Michigan Leagues of Academic Games
Middle On-Sets Variations

1. <u>Required cube</u> The Solution must contain a ___ cube. The player selecting this variation specifies which non-digit symbol from the Resources fills the blank in the previous sentence.

2. <u>Wild cube</u> The ___ cube may represent any symbol on the cubes except a digit. The ___ cube must stand for the same symbol everywhere it occurs (Restriction(s) and Set-Name). The player selecting this variation specifies which cube from the Resources is wild. The wild cube may not be =, <u>C</u>, or a digit. Each Solution-writer must specify in writing the interpretation of the wild cube if it stands for anything other than itself in his Solution.

3. <u>U and Ω interchangeable</u> Any <u>U</u> may represent <u>U</u> or <u>Ω</u>, and any <u>Ω</u> may represent <u>Ω</u> or <u>U</u>.

4. <u>V and ∧ interchangeable</u> Any <u>V</u> may represent <u>V</u> or <u>∧</u>, and any <u>∧</u> may represent <u>∧</u> or <u>V</u>.

5. <u>Two operations</u> The Set-Name of each Solution must contain at least two operation symbols. The operation symbols are <u>U</u>, <u>Ω</u>, –, and '.

6. <u>Multiple operations</u> Every operation sign in Required, Permitted or Resources may be used multiple times in a Solution (Set-Name or Restriction or both).

7. <u>Shift from Permitted</u> On your turn you may transfer a cube in Permitted to either Required or Forbidden. This move takes the place of your regular move.

8. <u>No null Restrictions</u> Each Restriction must remove at least one card from the Universe. In a "chain" Restriction this variation is satisfied if *any* part of the chain removes a card.

9. <u>Absolute value</u> Any upside-down cube in the Goal may be interpreted as rightside-up by a Solution-writer.

Circle variations on the back of this sheet