

INTRODUCTION

Introduction to Your First Online Class with Me

Hello everyone!

My name is Gamze Kazakoglu, and I'm an MSc student at Imperial College London. Originally, I'm from Istanbul, Turkey, and I'm so excited to be working with you all!

In our sessions together, we'll explore fun mathematical puzzles and games that challenge your thinking. You'll learn how to solve them step by step and maybe even laugh at a few cheesy mathematical jokes that may come up along the way! □

What's the Plan?

- ✓ We'll look at engaging puzzles that encourage logical thinking.
- ✓ You'll develop your problem-solving skills (think, solve, succeed!).
- ✓ We'll focus on learning to think efficiently and logically, and make life a little easier.
- ✓ Finally, you'll have the chance to sharpen your thinking (memorize less, analyze more!).

I look forward to working with you, and I hope these exercises will get you excited to start. Feel free to reach out if you have any questions before our first session!

Getting Ready for Our First Class

The following questions are here to help you get acquainted with the material we'll be working on. You don't need to solve them right away, but it would be helpful to review them before our first session. This way, you'll have a better idea of the types of problems we'll tackle, and you can come to class feeling prepared!

Take your time with these questions. If any of them seem tricky, don't worry! We'll work through similar problems together in class, and I'll be there to guide you.

□ Just a quick note: Q1, Q2, etc. mean "Question 1," "Question 2," and so on.

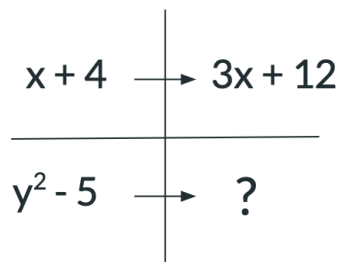
Q1) A TERRIFYING SCENARIO

Camilla was walking on the boardwalk with 15 members of her dance team. When it started to rain, all but 3 of them squeezed into the Taffy Shop. How many were left in the rain?



Q2) WHAT'S MISSING?

In the following diagram, two algebraic expressions are being changed or related to new forms following the same procedure or process. The arrows point to the new forms. One space is empty. Can you decide what the procedure is and what should go in the empty space? Why?



Q3) THE PHOTO SHOOT

Five friends have their photographs taken on a sunny day. If they take the photographs in groups of three, how many different photographs can they end up taking?



Q4) WHAT FILLS THE GAP?

In the following diagram, two algebraic expressions are being changed or related to new forms following the same procedure or process. The arrows point to the new forms. One space is empty. Can you decide what procedure is and what should go in the empty space? Why?

