

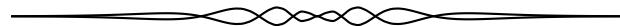
# MATHEMATTIC

No. 69

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

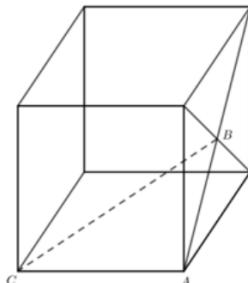
**Click here to submit solutions, comments and generalizations to any problem in this section.**

*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.

