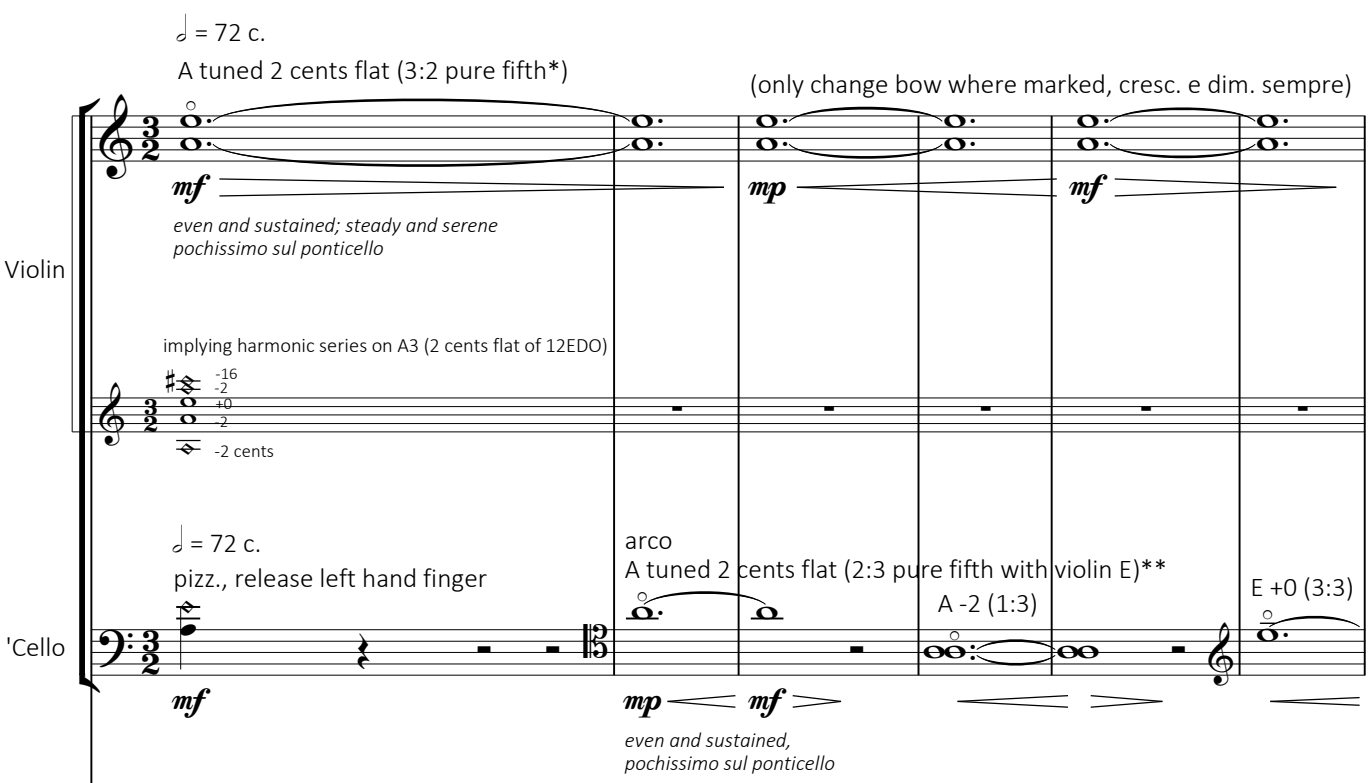
Asymptote

commissioned by NZTrio

Alex Taylor

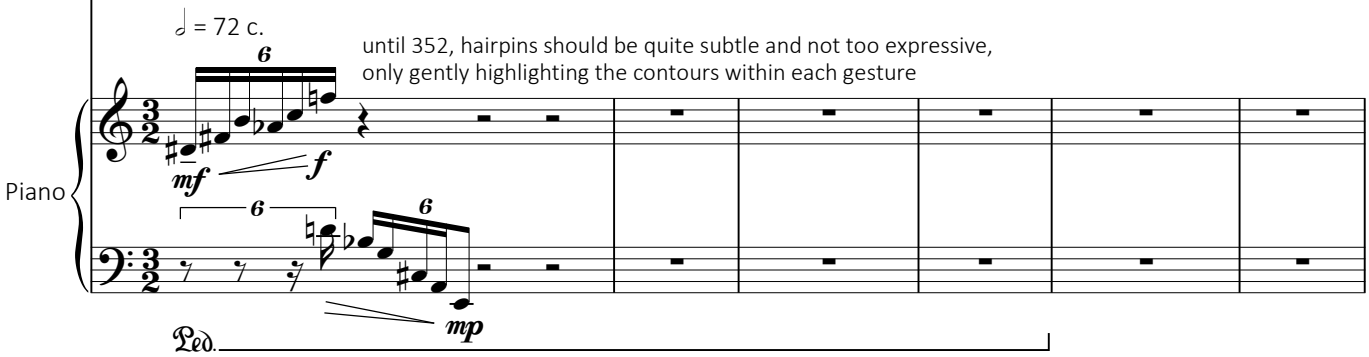
The violin is tuned in pure fifths to the piano's equal tempered E5; the E string tuned exactly to the piano E and then each of the other strings tuned a pure fifth below the one above, resulting in the following tuning: A 2 cents flat, D 4 cents flat, G 6 cents flat; There are 100 cents in an equal tempered semitone.

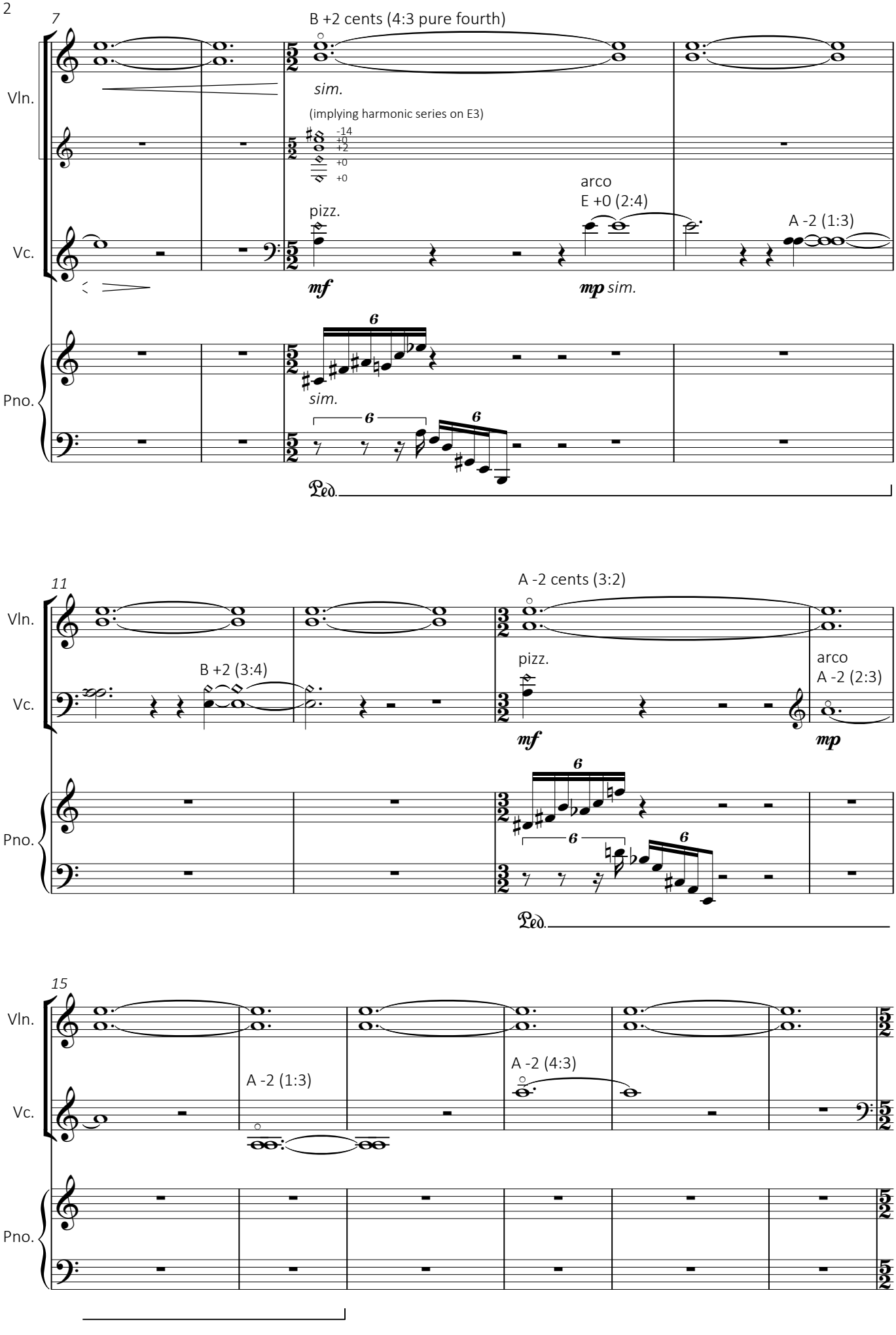
*VIOLIN: the E string is always open throughout the piece; the lower note is tuned justly to E in a whole number ratio; the violin dyad always implies a lower fundamental/series shown on the ossia staff. The first number in the ratio refers to the partial that the E string represents; the second number refers to the lower note; so for 3:2, here the E and A represent the 3rd and 2nd partials (respectively) of an imaginary harmonic series on A3 (a minor third below middle C, tuned 2 cents flat in relation to equal temperament - see ossia staff).

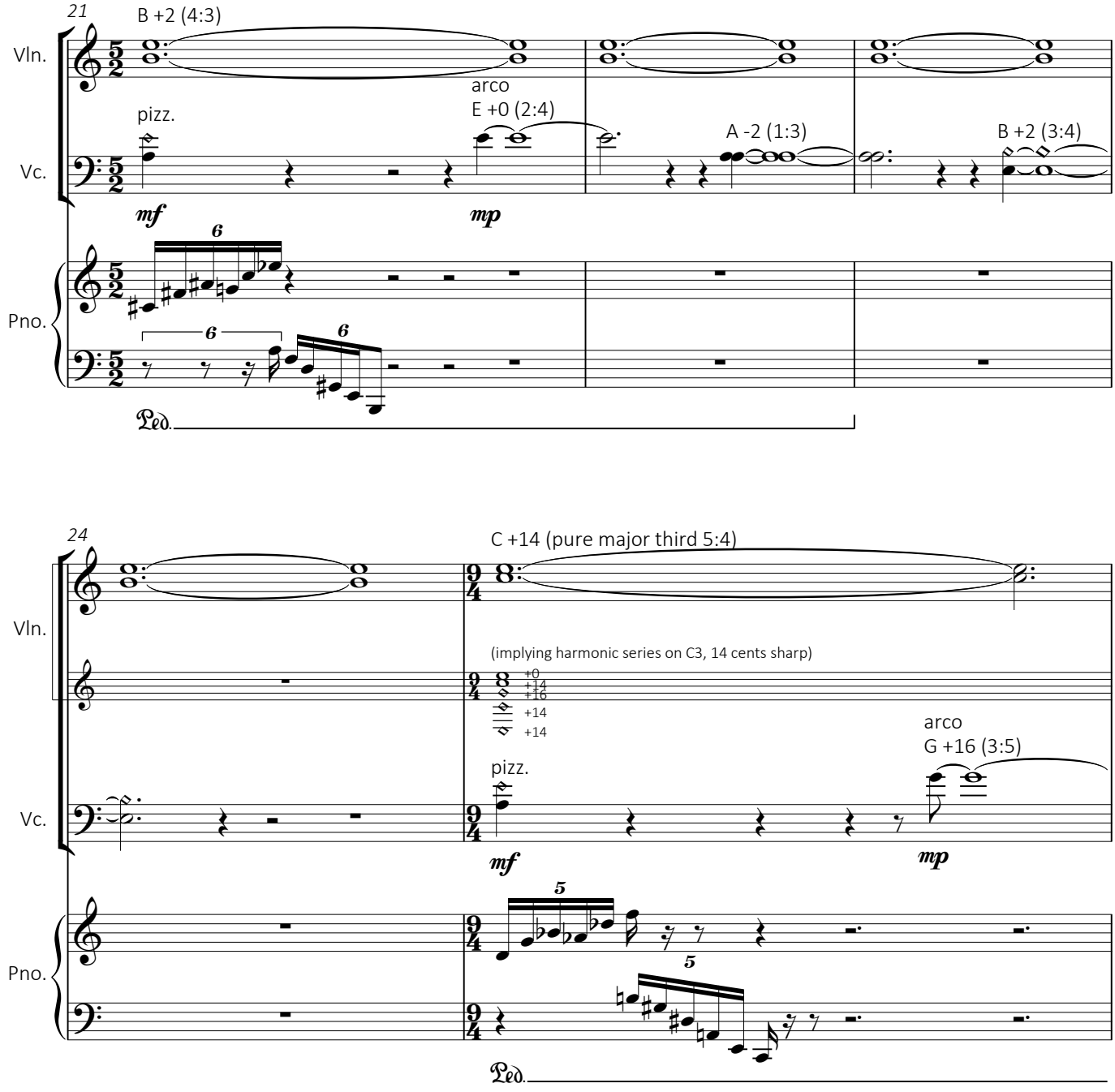


The cello is tuned in pure fifths to the piano's equal tempered E5; the violin E string tuned exactly to the piano E and then each of the other strings tuned a pure fifth below the one above, resulting in the following tuning: A 2 cents flat, D 4 cents flat, G 6 cents flat; C 8 cents flat. The cello can take its A from the violin. There are 100 cents in an equal tempered semitone.

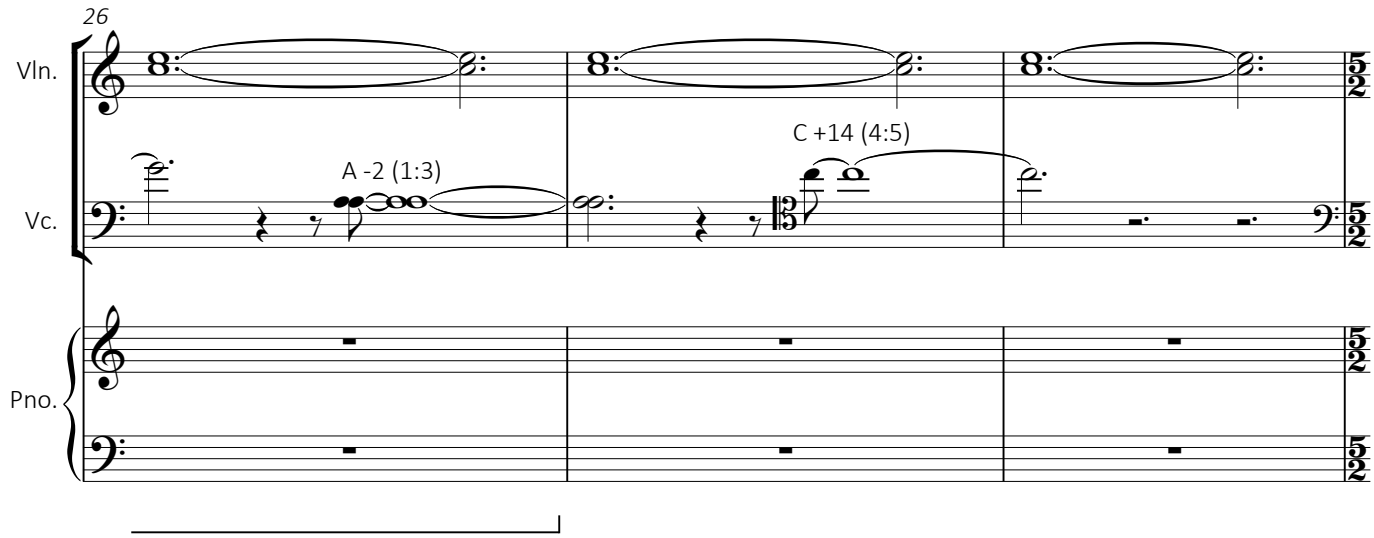
** CELLO: all given cello pitches are tuned justly (in whole number ratios) in relation to the violin open E5 (unless specified 'ord.'). For each pitch, a cents tuning is given (in relation to equal temparement), and then a whole number ratio. The second number in a ratio always refers to what E5, the open violin E string, represents as a partial, and the first number refers to the cello note; so here, 2:3 means that the cello A and the violin E represent the 2nd and 3rd partials (respectively) of an imaginary harmonic series on A3 (a minor third below middle C, tuned 2 cents flat in relation to equal temperament - see ossia staff above).

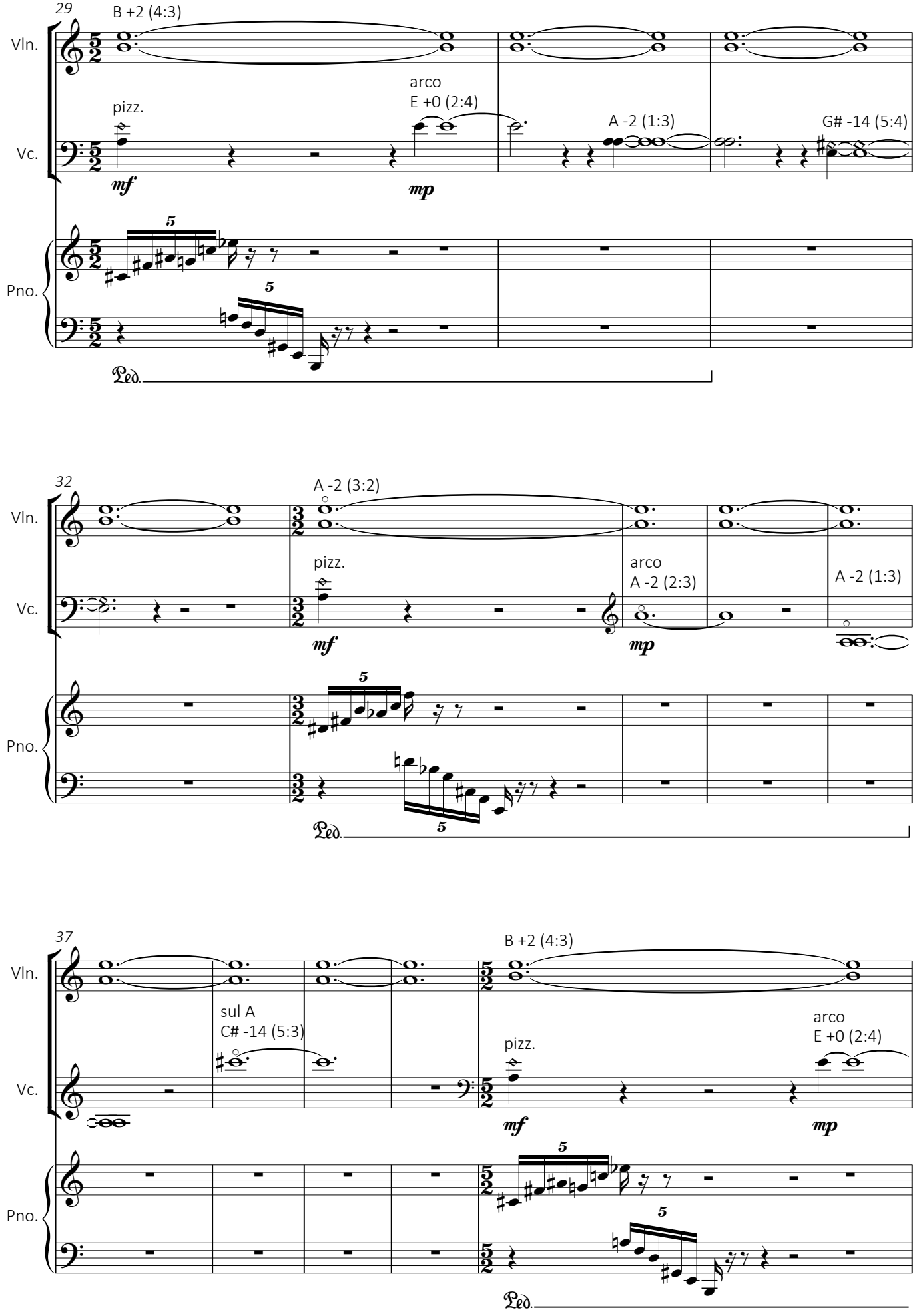


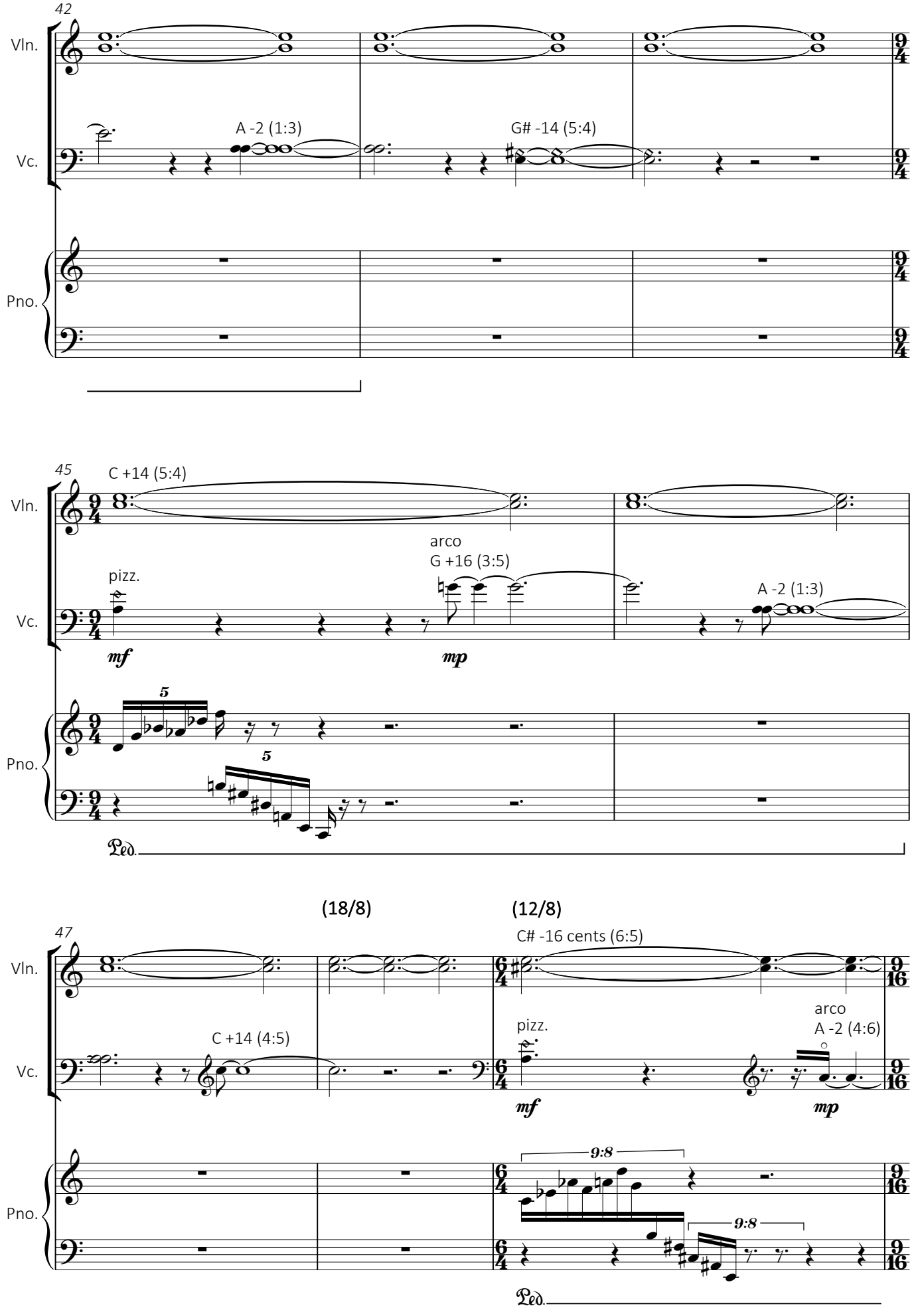

7
B +2 cents (4:3 pure fourth)
Vln.
sim.
(implying harmonic series on E3)
-14
+0
+2
+0
+0
arco
E +0 (2:4)
pizz.
A -2 (1:3)
Vc.
mf
mp sim.
Pno.
sim.
Ped.
11
A -2 cents (3:2)
Vln.
B +2 (3:4)
pizz.
arco
A -2 (2:3)
Vc.
mf
mp
Pno.
Ped.
15
Vln.
A -2 (1:3)
A -2 (4:3)
Vc.
Pno.

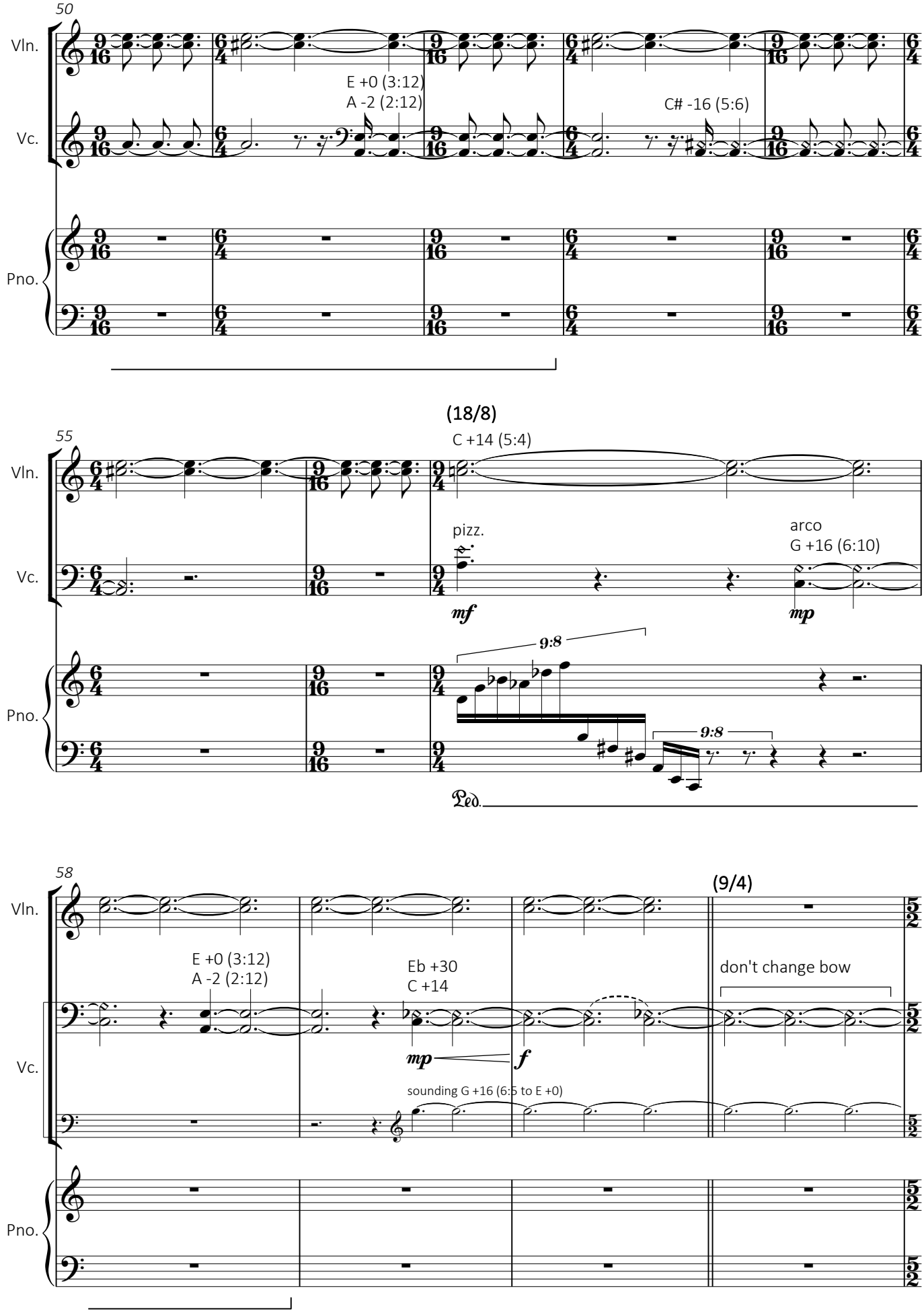

21
B +2 (4:3)
Vln.
pizz.
arco
E +0 (2:4)
A -2 (1:3)
B +2 (3:4)
Vc.
mf
mp
Pno.
Ped.

24
C +14 (pure major third 5:4)
Vln.
(implying harmonic series on C3, 14 cents sharp)
+0
+14
+16
+14
+14
arco
G +16 (3:5)
pizz.
Vc.
mf
mp
Pno.
Ped.


26
Vln.
C +14 (4:5)
A -2 (1:3)
Vc.
Pno.


29
B +2 (4:3)
Vln.
pizz.
arco
E +0 (2:4)
A -2 (1:3)
G# -14 (5:4)
Vc.
mf
mp
5
Pno.
Ped.
32
A -2 (3:2)
pizz.
arco
A -2 (2:3)
A -2 (1:3)
37
B +2 (4:3)
sul A
C# -14 (5:3)
arco
E +0 (2:4)


42
Vln.
Vc.
Pno.
A -2 (1:3)
G# -14 (5:4)
45
C +14 (5:4)
pizz.
arco
G +16 (3:5)
A -2 (1:3)
mf
mp
5
5
Ped.
(18/8)
(12/8)
47
C# -16 cents (6:5)
C +14 (4:5)
pizz.
arco
A -2 (4:6)
mf
mp
9:8
9:8
Ped.


50
Vln.
Vc.
Pno.
E +0 (3:12)
A -2 (2:12)
C# -16 (5:6)
(18/8)
55
C +14 (5:4)
pizz.
arco
G +16 (6:10)
mf
mp
9:8
9:8
Ped.
58
(9/4)
E +0 (3:12)
A -2 (2:12)
Eb +30
C +14
don't change bow
mp
f
sounding G +16 (6:5 to E +0)