Continued-Fraction Suite

Six pieces for piano, one number each

TeddyRook, with Claude

Each movement takes one number. The number's continued fraction sets the form: phrase lengths, how often they repeat, and where the rare short block falls. Inside each bar the same number's rhythm sets the left-hand accents, and the melody walks its decimal digits. Small italic numbers above the staff mark each phrase's length in bars. Rehearsal marks label the sections A (the usual length) and B (the rare one). Pedal ad lib., changing with the harmony.

I. Golden

φ − 1 = [0; 1, 1, 1, 1, …] · phrases of 5 and 3 bars in Fibonacci order




25
B · 5 bars
32
A · 8 bars
f
39
B · 5 bars
45
rare block · 8 bars
mp
51
A · 8 bars
p
mf


57
64
B · 5 bars
rare block · 8 bars
71
rare block · 8 bars
78
84
B · 5 bars

II. Silver

√2 − 1 = [0; 2, 2, 2, …] · phrases of 5 and 2 bars, sections of 12 and 5




B · 5 bars
25
A · 12 bars
30
35
A · 12 bars
40
mf
45


50
B · 5 bars
mp
55
59
rare block · 12 bars
pp
63
67
p

III. The Fifth

$\log_2(3/2)$ = [0; 1, 1, 2, 2, 3, 1, 5, …] · 53 bars, the next stop after 12 on the ladder of fifths




26
5
32
2
mf
B · 5 bars
37
5
rare block · 12 bars
42
5
pp
5
48
2
p

IV. Euler

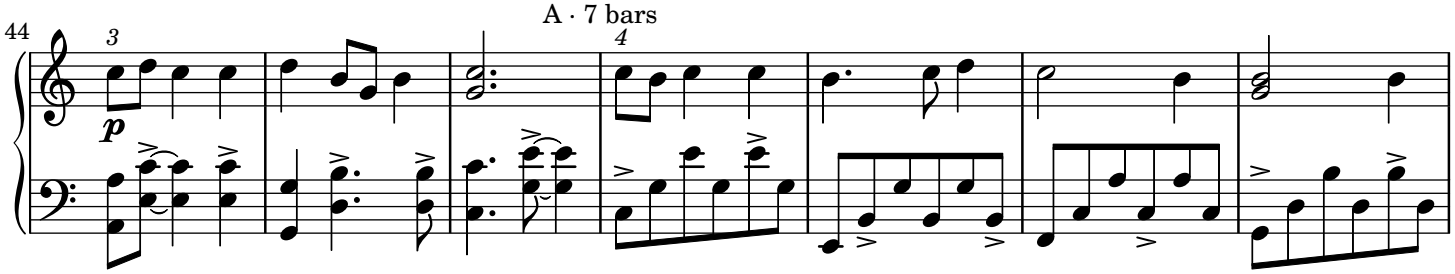
e − 2 = [0; 1, 2, 1, 1, 4, 1, 1, 6, …] · the form keeps stretching



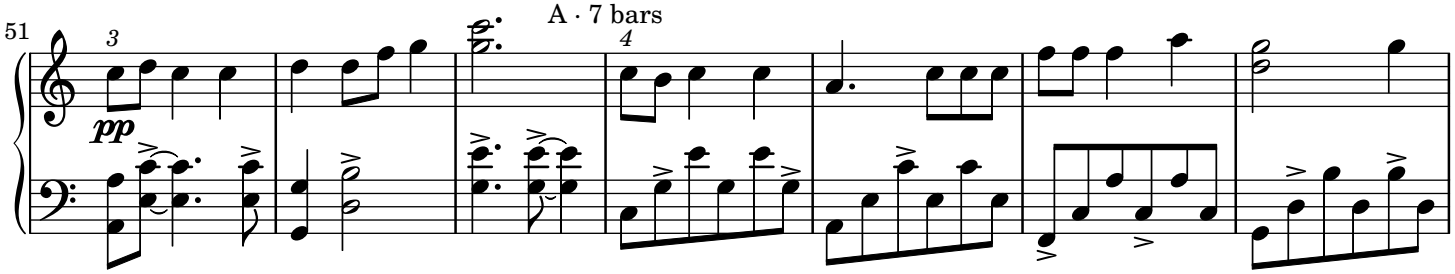
rare block · 7 bars



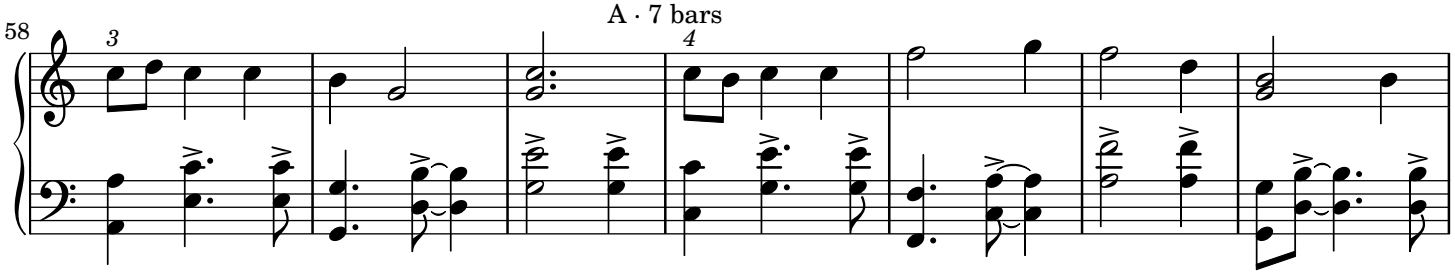
A · 7 bars



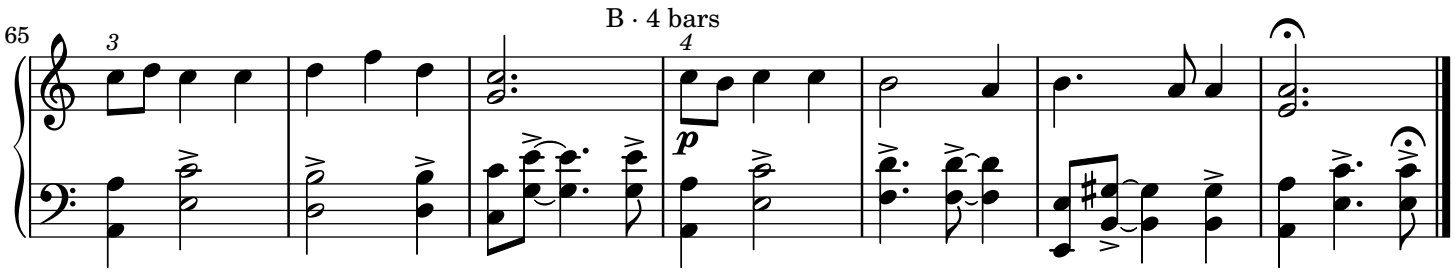
A · 7 bars



A · 7 bars



B · 4 bars



V. Pi

π − 3 = [0; 7, 15, 1, 292, …] · fifteen 7-bar phrases, one held bar, one more phrase: 113 bars




27
7
f
33
7
39
7
45
50
7


55
7
61
7
67
7
mf
73
7
79


85
7
mp
90
7
p
95
7
100
1
B · 7 bars
107
7

VI. Pi, bar 32,996

the 292nd return, and the first short cycle · 23 hours into the full piece



bar 32,996 · after 292 cycles of 113, a cycle of 106

