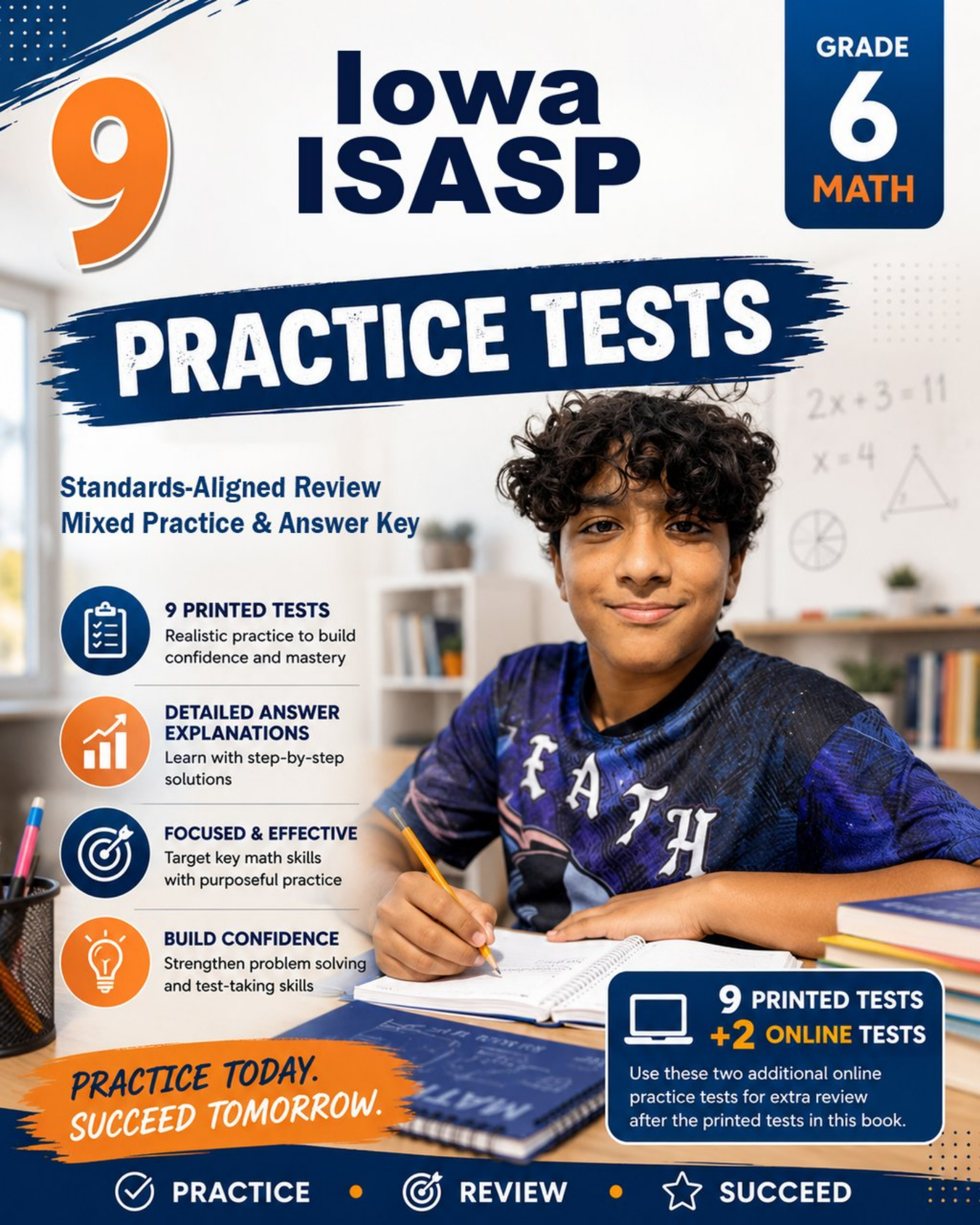
9 Iowa ISASP

GRADE 6 MATH

PRACTICE TESTS



Standards-Aligned Review
Mixed Practice & Answer Key

9 PRINTED TESTS
Realistic practice to build confidence and mastery

DETAILED ANSWER EXPLANATIONS
Learn with step-by-step solutions

FOCUSED & EFFECTIVE
Target key math skills with purposeful practice

BUILD CONFIDENCE
Strengthen problem solving and test-taking skills

9 PRINTED TESTS +2 ONLINE TESTS

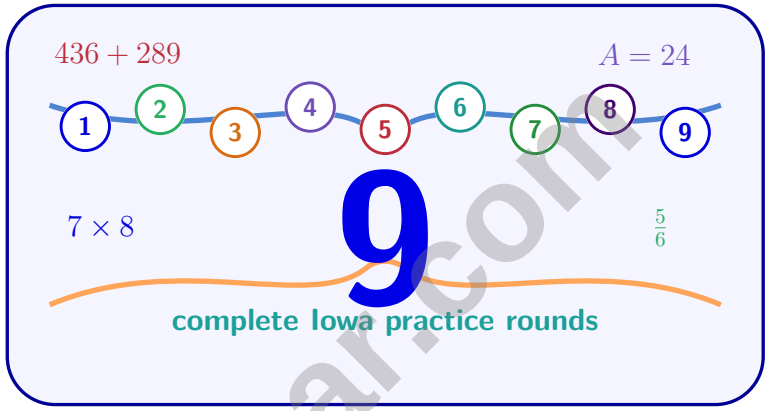
Use these two additional online practice tests for extra review after the printed tests in this book.

PRACTICE TODAY. SUCCEED TOMORROW.

PRACTICE • REVIEW • SUCCEED

9 Iowa ISASP Grade 6 Math Practice Tests

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



Nine 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!

Nine focused rounds using clear Midwest math habits

This book gives you nine 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.

How to Use This Book

A nine-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?

Nine ISASP tests, 360 questions, and a full review path

Part	What You Will Practice
Tests 1–3	Foundation 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	Final stamina rounds 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. Clear midwest math habits means recognizing the skill even when the next question changes topic, changes format, or asks for an explanation.

Table of Contents

1) Convert $\frac{1}{5}$ to a percent.

☐ A. 5%
☐ C. 20%
☐ B. 15%
☐ D. 50%

2) A school's budget is \$100000. The principal allocates 25% of the budget to technology. How many dollars are allocated to technology?

3) Store A sells 8 oranges for \$2. Store B sells 12 oranges for \$3. Which store offers the better price per orange?

☐ A. Store A
☐ C. Both are the same
☐ B. Store B
☐ D. Cannot be determined

4) A baker uses 2 eggs for every 3 cups of flour. If the baker uses 6 cups of flour, how many eggs are needed?

☐ A. 6 eggs
☐ C. 4 eggs
☐ B. 8 eggs
☐ D. 9 eggs

5) A library receives 6,300 books to place on shelves that hold 48 books each. How many shelves are filled completely?

☐ A. 130
☐ C. 132
☐ B. 131
☐ D. 133

6) A golf player's score relative to par is tracked as: hole 1 is -2 (two under par), hole 2 is $+1$ (one over par), hole 3 is -1 (one under par). What is the total score relative to par after three holes?

☐ A. $+2$
☐ B. 0
☐ C. $+4$
☐ D. -2

7) A person's annual income is \$36000. They save 12% of their income per year. How much do they save annually?

8) A library needs to arrange books on shelves. They have 52 fiction books and 78 non-fiction books. They want equal-sized stacks of each type on each shelf with nothing left over. What is the maximum number of shelves?

☐ A. 13 shelves
☐ B. 26 shelves
☐ C. 39 shelves
☐ D. 52 shelves

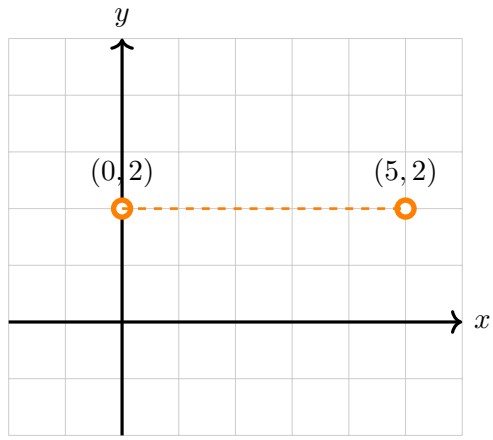
9) Which statement correctly compares the numbers using a number line?

☐ A. $-2.5 < -2$
☐ B. $-0.8 > 0$
☐ C. $-1.2 < -1.5$
☐ D. $0.3 < 0.2$

10) A student ordered $-4.2,\ -4.1,\ 0.3$ as: $0.3,\ -4.1,\ -4.2$. What error did the student make?

☐ A. Forgot that negatives are less than positives
☐ B. Thought $-4.2 > -4.1$
☐ C. Confused decimal places
☐ D. Used correct order

11)



What is the distance from $(0, 2)$ to $(5, 2)$?

- ☐ A. 3 units
- ☐ B. 4 units
- ☐ C. 5 units
- ☐ D. 6 units

12) Simplify $12y - 4y + 3y - y$.

- ☐ A. $8y$
- ☐ B. $12y$
- ☐ C. $14y$
- ☐ D. $10y$

13) Solve for x: $7x = 21$

- ☐ A. $x = 3$
- ☐ B. $x = 14$
- ☐ C. $x = 28$
- ☐ D. $x = 147$

1) What is $6{,}292 \div 34$? Round to the nearest whole number if there is a remainder.

☐ A. 185
☐ B. 187
☐ C. 190
☐ D. 192

2) Evaluate: $6 + (3 \times 2)^2 \div 4$

☐ A. 15
☐ B. 21
☐ C. 24
☐ D. 33

3) A jar contains red and blue marbles. The ratio of red to blue is $3 : 5$. If there are 18 red marbles, how many blue marbles are in the jar?

4) What is the x-coordinate of any point on the positive y-axis?

☐ A. Any positive number
☐ B. Any negative number
☐ C. Zero
☐ D. One

5) Write an expression for "three times a number e, decreased by 9".

☐ A. $3(e - 9)$
☐ B. $9 - 3e$
☐ C. $3 - e - 9$
☐ D. $3e - 9$

6) The opposite of $-(-6)$ is:

☐ A. 6
☐ B. -6
☐ C. 0
☐ D. 12

7) Which number is located farthest from -1 on a number line?

☐ A. -3.2
☐ B. -2.1
☐ C. 0.8
☐ D. 1.5

8)

Player	Score
Alice	8
Bob	-3
Carol	5
David	-1

Who has the lowest score?

☐ A. Alice
☐ B. David
☐ C. Carol
☐ D. Bob

1) A ratio table extends a pattern. Which statement correctly describes the relationship between input and output in the table?

Input	Output
2	10
4	20
6	30

☐ A. Add 2 to input and add 10 to output
☐ B. Multiply input by 2; multiply output by 2
☐ C. The output is always 5 times the input
☐ D. Multiply both by different amounts

2) 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.

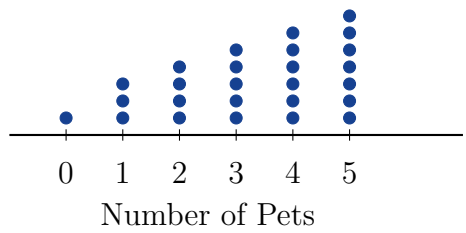
3) A large IQR indicates what about a data set?

☐ A. The data is very tightly clustered
☐ B. There are no outliers present
☐ C. All values are identical
☐ D. The middle 50% of the data is spread out

4) The ordered ages of family members are $5, 12, 25, 38, 42, 55, 68$. Find the interquartile range.

☐ A. 17
☐ B. 26
☐ C. 43
☐ D. 63

5) A dot plot shows the number of pets owned by families in a neighborhood. The data displays a left-skewed pattern. This means:



☐ A. Most families have fewer pets, with fewer families having more pets
☐ B. Most families have many pets, with fewer families having fewer pets
☐ C. The data is evenly distributed
☐ D. All families have the same number of pets

6) A dataset has $Q_1 = 8$ and $Q_3 = 20$. What is the range of the middle 50% of the data?

☐ A. 8
☐ B. 28
☐ C. 20
☐ D. 12

7) A survey of 360 people asked about favorite pizza toppings. One section of the circle graph represents $\frac{1}{5}$ of the total. What central angle does this represent?

☐ A. 36°
☐ B. 60°
☐ C. 90°
☐ D. 72°

8) Which characteristic is MOST important when deciding to use a dot plot instead of a histogram?

☐ A. You need to show the median only
☐ B. The dataset is small and you want to see each value
☐ C. The dataset is large (over 100 points)
☐ D. The data represents categories, not numbers

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

Practice Test 1 Answers and Explanations

1) **Choice C is correct.** 6.RP.A.3 $\frac{1}{5} = \frac{20}{100} = 20\%$, since $1 \times 20 = 20$ and $5 \times 20 = 100$.
2) **The correct answer is** 25000. 6.SP.B.4 25% of \$100000 $= 0.25 \times 100000 =$ \$25000.
3) **Choice C is correct.** 6.RP.A.3 Store A: $2 \div 8 = 0.25$ per orange. Store B: $3 \div 12 = 0.25$ per orange. Same unit rate.
4) **Choice C is correct.** 6.EE.C.9 The flour amount doubled from 3 cups to 6 cups. Keep the same ratio by doubling the eggs too: $2 \times 2 = 4$ eggs.
5) **Choice B is correct.** 6.NS.B.2 $6{,}300 \div 48 = 131$ remainder 12. So 131 shelves are filled completely.
6) **Choice D is correct.** 6.NS.C.5 Total is $(-2) + (+1) + (-1) = -2 + 1 - 1 = -2$ relative to par.
7) **The correct answer is** 4320. 6.EE.A.2 Annual savings: 12% of \$36000 $= 0.12 \times 36000 =$ \$4320.
8) **Choice B is correct.** 6.NS.B.4 This is a GCF problem. Since $52 = 2 \times 26$ and $78 = 3 \times 26$, the greatest common factor is 26. They can make 26 shelves with 2 fiction books and 3 non-fiction books on each shelf.
9) **Choice A is correct.** 6.SP.B.4 On a number line, -2.5 is to the left of -2, making it less than -2.
10) **Choice A is correct.** 6.NS.C.7 The correct order is $-4.2 < -4.1 < 0.3$. Negatives are always less than positive numbers.
11) **Choice C is correct.** 6.NS.C.8 Same y-coordinate (2): $|5 - 0| = 5$ units.
12) **Choice D is correct.** 6.EE.A.4 Combine like terms: $(12 - 4 + 3 - 1)y = 10y$.
13) **Choice A is correct.** 6.EE.B.5 Divide both sides by 7: $x = 21 \div 7 = 3$.
14) **Choice A is correct.** 6.EE.C.9 The graph shows the line passes through $(2, 4)$ and $(4, 8)$. The slope is $\frac{8-4}{4-2} = \frac{4}{2} = 2$, so the rate is \$2 per hour.
15) **Choice C is correct.** 6.G.A.1 Using $A = \frac{1}{2}(b_1 + b_2) \times h$: $48 = \frac{1}{2}(5 + b_2) \times 6 = 3(5 + b_2) = 15 + 3b_2$, so $3b_2 = 33$ and $b_2 = 11$ m.
16) **Choice C is correct.** 6.G.A.2 $V = 12 \times 3 \times 4 = 36 \times 4 = 144$ ft^3.
17) **Choice A is correct.** 6.NS.C.8 Translation: $A(0, 2) \to A'(0 + 1, 2 - 2) = A'(1, 0)$.
18) **Choice C is correct.** 6.RP.A.1 Radius $r = \frac{28}{2} = 14$ cm. Area $= \pi r^2 \approx \frac{22}{7} \times 14^2 = \frac{22}{7} \times 196 = 22 \times 28 = 616$ cm^2.
19) **Choice B is correct.** 6.SP.A.2 Since different students like different genres, answering a statistical question requires collecting data from multiple people. The librarian's preference or book count does not answer the question about student preferences.
20) **Choice D is correct.** 6.SP.A.2 If the original mean is 20, the sum is $5 \times 20 = 100$. Multiplying each by 3 gives a new sum of 300, and new mean $= \frac{300}{5} = 60$.
21) **Choice A is correct.** 6.SP.B.5 Type X range $= 35 - 5 = 30$; Type Y range $= 30 - 10 = 20$. Type X's larger range indicates more variability in growth.
22) **The correct answer is Equivalent-fraction divide and reciprocal multiply.** 6.NS.A.1 B uses a common denominator so you are dividing same-size chunks: $\frac{15}{18} \div \frac{6}{18} = \frac{15}{6} = \frac{5}{2}$. C keeps $\frac{5}{6}$ and multiplies by the reciprocal of $\frac{1}{3}$, which is $\frac{3}{1}$—that is $\frac{5}{6} \times \frac{3}{1}$, also simplifying to $\frac{5}{2}$. A never flips $\frac{1}{3}$, D mixes random numbers together, and E flips $\frac{5}{6}$ instead of flipping the divisor.
23) **Choice D is correct.** 6.NS.C.8 Points on the x-axis have a y-coordinate of 0. For a point to be on the positive x-axis, the x-coordinate must be positive. The point $(4, 0)$ satisfies both conditions.
24) **Choice D is correct.** 6.NS.B.3 A negative divided by a positive is negative: $\frac{-20}{4} = -5$.
25) **Choice A is correct.** 6.EE.B.7 Depth (as a positive distance) from sea level to the tunnel: $0 - (-450) = 450$ meters.

Author's Note

From Your Math Family

Hi, Math Family Member,

◇ Welcome to a special note from your math family. You finished 9 full practice tests, and that hard work matters more than any score. We see you. We are proud of you. ◇

⋆ **Our math family knows:** math is a journey. You have taken many steps already. The test is just one stop. Every skill you built is yours forever. ⋆

What Your Math Family Sees

- **Hard Work:** You keep showing up.
- **Real Growth:** You can do problems today you couldn't before.
- **Brave Heart:** You face hard problems with brave thinking.
- **Bright Future:** Your math journey is just beginning.

Family tip: on test day, picture us standing behind you, smiling and rooting for you. You are not alone. Your math family is with you!

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

Jay Daie

Your Math Family

PRACTICE MORE.
ACHIEVE MORE.

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 any test.

With 9 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.

PERFECT FOR:

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

PRACTICE TODAY. SUCCEED 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.

Deeper 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.

9 PRINTED PRACTICE TESTS

2 ONLINE PRACTICE TESTS

DETAILED ANSWER EXPLANATIONS