

10 Iowa ISASP

GRADE
6
MATH

PRACTICE TESTS

Standards-Aligned Review
Mixed Practice & Answer Key



10 PRINTED TESTS

Realistic practice to build confidence and mastery



2 ONLINE TESTS

Extra practice for continued success



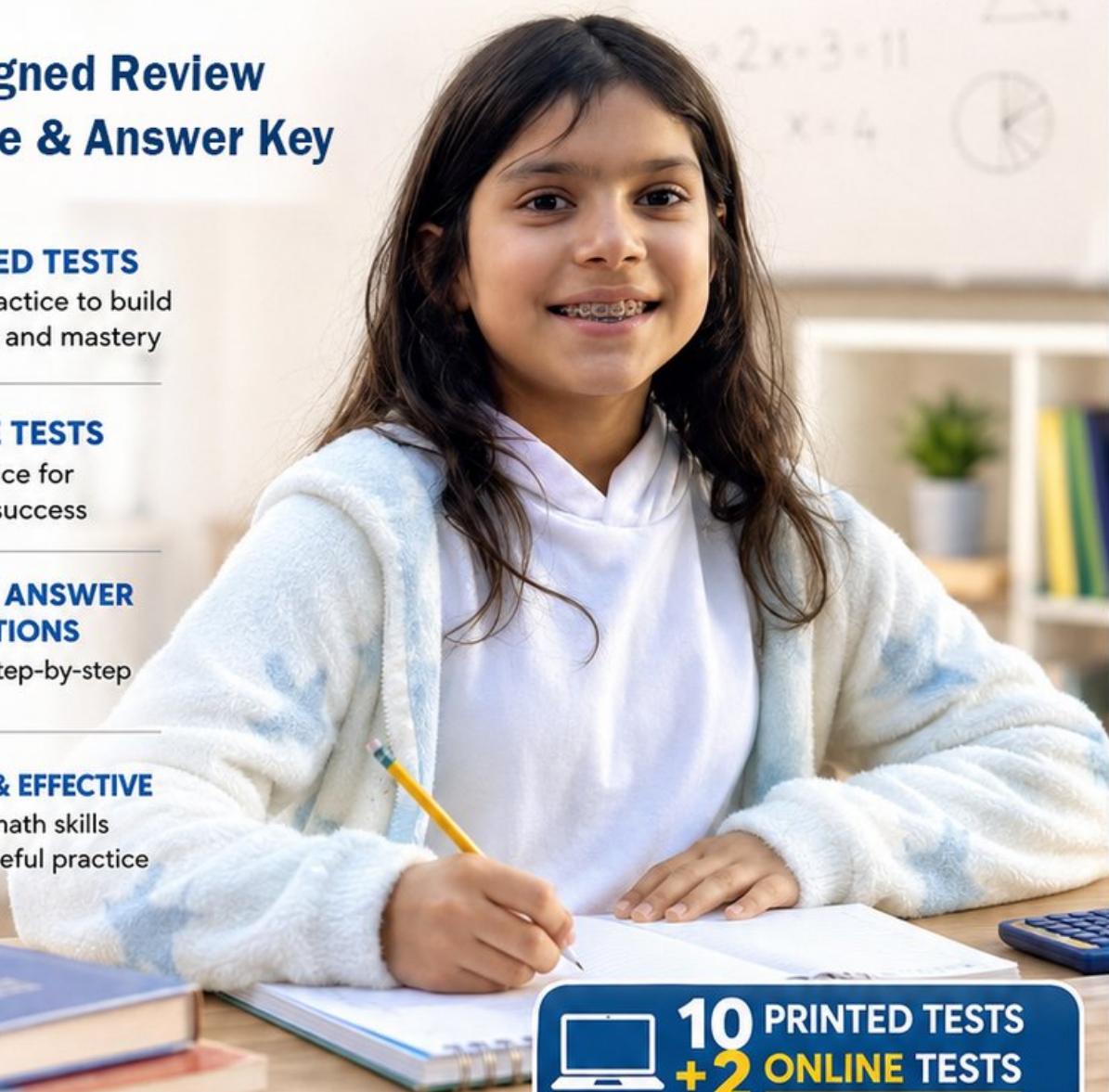
DETAILED ANSWER EXPLANATIONS

Learn with step-by-step solutions



FOCUSED & EFFECTIVE

Target key math skills with purposeful practice



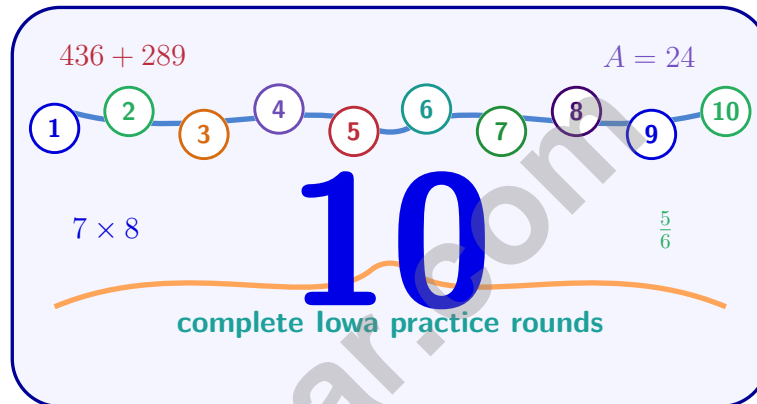
10 PRINTED TESTS
+ 2 ONLINE TESTS

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

PRACTICE • REVIEW • SUCCEED

10 Iowa ISASP Grade 6 Math Practice Tests

*Standards-Aligned Patient Pattern Thinking for Iowa Statewide Assessment of Student
Progress*



Ten complete 40-question Grade 6 practice rounds for ISASP, 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!

Ten steady rounds on a field-to-field review path

This book gives you ten full Grade 6 practice tests for ISASP. Each round uses open fields, fairgrounds, and tidy number patterns 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

Look for repeated structure before doing long computation. I will slow down for the question, circle what matters, solve one step at a time, and use mistakes as clues for getting stronger.

Read

Plan

Check

How to Use This Book

A ten-session routine for patient pattern thinking

1. **Preview the skills.** Read the quick review pages before the first test.
2. **Take one test at a time.** Work in a quiet place and answer all 40 questions.
3. **Mark your confidence.** Put a small star beside problems you solved with a strong plan.
4. **Check, then retry.** For missed questions, try the problem again before reading the explanation.
5. **Track your next move.** Use the growth log to name one habit and one skill for the next test.

Iowa review rhythm: Test one day, correct carefully the next day, then return for the next round when your corrections feel clear.



What Is Inside?

Ten ISASP tests, 400 questions, and a full review path

Part	What You Will Practice
Tests 1–3	Warm-up rounds for ratios, rational numbers, operations, and careful reading.
Tests 4–6	Skill-building rounds with expressions, equations, geometry, data, and problem models.
Tests 7–9	Stamina rounds for mixed review, neat work, and flexible strategy choices.
Test 10	Final Iowa round to show growth across the whole book.
Answer Pages	Compact keys and explanations that show why each answer works.

The tests are mixed on purpose. Patient pattern thinking means recognizing the skill even when the next question changes topic.



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& answers

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1) Which expression matches “the product of the sum of x and 2 and the number 5”?

A. $x + 2 \cdot 5$

C. $5(x + 2)$

B. $5x + 2$

D. $(5x)(2)$

2) A student saves \$25 every two weeks. How much will she save in 8 weeks?

A. \$50

C. \$100

B. \$75

D. \$150

3) A rectangular garden is drawn with a scale of $1 \text{ cm} = 2 \text{ m}$. The drawing shows the garden as 5 cm long and 3 cm wide. What is the perimeter of the actual garden?

A. 8 m

C. 32 m

B. 16 m

D. 64 m

4) A car travels at a rate of 60 miles per hour. If we express the distance-to-time ratio as $60 : 1$, how many miles does the car travel in 5 hours?

A. 55 miles

C. 300 miles

B. 65 miles

D. 12 miles

5) Find the Mean Absolute Deviation for: 6, 8, 10, 12, 14.

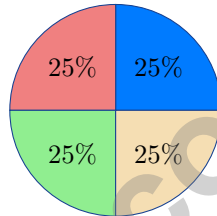


6) A soccer team trains together. They cover 12 miles in $\frac{5}{2}$ hours. What is their unit rate in miles per hour?

- A. 2.4 mph
- B. 3.0 mph
- C. 4.0 mph
- D. 4.8 mph

7) Which integer is closest to zero on a number line?

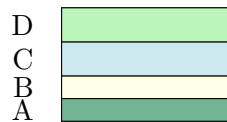
- A. -5
- B. -8
- C. 4
- D. -1



8)

A baker made 560 cookies. The circle graph shows $\frac{1}{4}$ are chocolate chip. How many chocolate chip cookies did the baker make?

- A. 140
- B. 100
- C. 180
- D. 200



9)

0% 25% 50% 75% 100%

This 100% stacked bar graph shows the composition of four categories (A, B, C, D). Which category takes up the largest proportion?

- A. A
- B. B
- C. C
- D. D



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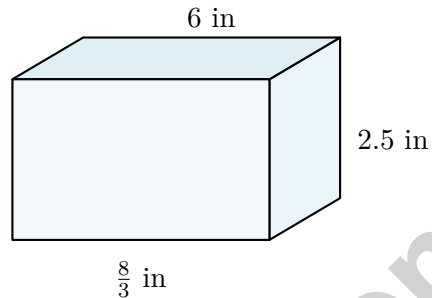
1) Evaluate $\frac{3x}{4}$ when $x = 8$.

A. 4

C. 8

B. 6

D. 10



2)

Find the volume of the prism.

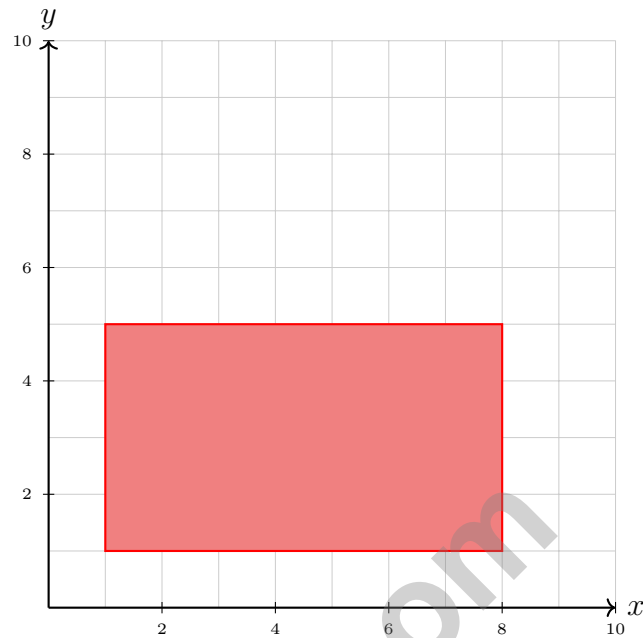
A. 20 in^3

C. 40 in^3

B. 30 in^3

D. 60 in^3





3)

What is the area of the rectangle with vertices at (1, 1), (8, 1), (8, 5), and (1, 5)?

- A. 24 square units C. 32 square units
 B. 36 square units D. 28 square units

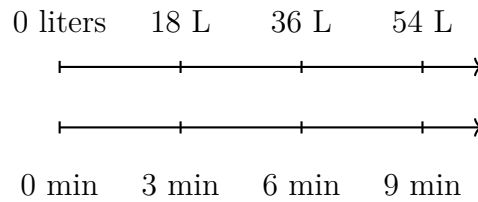
4) A question expects variability and requires collecting data from multiple sources. Which word BEST describes this question?

- A. Factual C. Quick
 B. Simple D. Statistical



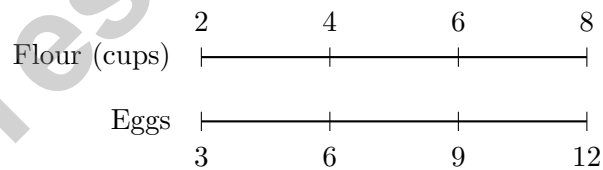
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1) A garden hose fills containers at a steady rate.



What is the unit rate in liters per minute?

- | | |
|-------------------------------------|-------------------------------------|
| <input type="checkbox"/> A. 4 L/min | <input type="checkbox"/> C. 6 L/min |
| <input type="checkbox"/> B. 5 L/min | <input type="checkbox"/> D. 9 L/min |
- 2) A warehouse contains 800 boxes. Of these, 37.5% are marked fragile. How many boxes are marked fragile?
- | | |
|---------------------------------|---------------------------------|
| <input type="checkbox"/> A. 300 | <input type="checkbox"/> C. 200 |
| <input type="checkbox"/> B. 250 | <input type="checkbox"/> D. 500 |
- 3) A recipe uses 2 cups of flour for every 3 eggs. How many cups of flour are needed for 12 eggs?



- | | |
|-------------------------------|--------------------------------|
| <input type="checkbox"/> A. 4 | <input type="checkbox"/> C. 8 |
| <input type="checkbox"/> B. 6 | <input type="checkbox"/> D. 10 |



Iowa ISASP Practice Test Answer Keys

How to use this section with a Grade 6 student:

1. check the answer first
2. mark questions to try again
3. rework the problem before reading the full explanation

A calm correction routine turns every missed item into useful practice.

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Practice Test Answers and Explanations

Practice Test 1 Answers and Explanations

- 1) **Choice C is correct.** **(6.EE.C.9)** “The sum of x and 2” is $(x + 2)$. “The product of” that sum “and 5” requires parentheses: $5(x + 2)$.
- 2) **Choice C is correct.** **(6.EE.B.5)** In 8 weeks, there are $8 \div 2 = 4$ two-week periods. Total saved: $\$25 \times 4 = \100 .
- 3) **Choice C is correct.** **(6.G.A.1)** Actual dimensions: $5 \times 2 = 10$ m and $3 \times 2 = 6$ m. Perimeter: $2(10 + 6) = 32$ m.
- 4) **Choice C is correct.** **(6.SP.A.2)** The ratio $60 : 1$ (miles to hours) means 60 miles per 1 hour. For 5 hours, multiply: $60 \times 5 = 300$ miles.
- 5) **The correct answer is 2.4.** **(6.SP.A.2)** Mean = $(6 + 8 + 10 + 12 + 14) / 5 = 10$. Deviations: $|6 - 10| = 4$, $|8 - 10| = 2$, $|10 - 10| = 0$, $|12 - 10| = 2$, $|14 - 10| = 4$. MAD = $(4 + 2 + 0 + 2 + 4) / 5 = 2.4$.
- 6) **Choice D is correct.** **(6.SP.B.5)** $12 \div \frac{5}{2} = 12 \times \frac{2}{5} = \frac{24}{5} = 4.8$ miles per hour.
- 7) **Choice D is correct.** **(6.SP.B.4)** Distance from zero determines how close a number is. $|-1| = 1$, which is the smallest distance among the choices. Numbers closer to zero have smaller absolute values.
- 8) **Choice A is correct.** **(6.NS.C.8)** $\frac{1}{4} = 25\%$. So $0.25 \times 560 = 140$ chocolate chip cookies.
- 9) **Choice C is correct.** **(6.EE.B.7)** The bar for category C extends from 0.8 to 1.4 out of 2, which is the largest segment proportionally (0.6 units out of 2).
- 10) **The correct answer is 1.** **(6.EE.A.3)** The absolute deviations sum to 8, and $8 \div 8 = 1$.
- 11) **Choice C is correct.** **(6.EE.A.4)** Vanilla is the 7-part amount. Since $21 \div 7 = 3$, each part is worth 3 units, and chocolate is 3 parts: $3 \times 3 = 9$ units.
- 12) **Choice B is correct.** **(6.G.A.1)** From the double number line, 1 hour equals 60 minutes. This is the standard conversion rate.
- 13) **Choice B is correct.** **(6.G.A.3)** Every 4 pancakes require 1 cup of milk, so 12 pancakes require $12 \div 4 = 3$ cups.
- 14) **Choice B is correct.** **(6.NS.B.3)** The ratio is 3:2 (flour:sugar). Points on this line satisfy sugar = $\frac{2}{3}$ × flour. Check: (3, 2) gives $2 = \frac{2}{3}(3)$ ✓; (6, 4) gives $4 = \frac{2}{3}(6)$ ✓; (9, 6) gives $6 = \frac{2}{3}(9)$ ✓. The other options do not maintain this ratio.
- 15) **Choice C is correct.** **(6.NS.B.3)** $\frac{9}{10} = \frac{90}{100} = 90\%$.
- 16) **Choice D is correct.** **(6.EE.A.3)** Increase is $\$44,000 - \$40,000 = \$4,000$. Percent increase is $\frac{4000}{40000} = 0.10 = 10\%$.
- 17) **Choice C is correct.** **(6.EE.B.6)** Unit rate: $2 \div 4 = 0.5$ cups per serving. For 10 servings: $0.5 \times 10 = 5$ cups.
- 18) **Choice A is correct.** **(6.NS.B.3)** Divide: $45 \div 1000 = 0.045$ km.
- 19) **Choice A is correct.** **(6.EE.A.3)** Savings: 20% of $\$150 = 0.20 \times 150 = \30 .
- 20) **The correct answer is “More than 8 hours” is $h > 8$ and “at most 12 hours” is $h \leq 12$. Options A and D both represent $8 < h \leq 12$.** **(6.EE.C.9)** Option A is $h > 8$ and $h \leq 12$, which matches the situation. Option D is the same compound inequality written as $8 < h \leq 12$. Options B, C, and E use an incorrect endpoint or direction.
- 21) **Choice D is correct.** **(6.G.A.2)** Checking the ratio: $12/3 = 4$, $24/6 = 4$, $36/9 = 4$. The constant ratio indicates a proportional relationship with $k = 4$, even though the table doesn’t show $x = 0$.
- 22) **Choice D is correct.** **(6.G.A.1)** $\frac{9}{10} \times \frac{5}{3} = \frac{45}{30} = \frac{3}{2}$.
- 23) **Choice A is correct.** **(6.SP.A.2)** $6,216 \div 38 = 163$ remainder 22. Verify: $38 \times 163 + 22 = 6,216$.
- 24) **Choice A is correct.** **(6.RP.A.1)** Add: $\$3.45 + \$2.20 + \$4.85 = \10.50 .
- 25) **Choice B is correct.** **(6.SP.A.3)** $36 = 4 \times 9 = (2 \times 2) \times (3 \times 3) = 2^2 \times 3^2$. Options A, C, and D contain composite numbers.
- 26) **The correct answer is 62.5%.** **(6.SP.B.4)** The two middle intervals have $14 + 11 = 25$ students out of 40, and $25/40 = 62.5\%$.
- 27) **Choice D is correct.** **(6.RP.A.1)** The student only multiplied $5 \times 3 = 15$ instead of distributing to both terms. The correct solution is $5(3 + 8) = 5 \cdot 3 + 5 \cdot 8 = 15 + 40 = 55$. The area model shows both parts, confirming both must be distributed to.
- 28) **The correct answer is 30.** **(6.SP.A.1)** $Q_3 - Q_1 = 80 - 50 = 30$.



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& answers

Hi, Math Champion!

◇ You trained hard! 10 full practice tests is real practice. Your math game is way better now than when you started. ◇

★ **Coach's truth:** kids who practice get better. You practiced. You got better. That's how it works!
★

Your Game Stats

- **Energy:** HIGH! You can finish a long test.
- **Smart Plays:** You know lots of strategies.
- **Calm Head:** You stay cool with hard problems.
- **Game-Day Ready:** You feel strong and prepared.

Coach's tip: the night before the test, get good sleep. Eat a good breakfast. Bring a sharp pencil. Trust your training!

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

Jay Daie

Your Math Coach

PRACTICE MORE. ACHIEVE MORE. SUCCEED!

This **Grade 6 Math Practice Tests** book is designed to help students build strong math skills, deepen their understanding of key concepts, and gain the confidence they need to succeed on any test.

With 10 full-length printed tests and 2 online tests, students get the review, practice, and realistic test experience they need to improve accuracy, strengthen problem-solving abilities, and reach their full potential.

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

PERFECT FOR:

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



**CONFIDENCE TODAY.
SUCCESS TOMORROW!**

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.



Deepen Understanding

Reinforce key math concepts aligned with standards.



Test Confidence

Get familiar with test formats and improve accuracy.



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.



10 PRINTED
PRACTICE TESTS



2 ONLINE
PRACTICE TESTS



DETAILED ANSWER
EXPLANATIONS