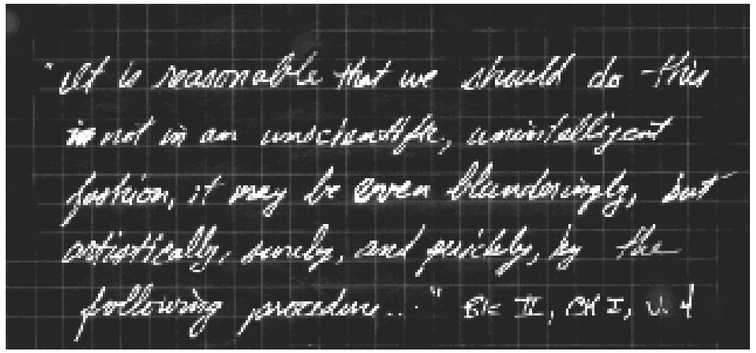
TRIANGLE OF NICOMACHUS — Instructions for Performance



Triangle of Nicomachus may be performed by three instrumentalists playing instruments with a pitch range of a least one octave and the ability to play a mixolydian scale on F (F G A Bb C D Eb F).

Each instrumentalist is assigned an individual corner of the matrix to start at (circle 1, 8 or 27). The tempo should be chosen so that all players can comfortably perform the fastest notes. To start, all three performers choose a pitch from the scale and play 6 quarter notes on that pitch in rhythmic unison with the other players. Then each performer begins following the matrix at their own corner. Though the tempo should be felt in quarter notes, much of the time the playing will sub-divide the beat into eighth notes.

The bold black lines that link the circles and squares (including the circle linking the vertices of the triangle) are the paths that may be followed through the matrix. When a performer is “in” a circle, one of the 12 music fragments around the matrix is to be chosen and repeated the number of times indicated in the circle. When the player has finished the repetitions, any path radiating out from the circle must be followed to the next square or circle. When a performer is “in” a square, he or she should rest for the number of quarter notes indicated in the square. When finished with the rest, the performer may choose to execute the same rest square again, or move on to another circle.

The 3 grey lines radiating out from the center divide the matrix into three areas. In each area a musical parameter—dynamics, timbre, or articulation—may be altered once, occasionally, or continuously over time if the performer so desires. At circles lying on the junctions between these areas, the two or three parameters involved can all be altered. These alterations can include extremes such as dynamic reduction to silence and motion, non-pitched articulations or glissandos, and uncharacteristic timbres. This provides an opportunity to explore aspects of sound diversity other than pitch and rhythm during the repetition of fragments.

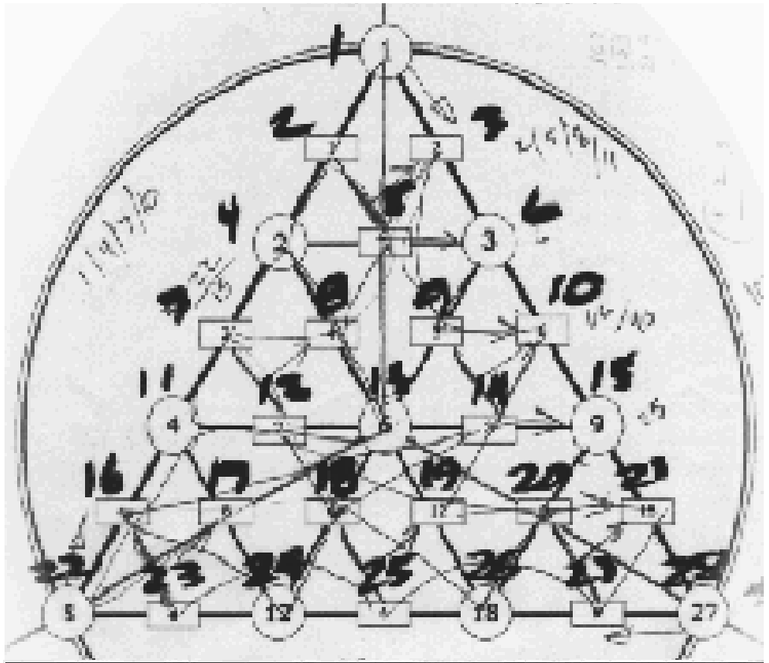
When a performer feels ready to end the piece, he or she should move to the center of the matrix and play 6 quarter notes on the pitch chosen to begin the piece, execute a neighboring rest square, move back to the center, out to a rest square, etc. Other performers should be listening for this and will chose to eventually execute a similar move to the center. When all players have moved to the center, the player who initiated the ending should drop out after a completion of the 6 circle, and the other two should then stop as soon as finished with the present circle or square they are in. One can change their mind after initiating an ending to the piece by moving back out into the matrix.

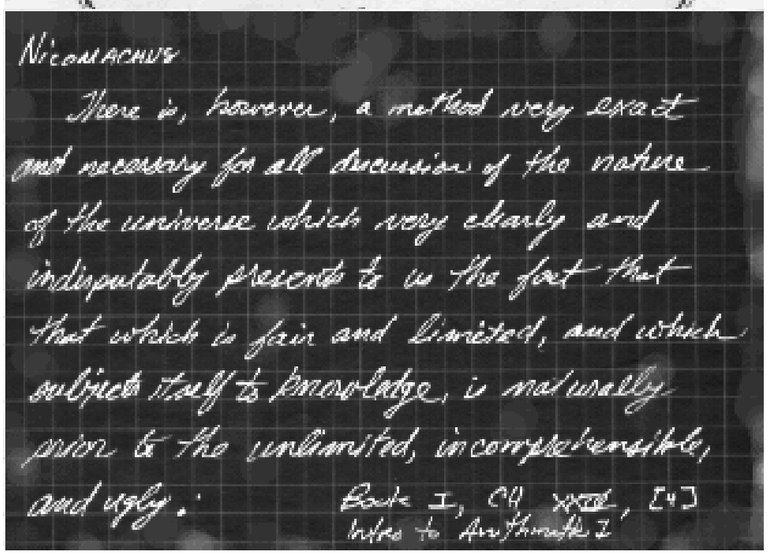
There is no rule prohibiting immediate return to a circle or square that one has just come from, or from choosing again a fragment that one has just played. Be flexible with the rhythm, dropping portions of beats as necessary to sync up with the quarter note pulse of other players. Rhythmic cohesion is desired, but flawless rhythmic execution is not—even if it were possible. An instrumentalist can choose to play the notes in any range appropriate for the instrument (or not). Notes within a fragment can be played across more than one octave as desired.

Revised 12/14/92

TRIANGLE OF NICOMACHUS

FOR THREE INSTRUMENTALISTS





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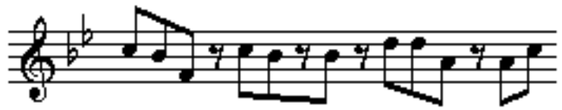

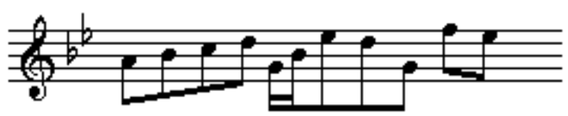

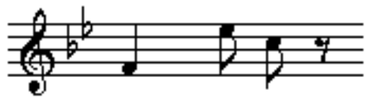

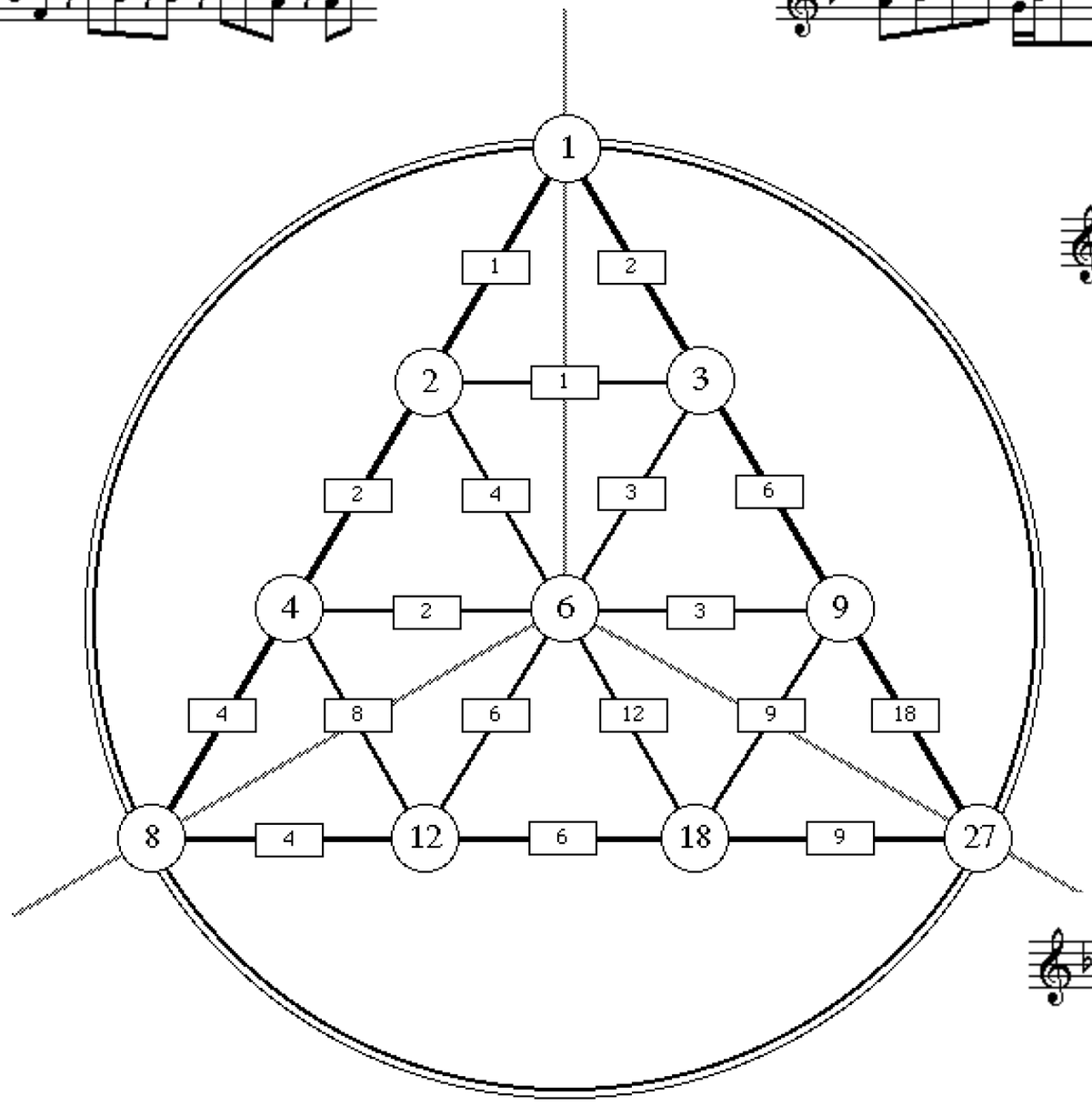
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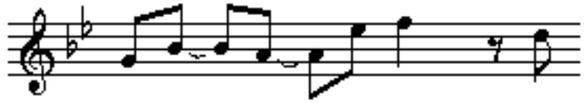

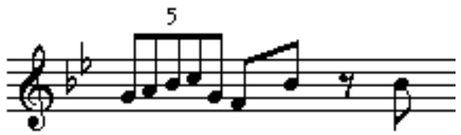
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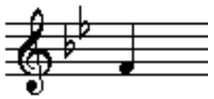

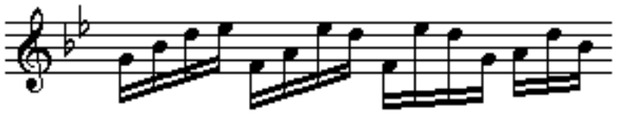

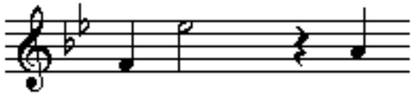

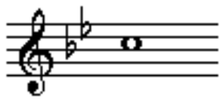

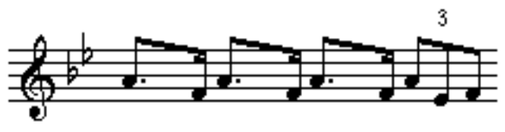
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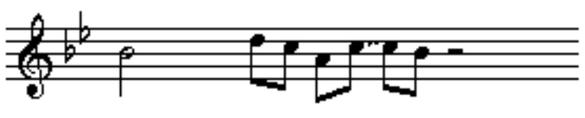

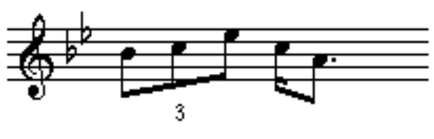
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