

Pi Mu Epsilon

Problem of the Month October 2022

A magic square is an array of numbers such that the sum of each row, the sum of each column, and the sum of each of the two main diagonals is the same value.

Below is a magic square. A letter has replaced each digit 0 to 9.

| | | | | |
|----|----|----|----|----|
| BA | NC | CP | CH | BB |
| NE | CB | CA | BC | BN |
| CC | CN | BE | NZ | NX |
| BZ | BX | BW | NP | CE |
| BP | BH | NB | CX | CW |

If the magic sum is XNB, determine which digit each letter represents.

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: October 28, 2022 before 5 p.m. to one of Drs. Poplin, Shoenthal, Ledford, or Hoehner.

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