KOKOCHEM

MATH SPEED TRICKS

For

NSMQ PREP

By **Kwabena B. Duah**

Volume 1

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Dedication

This book is dedicated to every learner and high school student who dreams of competing in the National Science and Maths Quiz – Ghana (NSMQ), wants to solve math problems faster, and hopes to build stronger math skills for school, exams, and beyond.

Acknowledgements

First, I thank God for the strength, ideas, and opportunity to complete this book. I am deeply grateful to my supportive mom, Paulina, family, and friends for their encouragement, support, and belief in me throughout this journey.

This book was created with the hope that more students, no matter where they come from or what resources they have, can get access to clear, useful, and affordable learning materials. My hope is that these resources can help students prepare with confidence, compete in opportunities like the NSMQ, do well in their math exams, and continue to grow in their learning and confidence in mathematics. To everyone who supports KokoChem Education, thank you. Your support means more than you may know.

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How to Use This Book

Solving Math questions in Exams, Competition or NSMQ is not only about getting the correct answer. You also need to see the pattern quickly and choose a reliable way to solve it.

- **Learn the pattern.** Each topic begins with a short note showing what to look for.
- **Try the questions yourself.** Do not check the answers while you are solving.
- **Time yourself. Once you can solve a question accurately, time yourself and work on your speed.**
- **Check your answer.** Use the Quick Answers at the back of the book.
- **Learn the faster route.** If you are wrong, unsure, or too slow, study the Speed Solution.
- **Try again.** The goal is not only to get the answer right. The goal is to recognize the pattern faster the next time you see it.

Practice makes permanent. Practice the right method until it becomes familiar.

IMPORTANT

This book is not meant to replace your mathematics textbook.

Use your textbook to learn mathematics. Use this book to practice how to recognize, solve, and answer NSMQ-style math questions faster.

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What You'll Find

- **Topic Practice** Questions are grouped by topic so you can strengthen one skill at a time.

- **Speed Tricks** When a faster and reliable method exists, we show you what to notice and how to use it.

- **Answers + Speed Solutions** Quick Answers help you check your work. Speed Solutions show the key clue, formula, shortcut, or fast method. Detailed explanations are included when needed.

- **Before the Quiz** Sample responses help contestants prepare for common pre- and post-quiz interview questions and speak with more confidence.

KokoChem Speed Cues

- **SPEED IDEA — A useful pattern or first move to notice.**
- **SPEED TRICK —** A faster, reliable method.
- **WATCH OUT —** A common mistake or trap.
- **WHY IT WORKS —** A short explanation of the mathematics behind the method.

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100+ practice and worked problems
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