## BmMT 2019 Puzzle Tiebreaks

## Cut Apart Tiebreaker

An octomino is a set of 8 lattice squares glued together by their sides.
Examples of an octomino is:


Find an octomino that can be split into 4 contiguous congruent pieces (not necessarily into squares) but not into 4 dominoes.

## Arrows Tiebreaker

## Place Arrows in Each Empty Box!

| 0 |  |  |  | 0 |
| :--- | :--- | :--- | :--- | :--- |
|  | 4 | 4 | 4 |  |
|  | 2 | 2 | 2 |  |
|  | 3 | 6 | 3 |  |
| 0 |  |  |  | 0 |

## Separators Problem

| 1 |  |  |  | 0 | 5 | 1 | 3 | 2 | 1 | 5 | 3 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
|  | 2 |  |  | 2 | 1 | 0 | 1 | 0 | 1 | 1 | 4 |
|  |  | 3 |  | 2 | 0 | 0 | 3 | 1 | 5 | 0 | 3 |
|  |  |  | 4 | 4 | 0 | 1 | 5 | 3 | 5 | 4 | 2 |
| 2 | 0 | 2 | 0 |  |  |  |  |  |  |  |  |
| 4 | 1 | 1 | 0 |  |  |  |  |  |  |  |  |
| 1 | 5 | 1 | 1 |  |  |  |  |  |  |  |  |
| 1 | 1 | 5 | 5 |  |  |  |  |  |  |  |  |
| 1 | 5 | 0 | 0 |  |  |  |  |  |  |  |  |
| 1 | 1 | 5 | 1 |  |  |  |  |  |  |  |  |
| 2 | 1 | 0 | 1 |  |  |  |  |  |  |  |  |
| 4 | 2 | 2 | 2 |  |  |  |  |  |  |  |  |

