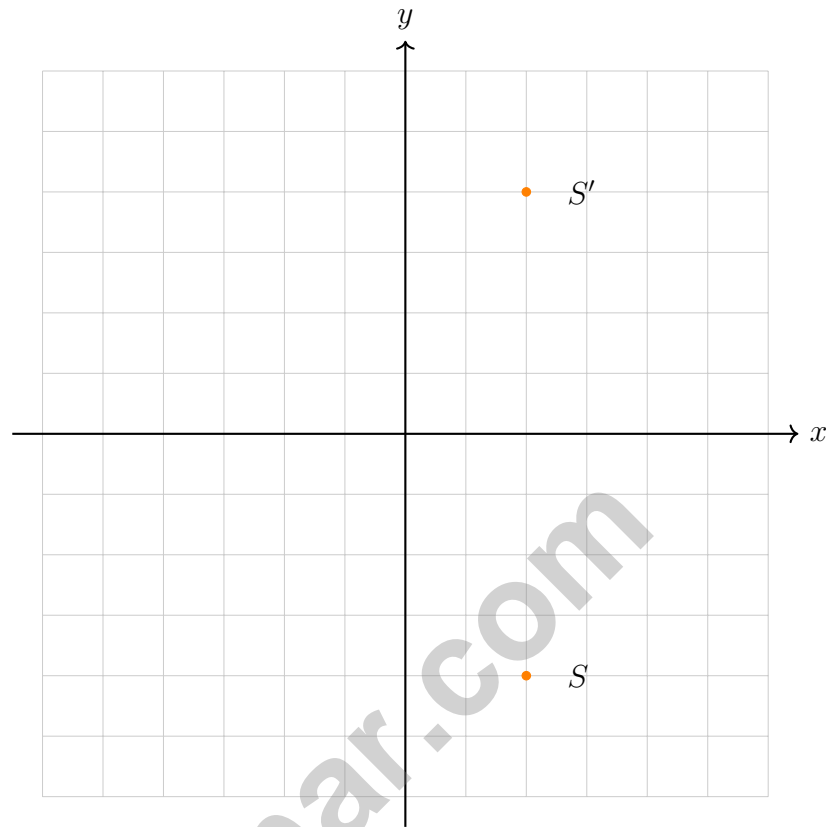
A. $2(7 + 10.5)$

C. $3(4.67 + 7)$

B. $7(2 + 3)$

D. $21(1 + 0.67)$





3)

Point S is reflected to create point S' . What is the relationship between the x -coordinates of S and S' ?

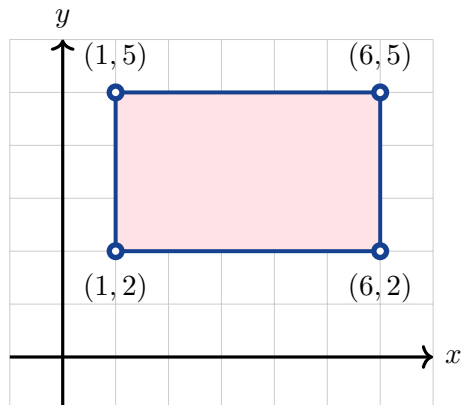
- A. They are opposites
- B. One is zero
- C. They are swapped
- D. They are equal

4) A temperature of $-8^\circ F$ is compared to $-3^\circ F$. Which statement is correct?

- A. $-8^\circ F$ is warmer
- B. $-3^\circ F$ is colder
- C. $-8^\circ F$ is colder
- D. They are the same temperature



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5)

A rectangle has vertices at $(1, 2)$, $(6, 2)$, $(6, 5)$, and $(1, 5)$. What is the perimeter?

 A. 14 units C. 18 units B. 16 units D. 20 units

6) Which expression does NOT equal the others?

 A. $(-5) \times 6$ C. $\frac{-30}{1}$ B. $6 \times (-5)$ D. $(-6) \times (-5)$

7) A bank account had a balance of \$-25 (overdrawn). After a deposit of \$60, what is the new balance?

 A. \$-85 C. \$35 B. \$-35 D. \$858) What is 2^4 in expanded form? A. $2 + 2 + 2 + 2$ C. 4×4 B. 2×4 D. $2 \times 2 \times 2 \times 2$ 

1) A parking meter requires at least \$0.50 but less than \$2.00 to stay valid. Which inequality represents the amount m needed?

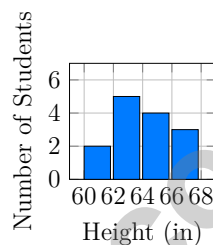
A. $m \geq 0.50$ and $m < 2.00$

C. $m \leq 0.50$ and $m \geq 2.00$

B. $m > 0.50$ and $m \leq 2.00$

D. $m < 0.50$ and $m > 2.00$

2) The histogram shows the heights (in inches) of students in a class. Which interval contains the most students?



A. 60–62 inches

C. 64–66 inches

B. 62–64 inches

D. 66–68 inches

3) Sarah's daily allowance for 4 days was \$8, \$10, \$6, \$12. What is her mean daily allowance?

A. \$9

C. \$10

B. \$9.50

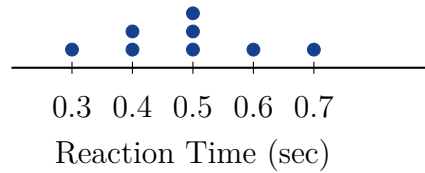
D. \$8

4) A histogram has 12 students in 100–150 pages, 6 in 150–200, and 4 in 200–250. How many read 100 or more pages?



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- 5) A dot plot shows reaction times (in seconds) for a reaction test: 0.3, 0.4, 0.4, 0.5, 0.5, 0.5, 0.6, 0.7. What is the mode of this data?



- A. 0.4 seconds C. 0.6 seconds
 B. 0.7 seconds D. 0.5 seconds
- 6) A bag contains 8 marbles: 3 white, 2 black, and 3 striped. What is the probability of drawing a white or striped marble?
- A. $\frac{1}{4}$ C. $\frac{1}{2}$
 B. $\frac{3}{8}$ D. $\frac{3}{4}$
- 7) A back-to-back stem-and-leaf plot displays boys' and girls' heights (in inches). Who has the greater range of heights?

Boys	Stem	Girls
7, 4, 1	60	2, 3, 5, 8

- A. Boys; range is 6 C. Boys; range is 7
 B. Girls; range is 6 D. Both have equal range
- 8) A store inventory has 900 items. The circle graph shows $\frac{2}{9}$ are on clearance. How many items are on clearance?
- A. 180 C. 220
 B. 200 D. 240



1) Which fraction is equivalent to -0.5 on a number line?

- A. $-\frac{1}{4}$
 B. $-\frac{3}{4}$

- C. $-\frac{2}{3}$
 D. $-\frac{1}{2}$

2) In a classroom, the ratio of boys to girls is $4 : 3$. If there are 8 boys, how many girls are there?

- A. 4
 B. 6

- C. 8
 D. 12

3)

Bags	2	4	6	8
Apples	14	28	42	56

Based on the table, what is the unit rate in apples per bag?

- A. 5 apples per bag
 B. 7 apples per bag

- C. 14 apples per bag
 D. 28 apples per bag

4) Two phone plans offer data. Compare their costs per gigabyte.

Plan	Data (GB)	Cost
Plan X	4.5	\$18.00
Plan Y	7.5	\$27.50

Which plan costs less per gigabyte?

- A. Plan X at \$4.00/GB
 B. Plan X at \$3.50/GB

- C. Plan Y at \$3.67/GB
 D. Plan Y at \$4.50/GB



- 5) A store item is marked \$64. The sales tax is 8%. What is the total cost including tax?
- A. \$67.52 C. \$72.00
 B. \$69.12 D. \$77.12
- 6) Find the area of a triangle with vertices forming an obtuse angle, base 13 m, and perpendicular height 6 m.
- A. 19 m² C. 78 m²
 B. 39 m² D. 156 m²
- 7) A pizza has a diameter of 12 inches. What is its approximate area using $\pi \approx 3.14$?
- A. 37.68 in² C. 113.04 in²
 B. 75.36 in² D. 452.16 in²
- 8) A soccer field has goal markers and corner flags arranged in a pattern. There are 9 goal markers and 3 corner flags. Which statement is NOT correct?
- A. The ratio of markers to flags is 9 : 3. C. For every 3 markers there is 1 flag.
 B. The simplified ratio is 3 : 1. D. For every 1 marker there are 3 flags.
- 9) A recipe for lemonade uses lemons and water in the ratio 2 : 9. The table shows ingredients for different batch sizes. Find the missing value:

Lemons	Water (cups)
2	9
4	18
?	27

- A. 5 C. 8
 B. 6 D. 10



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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.



Idaho Practice Test Answers and Explanations

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

Practice Test 1 Answers and Explanations

- 1) **Choice C is correct.** **(6.RP.A.1)** Q_3 is the right edge of the box in the box plot.
- 2) **Choice B is correct.** **(6.NS.B.4)** GCF of 14 and 21 is 7. So $14 + 21 = 7(2 + 3)$. Only Choice B uses the GCF with whole numbers.
- 3) **Choice D is correct.** **(6.NS.C.8)** Point S is at $(2, -4)$ and S' is at $(2, 4)$. Both have $x = 2$. Reflection across the x -axis keeps the x -coordinate the same.
- 4) **Choice C is correct.** **(6.NS.C.7d)** $-8 < -3$, so $-8^\circ F$ represents a lower (colder) temperature.
- 5) **Choice B is correct.** **(6.NS.C.8)** Length: $|6 - 1| = 5$ units. Width: $|5 - 2| = 3$ units. Perimeter: $2(5 + 3) = 16$ units.
- 6) **Choice D is correct.** **(6.NS.B.3)** Choices A, B, and C all equal -30 . Choice D equals 30 because the product of two negative numbers is positive, so it does not equal the others.
- 7) **Choice C is correct.** **(6.EE.A.3)** Adding a deposit to an overdrawn balance: $-25 + 60 = \$35$.
- 8) **Choice D is correct.** **(6.EE.A.1)** An exponent shows how many times to multiply the base by itself. 2^4 means 2 multiplied 4 times, which is $2 \times 2 \times 2 \times 2 = 16$.
- 9) **Choice A is correct.** **(6.EE.A.3)** "The product of a and b " is ab . "The sum of ab and c " is $ab + c$.
- 10) **Choice C is correct.** **(6.EE.A.4)** The terms with variables are $10x$, $2y$, and $4z$. The constant -6 has no variable.
- 11) **Choice B is correct.** **(6.EE.A.3)** Substitute $x = 2$: $3(2)^2 = 3(4) = 12$.
- 12) **Choice B is correct.** **(6.EE.B.6)** Total pages = pages per day \times number of days = $10r$.
- 13) **Choice C is correct.** **(6.EE.B.5)** Divide both sides by 2.5: $x = 10 \div 2.5 = 4$.
- 14) **Choice D is correct.** **(6.NS.B.4)** "No less than 3.0" means 3.0 or more: $g \geq 3.0$.
- 15) **Choice A is correct.** **(6.SP.B.4)** $x \leq -2$ includes -2 itself (closed circle) plus all values less than -2 (arrow points left).
- 16) **The correct answer is 6.** **(6.EE.A.3)** Combine like terms: $4x + 2x = 6x$.
- 17) **Choice B is correct.** **(6.G.A.1)** Area = $6.5 \times 2.5 = 16.25$ in².
- 18) **The correct answer is 0.8.** **(6.EE.C.9)** The graph shows the line passes through $(5, 4)$ and $(10, 8)$. The slope (rate of change) is $\frac{8-4}{10-5} = \frac{4}{5} = 0.8$ calories per minute.
- 19) **Choice C is correct.** **(6.G.A.2)** $60 = 5 \times W \times 3 = 15 \times W$, so $W = 4$ in.
- 20) **The correct answer is 208.** **(6.G.A.4)** Two triangular bases have area $2 \times 24 = 48$ cm². The lateral surface area is perimeter times prism height: $20 \times 8 = 160$ cm². Total surface area is $48 + 160 = 208$ cm².
- 21) **The correct answer is A and C are correct.** **(6.RP.A.3)** A: $6 \times 3 = 18$ feet (correct). B: $4 \times 3 = 12$ feet, not 10 (incorrect). C: $21 \div 3 = 7$ inches (correct). D: $9 \div 3 = 3$ inches, not 2 (incorrect). E: $5 \times 3 = 15$ feet, not 16 (incorrect).
- 22) **Choice B is correct.** **(6.G.A.1)** Width: $7 - 1 = 6$ units. Height: $7 - 2 = 5$ units. Area = $6 \times 5 = 30$ square units.
- 23) **Choice B is correct.** **(6.RP.A.1)** Area = $\pi r^2 \approx \frac{22}{7} \times 8^2 = \frac{22}{7} \times 64 = \frac{1408}{7} = 201\frac{1}{7} \approx 201$ m².
- 24) **Choice D is correct.** **(6.SP.A.3)** The boiling point of water has one fixed answer ($100^\circ C$ at sea level). The other questions all involve variability and require collecting data from multiple sources, making them statistical.
- 25) **Choice A is correct.** **(6.SP.A.2)** $Q2 - Q1 = 50 - 40 = 10$ (bottom half spread). $Q3 - Q2 = 55 - 50 = 5$ (top half spread). The bottom half is more spread out.
- 26) **Choice C is correct.** **(6.SP.A.2)** The median of 2, 4, 6, 8, 10 is 6 (the middle value).
- 27) **Choice C is correct.** **(6.SP.B.4)** The value 5 appears 4 times, which is more than any other value, making it the mode.
- 28) **Choice D is correct.** **(6.NS.B.3)** A fair coin has 2 equally likely outcomes: heads and tails. Probability of tails = $\frac{1}{2}$.
- 29) **Choice B is correct.** **(6.SP.B.4)** In a standard stem-and-leaf plot, the stem is the tens digit and the leaf is the ones digit.



Hi, Math Inventor!

◇ 6 practice tests. 6 chances to invent new ways to think. You tried things. You changed them. You made your math brain stronger! ◇

★ **Inventors know:** the first try isn't always the best try. Sometimes you fix it. Sometimes you start over. You did all of that! ★

Inventor's Workshop

- **Sketch Pad:** Full of ideas!
- **Toolbox:** Lots of math strategies.
- **Workbench:** Neat and organized.
- **Brave Mind:** You try new things.

Inventor tip: on test day, if your first try doesn't work, switch tools. Inventors don't get stuck on one tool. Pick the right one for the job!

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

Jay Daie

Your Math Inventor

PRACTICE TODAY. SUCCEED TOMORROW!

This Grade 6 Math Practice Tests book is designed to help students strengthen their math skills, master important concepts, and build the confidence they need to excel on comprehensive assessments.

With 6 full-length printed tests and 2 online tests, students get the review, practice, and realistic test experience they need to improve accuracy, develop problem-solving abilities, and reach their full potential.

Perfect for classroom use, homework, test preparation, and extra practice at home.

6
PRINTED
TESTS

+
2
ONLINE
TESTS

PERFECT FOR:

- ✓ Classroom Practice
- ✓ Homework & Review
- ✓ Independent Learning
- ✓ Test Preparation
- ✓ Skill Reinforcement
- ✓ Building Confidence

★ BUILD SKILLS.
GAIN CONFIDENCE.
SUCCEED!

WHAT STUDENTS WILL 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 aligned with standards through meaningful practice.



Test Confidence

Become familiar with test formats and improve accuracy and speed.



Achieve Success

Build confidence and perform your best on test day.

TOPICS COVERED

- ✓ Ratios & Rates
- ✓ The Number System
- ✓ Expressions & Equations
- ✓ Geometry
- ✓ Fractions & Decimals
- ✓ Percents
- ✓ Statistics & Probability
- ✓ Data Analysis
- ✓ Measurement & Conversions
- ✓ And More!



2 ONLINE TESTS

Extra online practice to reinforce learning and build confidence.

MORE PRACTICE. GREATER RESULTS.

Give your child the tools needed to develop strong math skills, confidence, and a positive attitude toward learning.



6 FULL-LENGTH
PRINTED TESTS



2 ONLINE
PRACTICE TESTS



DETAILED ANSWER
EXPLANATIONS