

9

Delaware DeSSA

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



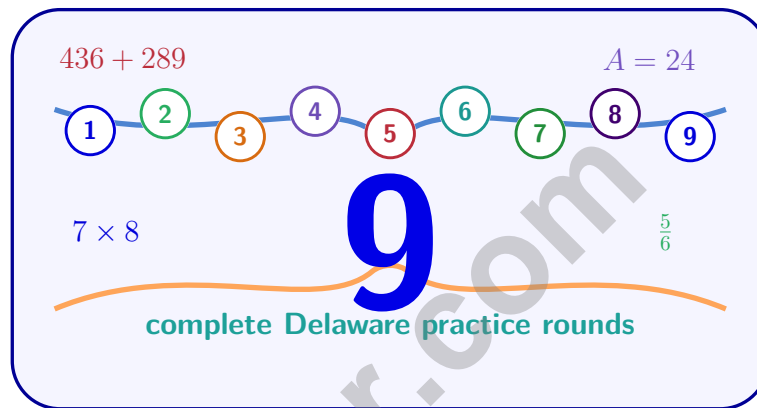
REVIEW



SUCCEED

9 Delaware DeSSA Grade 6 Math Practice Tests

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



Nine 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!

Nine focused rounds using small-state sharp focus

This book gives you nine 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 nine-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?

Nine DeSSA 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. 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

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1) A lemonade stand sells lemonade and iced tea in a ratio of 3 : 2. If the stand sells 18 cups of lemonade, how many cups of iced tea does it sell?

A. 6 cups

C. 27 cups

B. 30 cups

D. 12 cups

2) Factor $14 + 21$ using the GCF.

A. $2(7 + 10.5)$

C. $3(4.67 + 7)$

B. $7(2 + 3)$

D. $21(1 + 0.67)$

3) Which statement is true?

A. $-10 < -5$

C. $-3 > -8$

B. $-5 > 0$

D. $0 < -1$

4) A train travels at 80 miles per hour for 2.5 hours. How far does the train travel?

5) On a number line, the midpoint between two numbers is -0.5 . If one number is -2 , what is the other number?

A. -3.5

C. 1.5

B. -1

D. 1



6) A student is using a scale of 1 inch = 5 feet. She wants to find the drawing length for an actual wall that is 20 feet long. She divides: $20 \div 5 = 4$. Is she correct? If not, which answer is right?

- A. Yes, 4 inches is correct.
 D. No; the drawing length is 100 inches.
- B. No; the drawing length is 25 inches.
- C. No; the drawing length is 15 inches.

Area Model Division: $2,688 \div 32$

80	4
----	---

$$32 \times 80$$

$$= 2,560$$

$$32 \times 4$$

$$= 128$$

$$\text{Total: } 2,560 + 128 = 2,688$$

7)

Using the area model above, what is the quotient $2,688 \div 32$?

- A. 84
 C. 88
- B. 86
 D. 90
- 8) A receipt shows three items: \$5.25, \$12.99, and \$8.50. What is the total?
- A. \$26.74
 C. \$27.00
- B. \$25.74
 D. \$18.24
- 9) A baker needs to convert $\frac{3}{4}$ of a pound of flour to ounces. How many ounces of flour does the baker need?



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& answers

- 10) What is the greatest common factor (GCF) of 24 and 36?
- A. 6 C. 12
 B. 8 D. 24
- 11) Which expression with a negative number equals 10?
- A. $|-10|$ C. $|10|$
 B. The opposite of 10 D. -10
- 12) How many quadrants have points with at least one positive coordinate?
- A. 1 C. 3
 B. 2 D. 4
- 13) What is $3 \times (-12)$?
- A. -36 C. -9
 B. 36 D. 9
- 14) Which pair of terms can be combined into a single term?
- A. $3x^2$ and $3x$ C. $2y$ and $8y$
 B. $5p$ and $5q$ D. $6a^2$ and $6ab$
- 15) Which expression is equivalent to $3(x + 2) + 2x$?
- A. $5x + 6$ C. $3x + 6 + 2x$
 B. $5x + 2$ D. $6x + 2$



1) Which statement correctly compares the two integers -6 and -3 ?

A. $-6 > -3$

B. $-6 = -3$

C. $-6 < -3$

D. -6 and -3 are opposites

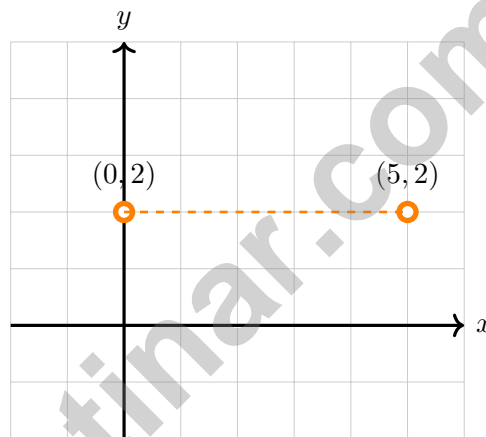
2) What is 6^2 ?

A. 12

B. 36

C. 42

D. 62



3)

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

A. 3 units

B. 4 units

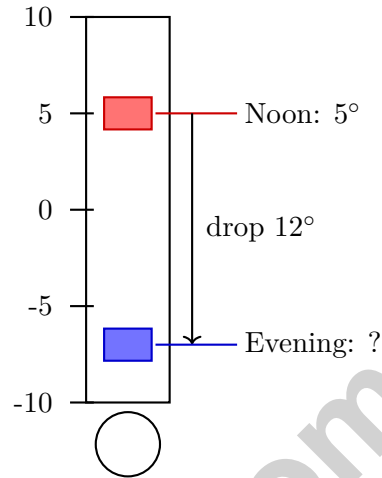
C. 5 units

D. 6 units

4) A clothing store stocks shirts and pants in a $3 : 2$ ratio. If the store has 24 shirts, how many pants does it have?



5) The temperature at noon was 5°C . By evening, it dropped 12°C . Use the thermometer to find the evening temperature.



- A. 7°C
- B. -17°C
- C. 17°C
- D. -7°C



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& answers

- 1) A 6-pack of soda costs \$3.60. What is the cost per can (unit rate)?
- A. \$0.50 C. \$0.70
 B. \$0.80 D. \$0.60
- 2) A classroom has 28 students. If 7 students ride the bus, what is the probability that a randomly selected student does **not** ride the bus?
- A. $\frac{1}{4}$ C. $\frac{3}{4}$
 B. $\frac{1}{3}$ D. $\frac{4}{5}$
- 3) What is the mean of the data set: 3, 5, 7, 9, 11?
- A. 5 C. 9
 B. 11 D. 7
- 4) Find the mean of 3, 7, 8.
- A. 5 C. 7
 B. 6 D. 18
- 5) Which of the following is NOT part of the five-number summary?
- A. The median C. The mean
 B. Q_1 D. The maximum
- 6) Data on pages read in a book: 56, 58, 62, 65, 61, 59, 63. In the stem-and-leaf plot, which stem has the most leaves?
- A. Stem 5 C. Both have equal leaves
 B. Stem 6 D. Stem 7



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& answers

7) A tech company surveyed 560 employees about department. The circle graph shows $\frac{7}{16}$ work in engineering. How many work in engineering?

A. 220

C. 280

B. 245

D. 315

8) A histogram has frequencies 8, 14, 11, 7. What percent are in the two middle intervals?

9) Which net cannot fold into a cube without overlapping faces?

A. T-shaped net with 6 squares

C. Cross with 6 squares

B. Zigzag with 6 squares

D. Straight line of 6 squares

10) A gym tracks weekly visitor counts: 120, 135, 128, 142, 151, 140, 130. When ordered: 120, 128, 130, 135, 140, 142, 151. Find the interquartile range.

A. 12

C. 15

B. 31

D. 14

11) Class A has range 10 and Class B has range 15. By how much is Class B's range greater?



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

Practice Test 1 Answers and Explanations

- 1) **Choice D is correct.** **(6.RP.A.1)** The 3 lemonade parts stand for 18 cups, so each part is $18 \div 3 = 6$ cups. Iced tea is 2 parts, so $2 \times 6 = 12$ cups.
- 2) **Choice B is correct.** **(6.NS.B.4)** GCF of 14 and 21 is 7. So $14 + 21 = 7(2 + 3)$. Only Choice B uses the GCF with whole numbers.
- 3) **Choice C is correct.** **(6.NS.C.5)** On a number line, -3 is to the right of -8 , so -3 is greater than -8 . The fewer negative units from zero, the greater the number.
- 4) **The correct answer is 200.** **(6.RP.A.3)** Distance = Rate \times Time = $80 \times 2.5 = 200$ miles.
- 5) **Choice D is correct.** **(6.NS.C.6c)** Using midpoint formula: $\frac{-2+x}{2} = -0.5 \Rightarrow -2 + x = -1 \Rightarrow x = 1$.
- 6) **Choice A is correct.** **(6.RP.A.3)** To find the drawing length from the actual length, divide by the scale: $20 \div 5 = 4$ inches. The student's method is correct.
- 7) **Choice A is correct.** **(6.NS.B.2)** The area model shows $80 + 4 = 84$. Verify: $32 \times 80 = 2,560$ and $32 \times 4 = 128$, so $2,560 + 128 = 2,688$.
- 8) **Choice A is correct.** **(6.NS.B.3)** Add: $\$5.25 + \$12.99 + \$8.50 = \26.74 . Align decimal points for money.
- 9) **The correct answer is 12.** **(6.RP.A.3d)** Multiply: $\frac{3}{4}$ pound \times 16 oz/pound = 12 ounces.
- 10) **Choice C is correct.** **(6.NS.B.4)** List what both numbers share evenly: candidates include 12, since $24 = 12 \times 2$ and $36 = 12 \times 3$. Nothing larger divides both cleanly, so the GCF settles at 12.
- 11) **Choice A is correct.** **(6.NS.C.7c)** $|-10| = 10$ because absolute value is distance from zero.
- 12) **Choice C is correct.** **(6.NS.C.8)** Quadrants I, II, and IV have at least one positive coordinate. Only Quadrant III (where both coordinates are negative) does not.
- 13) **Choice A is correct.** **(6.NS.B.3)** Positive times negative is negative: $3 \times (-12) = -36$.
- 14) **Choice C is correct.** **(6.EE.A.2b)** Like terms have identical variables to identical powers. $2y$ and $8y$ are both y terms, so they combine to $10y$.
- 15) **Choice A is correct.** **(6.EE.A.3)** Distribute then combine: $3x + 6 + 2x = 5x + 6$.
- 16) **The correct answer is 100 dollars.** **(6.NS.C.7d)** The cost is \$25 for each day. For 4 days, multiply $25 \times 4 = 100$, so the rental costs \$100.
- 17) **Choice A is correct.** **(6.EE.B.6)** Total cost = price per notebook \times number of notebooks = $3n$.
- 18) **Choice C is correct.** **(6.G.A.2)** $V = 8 \times 0.75 \times 5 = 6 \times 5 = 30$ ft³.
- 19) **The correct answer is Housing and Food are correctly calculated.** **(6.EE.C.9)** A: Housing is $40\% \times 2500 = \$1000$. Correct. B: Food is $24\% \times 2500 = \$600$. Correct. C: Utilities is $10\% \times 2500 = \$250$, not \$200. Incorrect. D: Transportation is $12\% \times 2500 = \$300$, not \$250. Incorrect. E: Savings is $14\% \times 2500 = \$350$, not \$400. Incorrect.
- 20) **Choice B is correct.** **(6.G.A.1)** Width: $7 - 1 = 6$ units. Height: $3 - 1 = 2$ units. Area = $6 \times 2 = 12$ square units.
- 21) **Choice C is correct.** **(6.RP.A.1)** Area = $\pi r^2 \approx \frac{22}{7} \times 7^2 = \frac{22}{7} \times 49 = 22 \times 7 = 154$ m².
- 22) **Choice A is correct.** **(6.SP.A.2)** The population is the entire group of people you want to learn about. In this survey, that group consists of all people whose reading hours the question targets (which could be all students in a class, all sixth graders, etc.).
- 23) **Choice D is correct.** **(6.SP.B.5)** Mean = $(5 + 7 + 7 + 8 + 9 + 10 + 11 + 12 + 14 + 15 + 18 + 25) / 12 = 142 / 12 \approx 11.8$ days. Median = $(10 + 11) / 2 = 10.5$ days. The 25-day outlier (possibly a lost or recalled book) distorts the mean. Median better reflects typical checkout behavior.
- 24) **Choice C is correct.** **(6.NS.C.8)** Same x -coordinate (3): $|5 - 0| = 5$ units.
- 25) **Choice B is correct.** **(6.NS.B.3)** A number and its opposite always sum to zero: $2 + (-2) = 0$.
- 26) **Choice C is correct.** **(6.EE.A.3)** Adding earned points to negative score: $-15 + 25 = 10$ points.
- 27) **Choice C is correct.** **(6.EE.B.5)** Add 5 to both sides: $x = 12 + 5 = 17$.



Scan me!
For more practice
& answers

Captain's Log

Ahoy, Math Sailor!

◇ You sailed through 9 full tests. Some waters were calm. Some waters were rough. You kept your boat steady the whole way. ◇

★ **Captain's truth:** good sailors stay calm. They use the wind. They check the map. You did all those things on every test. ★

Sailor's Skills

- **Steady Hand:** You stay calm even when problems are tricky.
- **Map Skills:** You read each problem carefully.
- **Brave Spirit:** You believe in yourself.
- **Safe Harbor:** You finish what you start.

Captain's tip: on test day, sail steady. Trust the map you built through 9 practice tests. You will reach safe harbor!

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

Jay Daie

Your Math Captain

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