# PROBLEM # 678

**Posted on**:10 November
**Due on**:17 November

The twelve edges of a cube are assigned the integers from 1 to 12. The assignment has been made in such a way that no two edges have the same integer. Each of the eight vertices is concurrent with three edges. Let us call the weight of a vertex the sum of the three integers assigned to the concurrent edges of the vertex. Is it possible to assign the integers to the edges so that all the vertices have the same weight? If so, give such an assignment. If not, explain why.

The problem of the week can be found online at

http://potw.mth.cmich.edu/

Solutions can be mailed to

chakr2d@cmich.edu

with subject line "POTW 678"