

MATHEMATTIC

No. 69

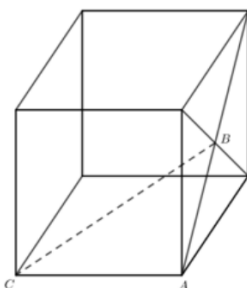
The problems featured in this section are intended for students at the secondary school level.

Click here to submit solutions, comments and generalizations to any problem in this section.

*To facilitate their consideration, solutions should be received by **January 15, 2026**.*

MA341. In a soccer game the home team won by 5 goals to 4. The home team scored first and were never behind in the game. In how many ways could the goals have been scored?

MA342. Points A and C are vertices of a cube with side length 2 and B is the point of intersection of the diagonals of one face of the cube, as shown. Find the length $|CB|$.



MA343. If $2025 = a^b c^d$, what is the minimum value of $a + b + c + d$, where a, b, c, d are positive integers?

MA344. There are 32 competitors in a tournament. No two of them are equal in playing strength, and in a one against one match the better one always wins. Show that the gold, silver, and bronze medal winners can be found in 39 matches.

MA345. Find the altitude of the equilateral triangle whose area and perimeter have the same numerical value.

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