

8

Delaware

DeSSA

GRADE 6

MATH

PRACTICE TESTS

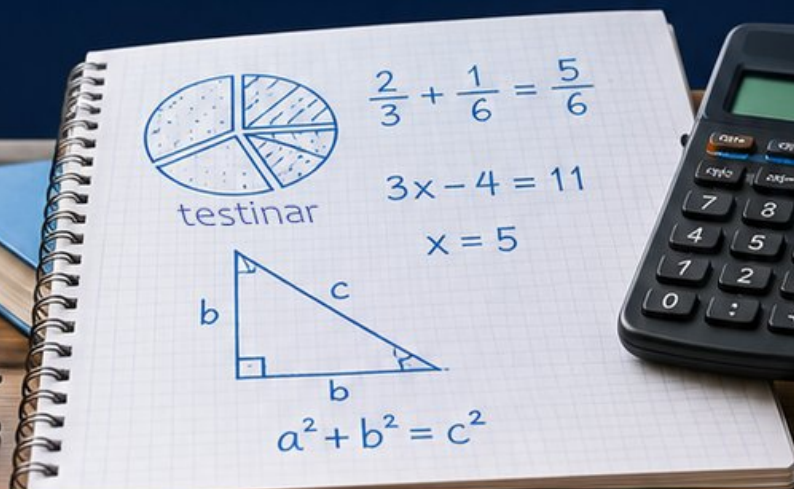
8
PRINTED
TESTS

+

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



BUILT FOR
ACAP SUCCESS



REALISTIC TESTS
& QUESTION TYPES



STRENGTHEN
MATH SKILLS



REVIEW, PRACTICE,
AND IMPROVE

8 Delaware DeSSA Grade 6 Math Practice Tests

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



Eight 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 eight 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 eight-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.
Tests 7–8	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) Which pair shows equivalent expressions for dividing $\frac{4}{5}$ by $\frac{2}{3}$?

A. $\frac{4}{5} \times \frac{2}{3}$ and $\frac{8}{15}$

B. $\frac{4}{5} \div \frac{3}{2}$ and $\frac{12}{10}$

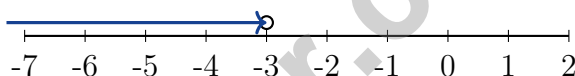
C. $\frac{4}{5} \times \frac{3}{2}$ and $\frac{12}{10}$

D. $\frac{2}{3} \times \frac{4}{5}$ and $\frac{6}{20}$

2) Which statement correctly identifies the height of a parallelogram?

- A. The height is the length of one of the slanted sides.
- B. The height is the perpendicular distance between two parallel sides.
- C. The height is the same as the longer base.
- D. The height is always equal to one side length.

3) Which number line shows $x < -3$?



- A. Open circle at -3 , arrow left
- B. Closed circle at -3 , arrow left
- C. Open circle at -3 , arrow right
- D. Closed circle at 3 , arrow left

4) A quadrilateral has vertices at $(1, 2)$, $(4, 2)$, $(5, 6)$, and $(2, 6)$. What is the length of the top side?

- A. 2 units
- B. 3 units
- C. 4 units
- D. 5 units

5) A student receives a monthly allowance of \$360. She allocates: 40% to savings, 35% to entertainment, 15% to gifts, and the remainder to snacks. How much does she spend on snacks?

- A. \$18
- B. \$36
- C. \$54
- D. \$126



6) Evaluate $2n - 7$ when $n = 15$.

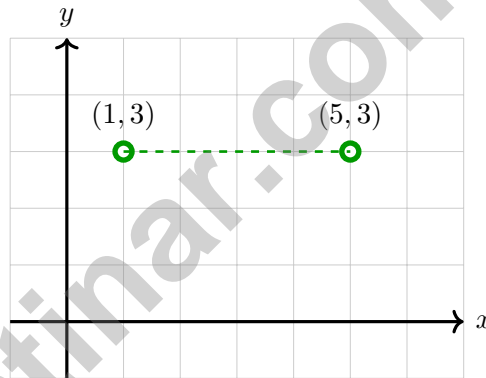
7) A blueprint has a scale of 1 inch = 2 feet. A wall in the blueprint is 7 inches long. How long is the actual wall?

A. 7 feet

C. 14 feet

B. 9 feet

D. 28 feet



8)

What is the horizontal distance between $(1, 3)$ and $(5, 3)$?

A. 3 units

C. 5 units

B. 4 units

D. 6 units



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9) A golf tournament score is calculated as: Par is 72. A player scores -3 (3 under par). What is the player's actual score?

- A. 69 C. -3
 B. 75 D. 72

10) Evaluate: $(5 + 1)^2 \div 3 + 4$

- A. 8 C. 20
 B. 16 D. 36

11) A company manufactures bikes. The cost is $250 + 85n$ where n is the number of units. Identify the coefficient and constant.

- A. Coefficient: 250; Constant: 85 C. Coefficient: n ; Constant: 335
 B. Coefficient: 85; Constant: 250 D. Both are coefficients; no constant.

12) Solve for x : $\frac{x}{9} = 3$

- A. $x = 3$ C. $x = 27$
 B. $x = 12$ D. $x = 0.33$

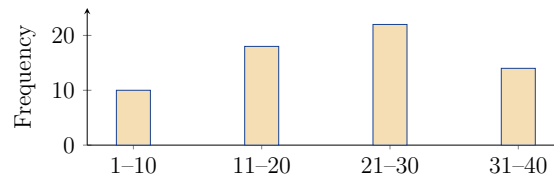
13) Write $\frac{3}{4}$ as a decimal.



- 1) Create a stem-and-leaf plot from the data: 34, 38, 42, 45, 41, 39, 44. Which statement is true?
- A. Stem 3 has 2 leaves
- B. Stem 4 has 3 leaves
- C. The minimum is 34
- D. All of the above
- 2) Two datasets have the same mean of 50 but different standard deviations: Dataset A has $SD = 3$, Dataset B has $SD = 12$. What is the most significant difference?
- A. Dataset A is larger.
- B. Dataset B is larger.
- C. Dataset A is more tightly clustered.
- D. They are essentially identical.
- 3) A data set has a median of 50 and a mean of 45. What does this suggest?
- A. The data is skewed right
- B. The data is bimodal
- C. The data is symmetric
- D. The data is skewed left
- 4) A histogram has 12 students in 100–150 pages, 6 in 150–200, and 4 in 200–250. How many read 100 or more pages?



5) A histogram is most useful for displaying data when you need to:



- A. Compare two specific values
 B. Show individual data points
 C. Display the distribution of continuous data grouped into bins
 D. Track changes over time
- 6) In a box plot, if the median is much closer to Q_1 than to Q_3 , what does this suggest about the data?
- A. The data is symmetric.
 B. The data is skewed right (positively skewed).
 C. The data has no outliers.
 D. The data has equal numbers of values above and below the median.
- 7) A container has 15 balls: 5 red, 4 blue, 3 yellow, and 3 green. If one ball is drawn at random, what is the probability it is **not** red?

- A. $\frac{2}{3}$
 B. $\frac{2}{5}$
 C. $\frac{1}{3}$
 D. $\frac{3}{5}$



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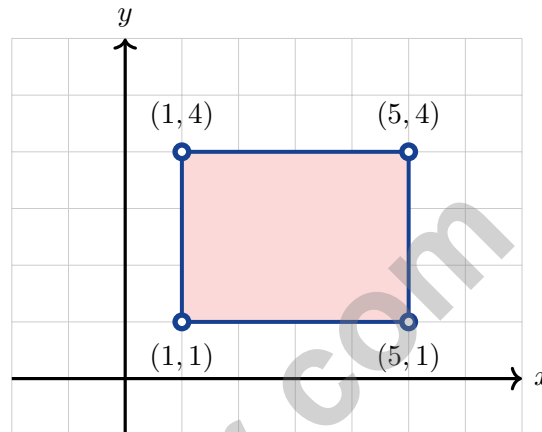
1) What is the coefficient of x in the expression 15 ?

A. 15

C. 1

B. 0

D. x is not in the expression



2)

What is the width (horizontal length) of the rectangle with vertices at $(1, 1)$, $(5, 1)$, $(5, 4)$, and $(1, 4)$?

A. 3 units

C. 5 units

B. 6 units

D. 4 units



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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.



Scan me!
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Delaware Practice Test Answers and Explanations

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

Practice Test 1 Answers and Explanations

- 1) **Choice C is correct.** **(6.NS.A.1)** Invert the divisor $\frac{2}{3}$ to get $\frac{3}{2}$, then multiply: $\frac{4}{5} \times \frac{3}{2} = \frac{12}{10} = \frac{6}{5}$.
- 2) **Choice B is correct.** **(6.G.A.1)** The height must be perpendicular to the base, not just any side length.
- 3) **Choice A is correct.** **(6.EE.B.8)** $x < -3$ means -3 is not included (open circle) and we want all numbers less than -3 (arrow pointing left).
- 4) **Choice B is correct.** **(6.G.A.3)** The top side goes from $(2, 6)$ to $(5, 6)$, both at $y = 6$. Distance is $5 - 2 = 3$ units.
- 5) **Choice B is correct.** **(6.EE.C.9)** Remainder: $100\% - 40\% - 35\% - 15\% = 10\%$ of $\$360 = 0.10 \times 360 = \36 .
- 6) **The correct answer is 23.** **(6.EE.B.6)** Substitute $n = 15$: $2(15) - 7 = 30 - 7 = 23$.
- 7) **Choice C is correct.** **(6.RP.A.3)** Multiply: $7 \times 2 = 14$ feet.
- 8) **Choice B is correct.** **(6.NS.C.8)** Same y -coordinate: $|5 - 1| = 4$ units.
- 9) **Choice A is correct.** **(6.EE.A.3)** Under par means strokes below par: $72 + (-3) = 72 - 3 = 69$ strokes.
- 10) **Choice B is correct.** **(6.EE.A.1)** Parentheses: $5 + 1 = 6$. Exponent: $6^2 = 36$. Division: $36 \div 3 = 12$. Finally add: $12 + 4 = 16$.
- 11) **Choice B is correct.** **(6.EE.A.2b)** The coefficient of n is 85. The constant (the term with no variable) is 250.
- 12) **Choice C is correct.** **(6.EE.B.5)** Multiply both sides by 9: $x = 3 \times 9 = 27$.
- 13) **The correct answer is 0.75.** **(6.EE.B.8)** $3 \div 4 = 0.75$.
- 14) **Choice C is correct.** **(6.G.A.1)** Width: $7 - 3 = 4$ units. Height: $7 - 2 = 5$ units. Area = $4 \times 5 = 20$ square units.
- 15) **Choice C is correct.** **(6.G.A.4)** A triangular prism has 2 triangular bases and 3 rectangular faces (the lateral faces connecting the edges of the two triangles). In its net, there are exactly 3 rectangles.
- 16) **Choice D is correct.** **(6.SP.B.5c)** The lower half of the ordered data is 2, 3, 4. The median of the lower half (lower quartile, Q1) is 3.
- 17) **Choice D is correct.** **(6.SP.B.4)** Each stem has multiple leaves but no single score repeats more than once, so there is no single mode.
- 18) **Choice A is correct.** **(6.RP.A.3)** 3rd graders read approximately 4.8 books; kindergarteners read approximately 2.5 books. The difference is about $4.8 - 2.5 = 2.3$ books.
- 19) **Choice D is correct.** **(6.RP.A.3)** Yes. If apples to oranges is 7 : 3, then reversing the order to oranges to apples also reverses the numbers, giving 3 : 7.
- 20) **Choice A is correct.** **(6.RP.A.3a)** Swapping the x and y coordinates of $(8, 5)$ gives $(5, 8)$. This is a common error when plotting ratio pairs on a coordinate plane.
- 21) **The correct answer is Plan X shows a proportional relationship, and it is represented by $e = 20h$.** **(6.NS.C.7d)** Statement A is correct: Plan X has equation $e = 20h$, so it is proportional. Statement C matches the equation for Plan X. Plan Y has equation $e = 100 + 10h$, so it is not proportional and its graph does not pass through the origin. After 10 hours, both plans pay \$200, so D is false.
- 22) **Choice D is correct.** **(6.RP.A.3)** Cross-multiply: $4 \times 15 = 6 \times x$, so $60 = 6x$, thus $x = 10$.
- 23) **Choice C is correct.** **(6.RP.A.3d)** Multiply: $0.75 \times 1000 = 750$ grams.
- 24) **Choice D is correct.** **(6.NS.B.4)** Factors of 14: 1, 2, 7, 14. Factors of 21: 1, 3, 7, 21. Common factors: 1, 7. GCF is 7.
- 25) **The correct answer is 60.** **(6.EE.C.9)** The speed is $\frac{\text{distance}}{\text{time}}$. From the table, $\frac{60 \text{ mi}}{1 \text{ h}} = 60 \text{ mph}$; or $\frac{180 \text{ mi}}{3 \text{ h}} = 60 \text{ mph}$. The constant rate of change is 60 miles per hour.
- 26) **Choice A is correct.** **(6.NS.B.3)** Negative divided by negative is positive: $\frac{-36}{-6} = 6$.
- 27) **Choice D is correct.** **(6.EE.A.3)** Combine like terms: $(10 - 2 - 1)x = 7x$.
- 28) **Choice D is correct.** **(6.RP.A.1)** The order is blue to red, so start with 8 : 12. Divide both parts by 4 to simplify the ratio to 2 : 3.



Ahoy, Math Sailor!

◇ You sailed through 8 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 8 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 MATH. ACE YOUR TESTS.

This Grade 6 Math Practice Tests book is designed to help students build confidence, strengthen math skills, and excel on comprehensive assessments.

With 8 full-length printed tests and 2 online tests, this resource provides realistic practice, a variety of question types, and detailed answer explanations to help students achieve their best.

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.



Understand Key Concepts

Reinforce important math ideas 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
- ✓ Percents
- ✓ The Number System
- ✓ Statistics & Probability
- ✓ Expressions & Equations
- ✓ Data Analysis
- ✓ Geometry
- ✓ Measurement & Conversions
- ✓ Fractions & Decimals
- ✓ 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.



8 FULL-LENGTH
PRACTICE TESTS



2 ONLINE
PRACTICE TESTS



DETAILED ANSWER
EXPLANATIONS