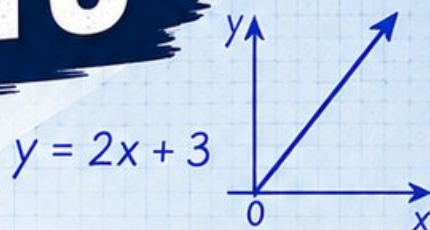


# 3 Delaware DeSSA

GRADE  
**6**  
MATH

## PRACTICE TESTS

Standards Aligned Problem Solving  
For Comprehensive Assessment Programs



$$\frac{3}{5} + \frac{2}{10} = \frac{8}{10} = \frac{4}{5}$$

$36\% \text{ of } 150 = ?$



**3** | PRINTED  
TESTS



**2** | ONLINE  
TESTS



Build  
Confidence



Master Key  
Math Skills



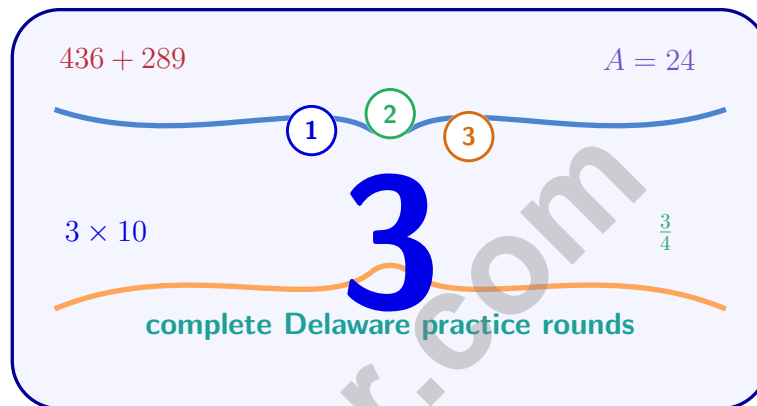
Answer Explanations  
for Every Question



Test-Taking  
Strategies That Work

# 3 Delaware DeSSA Grade 6 Math Practice Tests

*Standards-Aligned Small-State Sharp Focus for Delaware System of Student Assessments*



Three complete 40-question Grade 6 practice rounds for DeSSA, built for small-state sharp 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, Delaware Math Explorer!

Three focused rounds using small-state sharp focus

This book gives you three full Grade 6 practice tests for DeSSA. Each round uses bay paths, classroom routines, and tidy problem notes 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

Keep the work compact and clear: underline the task, solve, then check the question again.

Read

Plan

Check

## How to Use This Book

A three-session routine for small-state sharp focus

1. **Work in order.** Take one 40-question test at a time in a quiet place.
2. **Preview the skills.** Scan the quick review pages before beginning the first round.
3. **Correct actively.** Retry missed items before reading the full explanation.
4. **Mark confidence.** Put a small star beside problems where your plan felt strong.
5. **Plan the next round.** Use the growth log to choose one habit and one skill to practice.

**Delaware review rhythm:** Use one test at a time, then turn missed items into a short practice list.



## What Is Inside?

Three DeSSA tests, 120 questions, and a full review path

Part	What You Will Practice
Tests 1–2	Foundation rounds for ratios, rational numbers, operations, and careful reading.
Test 3	Final stamina round for expressions, equations, geometry, data, problem models, and mixed review.
Answer Pages	Compact keys and explanations that show why each answer works.

The tests are mixed on purpose. Small-state sharp 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

# Table of Contents

★ Practice Test 1	_____	14
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Practice Test Answer Keys	_____	61
Practice Test Answers and Explanations	_____	64

1) A length of 8 inches is to be written as a number of feet. Which value, in feet, equals 8 inches? (Use 1 foot = 12 inches.)

A.  $\frac{2}{3}$  feet

B. 1 foot

C.  $1\frac{1}{3}$  feet

D. 2 feet

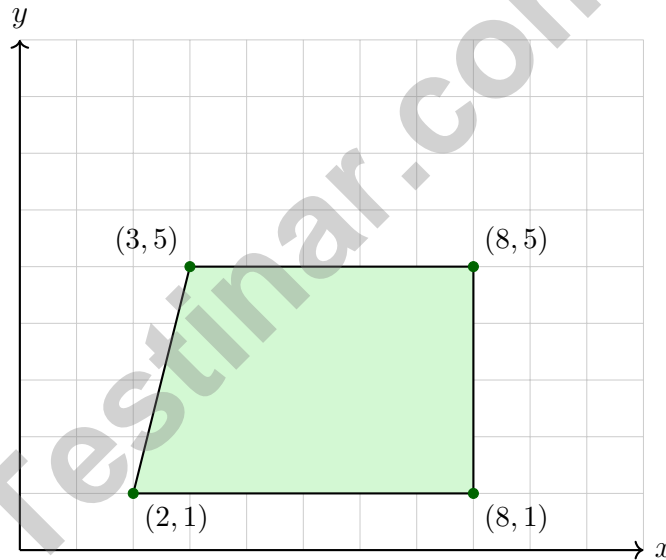
2) Which expression matches “twice the quotient of 15 and  $j$ ”?

A.  $\frac{2 \cdot 15}{j}$

B.  $2j + 15$

C.  $15 - 2j$

D.  $2 \cdot \frac{15}{j}$



3)

The right-hand side of this trapezoid is the vertical segment from (8, 1) to (8, 5). What is its length?

A. 4 units

B. 5 units

C. 6 units

D. 7 units



4) Two basketball teams' season statistics:

Team	Mean PPG	Std Dev
Hawks	72	8
Falcons	70	14

Which team had more consistent scoring?

- A. Hawks (lower standard deviation)     D. Cannot tell from standard deviation
- B. Falcons (higher mean)     C. Both equally consistent
- 5) A store charges the same price per item. Three customers bought items with these totals:

Number of Items	Total Cost (\$)
3	15
7	35
10	45

Which customer paid an incorrect total if the unit price is constant?

- A. The first customer (3 items)     D. All customers paid the correct amount
- B. The second customer (7 items)
- C. The third customer (10 items)
- 6) Convert 0.09 to a percent.
- A. 0.9%     C. 90%
- B. 900%     D. 9%



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& answers

Total = 100% = ? pages



7)

If 80% of a book's pages equals 200 pages, how many total pages does the book have?

- A. 160                       C. 250  
 B. 240                       D. 300

8) The ratio of length to width of a rectangle is 7 : 4. If the width is 20 cm, what is the length?

- A. 28 cm                       C. 40 cm  
 B. 30 cm                       D. 35 cm

9) A clothing store offers layered discounts: first take 20% off, then take an additional 10% off the already-reduced price. If an item originally costs \$100, what is the final price?

- A. \$70                       C. \$80  
 B. \$90                       D. \$72

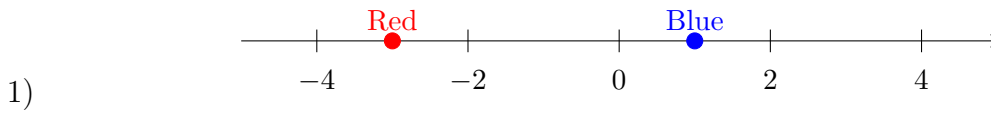
10) A company tracks its website visits. The table shows:

<b>Days</b>	1	2	3
<b>Visits</b>	100	200	300

A marketing director says the relationship is proportional because the number of visits increases by 100 each day. Which statement correctly evaluates the relationship?

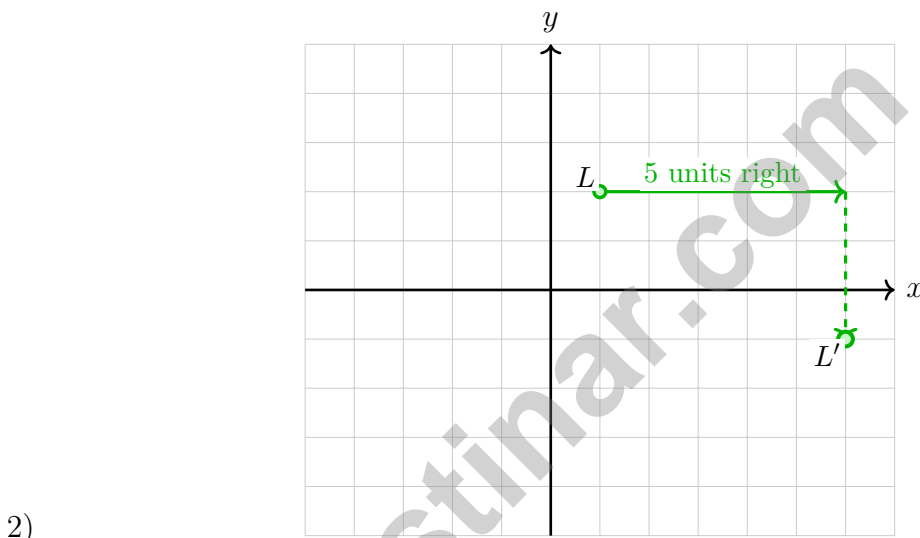
- A. Yes; constant increase means proportional  
 B. No; the relationship must also pass through the origin  
 C. Yes; the ratio visits/days is 100 each day  
 D. No; visits are always too large





Which is true?

- |  |   |
|--|---|
| <input type="checkbox"/> A. Red = Blue | <input type="checkbox"/> C. Red < Blue        |
| <input type="checkbox"/> B. Red > Blue | <input type="checkbox"/> D. They are opposite |



Point  $L$  at  $(1, 2)$  is translated 5 units right and 3 units down. What is the distance between  $L$  and  $L'$  along the  $x$ -direction?

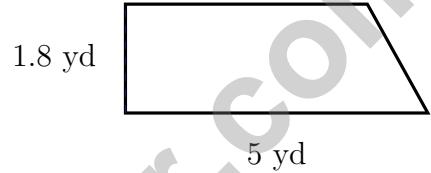
- |                                     |                                     |
|-------------------------------------|-------------------------------------|
| <input type="checkbox"/> A. 5 units | <input type="checkbox"/> C. 2 units |
| <input type="checkbox"/> B. 3 units | <input type="checkbox"/> D. 8 units |

3) A circle has an approximate area of  $201 \text{ m}^2$  using  $\pi \approx \frac{22}{7}$ . What is the radius?

- A. 4 m
- B. 7 m
- C. 14 m
- D. 8 m

4) A coach asks: “What is the typical running speed of students on the track team?” Why is this a statistical question?

- A. Because running is an athletic activity.
- B. Because the coach is a teacher.
- C. Because the word “typical” is used.
- D. Because different team members run at different speeds, and data must be collected.



5)

What is the area of the parallelogram shown above?

6) In a right-skewed distribution, which statement is always true?

- A. Mean = Median = Mode
- B. Mode < Median < Mean
- C. Mean < Median < Mode
- D. Mode = Mean < Median



Scan me!  
For more practice & answers

1) A cookie recipe serves 8 people and uses  $\frac{3}{4}$  cup of butter. How much butter is needed to serve 4 people?

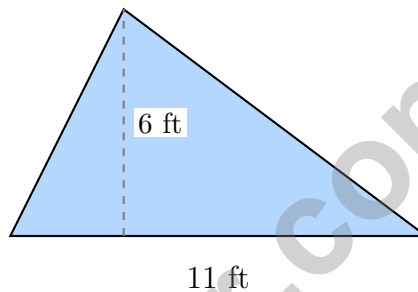
A.  $\frac{1}{4}$  cup

C.  $\frac{1}{2}$  cup

B.  $\frac{3}{8}$  cup

D.  $\frac{2}{3}$  cup

2) A landscape architect designs a triangular garden bed. The base measures 11 feet and the height is 6 feet. What is the area available for planting?



A.  $17 \text{ ft}^2$

C.  $66 \text{ ft}^2$

B.  $33 \text{ ft}^2$

D.  $132 \text{ ft}^2$

3) A submarine at  $-300$  feet relative to sea level moves up 75 feet. What is its new depth?



4) A parallelogram has a base of 20 cm and an area of  $140 \text{ cm}^2$ . What is its height?

A. 5 cm

C. 9 cm

B. 7 cm

D. 14 cm

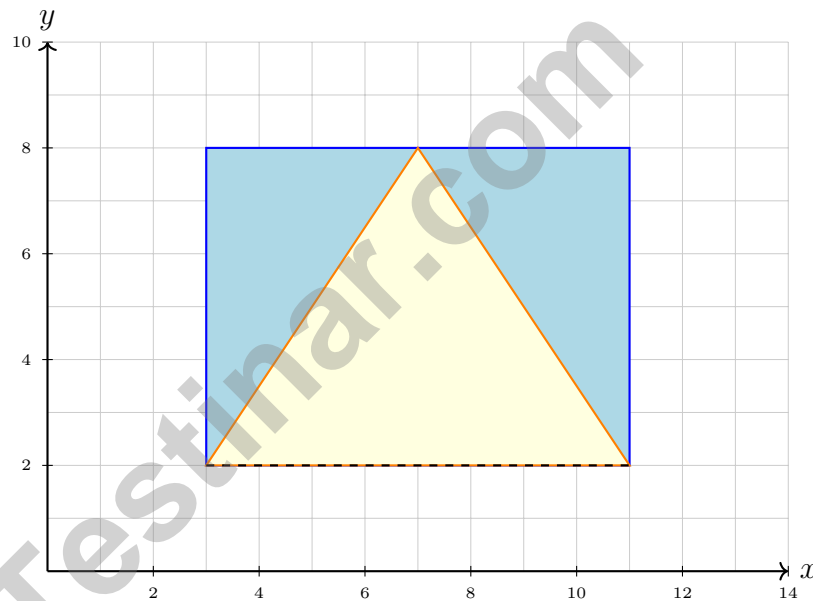
5) A rectangular prism has volume  $36 \text{ ft}^3$ , length  $4\frac{1}{2} \text{ ft}$ , and height 4 ft. What is the width?

A. 1 ft

C. 3 ft

B. 4 ft

D. 2 ft



6)

A composite figure consists of a rectangle and a triangle. The rectangle has vertices at  $(3, 2)$ ,  $(11, 2)$ ,  $(11, 8)$ , and  $(3, 8)$ . The triangle sits on top with vertices at  $(3, 8)$ ,  $(11, 8)$ , and  $(7, 12)$  (height extends to 12). What is the total area? (Note: Triangle height is 4 units above the rectangle.)

A. 48 square units

C. 64 square units

B. 52 square units

D. 60 square units



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For more practice  
& answers

## Delaware DeSSA Practice Test Answer Keys

**How to use this Delaware DeSSA 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 small-state sharp focus
3. rework the problem before reading the full explanation, using this reminder:  
Keep the work compact and clear: underline the task, solve, then check the question again.

**A calm Delaware correction routine turns every missed item into useful practice. Use one test at a time, then turn missed items into a short practice list.**



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& answers

## Delaware Practice Test Answers and Explanations

Review the three printed DeSSA tests with focused, neat, and ready for the next round habits.

### Practice Test 1 Answers and Explanations

- 1) **Choice A is correct.** (6.RP.A.3d) Since 1 foot = 12 inches, 8 inches =  $\frac{8}{12} = \frac{2}{3}$  feet.
- 2) **Choice D is correct.** (6.EE.A.2a) “The quotient of 15 and  $j$ ” is  $\frac{15}{j}$ . “Twice” that quotient means multiply by 2:  $2 \cdot \frac{15}{j}$ .
- 3) **Choice A is correct.** (6.G.A.3) The right side runs vertically from (8, 1) up to (8, 5). Its length is the difference of  $y$ -values:  $|5 - 1| = 4$  units.
- 4) **Choice A is correct.** (6.SP.B.5) Standard deviation measures spread. Hawks’ lower standard deviation ( $8 < 14$ ) indicates more consistent scoring around their mean.
- 5) **Choice C is correct.** (6.RP.A.3a) The unit price from the first customer is  $\$15 \div 3 = \$5$  per item. The second customer:  $\$35 \div 7 = \$5$  per item ✓. The third customer should pay  $10 \times 5 = \$50$ , but only paid \$45. The third customer’s total is incorrect.
- 6) **Choice D is correct.** (6.RP.A.3c)  $0.09 \times 100 = 9\%$ .
- 7) **Choice C is correct.** (6.RP.A.3c)  $0.80 \times \text{total} = 200$ .  $\text{Total} = 200 \div 0.80 = 250$  pages.
- 8) **Choice D is correct.** (6.RP.A.3) Ratio 7 : 4 with width 20 cm: each part is  $20 \div 4 = 5$  cm. Length is  $7 \times 5 = 35$  cm.
- 9) **Choice D is correct.** (6.NS.C.7d) After first discount:  $\$100 - 0.20 \times 100 = \$80$ . After second discount:  $\$80 - 0.10 \times 80 = \$72$ .
- 10) **Choice C is correct.** (6.NS.C.7d) The relationship is proportional because the ratio visits/days is constant:  $100/1 = 200/2 = 300/3 = 100$ . A constant increase alone is not enough to prove proportionality, but the constant ratio confirms it here.
- 11) **Choice B is correct.** (6.EE.C.9) Discretionary:  $100\% - 60\% - 25\% = 15\%$ .
- 12) **Choice C is correct.** (6.RP.A.3) Multiply the model height by the scale:  $10 \text{ cm} \times 0.8 \text{ m/cm} = 8 \text{ m}$ .
- 13) **Choice B is correct.** (6.NS.A.1) If 1 can covers  $\frac{2}{3}$  wall, then to cover  $\frac{1}{2}$  wall we need  $\frac{1}{2} \div \frac{2}{3} = \frac{1}{2} \times \frac{3}{2} = \frac{3}{4}$  can.
- 14) **Choice B is correct.** (6.NS.B.2)  $6,300 \div 48 = 131$  remainder 12. So 131 shelves are filled completely.
- 15) **Choice A is correct.** (6.NS.B.3) Multiply:  $\$8.50 \times 2.5 = \$21.25$ .
- 16) **Choice D is correct.** (6.NS.B.4) Factors of 16: 1, 2, 4, 8, 16. Factors of 40: 1, 2, 4, 5, 8, 10, 20, 40. The greatest common factor is 8.
- 17) **Choice A is correct.** (6.NS.B.4) Distributive property:  $4(7 + 8) = 4 \cdot 7 + 4 \cdot 8 = 28 + 32 = 60$ . Choice A shows the expanded form.
- 18) **Choice D is correct.** (6.NS.C.5) The student went from +25 to -5. The change is  $-5 - 25 = -30$ , meaning the lunch cost 30 dollars.
- 19) **Choice C is correct.** (6.NS.C.7c)  $|-5| = 5$ ,  $|-3| = 3$ ,  $|2| = 2$ . So  $5 + 3 - 2 = 6$ .
- 20) **The correct answer is 4 : 6 = 2 : 3 (dividing by 2) and 4 : 6 = 8 : 12 (multiplying by 2)..** (6.RP.A.1) Nice checking: Choice A works because 4 : 6 simplifies to 2 : 3, and Choice B works because multiplying both parts of 4 : 6 by 2 gives 8 : 12. The other choices change the relationship.
- 21) **Choice B is correct.** (6.NS.C.6c) Values between -1 and 0 are negative decimals closer to zero. Only -0.7 satisfies  $-1 < x < 0$ .
- 22) **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.
- 23) **Choice A is correct.** (6.NS.C.7d) Negative fractions come before positive ones.  $-\frac{3}{5} < -\frac{1}{5}$  and  $\frac{1}{5} < \frac{3}{5}$ .
- 24) **The correct answer is 9.** (6.RP.A.3) Strawberries are the 5-part amount. Since  $15 \div 5 = 3$ , each part is 3, and bananas are 3 parts:  $3 \times 3 = 9$ .
- 25) **Choice A is correct.** (6.NS.C.8) Same  $x$ -coordinate (-7):  $|4 - (-3)| = |4 + 3| = 7$  units.
- 26) **Choice C is correct.** (6.NS.B.3) Opposite integers sum to zero:  $-6 + 6 = 0$ . The opposite of -6 is 6.



---

Cheer Squad Final Pep Talk

---

## Hi, Math Star!

◇ 3 practice tests! That's a LOT of work, and you did it ALL. I am cheering so loud right now. You earned every clap and every cheer! ◇

★ **Cheerleader truth:** confidence is built by showing up. You showed up 3 times. That's real confidence. It is not pretend! ★

### Cheer Roll Call

- **Effort:** 100% YOU SHOWED UP!
- **Heart:** BIG!
- **Skills:** STRONG and growing!
- **Spirit:** BRIGHT!

**Cheer tip:** on test day, be your own cheerleader. Whisper to yourself: "I can do this. I practiced." Tiny cheers make a big difference!

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 Cheerleader

# PRACTICE TODAY. SUCCEED TOMORROW!

This book includes 3 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:

- 3 Full-Length Printed Tests
  - 2 Online Practice Tests
-  Detailed Answer Explanations

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

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Build a solid foundation through targeted practice and review.



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Develop logical thinking and effective solution strategies.



### Deeper Understanding

Reinforce key concepts with clear explanations and meaningful practice.



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Familiarize with test formats and improve accuracy and speed.



### Achieve Success

Build confidence and perform your best on test day.

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



## 2 ONLINE TESTS

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



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