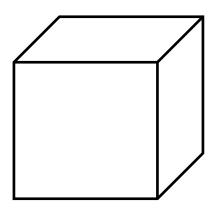
Pi Mu Epsilon Problem of the Month November 2017

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:

- **#** Submissions must include a complete mathematical justification along with the answer.
- **#** Submissions may only be made by individuals or groups of two and must be dated.
- **#** Due date: November 28, 2017 before 5 p.m.; they may be given to Dr. Phillip Poplin or Dr. David Shoenthal.

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