

10 Delaware DeSSA

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



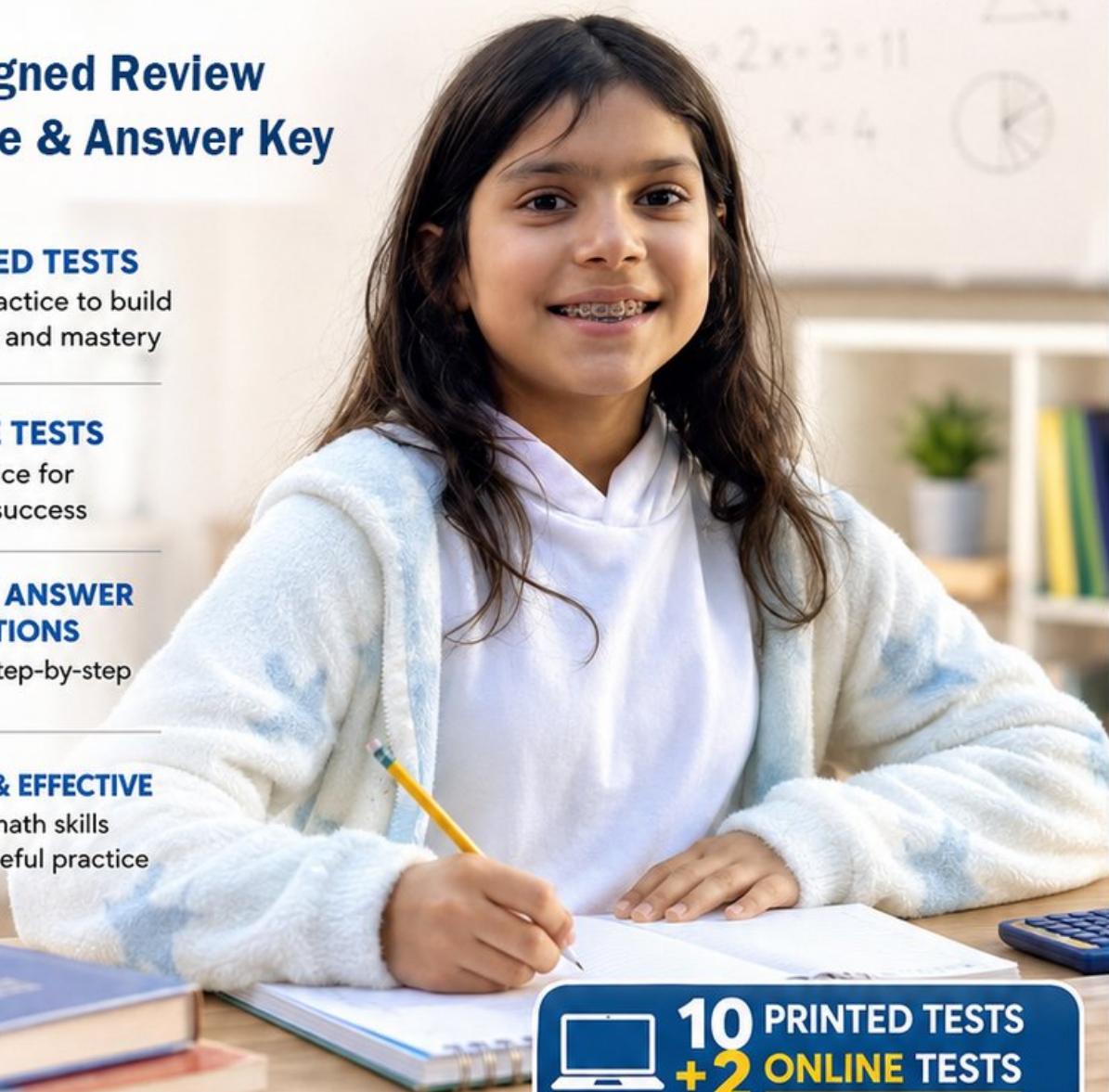
DETAILED ANSWER EXPLANATIONS

Learn with step-by-step solutions



FOCUSED & EFFECTIVE

Target key math skills with purposeful practice



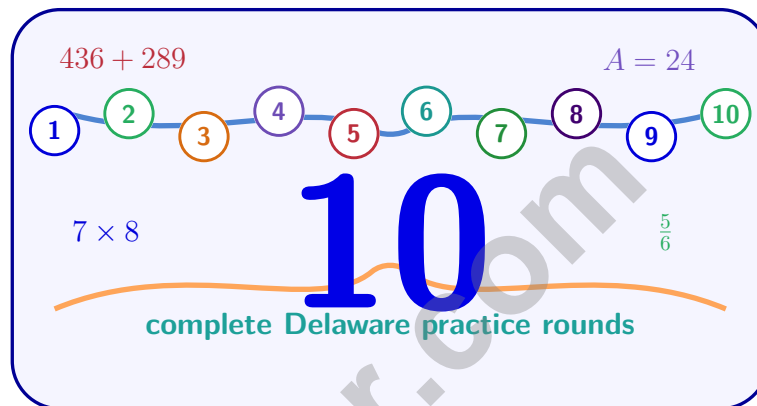
10 PRINTED TESTS
+ 2 ONLINE TESTS

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

PRACTICE • REVIEW • SUCCEED

10 Delaware DeSSA Grade 6 Math Practice Tests

Standards-Aligned Compact, Careful Strategy for Delaware System of Student Assessments



Ten complete 40-question Grade 6 practice rounds for DeSSA, 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, Delaware Math Explorer!

Ten steady rounds on a First State review path

This book gives you ten full Grade 6 practice tests for DeSSA. Each round uses bay breezes, small-state focus, and big math ideas as a fresh mental backdrop while you read closely, choose a smart strategy, show your work, and check whether your answer makes sense.

Your Delaware Practice Promise

Start with the simplest clue and build from there. 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 compact, careful strategy

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.

Delaware 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 DeSSA 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 Delaware round to show growth across the whole book.
Answer Pages	Compact keys and explanations that show why each answer works.

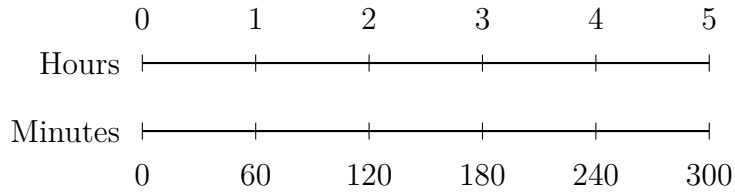
The tests are mixed on purpose. Compact, careful strategy means recognizing the skill even when the next question changes topic.



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4)

Based on the double number line, what is the rate in minutes per hour?

- A. 30 minutes per hour
- B. 60 minutes per hour
- C. 90 minutes per hour
- D. 150 minutes per hour

5) Which statement about proportional relationships is true?

- A. The graph must be a curved line
- B. The ratio y/x must be constant
- C. The line must have a y -intercept other than 0
- D. The ratio can change from point to point

6)

Category	Budget A	Budget B
Housing	\$900	\$700
Food	\$300	\$250
Transportation	\$200	\$200
Savings	\$100	\$100

Comparing the two budgets above, what is the difference in total monthly budgets?

- A. \$150
- B. \$200
- C. \$250
- D. \$300



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7) A student reads data from a stem-and-leaf plot and says: "The median is 55 and there are 11 data points." Based only on this information, what position is the median value in the ordered list?

- A. Position 5 C. Position 7
 B. Cannot determine from given information D. Position 6

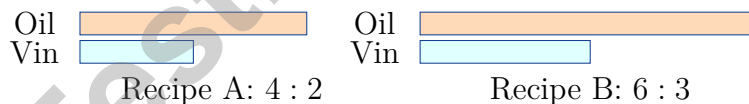
8) A movie theater sold 480 tickets for opening weekend. The circle graph shows $\frac{2}{5}$ were matinee showings. How many matinee tickets were sold?

- A. 96 C. 192
 B. 144 D. 240

9) Simplify the ratio 14 : 21.

- A. 1 : 2 C. 3 : 2
 B. 2 : 3 D. 14 : 21

10) Two recipes use olive oil and vinegar. The diagram shows the two recipes side by side.

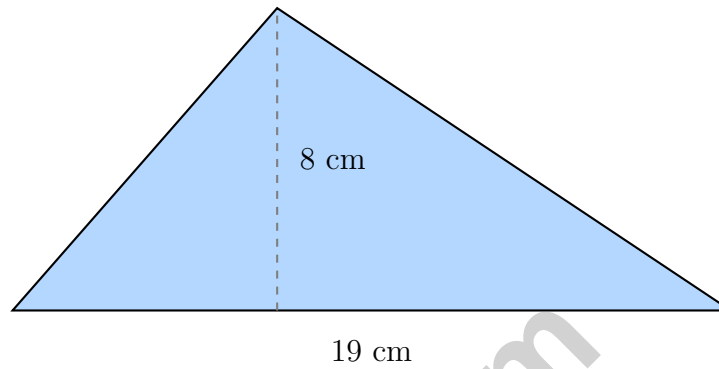


Which statement is true?

- A. Recipe A has an oil-to-vinegar ratio of 4 : 3. C. Recipe B has an oil-to-vinegar ratio of 3 : 6.
 B. The recipes cannot be compared using ratios. D. Both recipes have the same oil-to-vinegar ratio.

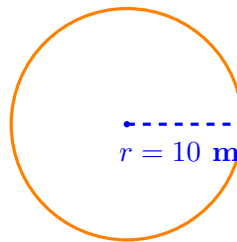


- 1) An acute triangle has a base of 19 centimeters and a height of 8 centimeters. What is its area?



- A. 27 cm^2 C. 76 cm^2
 B. 38 cm^2 D. 152 cm^2
- 2) Point A is located at $(3, 5)$. If it is translated 4 units to the left and 2 units down, what are the coordinates of its image A' ?
- A. $(-1, 3)$ C. $(-1, 7)$
 B. $(7, 7)$ D. $(7, 3)$

Circular Field



3)

A circular field has a radius of 10 meters. Using $\pi \approx 3.14$, what is the area?

- A. 31.4 m^2 C. 314 m^2
 B. 62.8 m^2 D. 628 m^2



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4) Consider the question: “How much time do students in my class spend on video games each week?”

What makes this a statistical question?

- A. It is asked every week. D. It involves many people with different answers.
- B. It requires a calculator to answer.
- C. It mentions video games.

5) A restaurant tracks daily customer counts. Last month: mean = 150, range = 80. This month: mean = 155, range = 20. What does this tell you?

- A. This month had more customers and less consistency
- B. This month had more customers and more consistency
- C. Both months had similar customer patterns
- D. This month definitely had fewer total customers

6) The stem-and-leaf plot shows test scores. What is the median?

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

- A. 74 C. 78
- B. 75 D. 76



1) What is the range of the data set 15, 22, 9, 30, 18?

- A. 21 C. 9
 B. 18 D. 30

2) A 10×10 grid has 35 shaded squares. What percent of the grid is shaded?

- A. 3.5% C. 65%
 B. 35% D. 350%

3)

Store	Original Price	Sale Price
Store A	\$50	\$40
Store B	\$60	\$42

Which store offers the larger percent discount?

- A. Store A (20% off) C. Store A (30% off)
 B. Store B (30% off) D. Both offer the same discount
- 4) A juice recipe uses 2 cups orange juice, 3 cups apple juice, and 1 cup water. How much of each ingredient is needed to make triple the recipe?
- A. 2 cups, 3 cups, 1 cup C. 8 cups, 12 cups, 4 cups
 B. 5 cups, 6 cups, 4 cups D. 6 cups, 9 cups, 3 cups
- 5) A factory fills bottles with 500 mL of juice each. How many liters is needed to fill 6 bottles?

- A. 0.3 liters C. 30 liters
 B. 3 liters D. 300 liters



6) What is the prime factorization of 36?

- A. 2×18
 C. 4×9
 B. $2^2 \times 3^2$
 D. 6×6

7) The factor tree below shows the GCF of two numbers. Use it to write the factored form of the sum.

$$\text{GCF} = 2 \times 3$$

$$2 \qquad 3$$

First number: $2 \times 3 \times 4 = 24$
 Second number: $3 \times 3 \times 5 = 45$

- A. $6(5 + 4)$
 C. $5(6 + 24)$
 B. $6(5 \times 4)$
 D. $(5 + 4)(2 + 3)$

8) A car travels at a constant speed. After 3 hours, the car has traveled 165 miles. At this rate, how many miles will the car travel in 8 hours?

9) Which statement about the number line is FALSE?

- A. Negative numbers are to the left of zero
 B. The integer -10 is less than -5
 C. The number 0 is both positive and negative
 D. All positive integers are greater than all negative integers



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Delaware DeSSA 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

- Choice B is correct.** **(6.RP.A.3)** Reading from the number line, point B is located at the tick mark labeled -2 .
- Choice B is correct.** **(6.SP.A.2)** The pattern is $1'' = 8$ ft, so $3'' = 3 \times 8 = 24$ ft.
- Choice C is correct.** **(6.SP.B.4)** $\frac{3}{10} \times 5 = \frac{15}{10} = \frac{3}{2}$.
- Choice B is correct.** **(6.SP.B.5)** From the double number line, 1 hour equals 60 minutes. This is the standard conversion rate.
- Choice B is correct.** **(6.NS.B.3)** A proportional relationship has a constant ratio between variables. Its graph is a straight line through the origin, and the constant ratio is the constant of proportionality.
- Choice C is correct.** **(6.NS.C.6c)** Budget A total: $\$900 + \$300 + \$200 + \$100 = \$1500$. Budget B total: $\$700 + \$250 + \$200 + \$100 = \$1250$. Difference: $\$1500 - \$1250 = \$250$.
- Choice D is correct.** **(6.NS.C.8)** With 11 data points (odd), the median is at position $(11 + 1)/2 = 6$. So the median value 55 is the 6th value in the ordered list.
- Choice C is correct.** **(6.NS.B.3)** $\frac{2}{5} = 40\%$. So $0.40 \times 480 = 192$ matinee tickets.
- Choice B is correct.** **(6.EE.B.5)** Look for the greatest common factor of 14 and 21. They share a factor of 7, so divide both parts by 7: $\frac{14}{7} : \frac{21}{7} = 2 : 3$. Heads up: choice A ($1 : 2$) looks close, but it is not equivalent to $14 : 21$.
- Choice D is correct.** **(6.EE.C.9)** Recipe A has $4 : 2$, which simplifies to $2 : 1$. Recipe B has $6 : 3$, which also simplifies to $2 : 1$, so the recipes have the same oil-to-vinegar ratio.
- Choice A is correct.** **(6.G.A.1)** Take any row: $\$1.80 \div 3 = \0.60 per apple. All rows confirm this unit rate.
- Choice B is correct.** **(6.NS.C.8)** The ratio $2 : 3$ is constant. When sugar is 12, multiply by 4: $2 \times 4 = 8$ cups of flour.
- Choice C is correct.** **(6.EE.A.2a)** The ratios are: $\frac{65}{1} = 65$, $\frac{75}{2} = 37.5$, $\frac{85}{3} \approx 28.3$. The ratios are different, so this is not a proportional relationship. The line does not pass through the origin $(0,0)$, which is required for proportionality.
- Choice B is correct.** **(6.EE.A.2b)** Shaded: $3 \times 10 + 3 \times 5 = 30 + 15 = 45$ squares out of $100 = 45\%$.
- Choice A is correct.** **(6.EE.A.2c)** Shaded portion is 75% of the total. If 75% equals 75 students, then $100\% = \frac{75}{0.75} = 100$ students.
- Choice B is correct.** **(6.EE.B.8)** 2 hours = 120 minutes = four 30-minute intervals. Distance: $25 \times 4 = 100$ miles.
- Choice A is correct.** **(6.EE.B.6)** Divide: $2500 \div 1000 = 2.5$ kg. The student's error of multiplying would give an absurdly large number.
- The correct answer is T-shaped and cross-shaped nets are valid cube nets.** **(6.G.A.1)** Both T and C (cross) are well-known valid nets for a cube. B (a straight line) will overlap when folded. D (L-shape) depends on exact configuration but standard L-shapes can overlap. E (5 + 1 corner) can also lead to overlap. A and C are the two most reliable valid nets.
- Choice D is correct.** **(6.EE.B.8)** Using $I = P \times r \times t$: $\$250 = \$1000 \times 0.05 \times t \Rightarrow \$250 = \$50 \times t \Rightarrow t = 5$ years.
- Choice A is correct.** **(6.NS.B.2)** $8,350 \div 40 = 208$ remainder 30. The remainder 30 out of 40 is $\frac{30}{40} = \frac{3}{4}$, so the mixed number is $208\frac{3}{4}$.
- Choice C is correct.** **(6.NS.C.8)** Subtract: $0.5 - 0.3 = 0.2$ L.
- The correct answer is 20.** **(6.SP.A.2)** Total sum = $25 \times 4 = 100$. Sum of three = $20 + 28 + 32 = 80$. Fourth = $100 - 80 = 20$.
- Choice D is correct.** **(6.SP.B.5c)** This is an LCM problem. Multiples of 8: 8, 16, 24, ... Multiples of 12: 12, 24, ... Both buses are at the station together at 24 minutes.
- Choice A is correct.** **(6.RP.A.1)** Using the distributive property: $7(4 + 6) = 7 \cdot 4 + 7 \cdot 6 = 28 + 42 = 70$.
- Choice C is correct.** **(6.SP.B.4)** The difference is $5 - (-15) = 5 + 15 = 20$ degrees.
- Choice D is correct.** **(6.NS.A.1)** Both $|-7|$ and $|7|$ equal 7, so they are equal.
- Choice C is correct.** **(6.G.A.4)** Quadrant III is in the lower left. The point closest to this boundary from Quadrant IV would have a small x -coordinate. The point $(1, -5)$ has the smallest x -value among the Quadrant IV points listed.
- Choice C is correct.** **(6.SP.B.5c)** $X = -4$ and $Y = 2$. Distance = $2 - (-4) = 2 + 4 = 6$ units.



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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.

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

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SUCCESS TOMORROW!**

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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
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2 ONLINE
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DETAILED ANSWER
EXPLANATIONS