

# 4 Iowa ISASP

GRADE  
**6**  
MATH

## PRACTICE TESTS

Standards Aligned Problem Solving  
For Comprehensive Assessment Programs

**4**

**PRINTED  
TESTS**



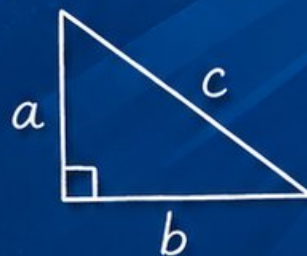
**2**

**ONLINE  
TESTS**



- ✓ Build Confidence
- ✓ Master Key Math Skills
- ✓ Answer Explanations for Every Question
- ✓ Test-Taking Strategies That Work

$$2x + 5 = 21$$
$$x = 8$$



$$\frac{3}{4} + \frac{1}{2} = \frac{5}{4}$$

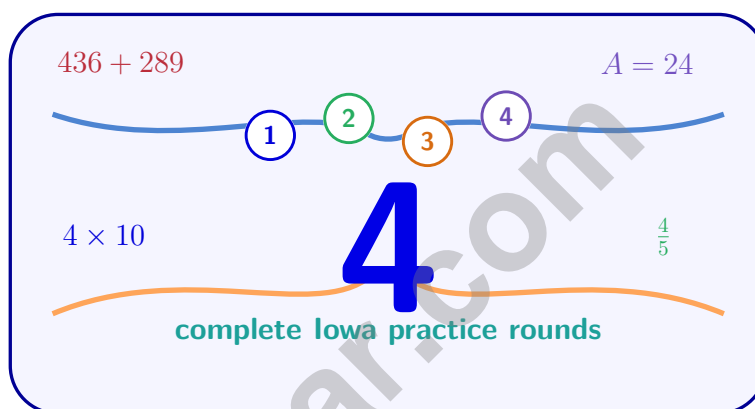


**USE THESE TWO  
ADDITIONAL ONLINE  
PRACTICE TESTS**

**FOR EXTRA REVIEW AFTER  
THE PRINTED TESTS  
IN THIS BOOK.**

# 4 Iowa ISASP Grade 6 Math Practice Tests

*Standards-Aligned Clear Midwest Math Habits for Iowa Statewide Assessment of Student Progress*



Four complete 40-question Grade 6 practice rounds for ISASP, built for clear Midwest math habits 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, Iowa Math Explorer!

Four focused rounds using clear Midwest math habits

This book gives you four full Grade 6 practice tests for ISASP. Each round uses field rows, fair maps, and careful data reading as a fresh mental backdrop while you read closely, choose a smart strategy, show your work, and check whether your answer makes sense.

## Your Iowa Practice Promise

Line up the information, choose a sensible method, and check that the answer matches the context.

Read

Plan

Check

## How to Use This Book

A four-session routine for clear Midwest math habits

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.

**Iowa review rhythm:** After each round, write one strength and one next skill so progress stays visible.



## What Is Inside?

Four ISASP tests, 160 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 and final stamina rounds with expressions, equations, geometry, data, and problem models.
Answer Pages	Compact keys and explanations that show why each answer works.

The tests are mixed on purpose. Clear midwest math habits 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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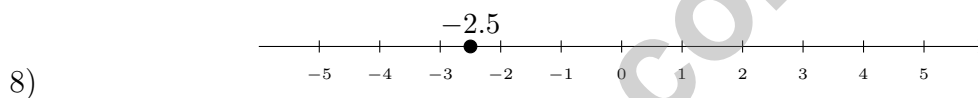
- 1) Order these decimals from greatest to least: 0.38, 0.8, 0.308, 0.83
- A. 0.83, 0.8, 0.38, 0.308       C. 0.308, 0.38, 0.8, 0.83  
 B. 0.8, 0.83, 0.308, 0.38       D. 0.308, 0.38, 0.83, 0.8
- 2) A business has a profit of \$500 in January. In February, it has a loss of \$200. Which integer best represents the total change in profit for the two months?
- A. \$300       C. -\$300  
 B. \$700       D. -\$700
- 3) Which student correctly evaluated  $|-7|$ ?
- A. Jordan:  $|-7| = -7$  because it is negative       C. Alex:  $|-7| = 0$  because opposites cancel  
 B. Sam:  $|-7| = 14$  because you add the digits       D. Maya:  $|-7| = 7$  because absolute value is the distance from zero
- 4) On a number line, if point A is at  $-\frac{5}{6}$  and point B is at  $\frac{1}{6}$ , what is the distance between them?
- A.  $\frac{1}{6}$        C. 1  
 B.  $\frac{2}{3}$        D.  $1\frac{1}{6}$
- 5) In a group of 200 people, 50 are left-handed. What percent are left-handed?



- 6) A student's test score improved from 75 to 93.75. What is the percent increase in the score?

- 7) If a point has coordinates  $(p, q)$  where  $p > 0$  and  $q < 0$ , in which quadrant(s) could it be located?

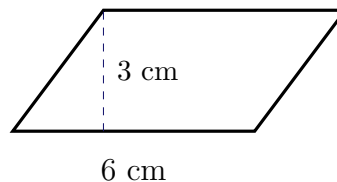
- A. Quadrant I or III                       C. Quadrant I only  
 B. Quadrant II or IV                       D. Quadrant IV only



Which two integers is  $-2.5$  between?

- A.  $-3$  and  $-2$                        C.  $2$  and  $3$   
 B.  $-2$  and  $-1$                        D.  $-4$  and  $-2$

Parallelogram



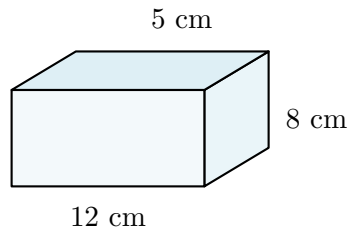
9)

What is the area of the parallelogram?

- A.  $9 \text{ cm}^2$                        C.  $27 \text{ cm}^2$   
 B.  $18 \text{ cm}^2$                        D.  $36 \text{ cm}^2$



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10)

A gift box is 12 cm long, 8 cm wide, and 5 cm high. How many cubic centimeters is its volume?

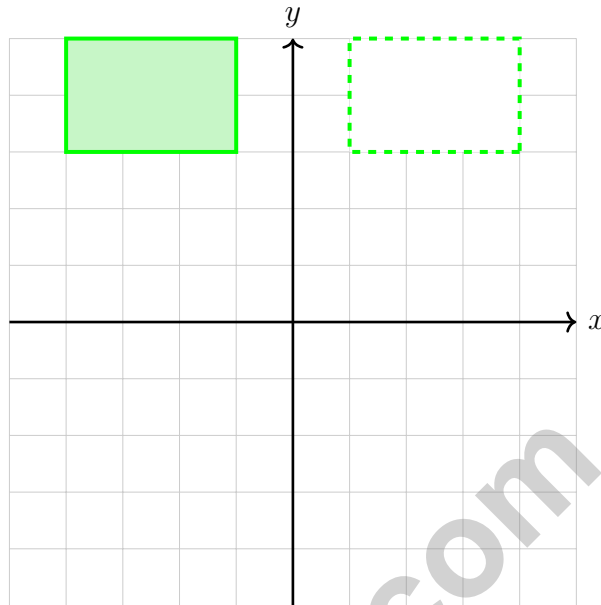
 A.  $25 \text{ cm}^3$  C.  $240 \text{ cm}^3$  B.  $120 \text{ cm}^3$  D.  $480 \text{ cm}^3$ 

11) A rectangle has area 24 square units and length 8 units. What is its perimeter?

 A. 22 units C. 16 units B. 20 units D. 24 units

12) The ratio of red marbles to blue marbles in a bag is 5 : 3. If there are 15 red marbles, how many blue marbles are there?



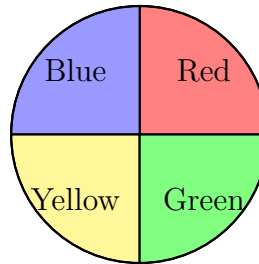


1)

The solid rectangle is reflected over the  $y$ -axis to form the dashed rectangle. This shows that reflection preserves:

- A. Position
- B. Size and shape only
- C. Size, shape, and position
- D. Neither size nor shape
- 2) A climate scientist collects temperature data from 100 cities. What is the population?
- A. The 100 cities sampled
- B. All cities on Earth
- C. The temperature readings
- D. The countries represented
- 3) A histogram displays test scores with a bell-shaped (normal) distribution. Where is the mean approximately located?
- A. At the left edge
- B. At the center (peak)
- C. At the right edge
- D. Outside the data range





4)

The spinner above is spun. Which probability is impossible?

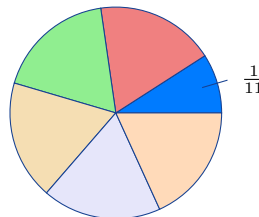
- A.  $P(\text{Red}) = 0.25$ 
 C.  $P(\text{Purple}) = 0.25$   
 B.  $P(\text{Blue}) = 0.25$ 
 D.  $P(\text{Yellow}) = 0.25$

5) A researcher gathers data on the number of hours 10 students study per week:

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

What is the mean (average) number of hours studied?

- A. 22 hours
  C. 24 hours  
 B. 25 hours
  D. 23 hours



6)

A movie theater has 550 patrons. The circle graph shows  $\frac{1}{11}$  bought popcorn. How many bought popcorn?

- A. 50
  C. 60  
 B. 40
  D. 70

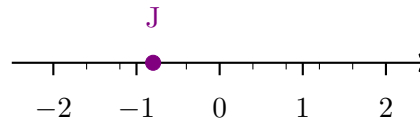


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- 1) A household plans to save \$200 per month for a vacation. How much will they save in 2 years?
- A. \$2400                       C. \$4000  
 B. \$3200                       D. \$4800
- 2) A drawing shows an object as 6 cm long. The actual object is 3 meters long. What is the scale of the drawing?
- A. 1 cm = 0.5 m                       C. 6 cm = 3 m  
 B. 1 cm = 5 m                       D. 1 cm = 50 m
- 3) Compute:  $\frac{3}{10} \div \frac{1}{5}$
- A.  $\frac{3}{50}$                        C.  $\frac{3}{2}$   
 B.  $\frac{3}{15}$                        D. 2
- 4) A farmer has 5,460 seedlings to plant equally in 28 rows. How many seedlings go in each row?
- A. 195                       C. 205  
 B. 200                       D. 210
- 5) What is the GCF of 32 and 48?
- A. 8                       C. 16  
 B. 12                       D. 32



- 6) The number line below shows fractional tick marks between consecutive integers. What is the coordinate of point J?



- A.  $-\frac{4}{5}$ 
 C.  $-\frac{1}{5}$   
 B.  $-\frac{3}{5}$ 
 D.  $\frac{2}{5}$
- 7) When the point  $(a, b)$  is reflected across the  $y$ -axis, the new point is:

- A.  $(-a, b)$ 
 C.  $(-a, -b)$   
 B.  $(a, -b)$ 
 D.  $(b, a)$

8)

Account	Balance
Checking	\$150
Savings	\$320
Loan	-\$200

Which account has the least amount?

- A. Checking
  C. Loan  
 B. Savings
  D. All equal



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**Iowa ISASP Practice Test Answer Keys****How to use this Iowa ISASP 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 clear Midwest math habits
3. rework the problem before reading the full explanation, using this reminder:  
Line up the information, choose a sensible method, and check that the answer matches the context.

**A calm Iowa correction routine turns every missed item into useful practice. After each round, write one strength and one next skill so progress stays visible.**



## Iowa Practice Test Answers and Explanations

Review the four printed ISASP tests with focused, patient, and ready for the next problem set habits.

### Practice Test 1 Answers and Explanations

- Choice A is correct.** (6.NS.B.3) Compare:  $0.83 = 0.830 > 0.800 > 0.380 > 0.308$ . Order from greatest to least: 0.83, 0.8, 0.38, 0.308.
- Choice A is correct.** (6.NS.C.5) A profit of \$500 is +500 and a loss of \$200 is -200. The total change is  $500 + (-200) = 300$ .
- Choice D is correct.** (6.SP.B.4) Error analysis: Jordan confused absolute value with the original number. Absolute value  $|-7| = 7$  represents distance, which is always non-negative.
- Choice C is correct.** (6.SP.B.4) Distance =  $\frac{1}{6} - (-\frac{5}{6}) = \frac{1}{6} + \frac{5}{6} = \frac{6}{6} = 1$ .
- The correct answer is 25%.** (6.RP.A.3)  $\frac{50}{200} = \frac{25}{100} = 25\%$  (divide both by 2).
- The correct answer is 25%.** (6.RP.A.3) Increase is  $93.75 - 75 = 18.75$ . Percent increase is  $\frac{18.75}{75} = 0.25 = 25\%$ .
- Choice D is correct.** (6.NS.C.8) A positive  $x$ -coordinate ( $p > 0$ ) and negative  $y$ -coordinate ( $q < 0$ ) places a point in Quadrant IV (lower right).
- Choice A is correct.** (6.NS.C.7)  $-3 < -2.5 < -2$  on the number line.
- Choice B is correct.** (6.G.A.1) The labeled height is 3 cm (the perpendicular distance) and the base is 6 cm. Area =  $6 \times 3 = 18 \text{ cm}^2$ .
- Choice D is correct.** (6.G.A.2)  $V = 12 \times 8 \times 5 = 96 \times 5 = 480 \text{ cm}^3$ .
- Choice A is correct.** (6.G.A.3) Width =  $24 \div 8 = 3$  units. Perimeter =  $2(8 + 3) = 2(11) = 22$  units.
- The correct answer is 9.** (6.RP.A.3) Ratio 5 : 3 with 15 red marbles: each part is  $15 \div 5 = 3$  marbles. Blue marbles:  $3 \times 3 = 9$ .
- Choice D is correct.** (6.G.A.1) Width:  $10 - 2 = 8$  units. Height:  $6 - 2 = 4$  units. Area =  $8 \times 4 = 32$  square units.
- Choice A is correct.** (6.NS.C.8) Reflecting over the  $x$ -axis negates the  $y$ -coordinate. If the image is  $(4, -3)$ , the original is  $(4, 3)$ .
- Choice C is correct.** (6.NS.B.3) Starting balance: -50. Adding a deposit of 120:  $-50 + 120 = 70$ .
- Choice A is correct.** (6.EE.B.5) Substitute  $x = 6$  into the equation. Check:  $6 - 2 = 4$  is true.
- Choice A is correct.** (6.EE.C.9) The line passes through  $(1, 2)$  and  $(3, 6)$ . The slope is  $\frac{6-2}{3-1} = \frac{4}{2} = 2$ , giving  $y = 2x$ .
- Choice C is correct.** (6.G.A.4) A triangular prism has 2 triangular bases and 3 rectangular faces (the lateral faces connecting the edges of the two triangles). In its net, there are exactly 3 rectangles.
- Choice B is correct.** (6.SP.A.2) The outlier 15 heavily skews the mean. The median (middle value) is more representative: 3.
- The correct answer is The unit rate is 25 items per hour, and the y-value when  $x = 1$  is 25.** (6.RP.A.3) A is correct because  $50 \div 2 = 25$  items per hour. D is correct because when  $x = 1$ ,  $y = 25$ . Choice B is false for a proportional relationship, Choice C should be  $y = 25x$ , and Choice E is false.
- Choice A is correct.** (6.SP.B.4) Bank A:  $I = \$200 \times 0.05 \times 3 = \$30$ . Bank B:  $I = \$200 \times 0.03 \times 4 = \$24$ . Bank A earns \$30, which is \$6 more than Bank B's \$24.
- Choice B is correct.** (6.EE.C.9) For a proportional relationship, the ratio cost/people must be constant:  $5/1 = 10/2 = 5$ . There is no one-time starting fee; each person simply adds another \$5 to the total.
- Choice C is correct.** (6.EE.A.2) Save allocation:  $10\%$  of  $\$4000 = 0.10 \times 4000 = \$400$ .
- Choice C is correct.** (6.RP.A.3) The drawing shows 4 cm. Using the scale  $1 \text{ cm} = 2 \text{ ft}$ :  $4 \times 2 = 8$  feet.
- Choice B is correct.** (6.NS.A.1)  $2\frac{1}{2} \div \frac{5}{8} = \frac{5}{2} \times \frac{8}{5} = \frac{40}{10} = 4$ .
- Choice A is correct.** (6.NS.B.2)  $8,925 \div 35 = 255$  exactly. Verify:  $35 \times 255 = 8,925$ .



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## Author's Note

### From a Friend Who Believes in You

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#### Hi, Friend!

◇ I just want to say something important: I am proud of you. You did 4 full practice tests. That takes time, hard work, and heart. ◇

★ **Friendly truth:** a test is just one part of your math journey. You are SO much more than a score. The work you did is the real win! ★

#### What I Want You to Know

- **You are smart.** Every test you finished proves it.
- **You are brave.** You tried hard problems.
- **You are growing.** Mistakes taught you new things.
- **You are ready.** The skills are inside you.

**One more thing:** on test day, take a deep breath. Smile. Remember that someone (me!) believes in you. You can do this!

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 Friend

# PRACTICE TODAY. SUCCEED TOMORROW!

This book includes 4 full-length Math practice tests and 2 online tests to help Grade 6 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:

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



### 2 ONLINE TESTS

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



**VISIT [TESTINAR.COM/MATH6](https://www.testinar.com/math6)**  
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AND LEARNING RESOURCES



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