## Pi Mu Epsilon Problem of the Month November 2017

Consider the cube. Each vertex is assigned one of the numbers $0,1,2,3,4,5,6$, and 7 so that each vertex has a different number.

How many ways are there to assign the numbers so that no two even numbers are assigned to vertices with a common edge?


Problem of the Month Rules:
H Submissions must include a complete mathematical justification along with the answer.
H Submissions may only be made by individuals or groups of two and must be dated.
H Due date: November 28, 2017 before 5 p.m.; they may be given to Dr. Phillip Poplin or Dr. David Shoenthal.
To get your own copy, please visit: http://www.longwood.edu/mathematics/

