



CYPRUS MATHEMATICAL SOCIETY
REGIONAL COMPETITION
NOVEMBER 2025

PRIMARY LEVEL 5

Date: 08/11/2025

Time: 10:00-12:00

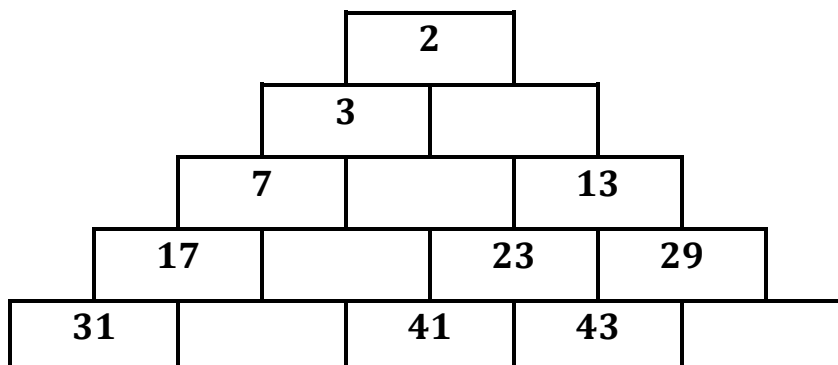
INSTRUCTIONS

1. Solve all the problems, fully justifying your answers.
2. Each problem is worth 10 points.
3. Write with blue or black ink (shapes can be drawn with pencil).
4. The use of corrective liquid (Tipp-Ex) is not allowed.
5. The use of a calculator is not allowed.

PROBLEMS

Problem 1

In the pyramid below, fill in the blanks with the appropriate prime numbers.



If from the sum of all the numbers in the pyramid we subtract 2 and then divide by 2, we obtain a number.

Is this number a prime number, and why?

(Note: Copy the pyramid on your answer sheet)

Problem 2

Two students are playing the game "Guess My Number."

The game is played as follows:

You think of a natural number and then perform the arithmetic operations your opponent suggests.

At the end, you announce the final result and your opponent must find your original number.

Maria thinks of a natural number.

Andrea tells her to multiply that number by 4, add 3 to the product, and divide the result by 5.

Finally, she tells her to subtract 3, and Maria gets the number 12.

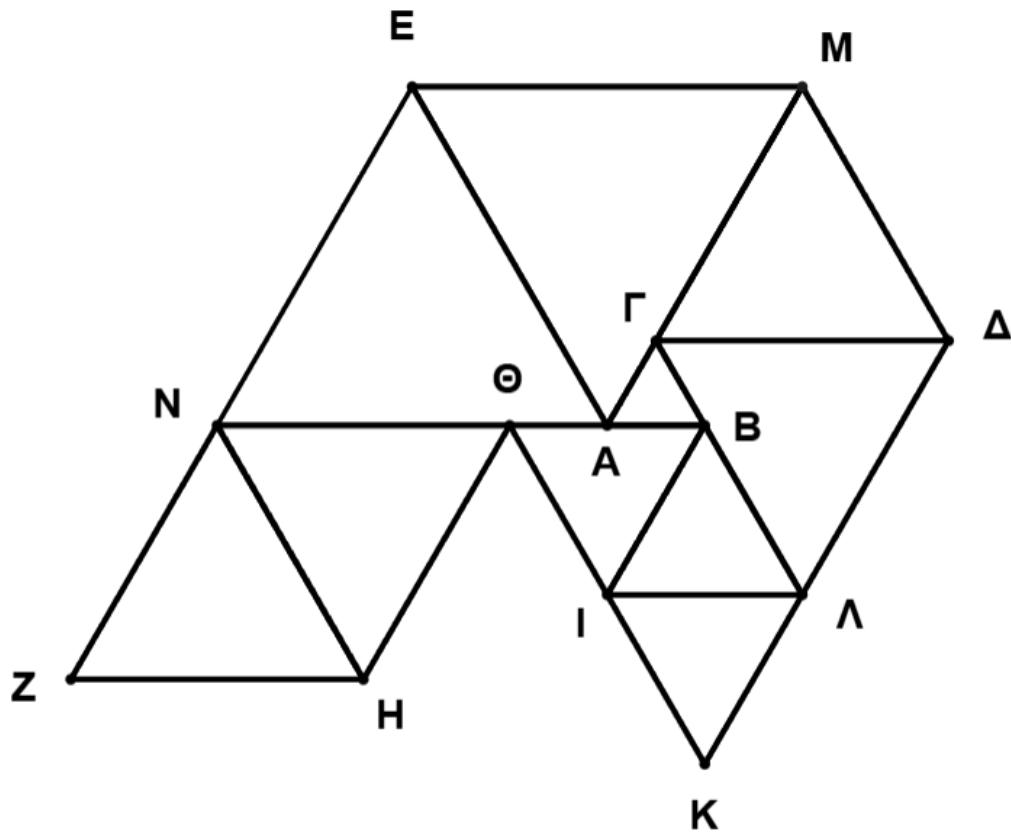
What number did Maria think of?

Problem 3

In the figure below, all triangles are equilateral.

It is given that: $AB = 2\text{cm}$ και $\Gamma\Delta = 6\text{cm}$

- Find the length of the distance EZ .
- How many times does the smallest triangle fit into the ENA triangle?
- Find the perimeter of the whole figure.



Problem 4

A large cube is completely painted red (on all its faces).

It is then cut into 216 smaller cubes.

How many of these 216 cubes have exactly two red faces?

