

Worksheet on Equal Division of the Octave

1) Complete the upper part of the worksheet on the following page. First you will write triads in root position that are related through various symmetrical cycles. Partwrite in four-voice chorale style. Don't worry about roman numerals, since these cycles don't make sense from a conventional harmonic perspective (at least not without some other chords involved).

Next you will write triads in close spacing (or at least starting in close spacing) on a single staff. These will be in three voices only, and they are intended as an abstraction, to help you understand underlying voice leading. The notes you write will represent pitch classes, and therefore it won't matter which note is on the bottom. So, to take one example, don't worry if you end up with strange uses of "6/4" chords – these aren't really 6/4 chords at all, but merely a form of shorthand that sometimes happens to resemble 6/4 chords.

2) The Beethoven score that follows shows the beginning of the development section from the first movement of Beethoven's violin sonata in C minor, op. 30, no. 2. Look at the local tonal centers of the sequence; which symmetrical division of the octave is used?

Now use the bottom part of the worksheet page used in question 1 to write out the chords from this progression; write each chord using whole notes on a single staff, again using notes to represent pitch classes, so that you're not worrying about having the actual bass note appear as the lowest note in the chord you write. This reduction should reveal the underlying pattern governing the sequence and via the sequence the progression as a whole. Describe how it works. Chromatic music often features smooth voice leading. How smooth is the underlying voice leading revealed by this reduction?

3) The final two pages of this document give the opening of the final movement from Mahler's 9th symphony, in full score and in piano reduction. The reduction has many of the chords labeled, but some are left blank. Fill in the blanks. In m. 8 the first chord can be labeled as III, but it can also have another label. Note that while a symmetrical cycle was used by Beethoven to relate keys in a development, Mahler uses it to relate chords within a melodic phrase.

One of the challenges here is seeing and hearing beyond Mahler's enharmonic notation, which he used presumably to help the musicians to read the parts. Start with the third chord of m. 3 (the first measure shown in the reduction). If you consider how else some of the notes might have been spelled, and especially if you use your ear, you should be able to figure out the correct (and rather simple) label for that chord.

Finally, sing the melody from the middle of m. 6 to the downbeat of m. 8. What kind of scale is this? Does this passage fit your associations with this scale?

Partwrite in four-voice chorale style. Sometimes the bass will need to leap by sixth instead of by third.

Example: Complete M2 cycle

A musical score for a complete M2 cycle in four-voice chorale style. It consists of two staves, Treble and Bass. The melody in the Treble clef starts on G4 and moves up by a major second (M2) through A4, B4, C5, D5, E5, F5, G5, and then wraps back to G5. The bass line starts on G3 and moves up by a major second through A3, B3, C4, D4, E4, F4, G4, and then wraps back to G4. The bass line includes a leap of a sixth from G3 to E4.

Complete m3 cycle

Complete M3 cycle

Blank musical staves for a complete m3 cycle and a complete M3 cycle. The page shows two sets of blank staves, one for the Treble clef and one for the Bass clef, divided into two sections by a vertical line.

Represent pitch classes on a single staff

Example: d5 cycle (either way one voice moves by m2, one by M2, one by m3 [or equivalent])

A musical score showing pitch classes on a single staff. It features a single Treble clef staff with six chords. The chords are: G major (G, B, D), A major (A, C, E), B major (B, D, F), C major (C, E, G), D major (D, F, A), and E major (E, G, B). The word "or" is written above the staff between the second and third chords.

Complete m3 cycle

Complete M3 cycle

Blank musical staves for a complete m3 cycle and a complete M3 cycle. The page shows two sets of blank staves, one for the Treble clef and one for the Bass clef, divided into two sections by a vertical line.

Reduction of Beethoven, op. 30, no. 2, i, 75-91

A musical staff for the reduction of Beethoven's op. 30, no. 2, i, 75-91. It is a single Treble clef staff with a measure rest at the beginning, followed by eight empty measures. The measure number "75" is written above the staff at the start.

A musical staff for the reduction of Beethoven's op. 30, no. 2, i, 75-91. It is a single Treble clef staff with a measure rest at the beginning, followed by eight empty measures. The measure number "83" is written above the staff at the start.

Beethoven, Op. 30 No. 2, i

75

p

78

cresc.

81

p

84

cresc.

87

p

90

cresc.

cresc.

93

fp

fp

97

cresc.

p

cresc.

p

100

sf

cresc.

f

sf

cresc.

f

103

f

f

sf

IV. ADAGIO

Sehr langsam und noch zurückhaltend *a tempo (Molto adagio)*

1. Violine *G-Saite* *f lang gezogen* *dim.* *p molto espress.* *großer Ton* *stets großer Ton*

2. Violine *f lang gezogen* *dim.* *p molto espress.*

Viola *G-Saite* *f lang gezogen* *dim.* *p molto espress.*

Violoncell (get.) *p molto espress.*

Kontrabaß *p molto espress.*

1. Vl. *f*

2. Vl. *f*

Vla. *f*

Vlc. (get.) *f*

Kb. *f*

11 *1. Solo* *pp langsam* *zu 2* *f* *espress.*

1. Fag. *pp langsam* *zu 2* *f* *espress.*

2.3. Fag. *f* *espress.*

K.-Fag. *f* *espress.*

11 *p subito* *morendo* *f* *ff molto espress.*

1. Vl. *p subito* *morendo* *f* *ff molto espress.*

2. Vl. *f* *ff molto espress.*

Vla. *f*

Vlc. *f*

Kb. *f*

Worksheet on Mahler 9, iv

3

Musical notation for measures 3-5. Treble clef, bass clef, 4/4 time signature, key signature of three flats (B-flat major). The music features a melodic line in the treble and a more rhythmic accompaniment in the bass.

D-flat: I V — iii7 IV V I V6 vii43/IV IV6

6

Musical notation for measures 6-8. Treble clef, bass clef, 4/4 time signature, key signature of three flats (B-flat major). The music continues with similar melodic and harmonic patterns.

vi iii I V — — III () V/III

9

Musical notation for measures 9-11. Treble clef, bass clef, 4/4 time signature, key signature of three flats (B-flat major). The music concludes with a final chord in the treble and a sustained bass line.

— vii65/V V I