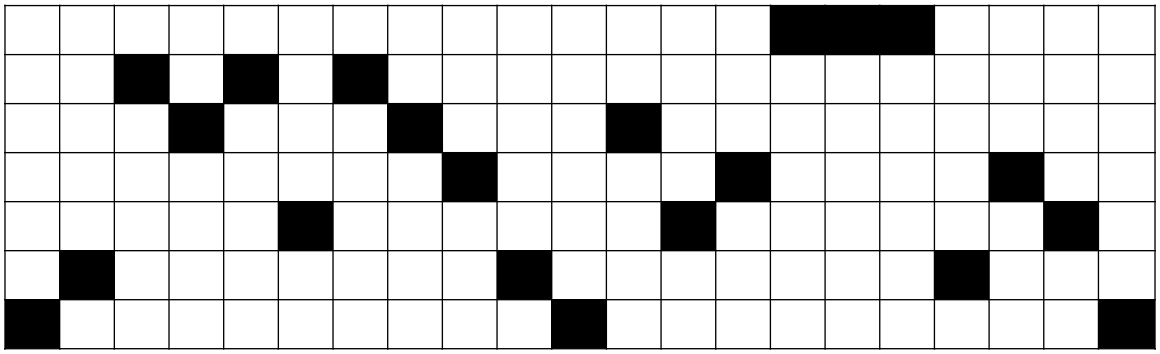
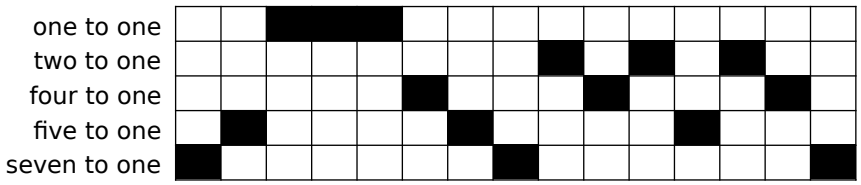
Tom Johnson

Septet IV:
Pavage



Septet IV Introduction

A perfect tiling is one in which a line may be tiled by combining a simple rhythm in several different tempos. The shortest perfect tiling of a simple tatata rhythm is in five voices, with tempos 7 : 5 : 4 : 2 : 1, as shown here.



Each point is covered, without overlaps. This became *Tilework for Piano* (2003).

In November of that year I delivered a lecture at IRCAM in Paris on *Perfect Triplet Tilings in One Dimension*, where I was able to go a little further. Working with the mathematician Erich Neuwirth, we determined that no solution exists for tiling a line of 18 points in six voices, but that one may tile a 21-point line with seven voices in nine different ways.

Seven years later, in 2010, as I was working on my septets, it occurred to me that I should now be able to find a musical application for our seven-voice perfect tilings. After trying several other approaches, I realized that the seven-voice counterpoint would be heard most clearly using a three-note scale, with the instruments all playing the same three notes in their individual tempos, the scale expanding with each solution.

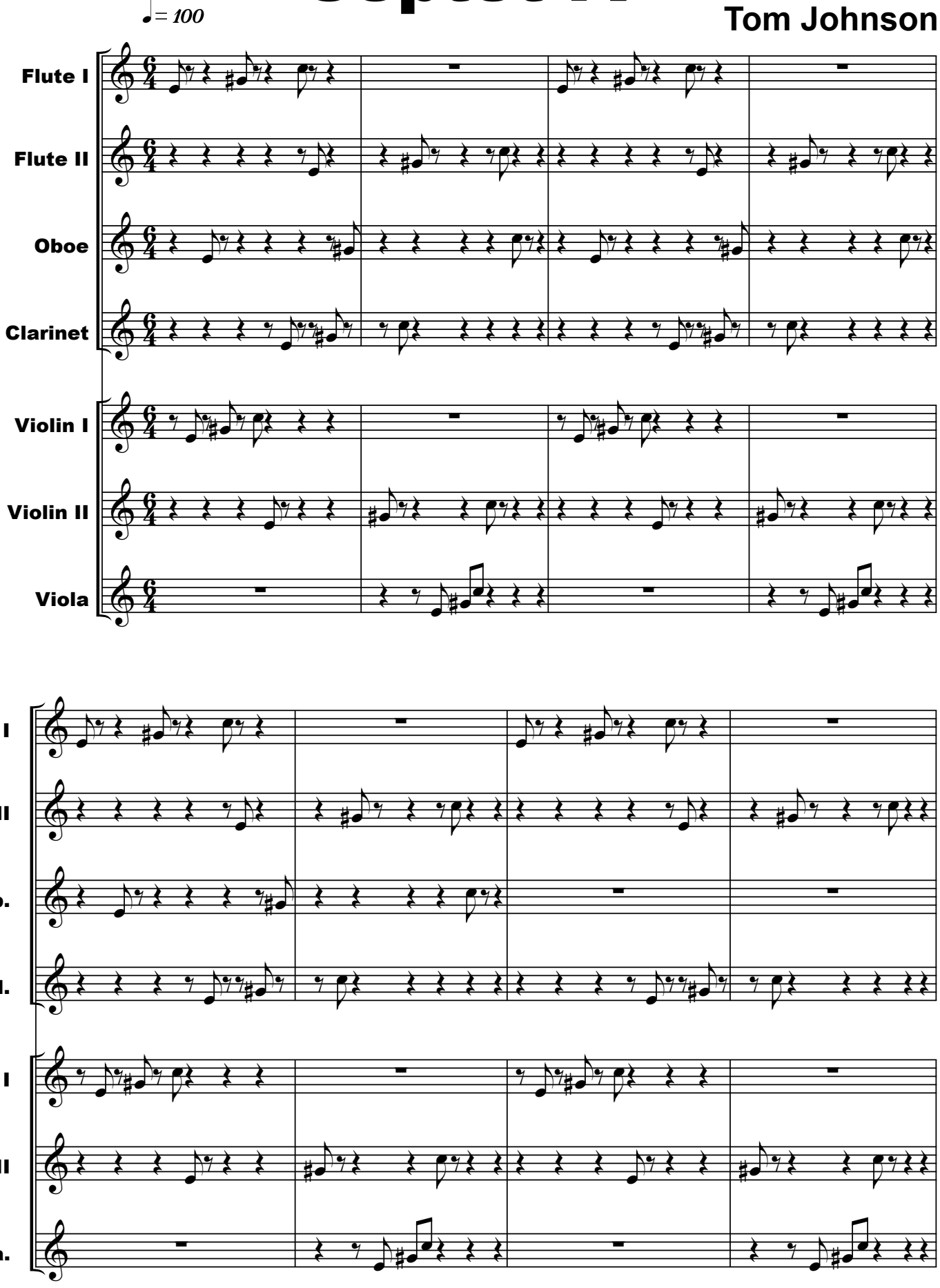
In each section we hear the complete tiling twice, with all seven voices, then with only six voices, then 5 voices, 4, 3, 2, and 1, making the individual voices more audible.

One of the nine solutions, the last one, is shown on the cover.

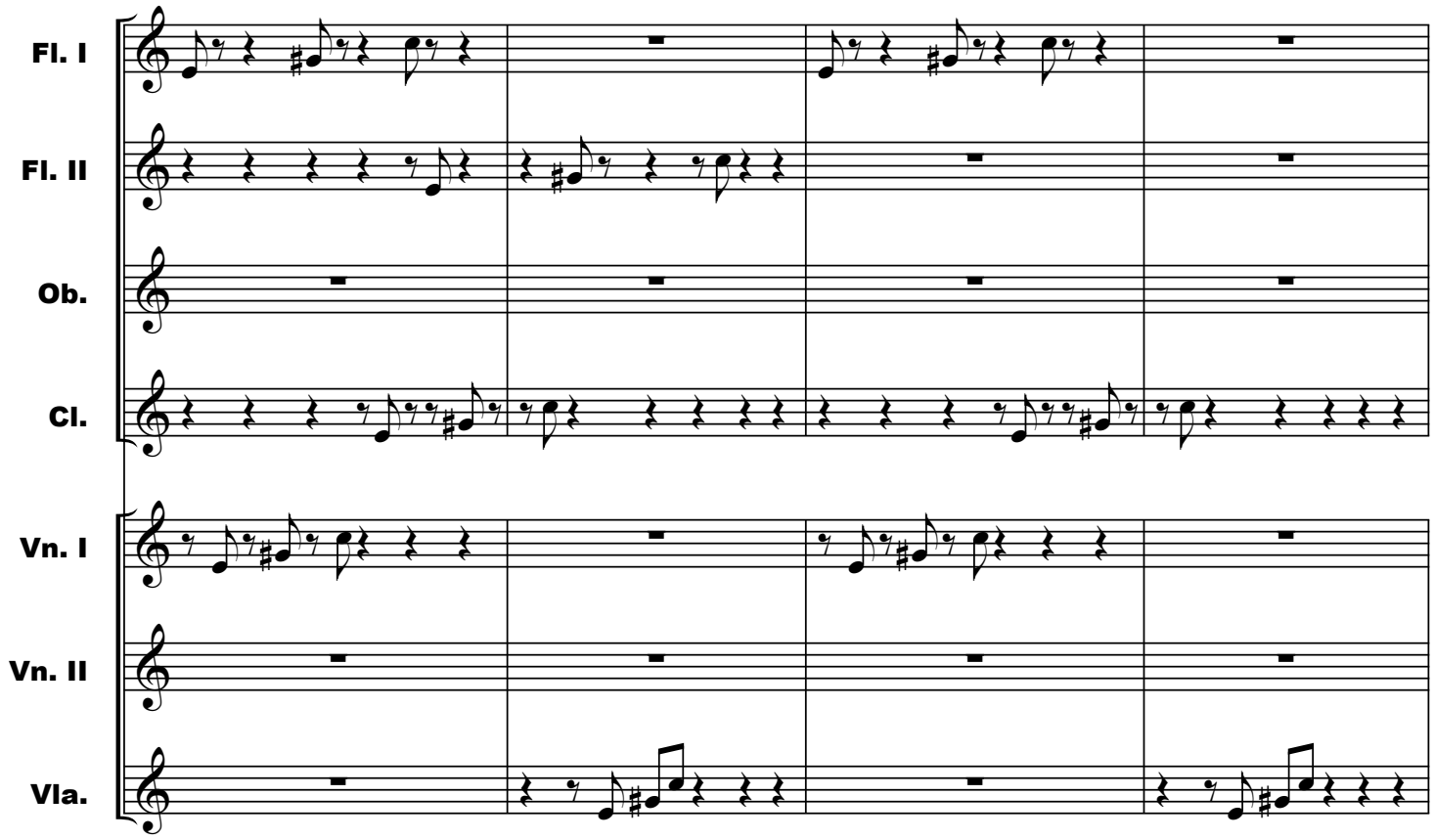
Tom Johnson, Paris, 2010

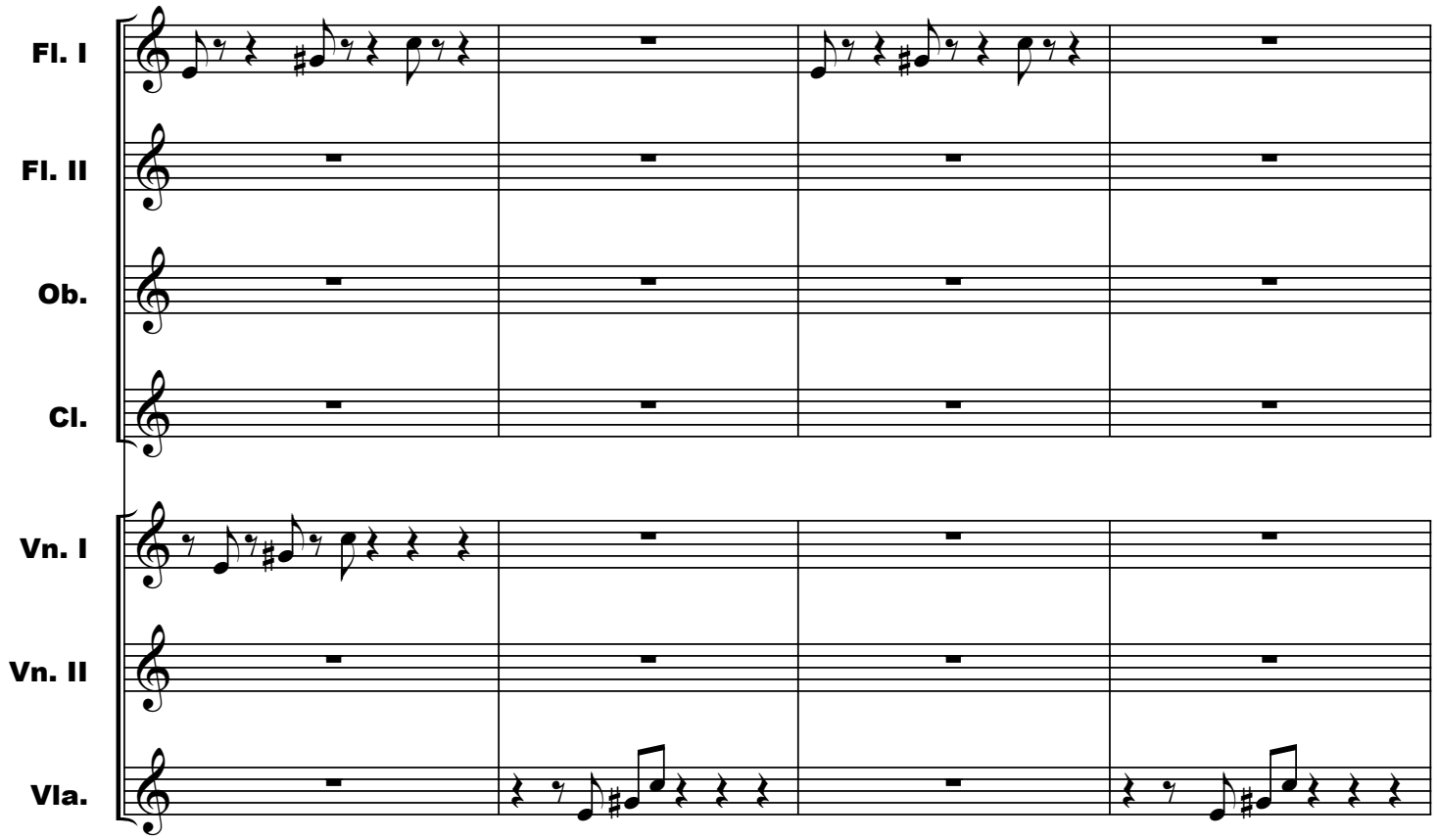
Septet IV

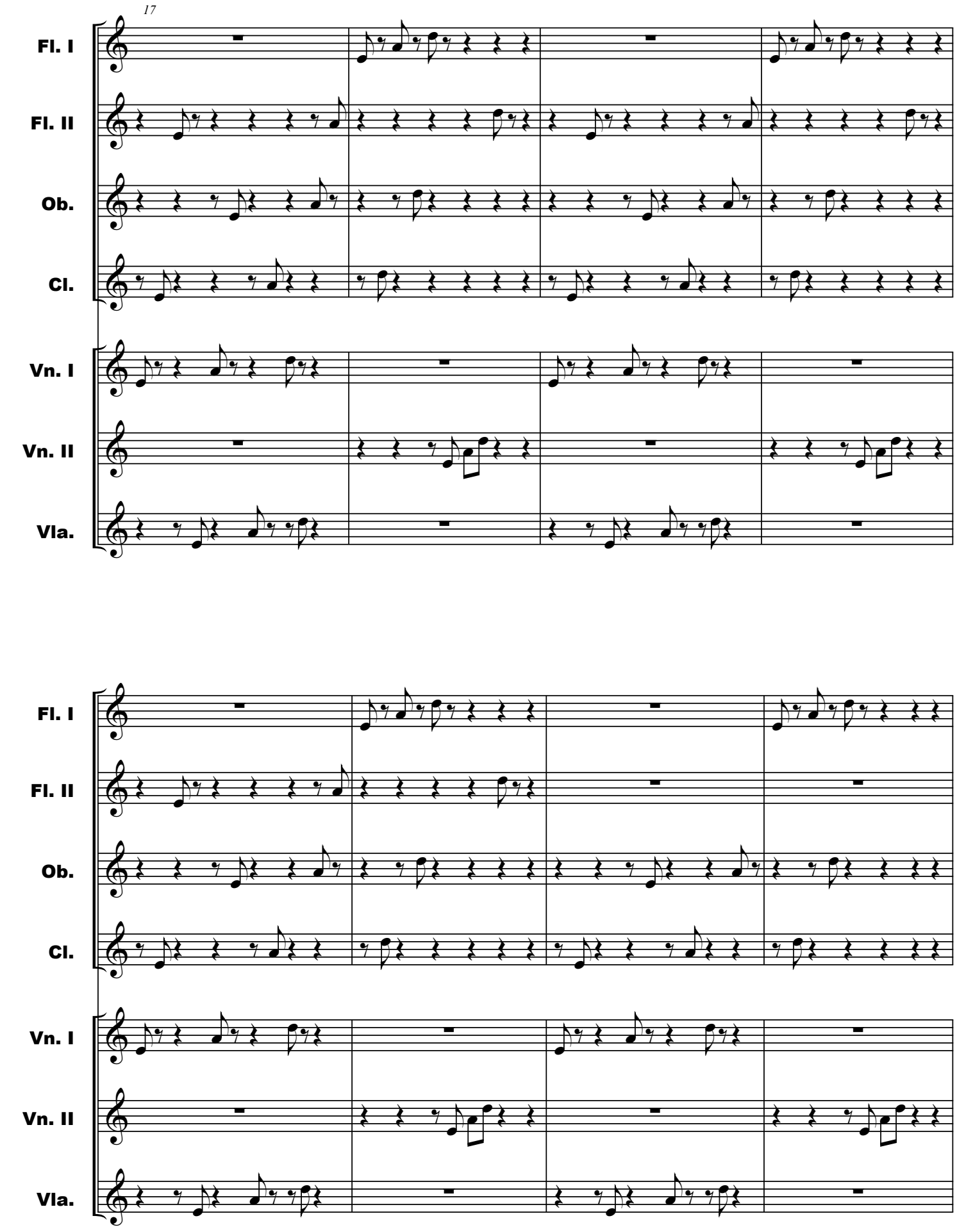
Tom Johnson



Septet



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Cl.
Vn. I
Vn. II
Vla.
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Ob.
Cl.
Vn. I
Vn. II
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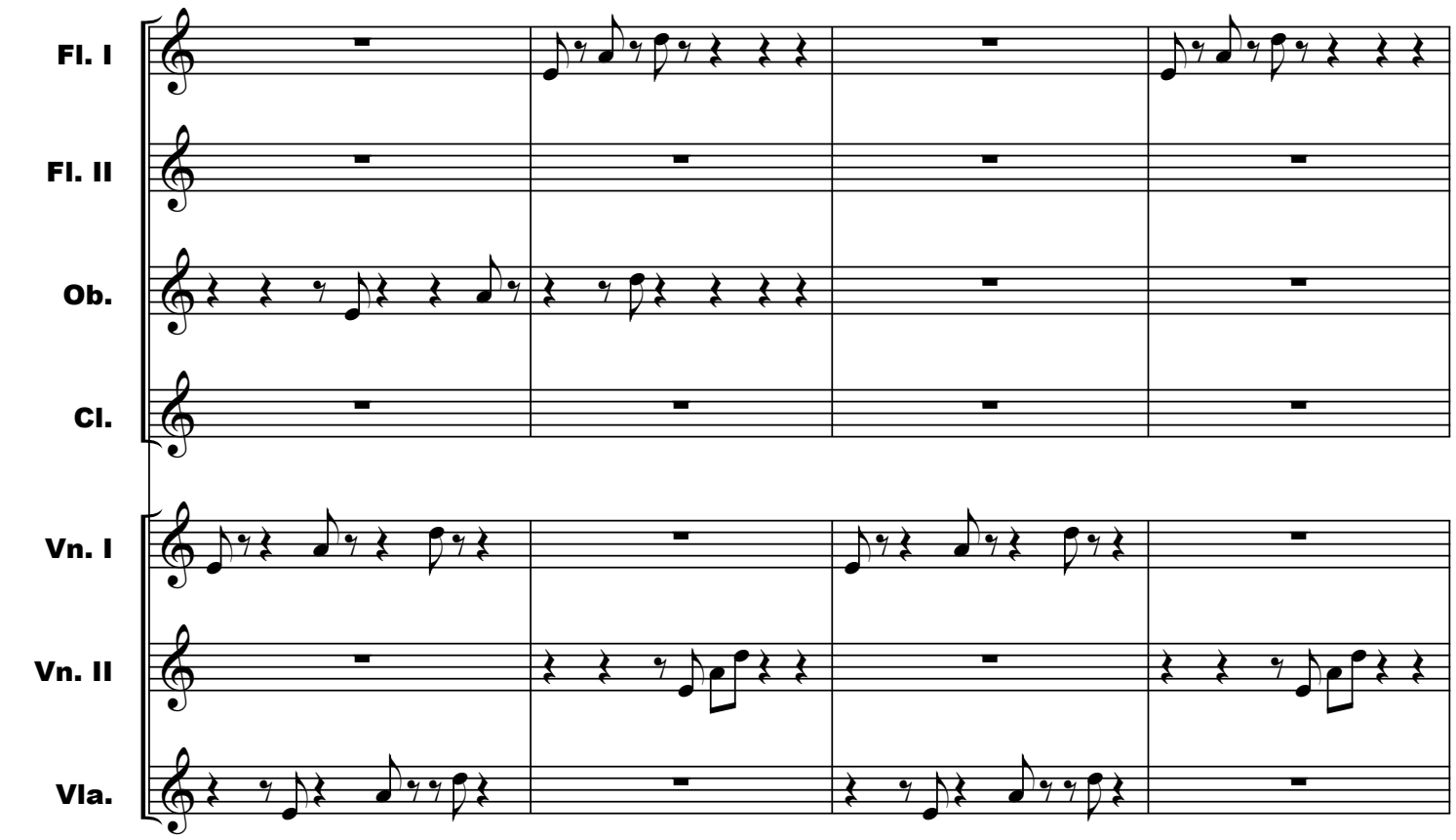
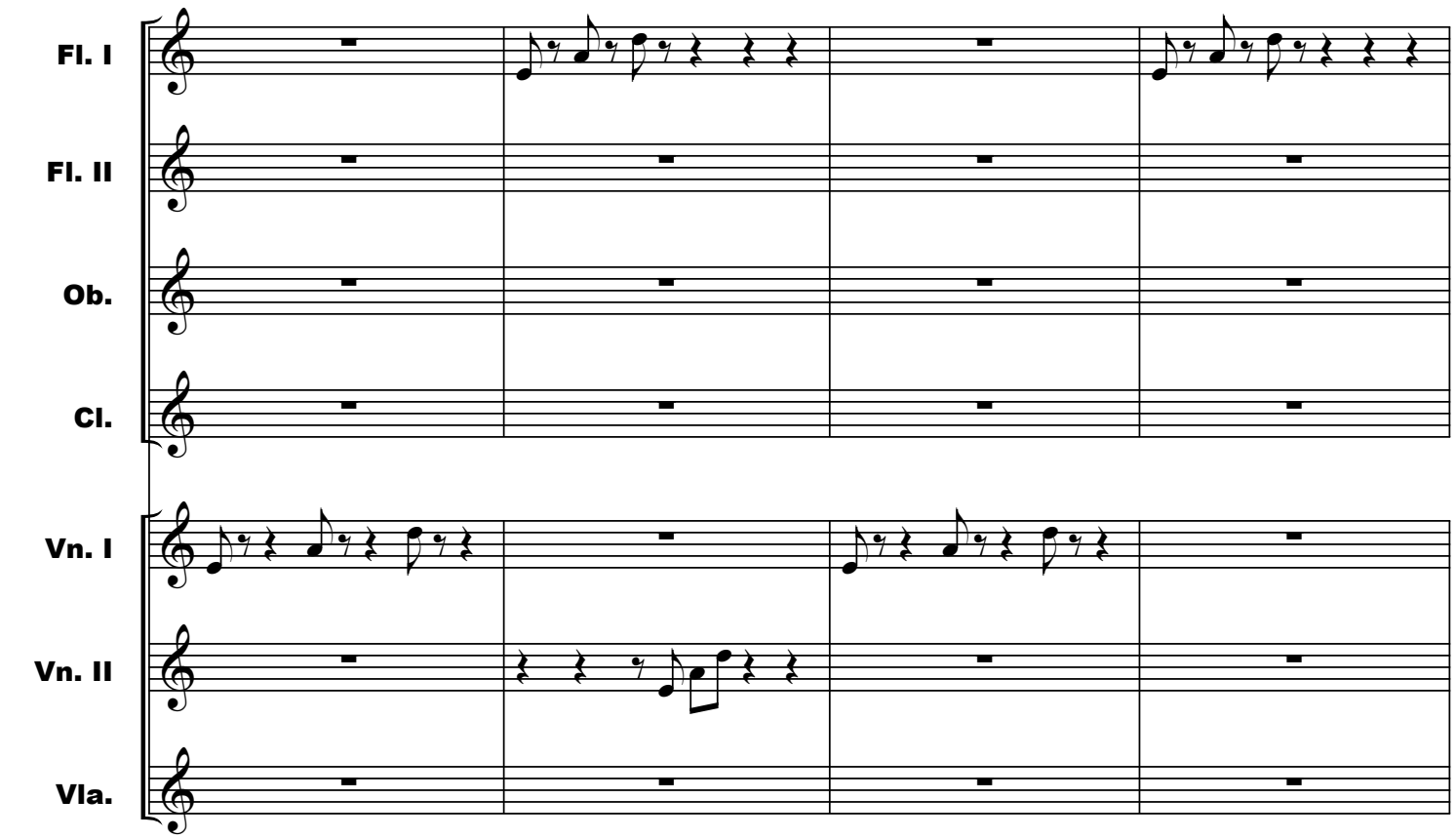
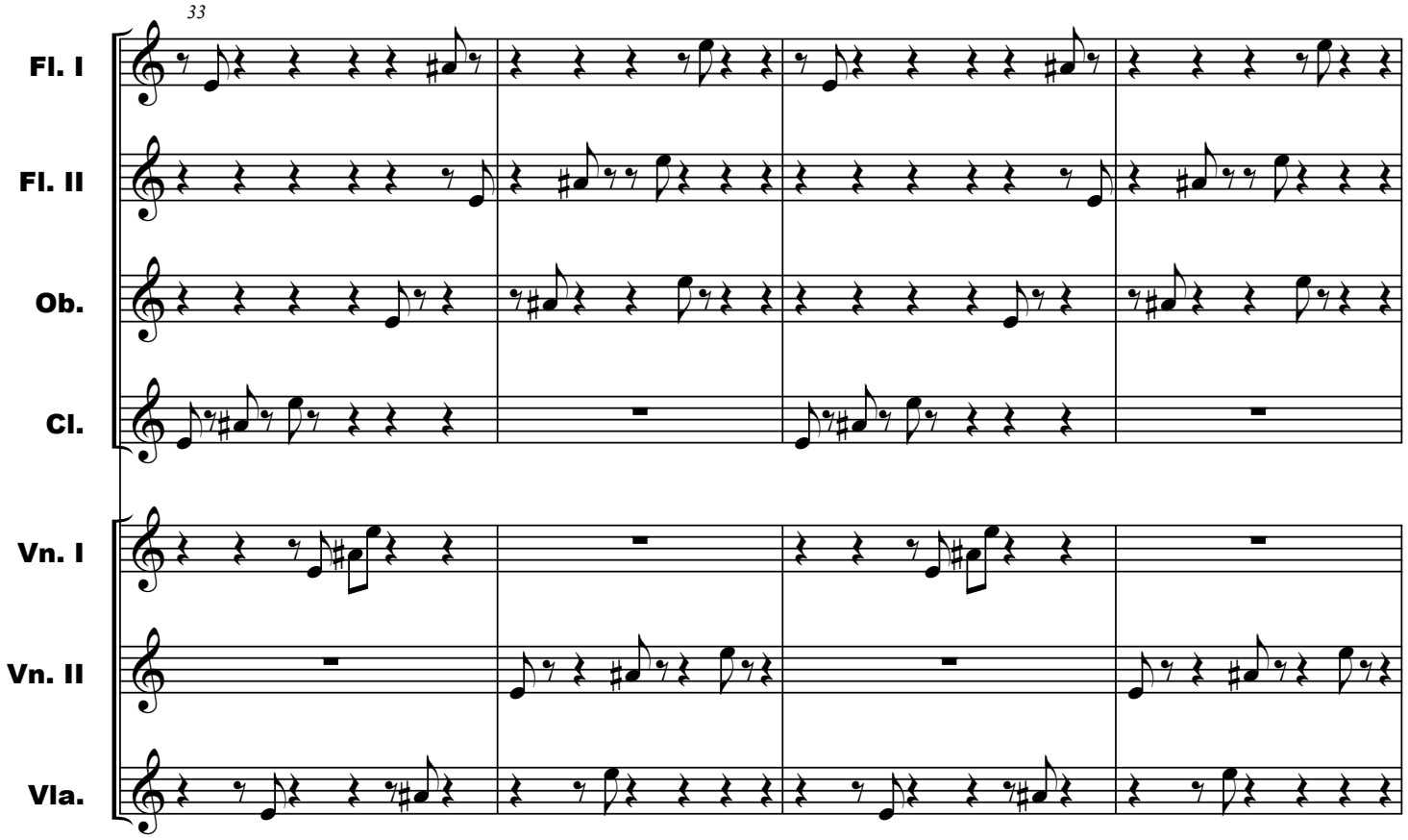
Septet



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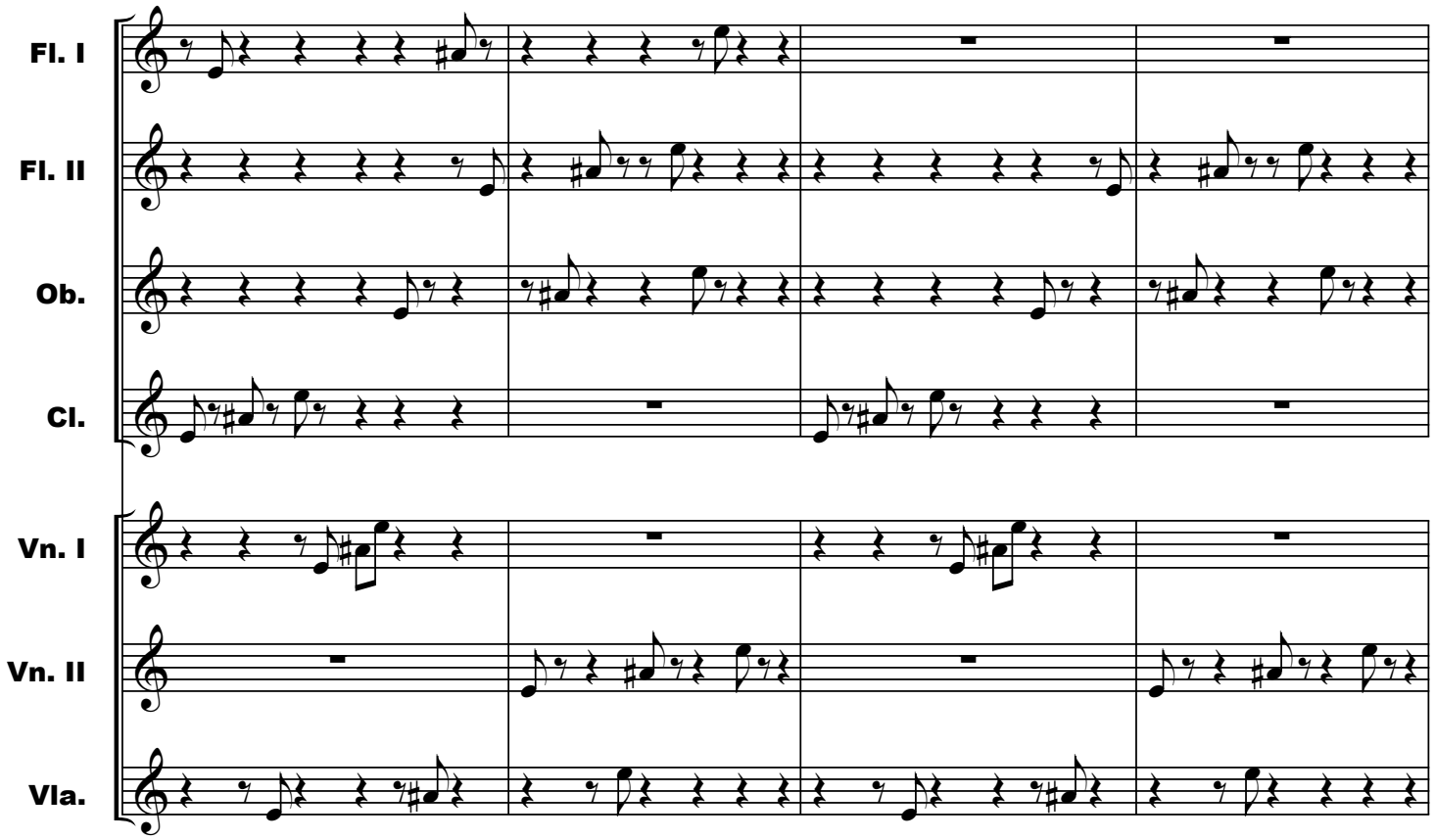
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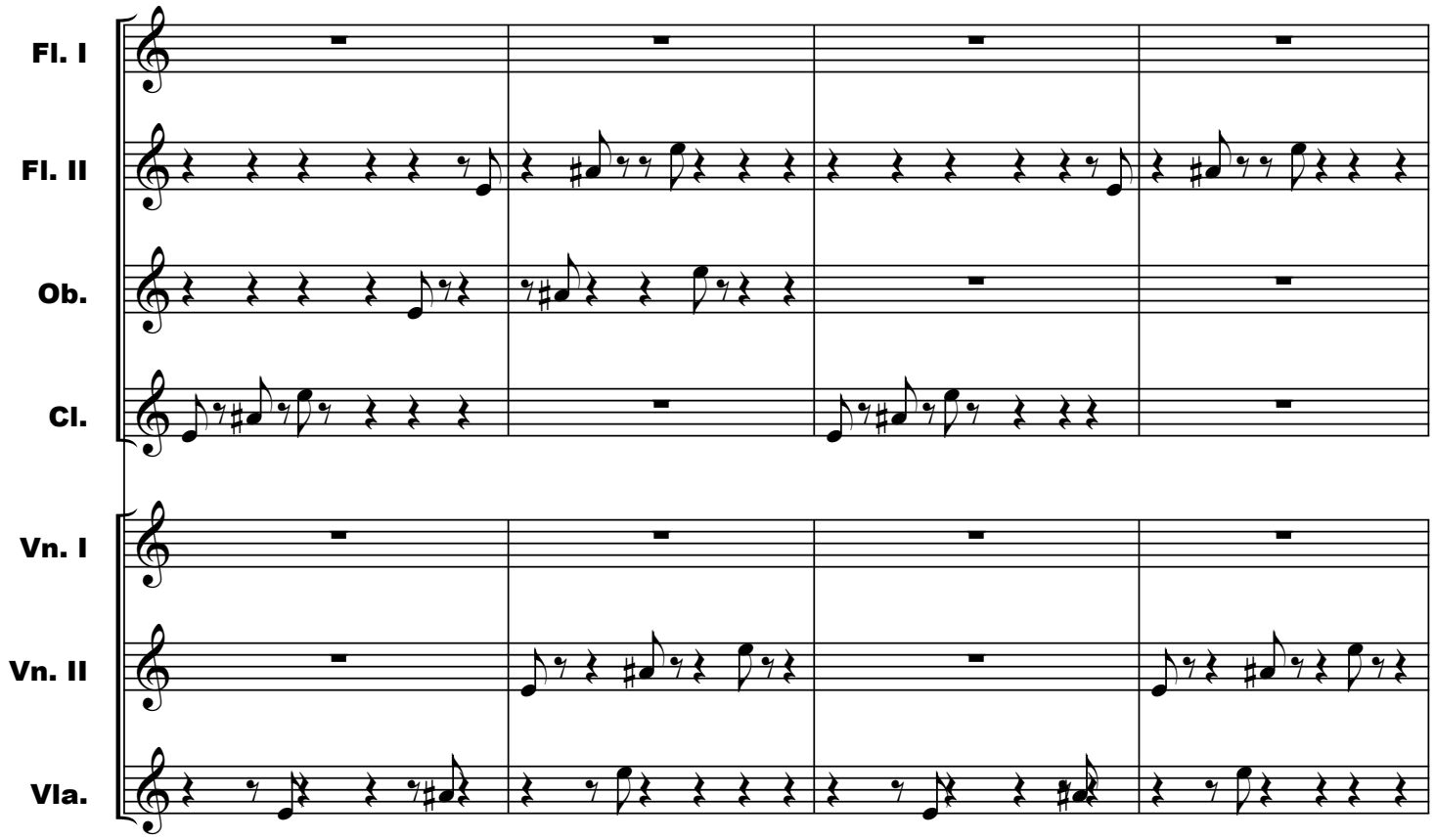
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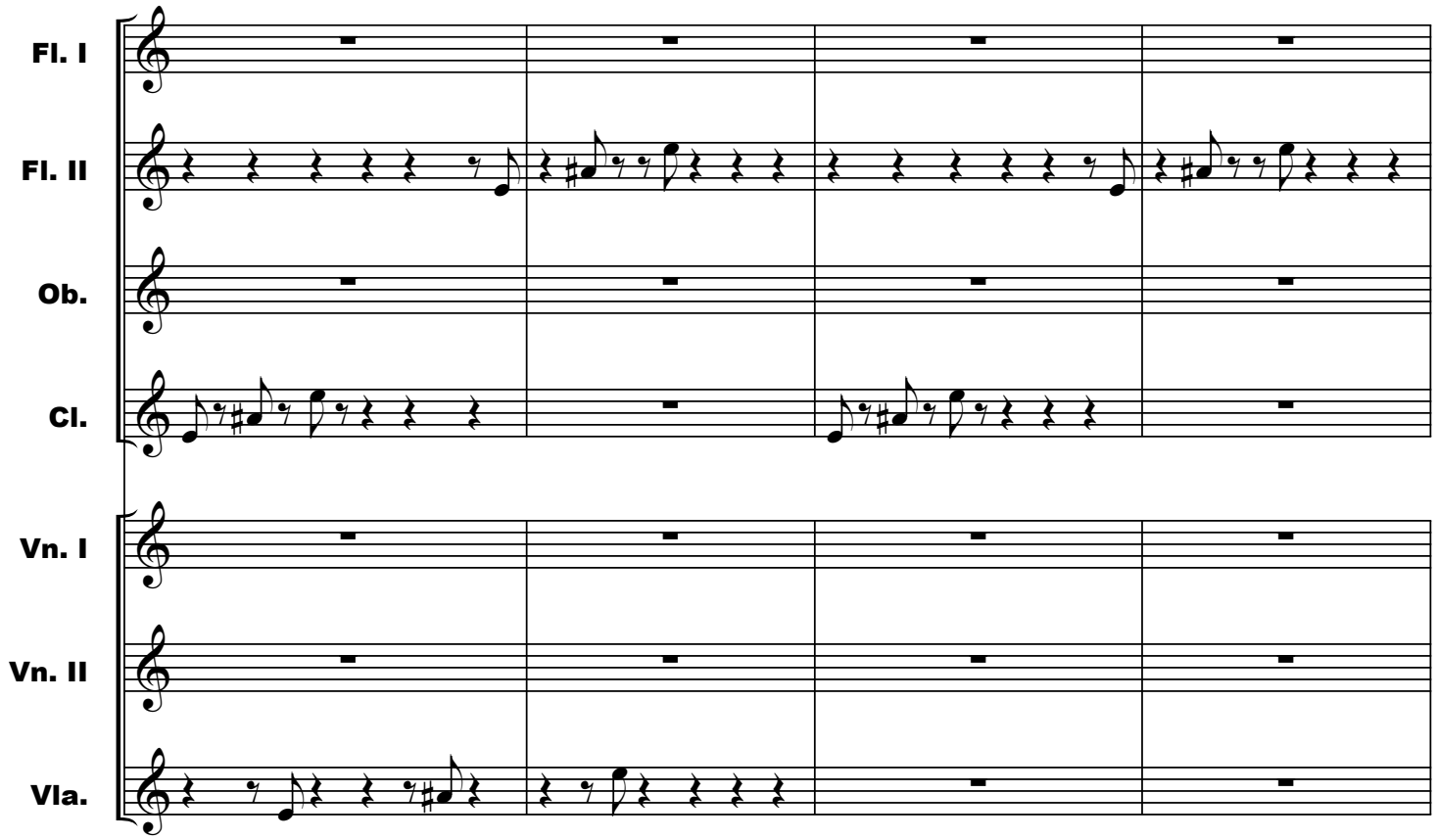
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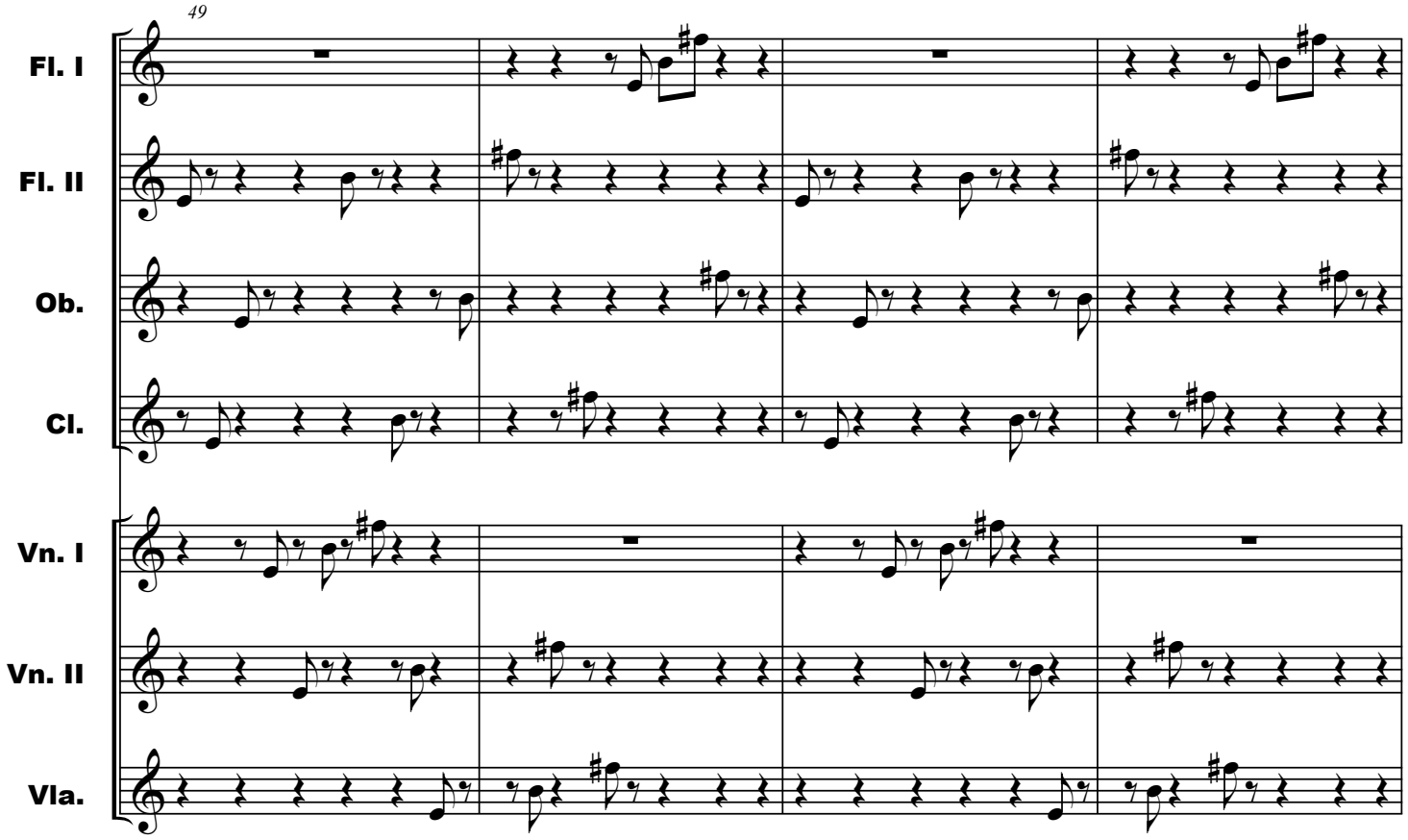
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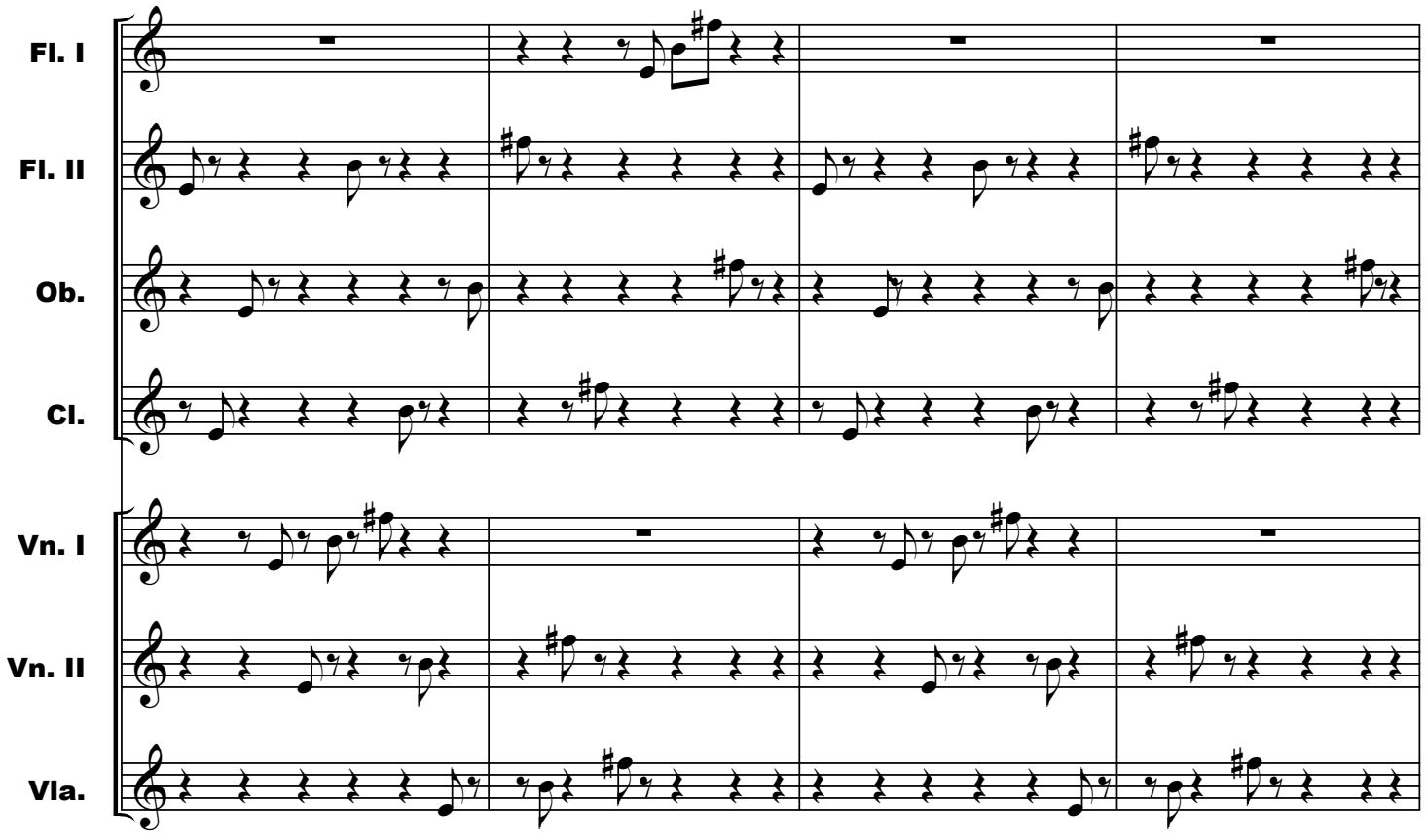
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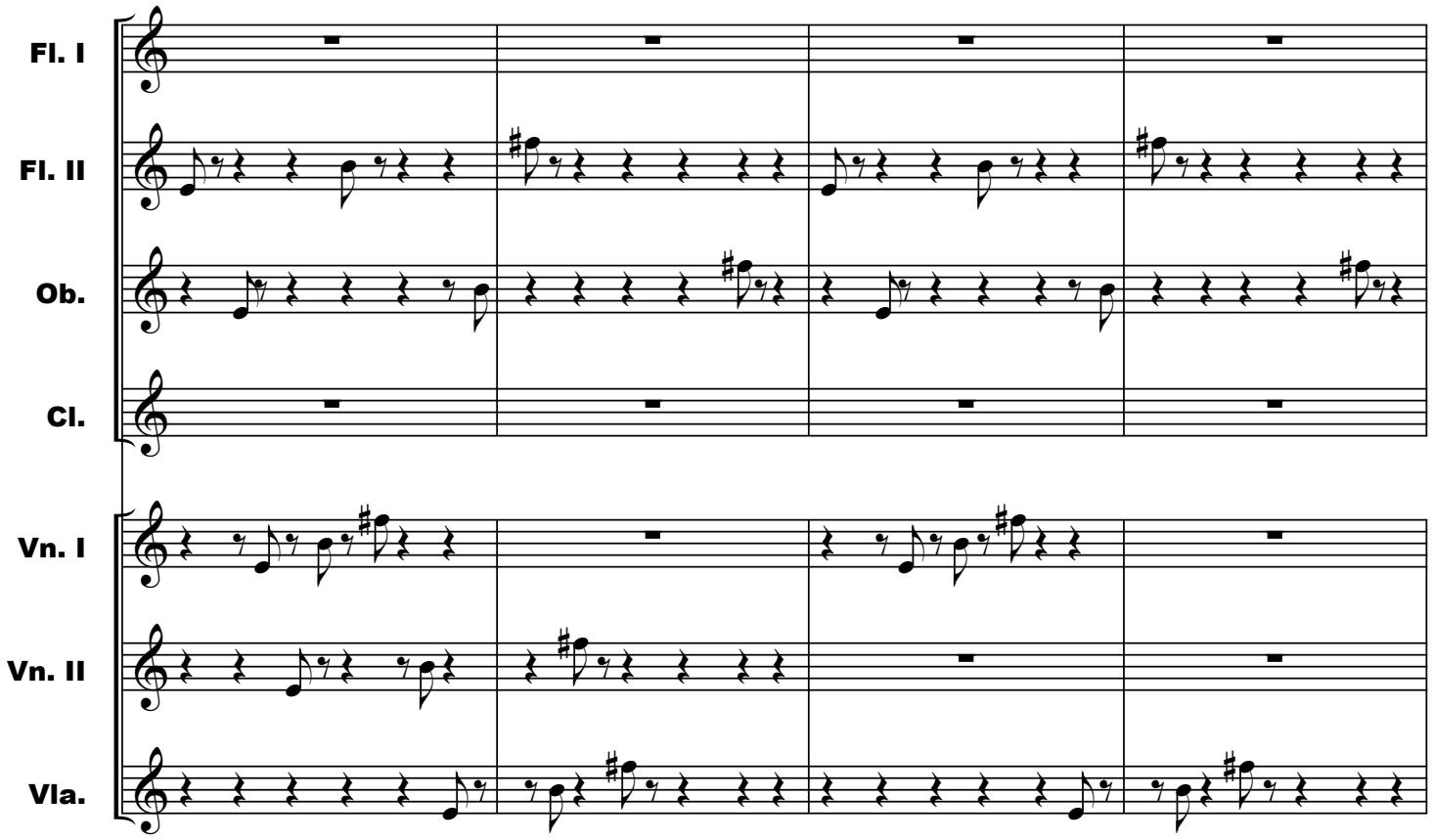
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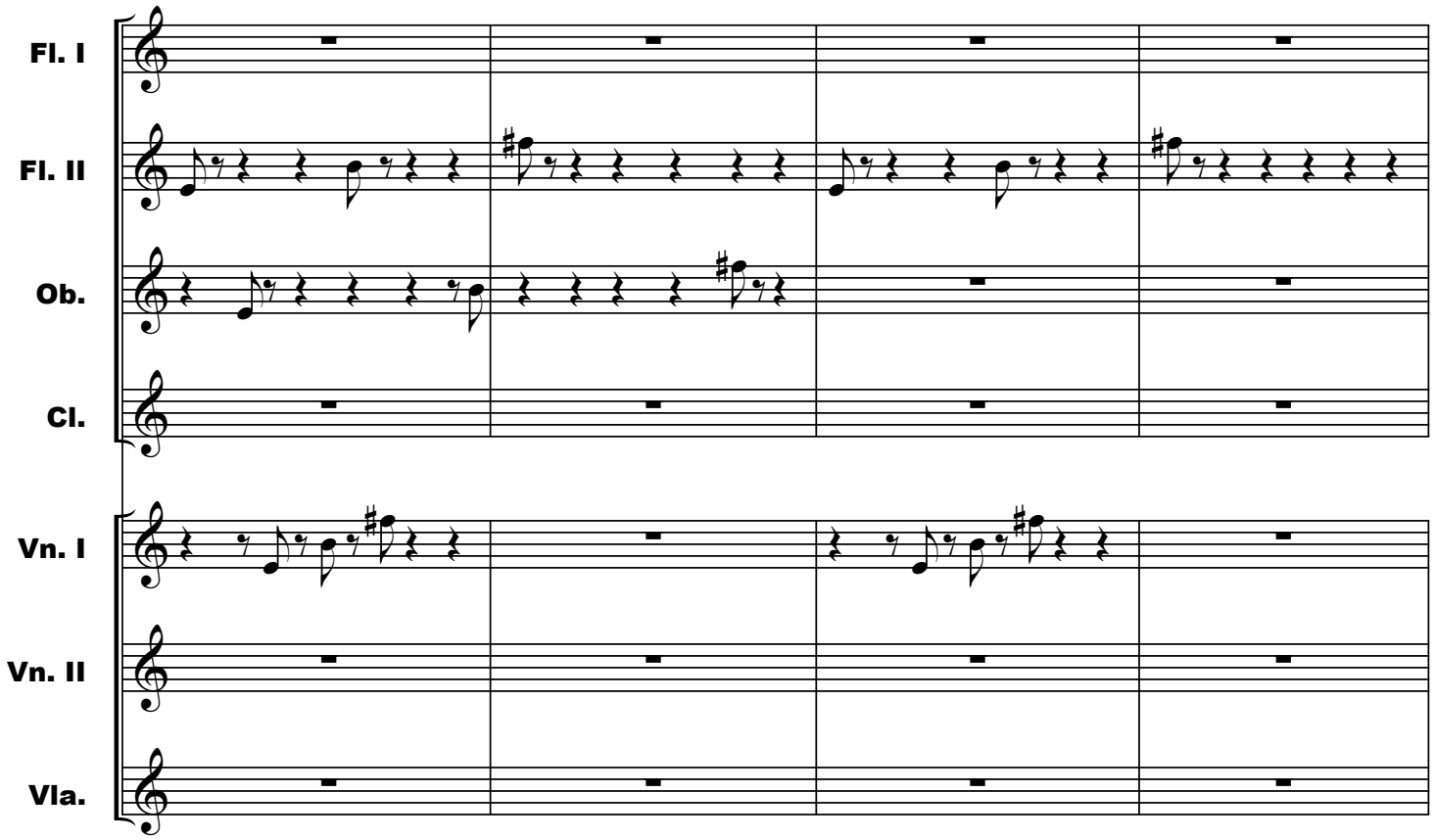
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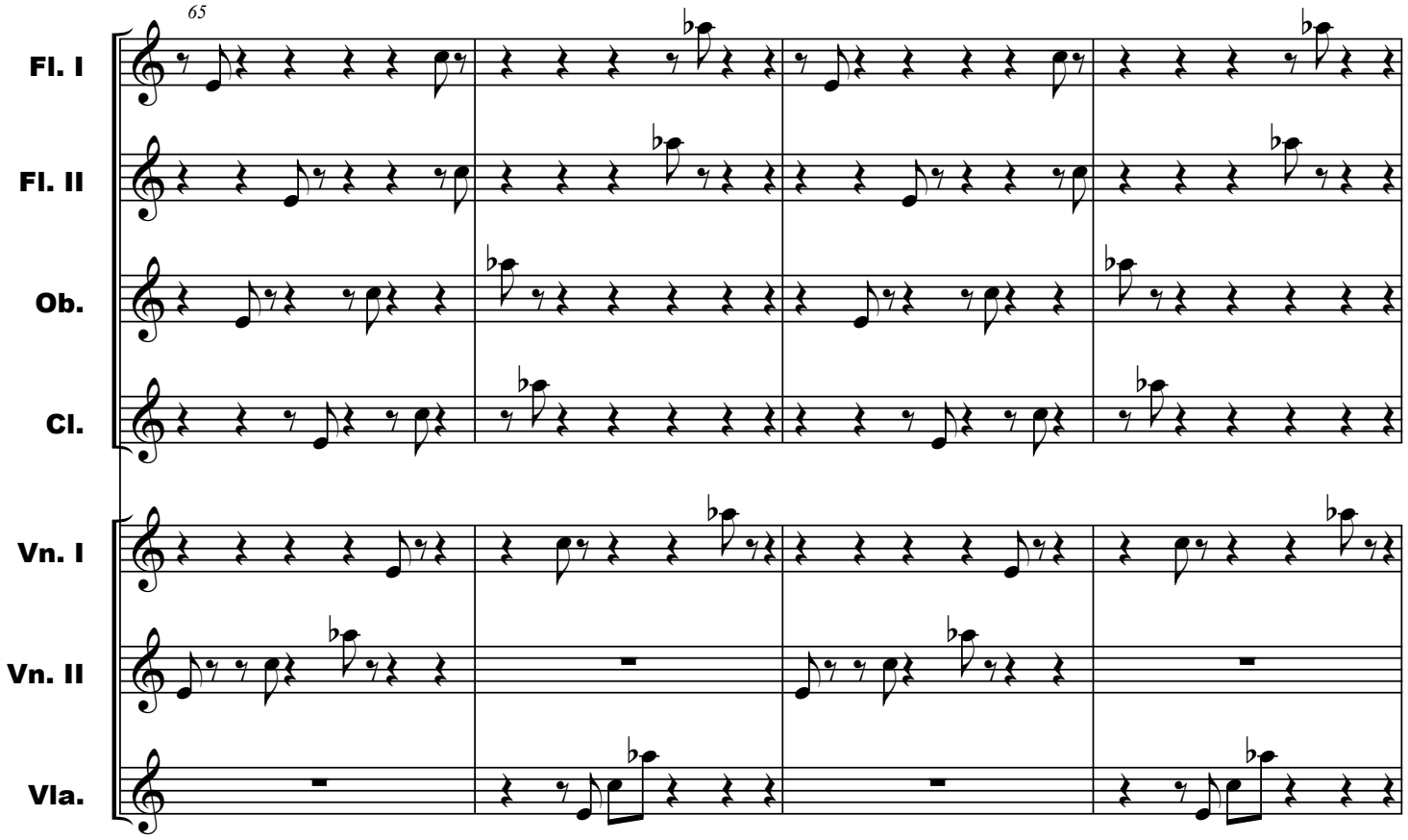
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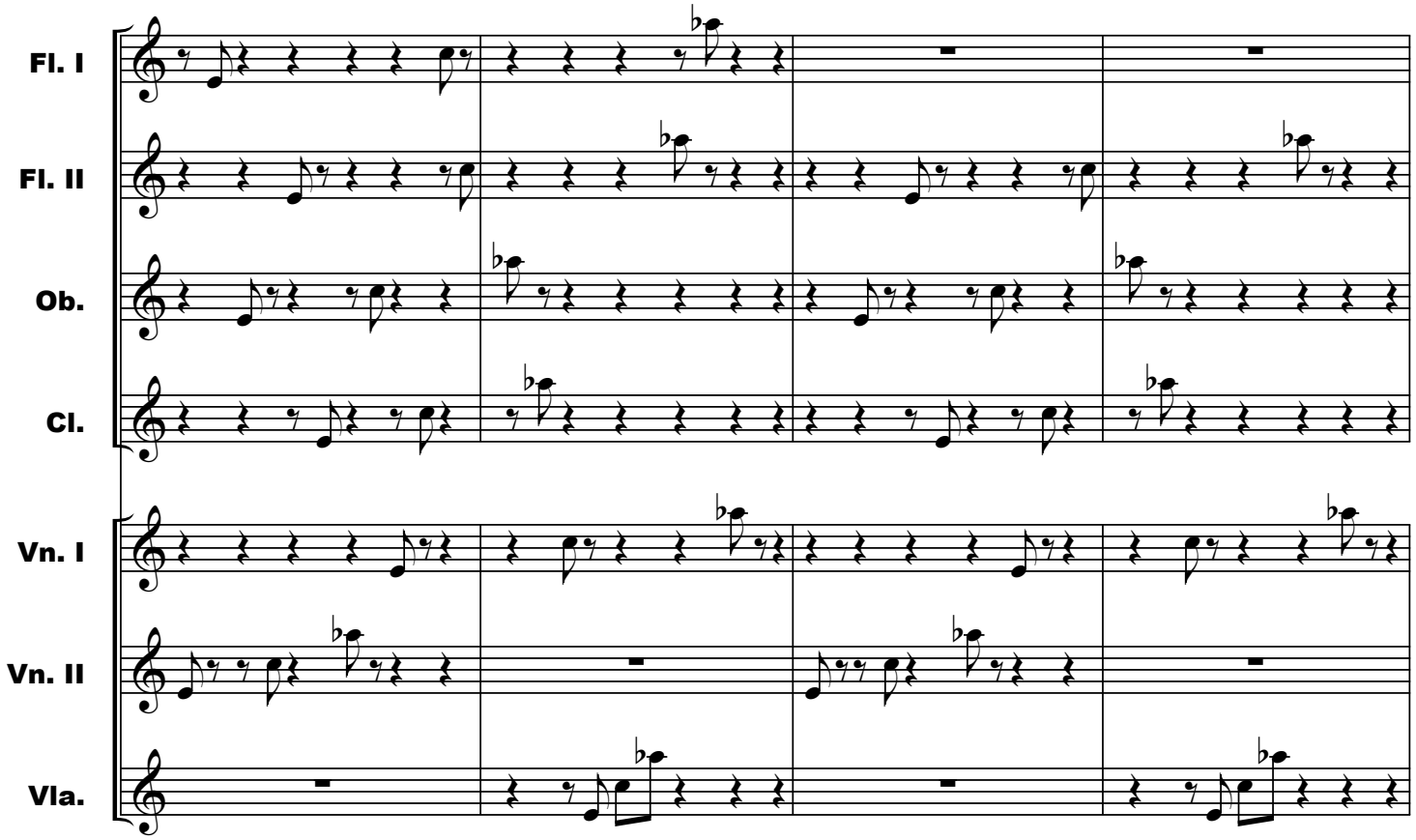
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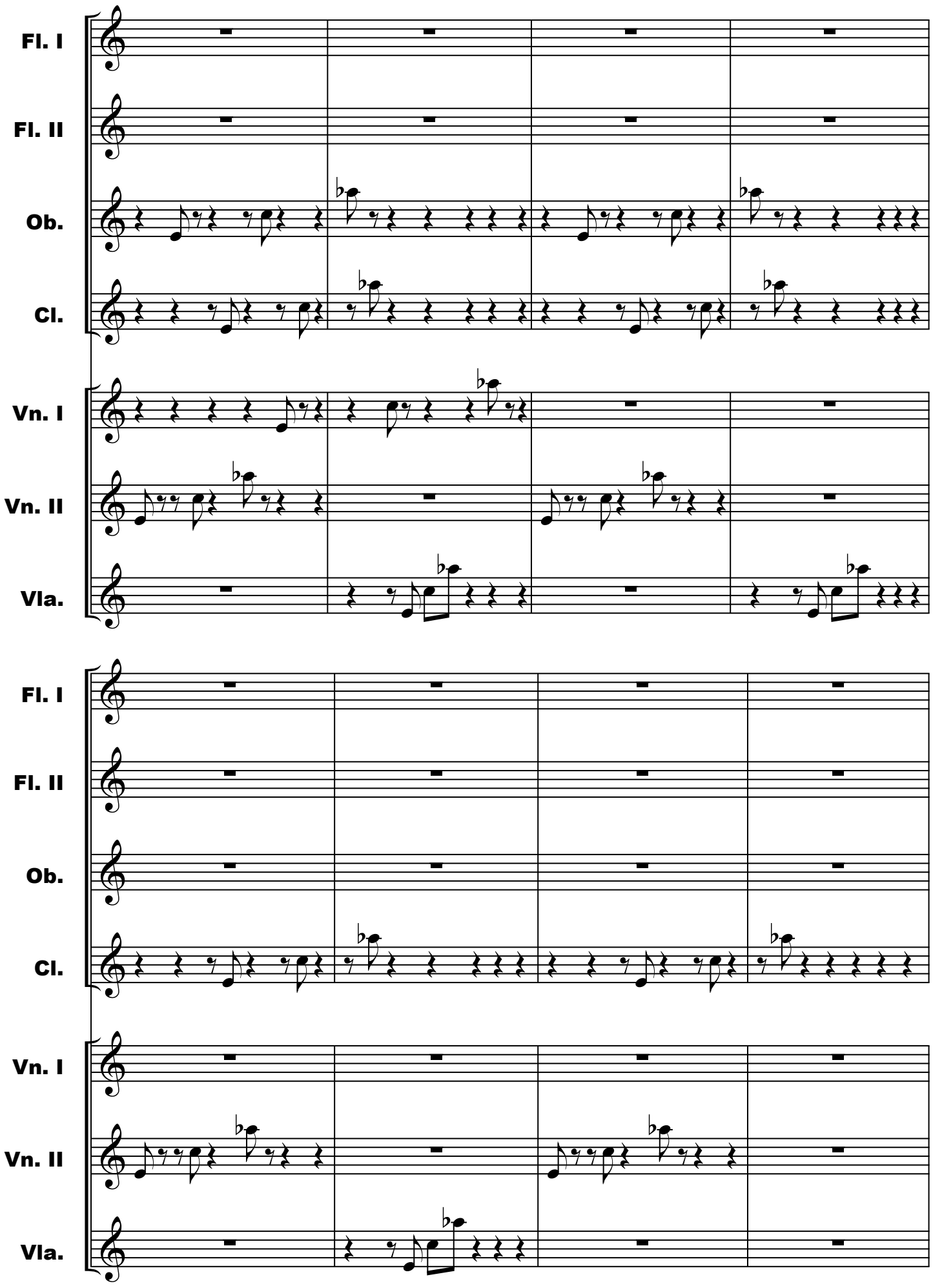
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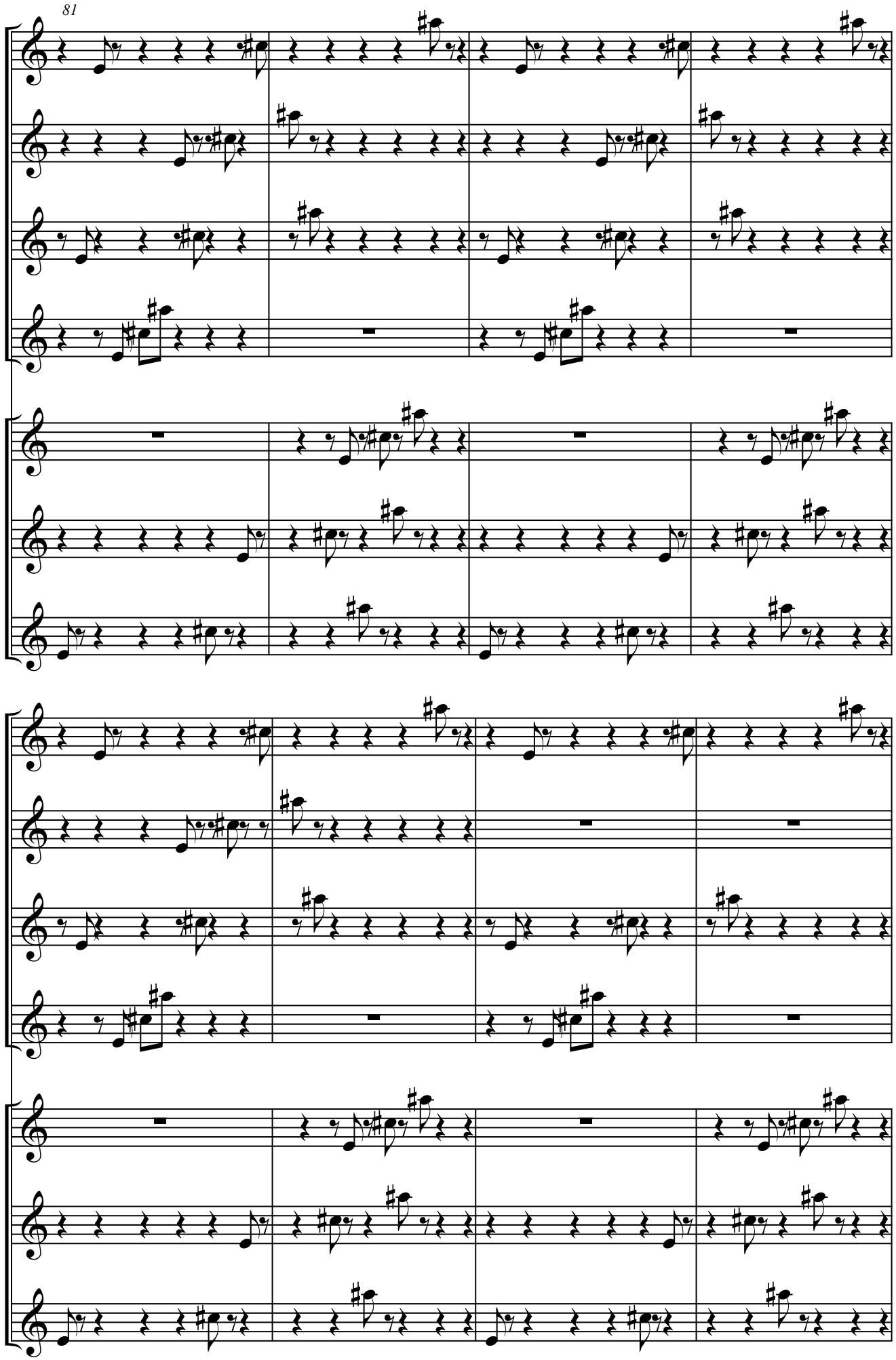
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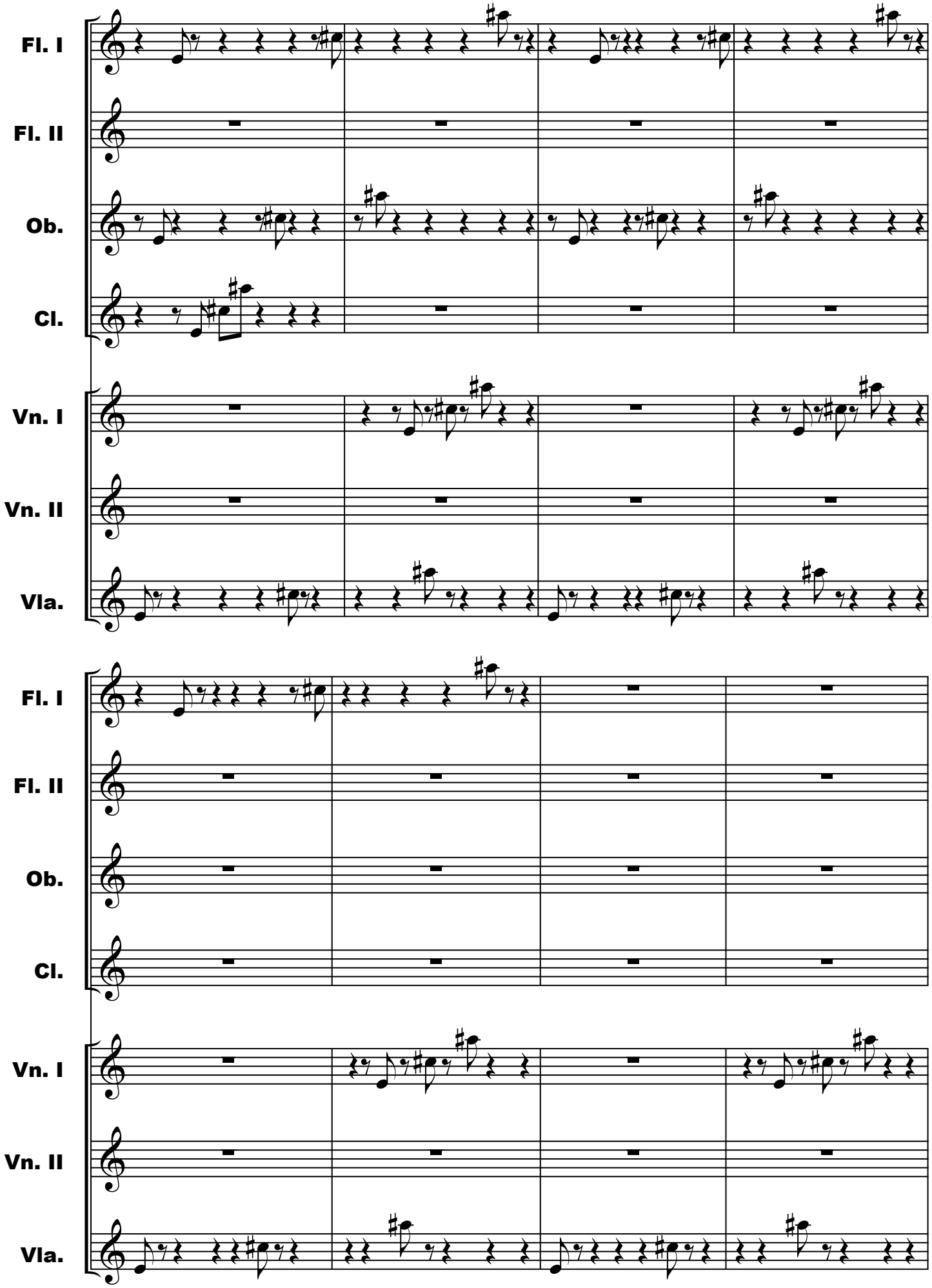
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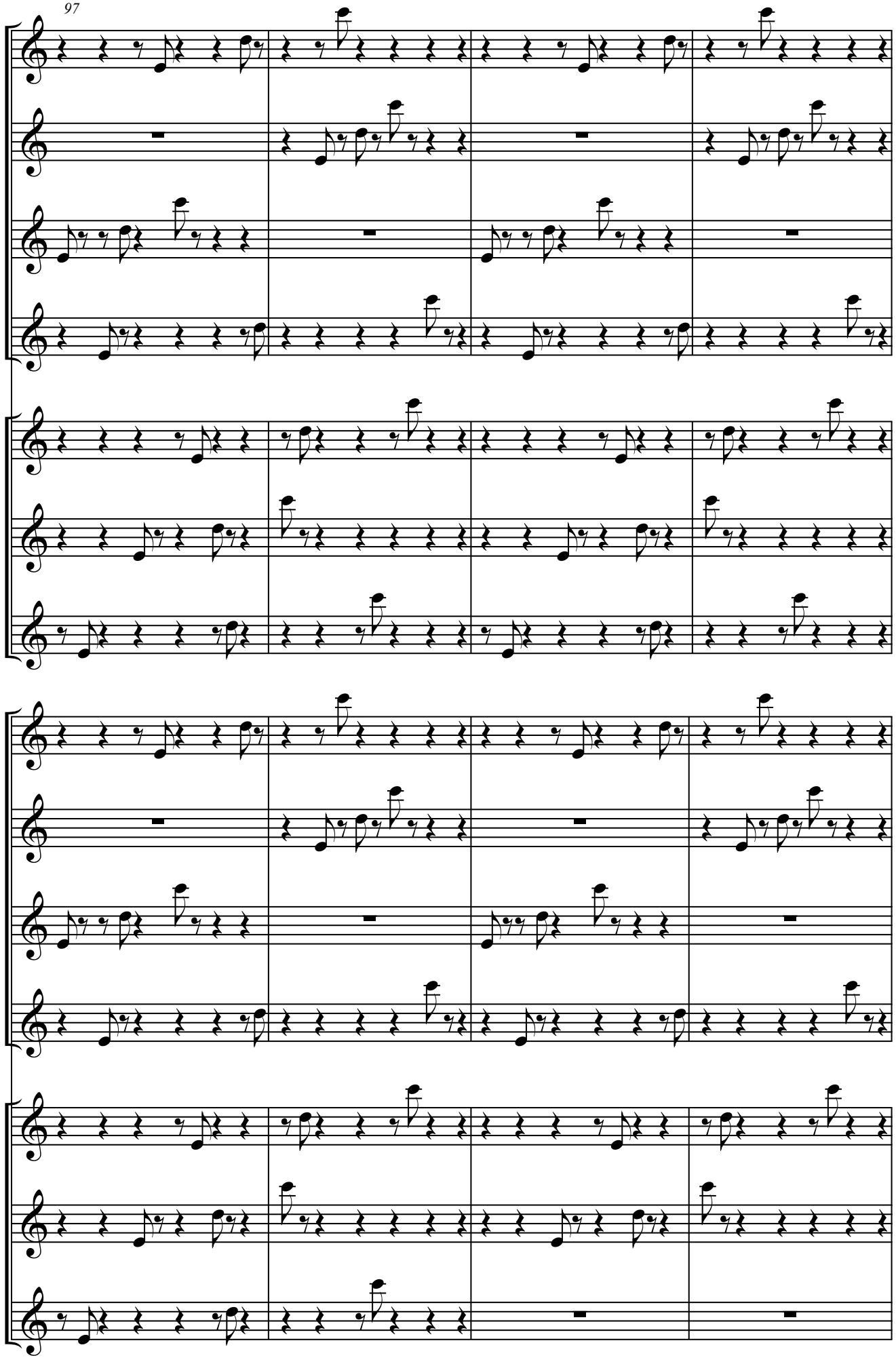
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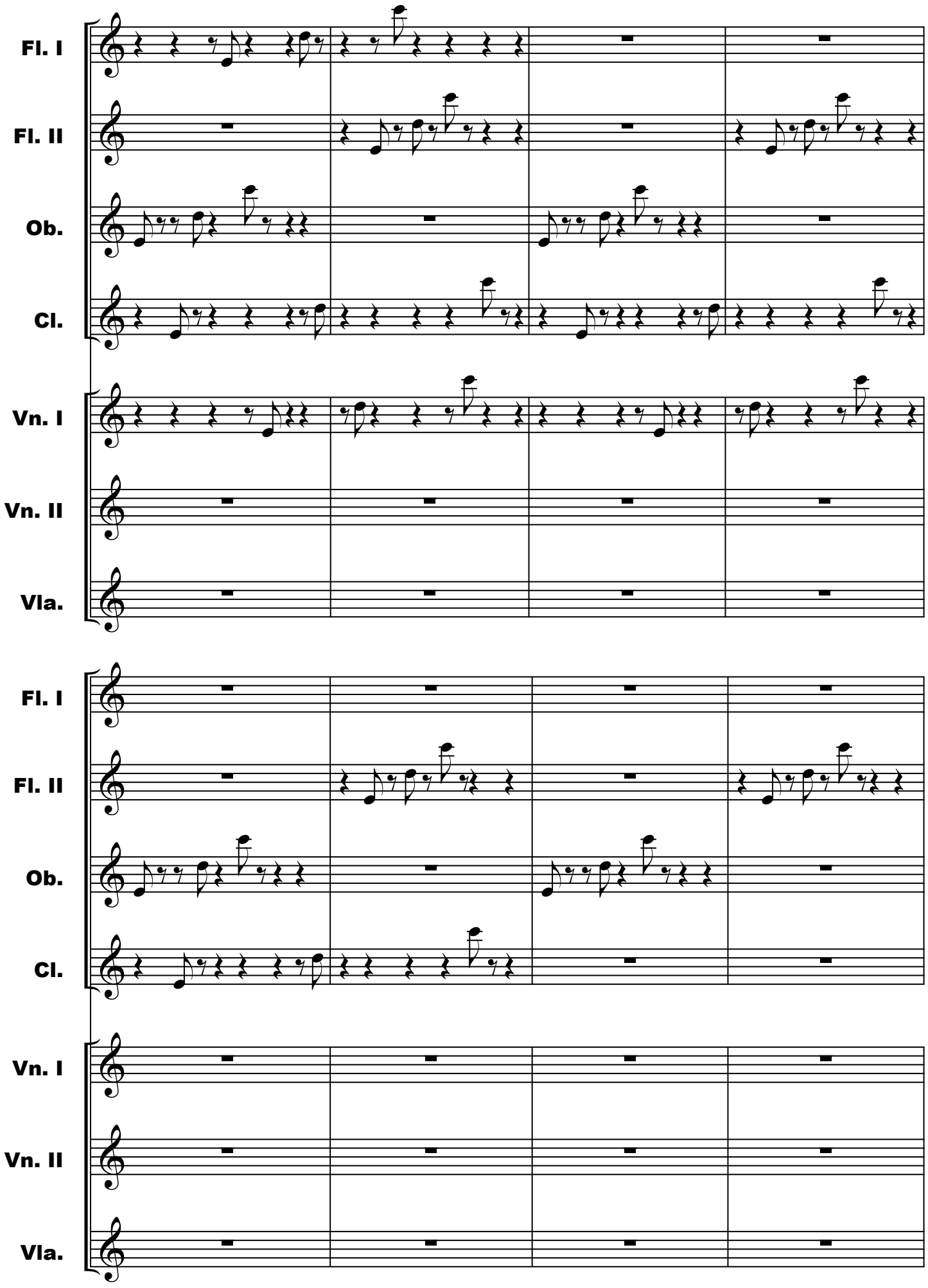
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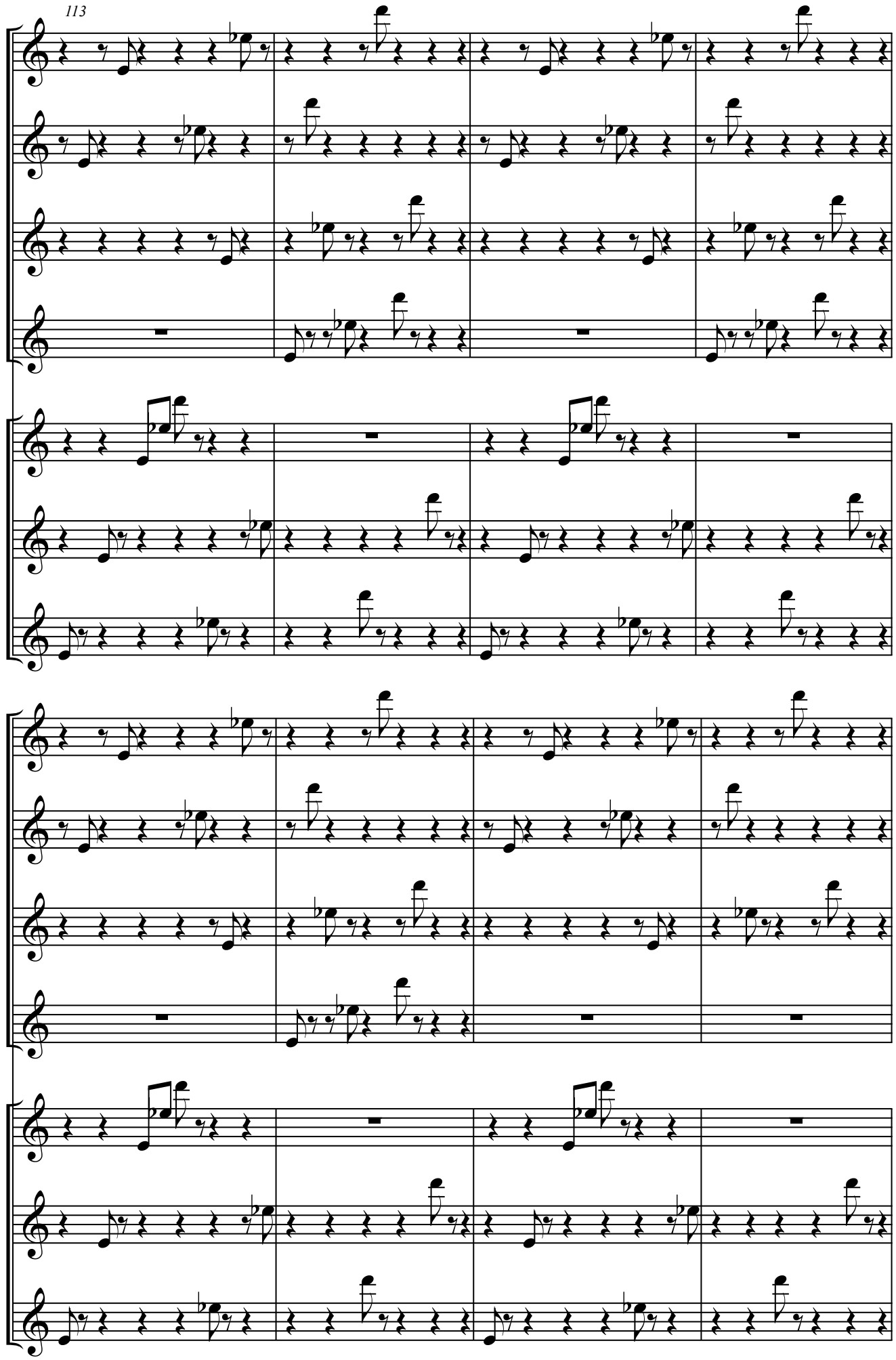
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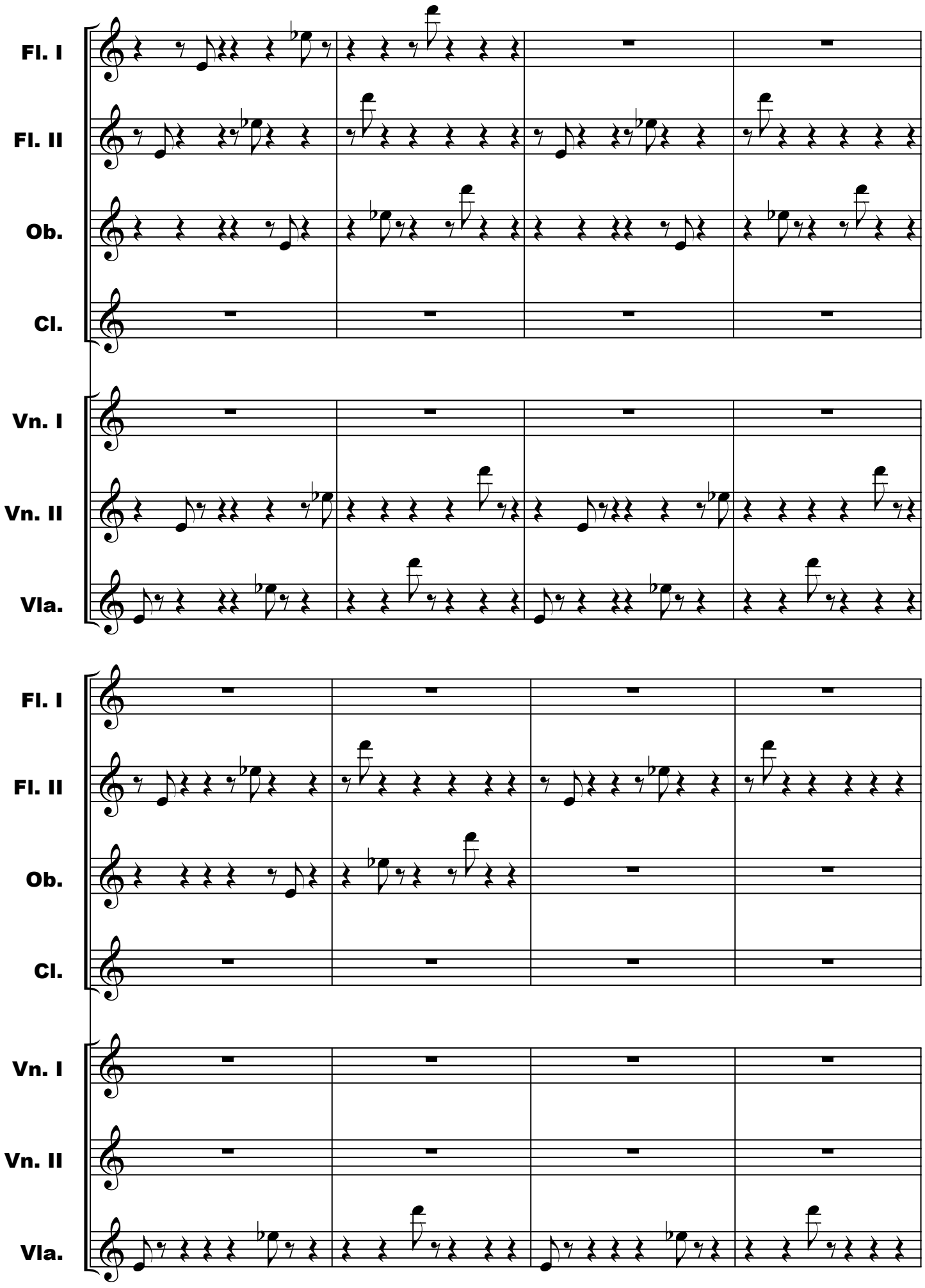
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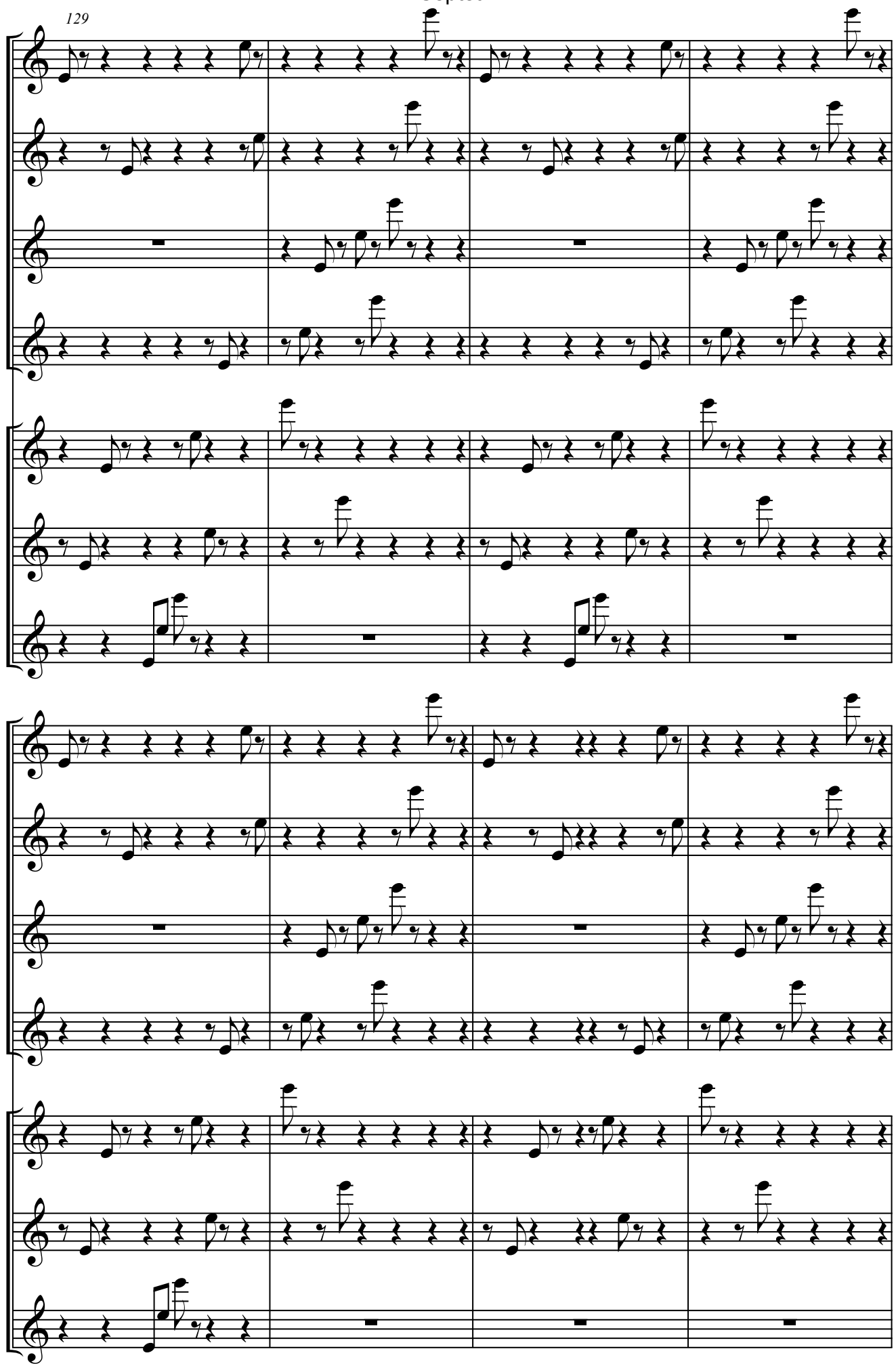
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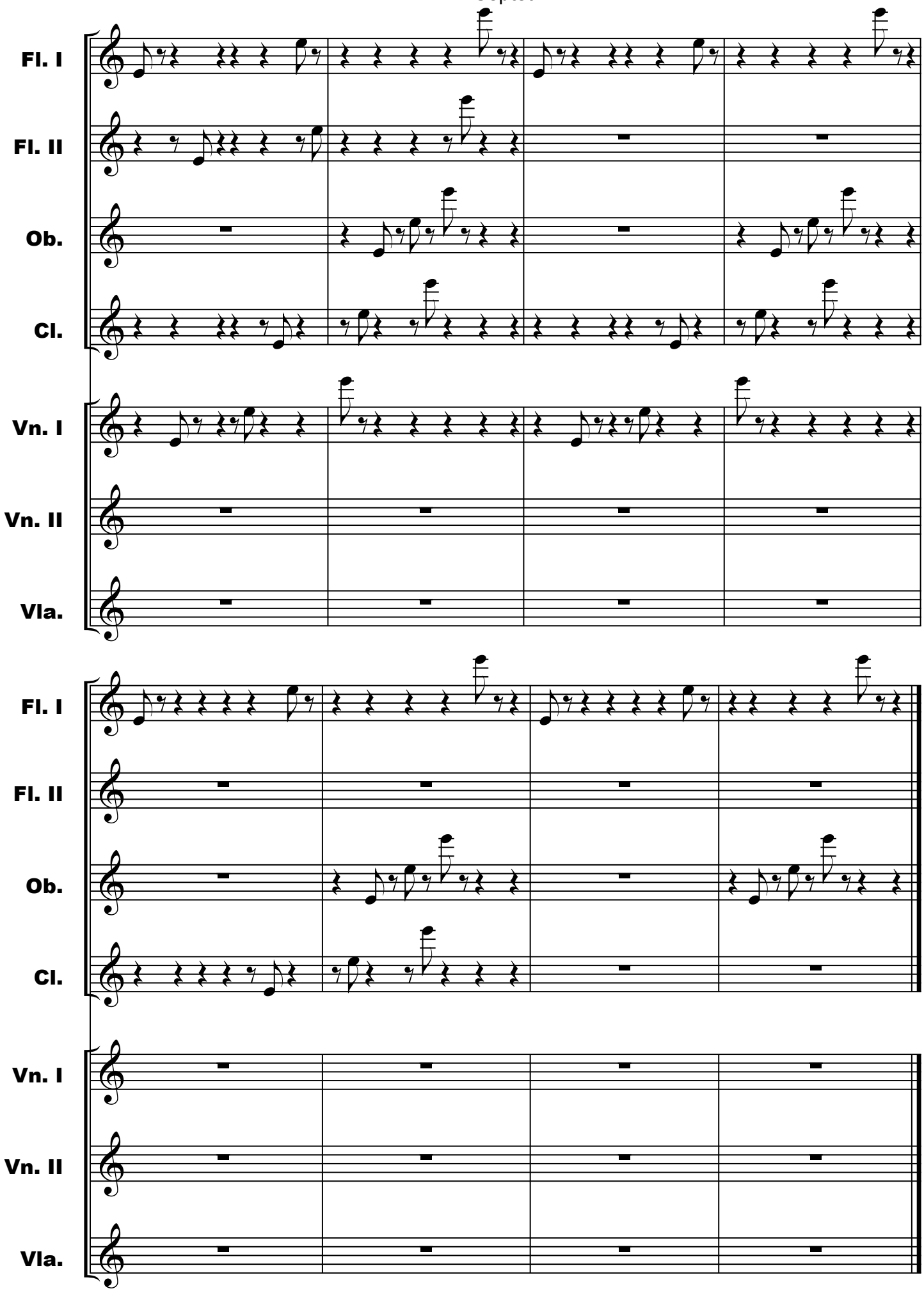

Paris, July 2010
duration 8:40

Editions 75
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