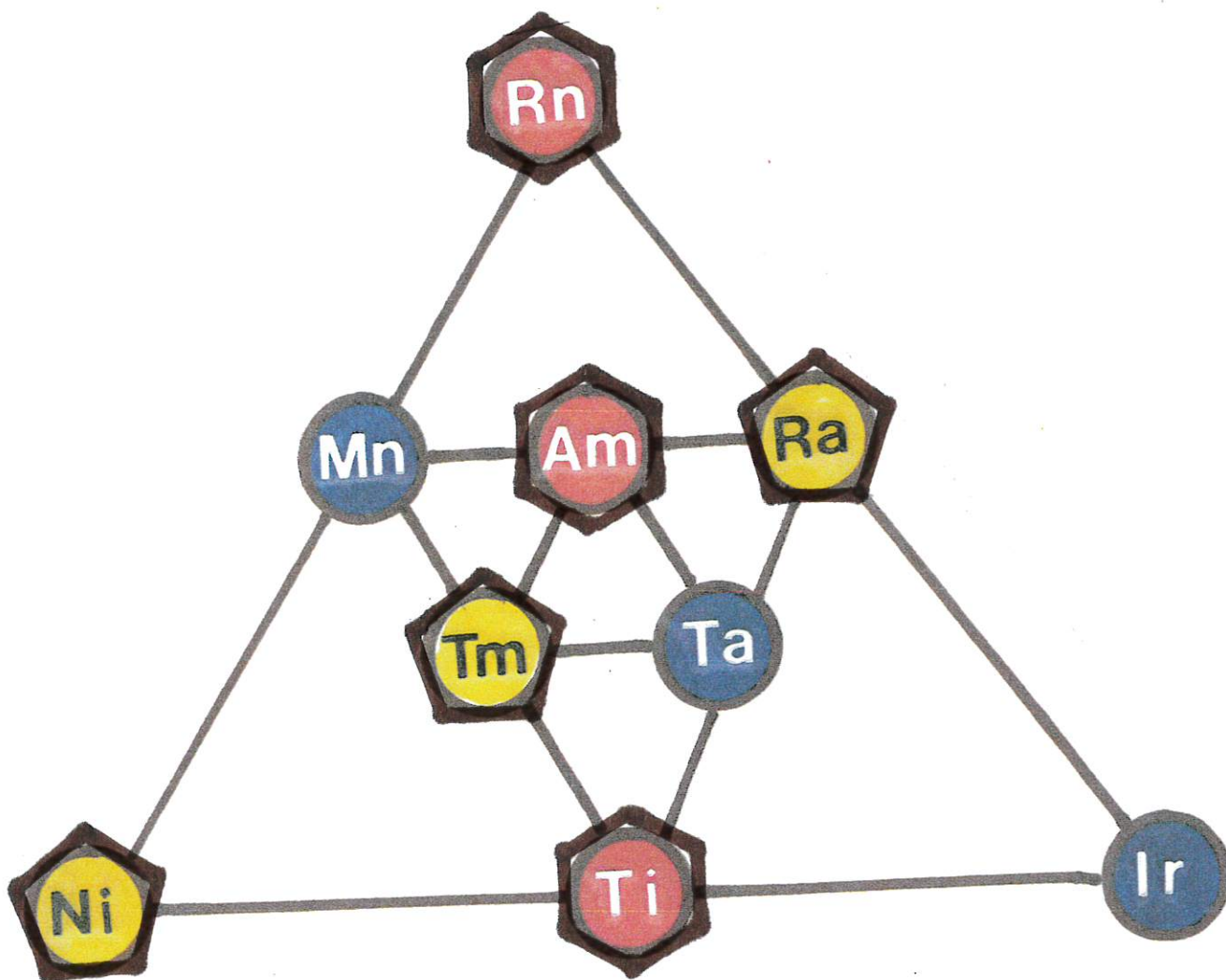


THE MARTIN GAME

By Jeremiah Farrell

The MARTIN diagram uses each letter of the name exactly three times to form nine chemical symbols.

The Game. Two players alternately select nodes trying to obtain three nodes with a common letter or three nodes of the same color obtaining all the letters of MARTIN. To be completely fair both players have only four plays and if First cannot win in four moves the win is awarded to Second.



MARTIN

SOLUTIONS

How to win **Martin Gardner**. Take note of the three sets of misses. AIE, MRT, GND. First can take any node and if Second plays another in First's misses, First takes the third. When Second selects in a different miss set, First forces Second to waste a move by forcing Second to play another of his misses.

How to win at **Martin**. First can always win by initially selecting Mn, Ra or Ti. If Second chooses another of these three, First takes the last one and then plays rationally. If Second instead takes any other node than one of the three, First can win by forcing Second to block with a wasted move. Rational play will then win for First.

These games are examples of symmetric configurations and both are adaptations of some in the article "Configuration Games" by Jeremiah Farrell, Martin Gardner, and Thomas Rodgers in the 2005 book by AK Peters *Tribute to a Mathemagician*, edited by A. Cipa, E.D. Demaine, M.L. Demaine and T. Rodgers.