

7 Delaware DeSSA

Grade 6 MATH

PRACTICE TESTS

7
PRINTED
TESTS

+

2
ONLINE
TESTS

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

Standards-Aligned *Steady Southern*
Problem Solving for Comprehensive
Assessment Program



7 Full-Length
Printed Tests



Standards-Aligned
Math Practice



Detailed Answer Keys
and Explanations



Build Confidence.
Achieve Success.



You've
Got
This!



PREPARE
PRACTICE
SUCCEED



PRACTICE
WITH PURPOSE



STRENGTHEN
MATH SKILLS



REVIEW, IMPROVE,
AND SUCCEED

7 Delaware DeSSA Grade 6 Math Practice Tests

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



Seven 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!

Eight focused rounds using small-state sharp focus

This book gives you seven 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 seven-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?

Eight DeSSA tests, 320 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.
Test 7	Final stamina round 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.

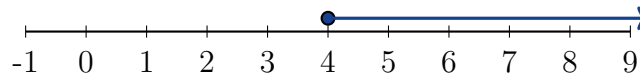


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For more practice
& answers

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1) Which number line graph shows all numbers that are NOT solutions to $x < 4$?



- | | |
|--|---|
| <input type="checkbox"/> A. Open circle at 4, arrow right | <input type="checkbox"/> C. Open circle at 4, arrow left |
| <input type="checkbox"/> B. Closed circle at 4, arrow left | <input type="checkbox"/> D. Closed circle at 4, arrow right |

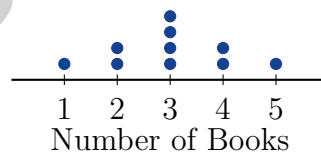
2) A rectangular prism has volume $\frac{80}{3} \text{ cm}^3$, length $\frac{10}{3} \text{ cm}$, and width 4 cm. What is its height?

- | | |
|----------------------------------|----------------------------------|
| <input type="checkbox"/> A. 1 cm | <input type="checkbox"/> C. 3 cm |
| <input type="checkbox"/> B. 4 cm | <input type="checkbox"/> D. 2 cm |

3) A teacher records student test scores: 75, 80, 82, 78, 85. What is the range?

- | | |
|-------------------------------|--------------------------------|
| <input type="checkbox"/> A. 5 | <input type="checkbox"/> C. 10 |
| <input type="checkbox"/> B. 7 | <input type="checkbox"/> D. 82 |

4) The dot plot shows the number of books read by students last month. How many students read exactly 3 books?



- | | |
|-------------------------------|-------------------------------|
| <input type="checkbox"/> A. 2 | <input type="checkbox"/> C. 4 |
| <input type="checkbox"/> B. 3 | <input type="checkbox"/> D. 5 |



- 5) A back-to-back stem-and-leaf plot displays boys' and girls' heights (in inches). Who has the greater range of heights?

Boys	Stem	Girls
7, 4, 1	60	2, 3, 5, 8

- A. Boys; range is 6
 C. Boys; range is 7
 B. Girls; range is 6
 D. Both have equal range
- 6) On a number line, point A is at -3 and point B is at 4 . What is the distance between the two points?

7)

Flavor	Strawberry	Vanilla	Chocolate
Servings	9	6	3

What is the simplified ratio of strawberry to vanilla servings?

- A. $9 : 6$
 C. $2 : 3$
 B. $6 : 9$
 D. $3 : 2$
- 8) A jacket costs \$80 after a 20% discount. What was the original price?
- A. \$96
 C. \$120
 B. \$160
 D. \$100



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9) A sports analyst wants to study the heights of basketball players in a league. She measures 12 players. What is the population?

- A. The 12 players she measured C. All people who play sports
 B. The height measurements she recorded D. All basketball players in the league

10) A frequency table shows scores on a test. In which interval is the median score?

Interval	Frequency	Cumulative
60–69	10	10
70–79	15	25
80–89	20	45
90–99	5	50

- A. 60–69 C. 80–89
 B. 70–79 D. 90–99

11) A dataset has $\min = 4$, $Q_1 = 9$, $\text{median} = 14$, $Q_3 = 19$, $\max = 29$. What is the upper whisker length?

- A. 5 C. 14
 B. 10 D. 25

12) A quality control manager receives monthly defect counts: 2, 3, 4, 5, 6, 8, 10, 15. She wants to determine if the process is stable. Should she use the mean or median?

- A. Mean, because it uses all data points C. Mode, because it is the most stable measure
 B. Median, because the high count of 15 may be an unusual spike D. Range, because it shows the worst-case scenario



5) Divide: $24 \div 1.5$

A. 16

C. 36

B. 1.6

D. 25.5

6) Find the GCF of 28 and 42.

A. 2

C. 14

B. 7

D. 28

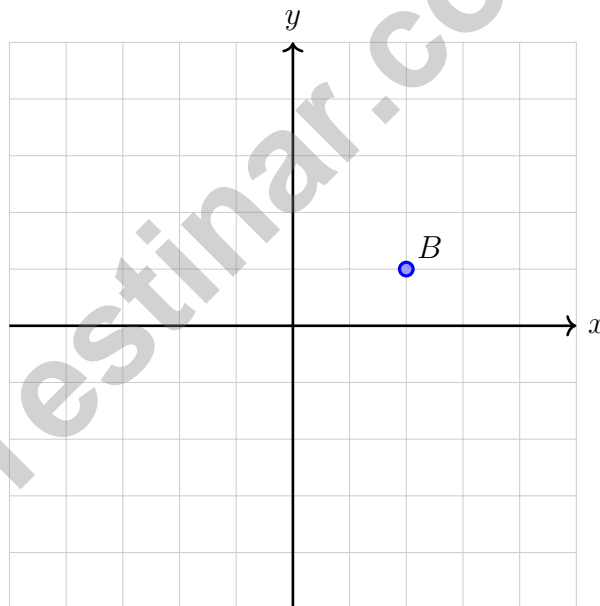
7) Which expression is equivalent to $5(2y + 4)$?

A. $10y + 4$

C. $10y + 20$

B. $10y + 9$

D. $7y + 9$



8)

A point B at $(2, 1)$ is reflected over the y -axis. What are the coordinates of B' ?

A. $(2, -1)$

C. $(2, 1)$

B. $(-2, 1)$

D. $(-2, -1)$



1) Which ordered pair is in Quadrant I?

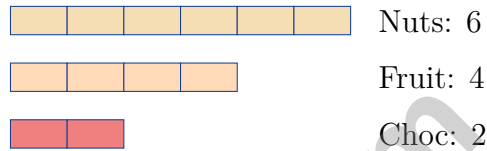
A. $(-5, 7)$

C. $(-2, -4)$

B. $(1, -8)$

D. $(8, 3)$

2) A snack mix uses nuts, dried fruit, and chocolate in a $6 : 4 : 2$ ratio. The diagram models this.



What is the simplified ratio of nuts to (dried fruit plus chocolate)?

A. $1 : 1$

C. $6 : 2$

B. $6 : 4$

D. $3 : 2$

3) A farmer has 18 pints of milk. How many quarts is this? (Use $1 \text{ quart} = 2 \text{ pints}$.)

A. 4 quarts

C. 9 quarts

B. 6 quarts

D. 12 quarts

4) What is the GCF of 26 and 39?

A. 13

C. 39

B. 26

D. 2



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5) Solve for x : $\frac{x}{4} = 8$.

6) An error was made: a student computed $8 \times (-6)$ and got 48. What is the correct answer?

- A. 48 (correct) C. 2 (student should divide)
 B. -48 (positive times negative is negative) D. 14 (student should add)

7) Factor out the common factor from $12x + 8$. Which expression is equivalent?

- A. $4(3x + 2)$ C. $6(2x + 1)$
 B. $2(6x + 4)$ D. $3(4x + 3)$

8) A painter mixes blue and yellow paint in a ratio of 5 : 3. How much yellow paint is needed if the painter uses 25 units of blue?

- A. 10 units C. 30 units
 B. 20 units D. 15 units

9) A package of 15 pens costs \$4.50. What is the unit price per pen?

- A. \$0.20 per pen C. \$0.30 per pen
 B. \$0.25 per pen D. \$0.40 per pen



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.



Delaware Practice Test Answers and Explanations

Review the seven 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.EE.B.8)** Numbers NOT less than 4 means $x \geq 4$ (greater than or equal). This requires a closed circle at 4 with an arrow pointing right.
- 2) **Choice D is correct.** **(6.G.A.2)** $\frac{80}{3} = \frac{10}{3} \times 4 \times H = \frac{40}{3} \times H$, so $H = 2$ cm.
- 3) **Choice C is correct.** **(6.SP.B.5c)** Maximum = 85, minimum = 75. Range = $85 - 75 = 10$.
- 4) **Choice C is correct.** **(6.SP.B.4)** Count the dots above the number 3: there are 4 dots, so 4 students read exactly 3 books.
- 5) **Choice D is correct.** **(6.SP.B.4)** Boys: 601, 604, 607; range = 6. Girls: 602, 603, 605, 608; range = 6. Both ranges equal 6.
- 6) **The correct answer is 7.** **(6.NS.C.6c)** Distance = $4 - (-3) = 4 + 3 = 7$ units. Use the formula: larger value minus smaller value.
- 7) **Choice D is correct.** **(6.RP.A.1)** Follow the order in the question: strawberry first, then vanilla. That gives 9 : 6, and dividing both parts by 3 simplifies it to 3 : 2.
- 8) **Choice D is correct.** **(6.RP.A.3c)** If the discount is 20%, the customer pays 80% of the original price. So $0.80 \times \text{original} = \80 . Original = $\$80 \div 0.80 = \100 .
- 9) **Choice D is correct.** **(6.SP.A.2)** The population is the entire group being studied. The 12 players are a sample from the full population of all basketball players in the league.
- 10) **Choice C is correct.** **(6.SP.A.2)** Total = 50 students. Median is at position $(50+1)/2 = 25.5$. Cumulative at 79: 25. Cumulative at 89: 45. Positions 25–26 fall in 80–89 interval.
- 11) **Choice B is correct.** **(6.RP.A.1)** The upper whisker extends from Q_3 to max: $29 - 19 = 10$ units long.
- 12) **Choice B is correct.** **(6.SP.B.5)** Mean = $(2 + 3 + 4 + 5 + 6 + 8 + 10 + 15)/8 = 53/8 = 6.625$. Median = $(5 + 6)/2 = 5.5$. The single outlier of 15 pulls the mean up. For stability assessment, median better reflects typical performance, ignoring the anomalous high month.
- 13) **Choice B is correct.** **(6.NS.B.3)** Complement probability = $1 - 0.75 = 0.25$ or 25%.
- 14) **Choice A is correct.** **(6.NS.A.1)** The 40% section is largest. 40% of 250 is $0.40 \times 250 = 100$ people, which is more than either 30% section ($0.30 \times 250 = 75$ each).
- 15) **The correct answer is 0.** **(6.NS.C.8)** All points on the x -axis have a y -coordinate of 0. For the negative x -axis specifically, the x -coordinate is negative but y is always 0.
- 16) **Choice A is correct.** **(6.EE.A.1)** $2^3 = 2 \times 2 \times 2 = 8$, and $8 \times 3 = 24$. Option A shows this correctly in expanded form.
- 17) **Choice D is correct.** **(6.EE.A.2b)** The term $25d$ represents the daily charge (25 per day) multiplied by the number of days. The constant 50 is the separate deposit.
- 18) **The correct answer is B and C are correct.** **The absolute value of zero is 0, and opposites like 5 and -5 both have absolute value 5.** **(6.NS.C.7c)** A is incorrect because $|0| = 0$, not positive. D is incorrect because the opposite of -5 is 5, which is positive. E is incorrect because absolute value is the distance from zero, not the opposite.
- 19) **Choice D is correct.** **(6.EE.B.5)** A balanced scale means both sides are equal. The equation is $x + 5 = 18$, which solves to $x = 13$.
- 20) **Choice D is correct.** **(6.EE.B.8)** The symbol $<$ directly translates to “less than,” so $m < 9$ means “ m is less than 9.”
- 21) **Choice C is correct.** **(6.G.A.1)** Area = $5.5 \times 2 = 11$ sq units. The slanted side (1.5 units) is not used.
- 22) **Choice B is correct.** **(6.RP.A.3a)** The ratio is nuts:dried fruit = 4:3. If nuts = 12, then $12 \div 4 = 3$, so dried fruit = $3 \times 3 = 9$. The point is (12, 9).
- 23) **Choice C is correct.** **(6.RP.A.3)** Plan A: $35 \div 500 = 0.07$ per min. Plan B: $50 \div 800 = 0.0625$ per min. Plan C: $60 \div 1000 = 0.06$ per min. Plan C is lowest.
- 24) **Choice B is correct.** **(6.NS.B.4)** Factors of 15: 1, 3, 5, 15. Factors of 35: 1, 5, 7, 35. Common factors: 1, 5. GCF is 5. Distractors: 3 divides 15 only; 7 divides 35 only; 15 is the largest number but not the GCF.
- 25) **Choice D is correct.** **(6.EE.A.3)** Combine like terms: $(9p + p) + (-4q + 2q) = 10p - 2q$.



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Ahoy, Math Sailor!

◇ You sailed through 7 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 7 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

MASTER TODAY. SUCCEED TOMORROW.

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 comprehensive assessments.

With 7 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 concepts aligned with standards through meaningful practice.



Test Confidence

Become familiar with test formats and improve accuracy and speed.



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.



7 FULL-LENGTH
PRINTED TESTS



STANDARDS-
ALIGNED PRACTICE



DETAILED ANSWER
KEYS & EXPLANATIONS