

5 FULL-LENGTH Delaware DeSSA

GRADE 5 MATH

★ PRACTICE TESTS ★



5 FULL-LENGTH
PRACTICE TESTS



COMPLETE
STANDARDS
REVIEW



SKILL PRACTICE,
WORD PROBLEMS,
AND MORE!

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



$$12 \times 3 = 36$$



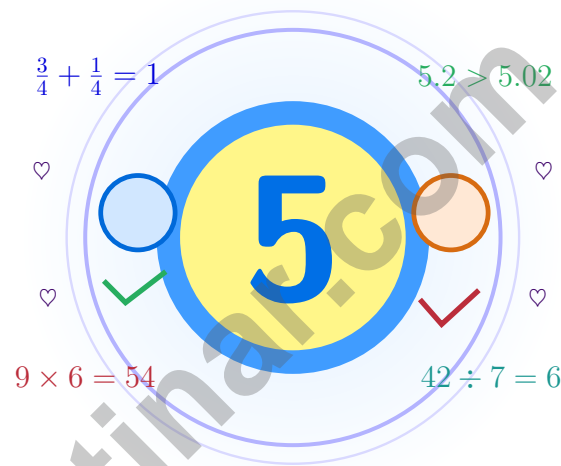
$$\frac{7}{10} = 0.7$$



BUILT FOR SUCCESS. DESIGNED TO HELP EVERY STUDENT.

5 Delaware Smarter Balanced Grade 5 Math Practice Tests

Five full tests, five lessons, one stronger mathematician



Five full tests, a friendly quick review, smart strategy pages, and student-tested support that turn Grade 5 practice in The First State into a steady quest of real growth.

Jay Daie and Reza Nazari



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Delaware, The Five-Test Journey Starts Here

Five full tests, five lessons, one stronger mathematician

To Every Math Brain in Delaware

This book is your practice zone, not a place to be perfect. Each of the five tests gives you a chance to notice clues, choose a strategy, check your thinking, and come back stronger for the next round. Math grows the way a seedling grows in Delaware soil – a little water, a little sunlight, and steady, patient root work.

Some questions will feel easy right away. Some will make you slow down, draw, estimate, or retry. That is excellent news. It means your math brain is doing real work.

See

See the whole question before you start the math.

Plan

Plan one careful step before the next.

Reflect

Reflect on what worked and what wobbled.

A strong quest habit for Delaware: slow down, write neatly, estimate before you solve, and keep going even when a problem looks tricky at first. That is exactly how confident math students are built.

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Use This Book Like a Quest Coach

A simple routine that turns five tests into real growth

Step 1: Open

Open the warm-up review and use it.

Wake up important ideas before you begin so your brain is ready to use them.

Step 2: Test

Take the test with steady focus.

Find a quiet space, work carefully, and let accuracy matter more than speed.

Step 3: Reflect

Notice what was sharp and what was shaky.

Circle missed questions and look for patterns. Which skill or habit needs another try?

Step 4: Sharpen

Practice the shaky skills before the next round.

Read the explanation, repair the work, and carry that lesson into the next test.



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Grade 5 Mathematics Reference Materials

PERIMETER AND AREA

Perimeter of Rectangle $P = 2l + 2w$ or $P = 2(l + w)$

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1) A rectangular prism has volume 252 cm^3 . Its length is 18 cm and width is 7 cm. What is its height?

A. 3 cm

C. 4 cm

B. 2 cm

D. 5 cm

2) A class is divided into groups. If $\frac{1}{6}$ of 30 students go to Group A, how many is that?

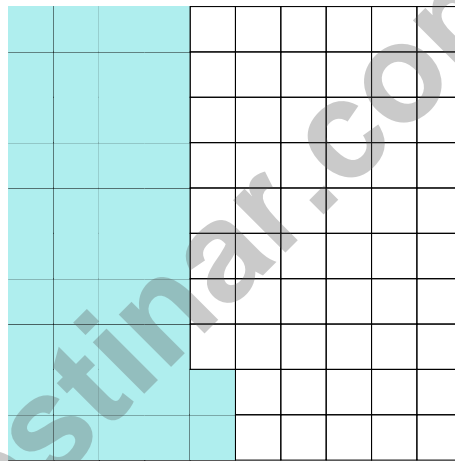
A. 5 students

C. 15 students

B. 6 students

D. 20 students

3) Decimal-grid visual: 42 shaded squares (out of 100). Write the decimal and its word form.



A. 0.42; forty-two tenths

C. 4.2; forty-two tenths

B. 0.024; twenty-four thousandths

D. 0.42; forty-two hundredths

4) Pattern: 1, 3, 6, 10, 15, ... Which statement explains the rule and gives the next two terms?

A. Add 2 each time; next terms are 17 and 19

B. Add 2, then 3, then 4, then 5, and so on; next terms are 21 and 28

C. Multiply by 2; next terms are 30 and 60

D. Add 5 each time; next terms are 20 and 25



5) Which is the decimal result of $6,300 \div 10,000$?

A. 0.63

C. 0.063

B. 6.3

D. 63

6) Without calculating, how does $(100 - 25)$ compare to $(100 - 25) + 50$?

A. 50 less

C. Same

B. 50 more

D. Cannot tell

7) What is $14.80 - 6.37$?

A. 7.95

C. 8.52

B. 9.20

D. 8.43

8) What simplest fraction do both $\frac{6}{9}$ and $\frac{8}{12}$ equal?

Record your answer in the space provided.

9) A science experiment measures 7.635 grams. Round to nearest hundredth.

A. 7.6 g

C. 7.64 g

B. 7.63 g

D. 7.7 g

10) Rule: the output is 3 times the input. For input 4, what is the ordered pair?

A. (4, 8)

C. (4, 12)

B. (4, 16)

D. (4, 4)



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1) A pizza is cut into 8 slices. You eat $\frac{3}{8}$ of the pizza. How many slices do you eat?

- A. 1 slice C. 4 slices
 B. 2 slices D. 3 slices

2) Solve: $\frac{1}{4} + \frac{1}{6} + \frac{1}{2}$

Record your answer in the space provided.

3) Look at the two quadrilaterals. Which property do they NOT share?



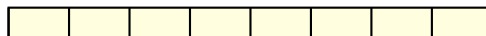
Square



Rectangle

- A. Four right angles C. All sides are congruent
 B. Two pairs of parallel sides D. Opposite sides are parallel
- 4) A 4-meter ribbon is cut into pieces that are each $\frac{1}{2}$ meter long. How many pieces are there?

4 meters, cut every $\frac{1}{2}$ m



- A. 2 pieces C. 6 pieces
 B. 4 pieces D. 8 pieces



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1) Subtract: $\frac{7}{10} - \frac{1}{4}$

A. $\frac{6}{10}$

B. $\frac{6}{14}$

C. $\frac{9}{20}$

D. $\frac{13}{20}$

2) Without calculating, which product is greatest?

$10 \times \frac{2}{3}$	$10 \times \frac{3}{3}$	$10 \times \frac{4}{3}$
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(A)

(B)

(C)

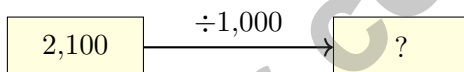
A. A

B. B

C. Cannot determine

D. C

3) Show the division with an arrow diagram:



What is $2,100 \div 1,000$?

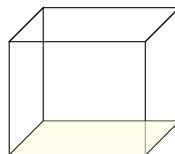
A. 2.1

B. 21

C. 210

D. 2,100

Height = 10 cm



Base Area = 16 cm^2

4)

Calculate volume using $V = B \times h$.

A. 160 cm^3

B. 6 cm^3

C. 26 cm^3

D. 160 cm^2



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Practice Test Answer Keys

How to use this section:

1. check your answer
2. circle missed questions
3. rework them before reading the explanation

Good correction habits build strong scores.

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Practice Test Answers and Explanations

Practice Test 1 Answers and Explanations

- 1) **Choice B is correct.** **(5.MD.C.5)** The base area is $18 \times 7 = 126$ square centimeters. Since $252 \div 126 = 2$, the height is 2 cm.
- 2) **Choice A is correct.** **(5.NF.B.4)** $\frac{1}{6} \times 30 = \frac{30}{6} = 5$ students.
- 3) **Choice D is correct.** **(5.NBT.A.3a)** 42 out of 100 squares $= \frac{42}{100} = 0.42$, read as “forty-two hundredths”.
- 4) **Choice B is correct.** **(5.OA.B.3)** The amount added grows by 1 each time: add 2, then 3, then 4, then 5. Next add 6 to get 21, then add 7 to get 28.
- 5) **Choice A is correct.** **(5.NBT.A.2)** Dividing by 10,000 moves the decimal four places left. From 6,300, that gives 0.63.
- 6) **Choice A is correct.** **(5.OA.A.2)** The second expression is the first expression with 50 added. That means the first expression is 50 less than the second one.
- 7) **Choice D is correct.** **(5.NBT.B.7)** $14.80 - 6.37 = 8.43$. Borrow from ones place: $14.80 - 6.37 = 8.43$.
- 8) **The correct answer is $\frac{2}{3}$.** **(5.NF.A.2)** Reduce each fraction by dividing the numerator and denominator by the same number. $\frac{6}{9}$ and $\frac{8}{12}$ both simplify to $\frac{2}{3}$.
- 9) **Choice C is correct.** **(5.NBT.A.4)** The hundredths digit is 3. The thousandths digit is 5. Since $5 \geq 3$, round hundredths up: $3 \rightarrow 4$, giving 7.64 g.
- 10) **Choice C is correct.** **(5.G.A.2)** The rule says to multiply the input by 3. For input 4, $3 \times 4 = 12$, so the ordered pair is (4, 12).
- 11) **Choice B is correct.** **(5.NF.A.2)** $1\frac{2}{11} \approx 1$, $2\frac{1}{3} \approx 2$, and $1\frac{5}{8} \approx 2$. So total $\approx 1 + 2 + 2 = 5$.
- 12) **The correct answer is 0.** **(5.G.A.2)** The second number is the y-coordinate; here it is 0.
- 13) **Choice B is correct.** **(5.MD.A.1)** $\frac{1}{4}$ foot $= \frac{1}{4} \times 12 = 3$ inches.
- 14) **Choice B is correct.** **(5.NBT.A.2)** Divide pennies by 100 to convert to dollars: $8,400 \div 100 = 84$. So Carla has \$84.
- 15) **Choice A is correct.** **(5.MD.C.5c)** Find each part first: Prism A is $4 \times 2 \times 2 = 16$ cubic centimeters, and Prism B is $3 \times 3 \times 1 = 9$ cubic centimeters. Because the parts do not overlap, add them: $16 + 9 = 25$ cubic centimeters.
- 16) **Choice A is correct.** **(5.NF.B.4b)** Winter wheat $= \frac{1}{2} \times \frac{2}{3} = \frac{2}{6} = \frac{1}{3}$ of the entire field.
- 17) **Choice B is correct.** **(5.MD.C.5a)** The base area is $12 \times 7 = 84$ square centimeters. Since $504 \div 84 = 6$, the height is 6 cm.
- 18) **Choice D is correct.** **(5.MD.C.5)** Total cost: $42.50 + 38.75 = 81.25$ dollars. Change: $100 - 81.25 = 18.75$ dollars.
- 19) **Choice D is correct.** **(5.NF.A.2)** A common denominator for $\frac{1}{2}$ and $\frac{1}{3}$ is 6. $\frac{1}{2} = \frac{3}{6}$ and $\frac{1}{3} = \frac{2}{6}$.
- 20) **Choices A, B are correct.** **(5.G.A.2)** Each correct point has a second coordinate that is twice its first coordinate. C and D do not match that relationship.
- 21) **Choice C is correct.** **(5.G.A.2)** The first coordinate, 15, matches the x-axis label: minutes played. The second coordinate, 450, matches the y-axis label: score. So the point means score is 450 when minutes played is 15.
- 22) **Choice B is correct.** **(5.NF.A.2)** Convert $\frac{2}{3} = \frac{6}{9}$. Crops and livestock: $\frac{6}{9} + \frac{1}{9} = \frac{7}{9}$. Paths: $1 - \frac{7}{9} = \frac{2}{9}$.
- 23) **Choice D is correct.** **(5.NF.B.6)** $\frac{18}{20} \times 40 = \frac{18 \times 40}{20} = \frac{720}{20} = 36$ questions.
- 24) **Choice A is correct.** **(5.OA.A.1)** Begin with the innermost operation: $2 \times 3 = 6$. That makes the braces $\{4 + 6\} = 10$, so the full expression is $30 - 10 = 20$.
- 25) **Choice B is correct.** **(5.NBT.A.2)** Multiplying by 10^2 moves the decimal 2 places right: $0.5 \times 100 = 50$.
- 26) **Choice A is correct.** **(5.NF.B.5b)** There are 5 aprons, and each apron needs $3\frac{1}{2}$ yards. Multiply: $5 \times 3\frac{1}{2} = 5 \times \frac{7}{2} = \frac{35}{2} = 17\frac{1}{2}$ yards.
- 27) **Choice A is correct.** **(5.NBT.A.2)** The diagram shows $78.5 \div 100 = 0.785$. Move decimal 2 places left.
- 28) **Choice C is correct.** **(5.MD.A.1)** 1 kg = 1,000 g. Multiply: $8.5 \times 1000 = 8500$ g.
- 29) **The correct answer is $\frac{1}{3} \div 4 = n$.** **(5.NF.B.7c)** The one-third yard is shared into 4 equal parts, so the response should include a division equation such as $\frac{1}{3} \div 4 = n$. The final value $\frac{1}{12}$ may be included if the equation is shown.
- 30) **Choice B is correct.** **(5.MD.C.5)** Use the rectangular-prism volume formula: $10 \times 3 \times 3 = 90$. So the volume is 90 cubic inches.



Hey there, Master Engineer!

★ Excellent engineering work! You've successfully designed and tested five complete mathematical systems, applying principles, calculating specifications, and optimizing solutions like a professional engineer! Every problem presented unique design challenges, and you approached each one methodically, testing your designs and making improvements. Your engineering mindset has developed beautifully! ★

◇ **Here's what successful engineers know:** great engineering requires planning, calculation, testing, and refinement. Engineers build prototypes, identify weaknesses, and improve their designs iteratively. You've practiced that exact engineering cycle through these five tests! Each test helped you refine your mathematical engineering skills, and now your designs are structurally sound and ready for implementation! ◇

Engineering Quality Control

- **System Design:** Your problem-solving frameworks are logically structured!
- **Precision Engineering:** You calculate with accuracy and attention to detail!
- **Stress Testing:** You've proven your methods work under challenging conditions!
- **Project Approved:** Your mathematical engineering is ready for deployment!

Remember this engineering principle: well-designed systems function reliably when needed. You've engineered five successful mathematical systems. On test day, deploy your proven designs with confidence. If you encounter an unexpected specification, apply your engineering principles to design an appropriate solution. Your training has prepared you for any design challenge!

Want to share your mathematical engineering innovations or discuss an elegant system design? Submit your technical specifications to reza@testinar.com. I appreciate innovative engineering!

Reza Nazari & Jay Daie

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