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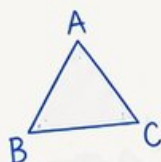
Delaware DeSSA

GRADE
6
MATH

PRACTICE TESTS

Standards-Aligned
Steady Southern
Problem Solving for
Comprehensive
Assessment Program

$$2x + 3 = 11$$



$$7^2 = 49$$

BUILD SKILLS.
GAIN CONFIDENCE.
SUCCEED!



6 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



6 PRINTED TESTS + 2 ONLINE TESTS

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



PRACTICE

Sharpen skills
with targeted
practice tests



REVIEW

Understand
concepts and
strengthen skills



SUCCEED

Build confidence
and achieve
your best

6 Delaware DeSSA Grade 6 Math Practice Tests

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



Six 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 six 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 six-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 1–2	Foundation rounds for ratios, rational numbers, operations, and careful reading.
Tests 3–5	Skill-building rounds with expressions, equations, geometry, data, and problem models.
Test 6	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.



Scan me!
For more practice
& answers

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1) Evaluate $\frac{1}{2}x + \frac{1}{3}y$ when $x = 10$ and $y = 12$.

A. 8

C. 10

B. 9

D. 11

2) If $IQR = 24$ and $Q_3 = 56$, what is Q_1 ?

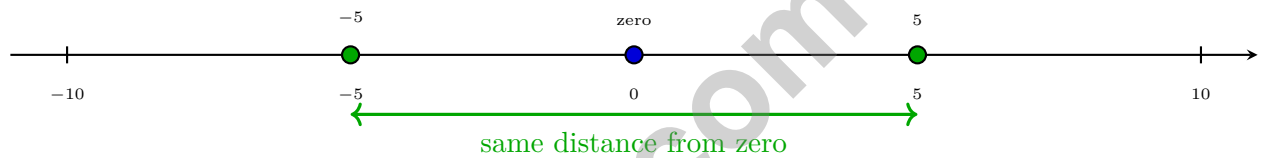
A. 20

C. 56

B. 80

D. 32

3)



Which numbers shown on the number line have an absolute value of 5?

A. Only 5

C. Both 5 and -5

B. Only -5

D. Only 0

4) Which number has the greatest absolute value?

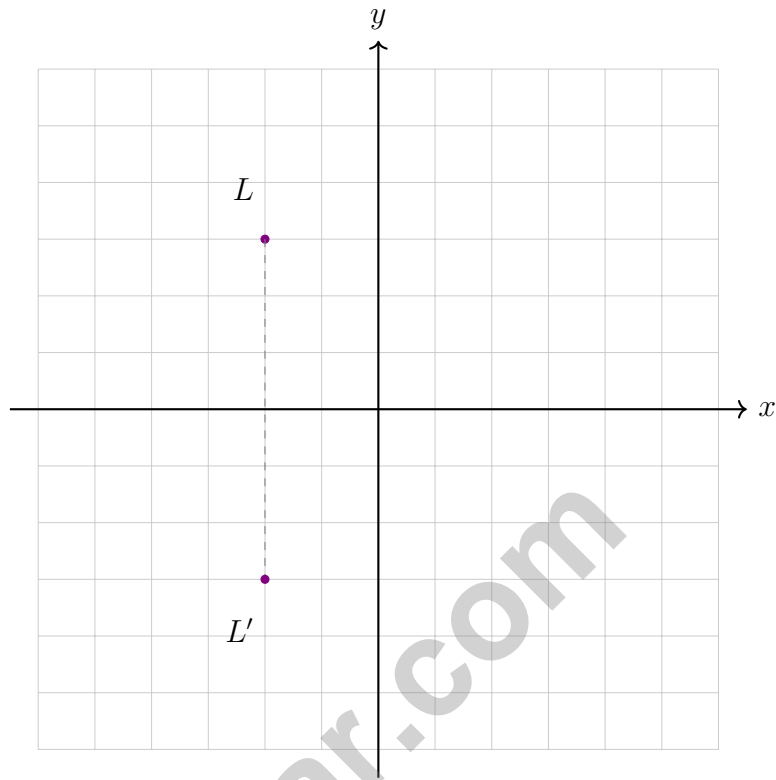
A. -2.3

C. 3.9

B. -4.1

D. 1.8





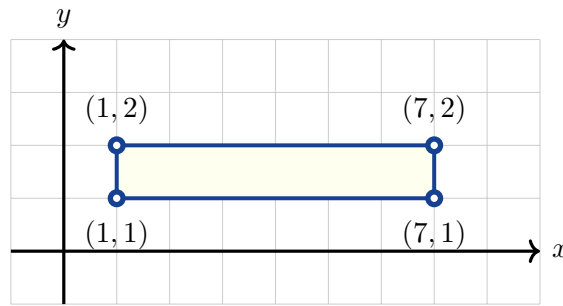
5)

Points L and L' are shown. If L is reflected across the x -axis to create L' , what are the coordinates of L ?

- A. $(-2, 3)$ C. $(3, -2)$
 B. $(-2, -3)$ D. $(2, 3)$



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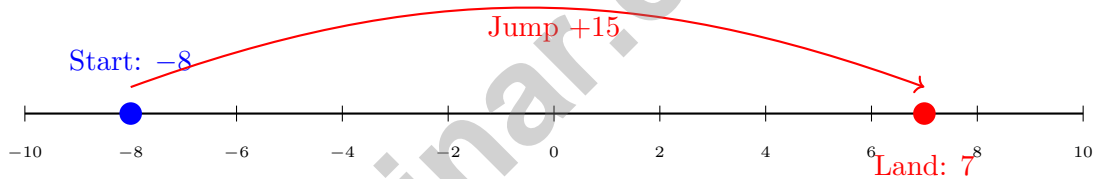


6)

What is the length of the top side of this rectangle from (1, 2) to (7, 2)?

- A. 4 units
- B. 5 units
- C. 6 units
- D. 7 units

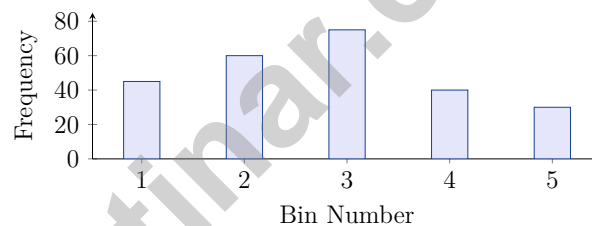
7) A number line shows a starting position at -8 . A jump of $+15$ units moves the position forward. Where does it land?



- A. -23
- B. 15
- C. 23
- D. 7

8) After simplifying $4x + 7 + 2x - 3$, what is the coefficient of x ?

- 1) A park counted 600 visitors. The circle graph shows $\frac{3}{10}$ came on Saturday. How many visitors came on Saturday?
- A. 150 C. 180
 B. 120 D. 200
- 2) Which measure of spread is most affected by outliers?
- A. Interquartile range C. Range
 B. Mean absolute deviation D. Median
- 3) A histogram created from a frequency table shows 250 total data points distributed across five bins. If four bins contain 45, 60, 75, 40 data points respectively, how many are in the fifth bin?



- A. 20 data points C. 30 data points
 B. 25 data points D. 35 data points
- 4) A bag contains 8 marbles: 3 white, 2 black, and 3 striped. What is the probability of drawing a white or striped marble?
- A. $\frac{1}{4}$ C. $\frac{1}{2}$
 B. $\frac{3}{8}$ D. $\frac{3}{4}$



5) Using the same stem-and-leaf plot from Question 2, what is the range of heights?

A. 35 cm

C. 25 cm

B. 30 cm

D. 40 cm

6) To make “How old am I?” statistical, should the question ask about one person or a group?

7) A ratio can be graphed as ordered pairs. If a ratio graph shows the points (3, 12) and (5, 20), what is the y-value when $x = 0$?

A. 0

C. 8

B. 4

D. 12

8) A bus travels at an average speed of 45 miles per hour for 3 hours. How far does it travel?

A. 120 miles

C. 150 miles

B. 135 miles

D. 165 miles

9) Which expression is equivalent to $6(3y - 2)$?

A. $18y - 12$

C. $3y - 12$

B. $9y - 2$

D. $18y - 2$

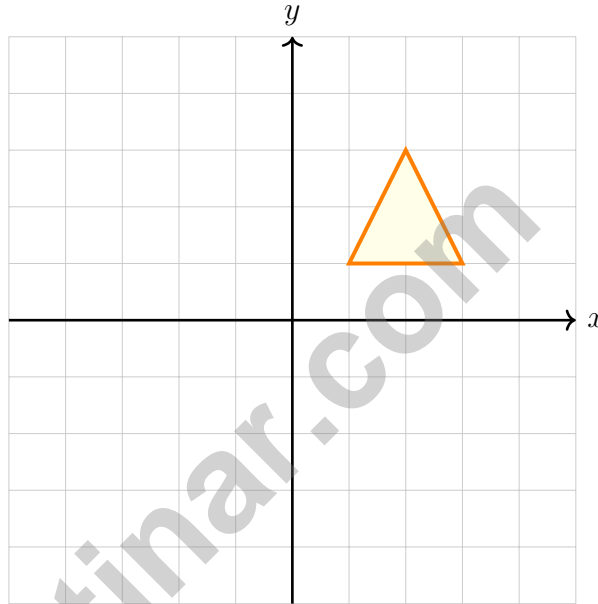


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- 1) A spinner has 12 equal sections. If you spin it, the probability of landing on blue is $\frac{1}{3}$. How many sections are blue?
- A. 2 C. 4
 B. 3 D. 6
- 2) A garden plot covers 120 square meters. If 45% is planted with vegetables, how many square meters are planted with vegetables?
- A. 36 m² C. 54 m²
 B. 45 m² D. 66 m²
- 3) A student graphed the relationship between tickets sold and money earned. The graph is a straight line passing through (0, 0) and (8, 32). What is the slope of this line?
- A. $\frac{1}{4}$ C. $\frac{1}{8}$
 B. 4 D. 8
- 4) A map has a scale of 1 inch = 10 miles. If two cities are 3.5 inches apart on the map, how far apart are they in reality?
- A. 30 miles C. 35 miles
 B. 31.5 miles D. 40 miles
- 5) Which expression is equivalent to $5(4 - x)$?
- A. $20 - x$ C. $20 + x$
 B. $4 - 5x$ D. $20 - 5x$



6) For 2, 4, 6, 8, 10, 12, 14, find the interquartile range.



7)

A triangle with vertices at $(1, 1)$, $(3, 1)$, and $(2, 3)$ is reflected over the y -axis. Which will be the image of the vertex at $(3, 1)$?

A. $(3, -1)$

B. $(-3, 1)$

C. $(3, 1)$

D. $(-3, -1)$



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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.



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Delaware Practice Test Answers and Explanations

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

Practice Test 1 Answers and Explanations

- 1) **Choice B is correct.** **(6.EE.A.2c)** Substitute: $\frac{1}{2}(10) + \frac{1}{3}(12) = 5 + 4 = 9$.
- 2) **Choice D is correct.** **(6.RP.A.1)** IQR = $Q_3 - Q_1$, so $24 = 56 - Q_1$. Thus $Q_1 = 56 - 24 = 32$.
- 3) **Choice C is correct.** **(6.NS.C.7c)** Both $|5| = 5$ and $|-5| = 5$. Numbers equidistant from zero on opposite sides have the same absolute value.
- 4) **Choice B is correct.** **(6.NS.C.6c)** Absolute values: $|-2.3| = 2.3$, $|-4.1| = 4.1$, $|3.9| = 3.9$, $|1.8| = 1.8$. The greatest is 4.1.
- 5) **Choice A is correct.** **(6.NS.C.8)** From the graph, point L (upper point) is located at $(-2, 3)$. Its reflection L' across the x -axis is at $(-2, -3)$.
- 6) **Choice C is correct.** **(6.NS.C.8)** Same y -coordinate (2): $|7 - 1| = 6$ units.
- 7) **Choice D is correct.** **(6.EE.A.3)** On a number line, jump forward means add: $-8 + 15 = 7$.
- 8) **The correct answer is 6.** **(6.EE.A.3)** Combine like terms: $4x + 2x = 6x$.
- 9) **Choice A is correct.** **(6.EE.A.1)** Correct order: exponent $2^2 = 4$, then multiply $3 \times 4 = 12$, then add $2 + 12 = 14$. The student likely computed $(2 + 3) \times 2^2 = 5 \times 4 = 20$, adding before the exponent.
- 10) **Choice A is correct.** **(6.EE.A.2b)** Sum: $6 + 2 + (-4) = 4$. Note: when including negative coefficients, add them with their signs.
- 11) **Choice B is correct.** **(6.EE.B.6)** Total pages = pages per day \times number of days = $10r$.
- 12) **Choice C is correct.** **(6.EE.B.5)** Multiply both sides by 6: $x = 5 \times 6 = 30$.
- 13) **Choice A is correct.** **(6.EE.B.8)** "Greater than 0" gives $w > 0$. "Not exceeding 50" means at most 50: $w \leq 50$. Together: $0 < w \leq 50$.
- 14) **Choice A is correct.** **(6.EE.B.8)** A closed (filled) circle at 1 with an arrow pointing left means 1 is included and we want all numbers less than or equal to 1.
- 15) **Choice C is correct.** **(6.G.A.1)** The height is the perpendicular distance between the two parallel bases, shown by the dashed line, which is 2.5 in.
- 16) **Choice D is correct.** **(6.G.A.2)** $V = 6 \times 4 \times 2 = 24 \times 2 = 48 \text{ in}^3$.
- 17) **Choice B is correct.** **(6.G.A.1)** Area of a trapezoid = $\frac{1}{2}(b_1 + b_2) \times h = \frac{1}{2}(8 + 8) \times 4 = \frac{1}{2} \times 16 \times 4 = 32$ square units.
- 18) **Choice B is correct.** **(6.G.A.4)** $SA = 6s^2 = 384 \Rightarrow s^2 = 64 \Rightarrow s = 8$ cm. Volume = $s^3 = 8^3 = 512 \text{ cm}^3$.
- 19) **Choice B is correct.** **(6.NS.C.8)** Reflections preserve size and shape but change position and possibly orientation.
- 20) **Choice D is correct.** **(6.SP.B.5c)** Mean = $\frac{5 + 15 + 20 + 30}{4} = \frac{70}{4} = 17.5$.
- 21) **The correct answer is 4 and 12.** **(6.NS.B.4)** The number of boxes must divide both 48 and 60. Choice B works because both numbers are divisible by 4. Choice D works because both numbers are divisible by 12. Choices A, C, and E do not divide both amounts evenly.
- 22) **Choice D is correct.** **(6.SP.B.5c)** By definition, IQR = $Q_3 - Q_1$ represents the spread of the middle 50% of the data. Option D correctly interprets this. The range is not smaller than the IQR.
- 23) **Choice C is correct.** **(6.SP.B.4)** Total days: $2 + 7 + 9 + 4 = 22$. The 70–80 bin has 9 days, so $(9/22) \times 100 \approx 40.9\%$, which rounds to 41%.
- 24) **Choice C is correct.** **(6.NS.B.3)** Outcomes: HH, HT, TH, TT. Total outcomes = $2 \times 2 = 4$.
- 25) **Choice C is correct.** **(6.SP.B.4)** In a back-to-back stem-and-leaf plot, the stem is shared in the middle (here, stem 6). Leaf 9 on Class A's side combines with stem 6 to form 69.
- 26) **Choice A is correct.** **(6.NS.A.1)** 26.25% of 640 is $0.2625 \times 640 = 168$ items.
- 27) **Choice D is correct.** **(6.RP.A.3)** Each symbol represents 4 students. With 5 symbols: $5 \times 4 = 20$ students.
- 28) **Choice A is correct.** **(6.RP.A.3a)** On the graph with gallons on the x -axis and plants on the y -axis, the point $(1, 4)$ means 1 gallon (x -value) corresponds to 4 plants watered (y -value). This shows the unit rate: 4 plants per gallon.



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& answers

Hi, Hero!

◇ Once there was a Grade 6 student who took 6 practice tests. At first, the math was tricky. But this student kept showing up, kept trying, and kept learning. By the end, the student became a math hero. That hero is you! ◇

★ **Storytellers know:** every story has a hard middle. The hard middle is where heroes grow. You lived your hard middle. Your story ends with confidence! ★

Your Hero Toolkit

- **Brave Heart:** You try hard problems.
- **Sharp Mind:** You think carefully before you act.
- **Steady Hand:** You write neatly and check.
- **Kind Spirit:** You are patient with yourself.

Storyteller tip: on test day, remember the hero you became. The chapters before today made you stronger. Now write your best chapter!

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

Jay Daie

Your Math Storyteller

PRACTICE 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 6 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.

6
PRINTED
TESTS

+
2
ONLINE
TESTS

PERFECT FOR:

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

★ BUILD SKILLS.
GAIN CONFIDENCE.
SUCCEED!

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.



6 FULL-LENGTH
PRINTED TESTS



2 ONLINE
PRACTICE TESTS



DETAILED ANSWER
EXPLANATIONS