6 District of Columbia DC CAPE Math Practice Tests for Grade 6 Students

- Practice Smart. Score Higher.
- Learn Today, Excel Tomorrow!
- Conquer the DC CAPE with Confidence!

Practice Master Achieve

Reza Nazari

6 District of Columbia DC CAPE Math Practice Tests for Grade 6 Students

A Complete Guide to Building Math Mastery and Excelling on the District of Columbia DC CAPE Test

Based on District of Columbia DC CAPE Standards

Reza Nazari

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What's on the DC CAPE?

Grade 6 Math Skills You'll Master

Grade 6 Math Standards

- **1. Ratios & Proportions**
  Unit rates, percentages
- **2. The Number System**
  Fractions, decimals, integers
- **3. Expressions & Equations**
  Exponents, algebraic expressions
- **4. Geometry**
  Area, volume, surface area
- **5. Statistics & Probability**
  Mean, median, data displays
- **6. Problem Solving**
  Multi-step problems

1 Ratios & Proportions

Key Skills:

- Understanding ratio concepts and using ratio language
- Computing unit rates and unit pricing
- Using tables and graphs for proportional relationships
- Solving problems involving percentages
- Applying ratio reasoning to real-world situations

Example: If 3 notebooks cost \$12, how much do 5 notebooks cost?

Solution: Unit rate $= \$12 \div 3 = \$4$ per notebook.

So $5 \times \$4 =$ **\$20**

Items	Cost
3	\$12
1	\$4
5	?

$\div 3$

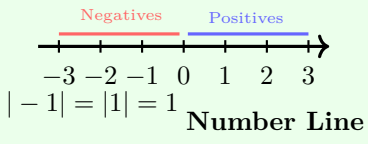
Ratio 3:2

2 The Number System

Key Skills:

- Dividing fractions by fractions
- Computing with multi-digit decimals
- Finding GCF and LCM
- Understanding positive and negative integers
- Interpreting absolute value
- Solving problems with rational numbers

Example: $\frac{2}{3} \div \frac{1}{4} = \frac{2}{3} \times \frac{4}{1} = \frac{8}{3} = 2\frac{2}{3}$



$|-1| = |1| = 1$

Number Line

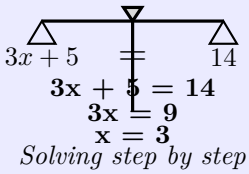
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3 Expressions & Equations

Key Skills:

- Writing expressions with exponents
- Evaluating algebraic expressions
- Generating equivalent expressions
- Understanding solving equations
- Writing equations for real-world situations

Example: If $2x + 7 = 15$, then $2x = 8$, so $x = 4$



Solving step by step

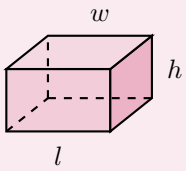
4 Geometry

Key Skills:

- Finding area of triangles and quadrilaterals
- Finding volume of rectangular prisms
- Using nets to find surface area
- Drawing shapes in the coordinate plane

Key Formulas:

$A = \frac{1}{2}bh$ $A = lw$ $V = lwh$



★ Mistakes Are Learning Opportunities ★

When you make a mistake:

1. Stay curious—don't get frustrated
2. Ask: "What can I learn from this?"
3. Read the explanation carefully
4. Try similar problems until you understand

Every mistake brings you one step closer to mastery!

Remember: Every math expert was once a beginner who made tons of mistakes!

Zara's Experience

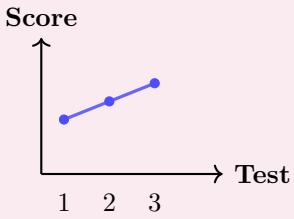


On Practice Test 1, Zara missed 12 questions. She felt discouraged at first.

But instead of giving up, she studied every explanation for the problems she missed. She noticed that 5 of those mistakes were all about dividing fractions.

By Practice Test 3, Zara had mastered fraction division and was getting those problems right consistently!

"Those mistakes on Test 1 actually helped me," Zara said. "They showed me exactly what I needed to work on."



Staying Motivated

Set Small Goals
Focus on improving one topic at a time

Celebrate Progress
Notice when you improve, even a little

Take Breaks
Rest helps your brain process new learning

Remember

- Intelligence is not fixed. The more you practice, the better you get.
- Struggling means you're learning. Easy problems don't grow your brain!
- You have what it takes. With effort and practice, you will improve.

Believe in yourself—you've got this!

A Guide for Parents

Supporting Your Student's Success

Welcome, Parents and Guardians!

Thank you for supporting your child's preparation for the DC CAPE math assessment. This book contains 6 complete practice tests designed to build skills and confidence for Grade 6 mathematics.

What's Inside:

- 6 full-length practice tests with 40 questions each
- Complete answer keys with detailed, step-by-step explanations
- Coverage of all Grade 6 District of Columbia math standards
- Growth mindset support to build confidence

How You Can Help

✓ Do

- ✓ Encourage effort over perfection
- ✓ Celebrate improvement, not just scores
- ✓ Review wrong answers together
- ✓ Keep practice sessions short (20–30 min)
- ✓ Be patient—learning takes time
- ✓ Praise specific strategies used
- ✓ Create a quiet study environment

× Avoid

- × Comparing to siblings or classmates
- × Showing frustration with mistakes
- × Rushing through tests
- × Focusing only on wrong answers
- × Making practice feel like punishment
- × Skipping the explanation review
- × Expecting perfection early on

Suggested 6-Week Schedule