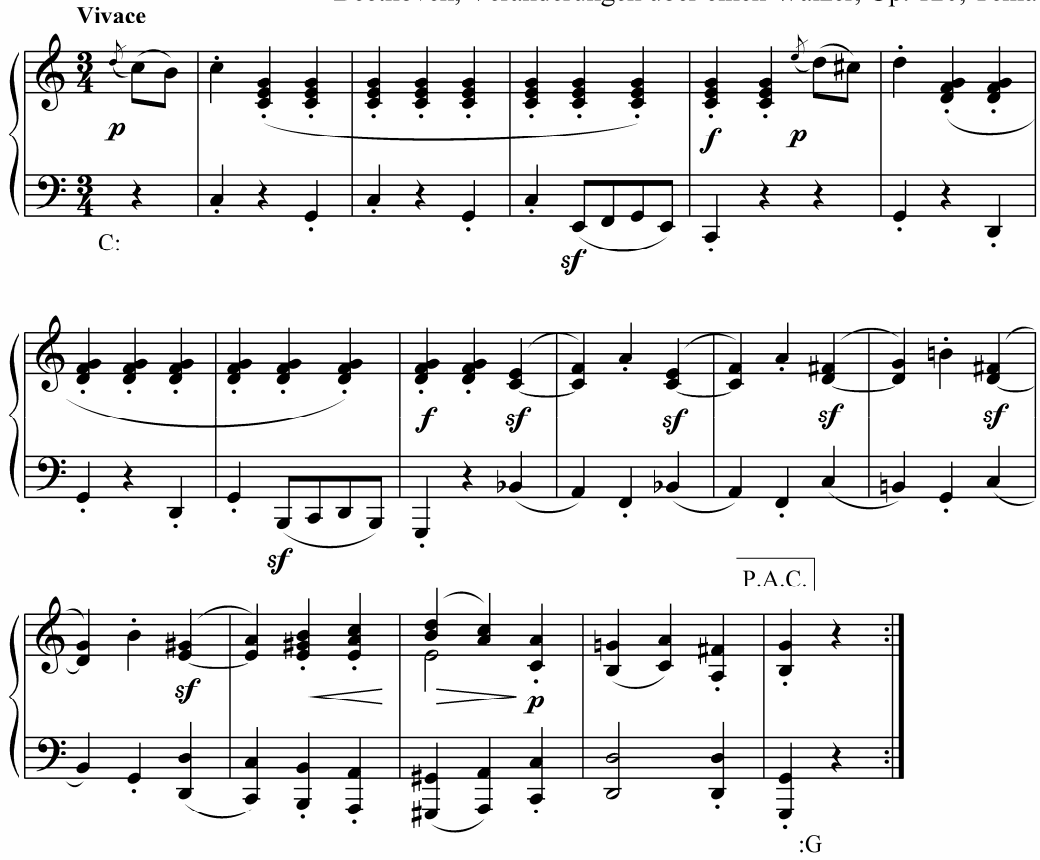
***Preliminary Information***

A music composition can be written in *one* or *several keys*. A music composition written in one key is comprised of the chords from that key. In music composition written in several keys, besides the *main* (home) key, there are *subordinate* (*subsidiary*) keys. The chords of the subordinate key are also called subordinate chords, for example, the subordinate tonic triad, the subordinate dominant chord, etc. The *order* in which the keys are changed in a composition is called the *tonal planning*.

***Modulation***

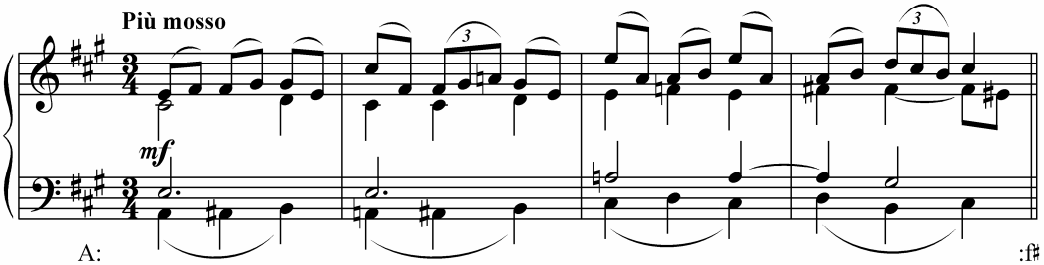
*Modulation* is the process of moving from one key to another with the clear establishment of the new key. Modulation usually ends up a musical unit (period, phrase) with a perfect authentic cadence (P.A.C.). Change of key often happens at the end of a period.

Beethoven, Veränderungen über einen Walzer, Op. 120, Tema




Modulation at the end of the *first* phrase is also possible sometimes (often in compound meter).

Tchaikovsky, 6 Pieces, Op. 19, Nocturne



***Modulation as Means of Development***

Modulation is one of the most important musical devices used to develop a musical composition. Usually only a separate section of a bigger composition or a composition, which is short in length, is composed in one key.

***Key Relationships***

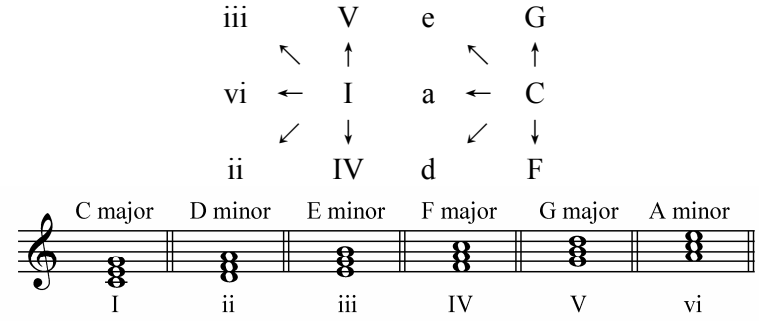
The relationship between keys changing in the process of unfolding a musical composition is, to a certain degree, similar to the functional relationships between chords used in one diatonic tonality. Thus, the keys changing in a musical composition also have their own *functions though of a higher level*. Like the tonic triad of a certain diatonic tonality, the main key, around which all other keys function in relation to one another, is the *only stable key*. Other keys are analogous to other unstable chords of a key. Dominant, subdominant, secondary dominant keys and their parallel keys are used around the main key and depend on it.

***Closely Related Keys***

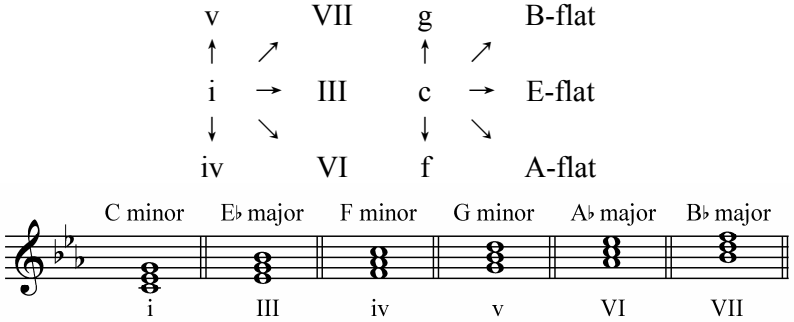
The relationship between two keys is based on the *functional* relationship between their tonic triads. The closer the two tonic triads relate to one another, the closer is the relationship between the two keys. The bigger the number of common tones and common chords between two keys is, the closer their relationship is.

The *closely related keys* are those in which tonic triads are the diatonic triads (supertonic, mediant, etc.) of the main (major or minor) key. Closely related keys are those which differ by *no more than one accidental* in their key signatures.

The closely related keys of a major key are the keys of its dominant, subdominant and their relatives.




The closely related keys of a minor key are the keys of its dominant, subdominant and their relatives.




Modulation from a given major or minor key to any closely related major or minor key usually involves *three* stages: establishment of the first key, the modulatory device, and establishment of the second key.

Modulation to the dominant key or the key of other dominant chords is the most common in the first period of a musical composition.

Modulation to any subdominant key in the first period can be found rarely but can be found often in middle sections (links, developments).

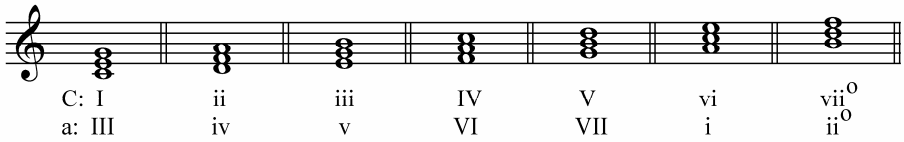
### *Common Chord Modulation*

Modulation to a closely related key is often carried out by means of a *common (pivot) chord* between the two keys. Functioning in one way in the first key, such chord attains a *different* function in the new key. A modulation, in which a common chord is used to modulate from one key to another, is called *common chord modulation*.

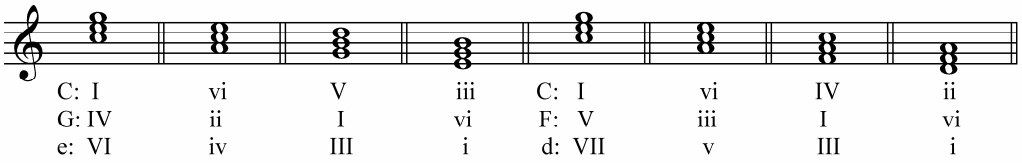
### *Number of Common Chords*

The number of common chords between closely related keys is not always the same and can be found out by comparing the key signatures of both keys.

A major key and its relative (natural) minor (keys with the same key signature, for example, C major and A minor) have identical pitch content and, thus, all *seven* triads can be used as common chords.

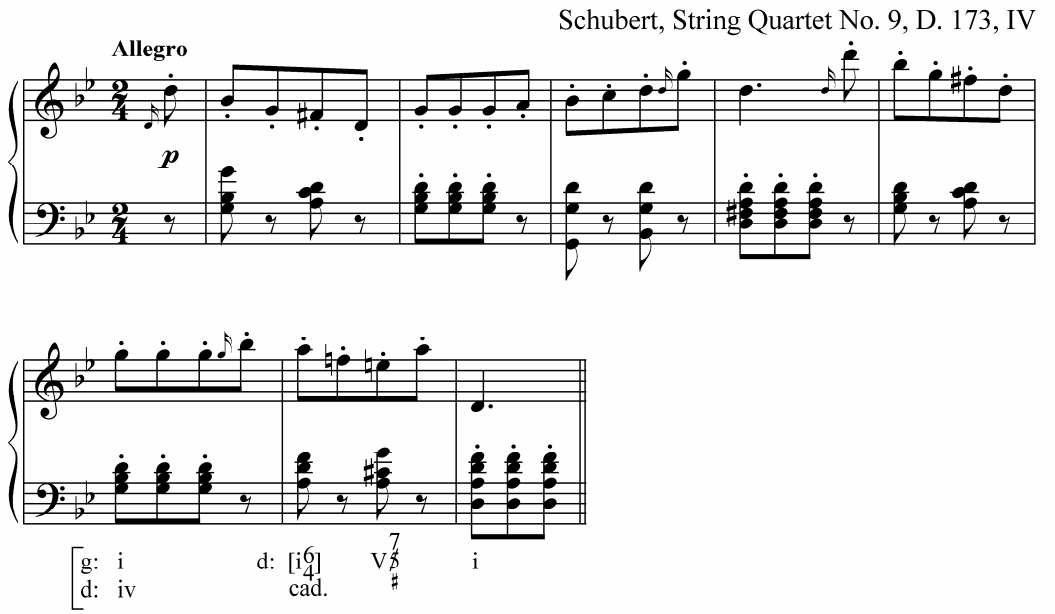



The keys, in which key signatures differ by *one* accidental, have *four* common triads. The common chords in such keys are both tonic triads and their relatives.

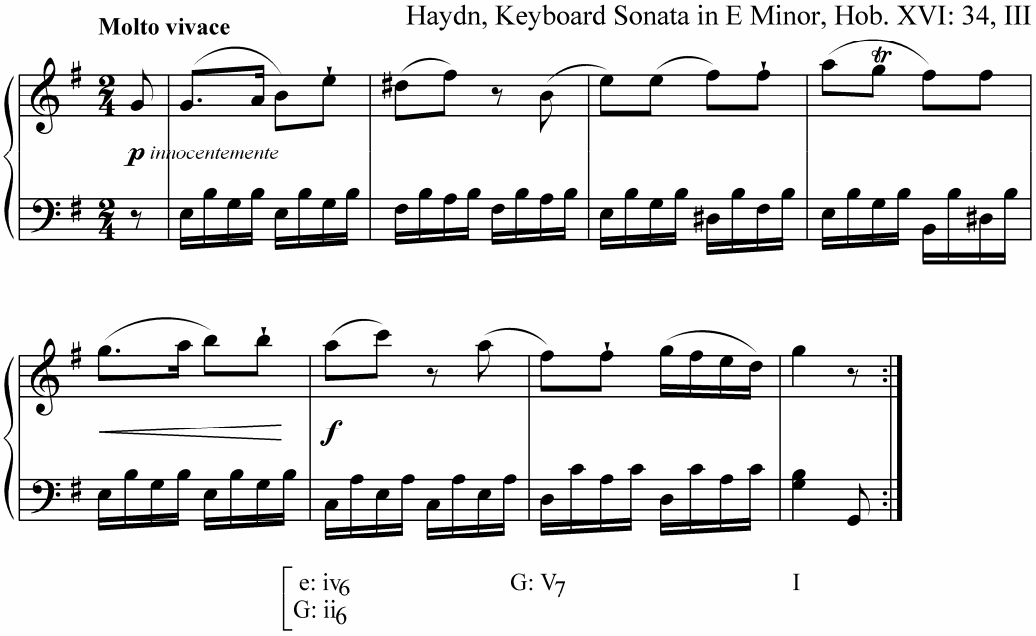



Various types of common chords can be used for modulation. Those can be triads, sixth chords, rarely (passing) six-four chords and seventh chords; the seventh chords being used rather rarely, which is due to the tendency of seventh chords for resolution.

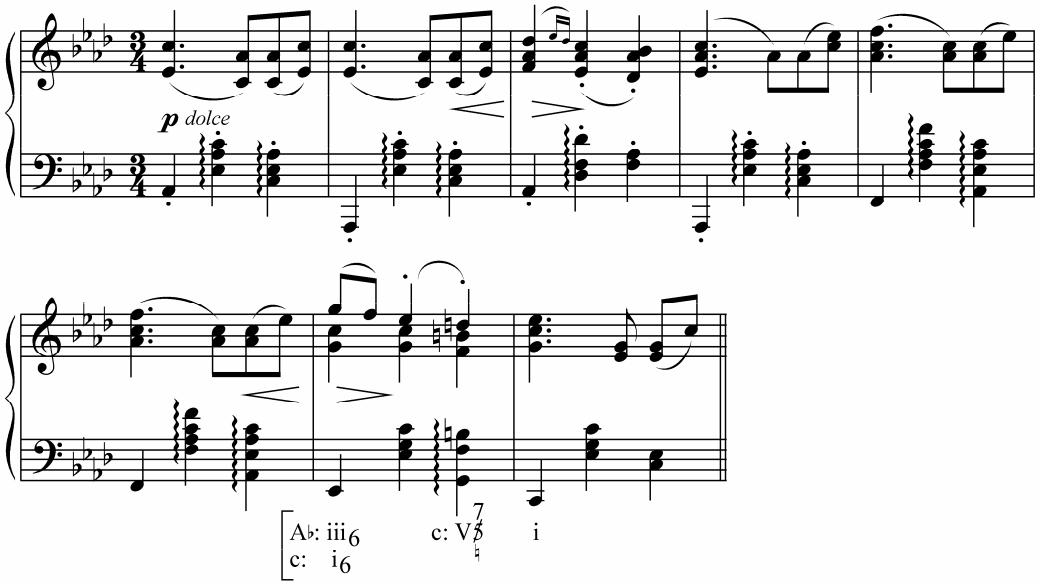
Schubert, String Quartet No. 9, D. 173, IV



Haydn, Keyboard Sonata in E Minor, Hob. XVI: 34, III




Brahms, 16 Waltzes, Op. 39, No. 15

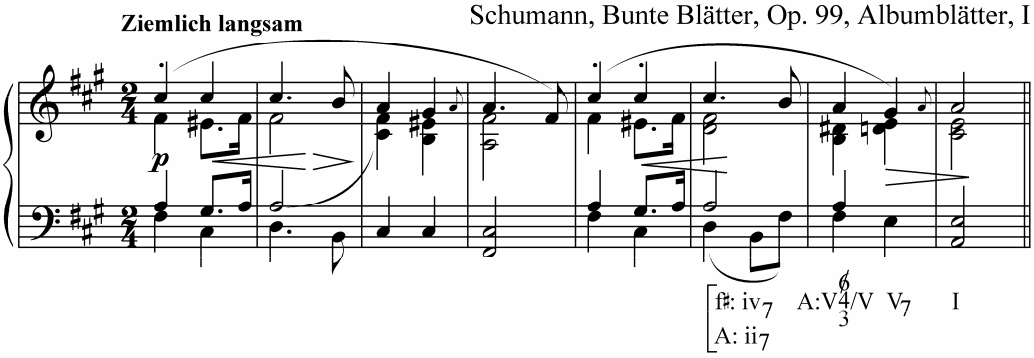



***Modulatory Chord***

The chord, which follows the common chord and helps establishing the new key, is called *modulatory chord*.

As soon as the common chord is renamed in accordance with the new key, the usual chord progression order takes place. For example, if the common chord becomes the tonic triad in the new key, such chords as IV, V/V, V, etc. can be used after it. The chords, which have the ability to show the key much clearer and are functionally brighter, are preferred. Thus, such *unstable* chords as IV, $ii_7$, V/V, $V_7$ and cadential $I^6_4$ are usually used as modulatory chords.

Schumann, Bunte Blätter, Op. 99, Albumblätter, I




***Cadence in Modulation***

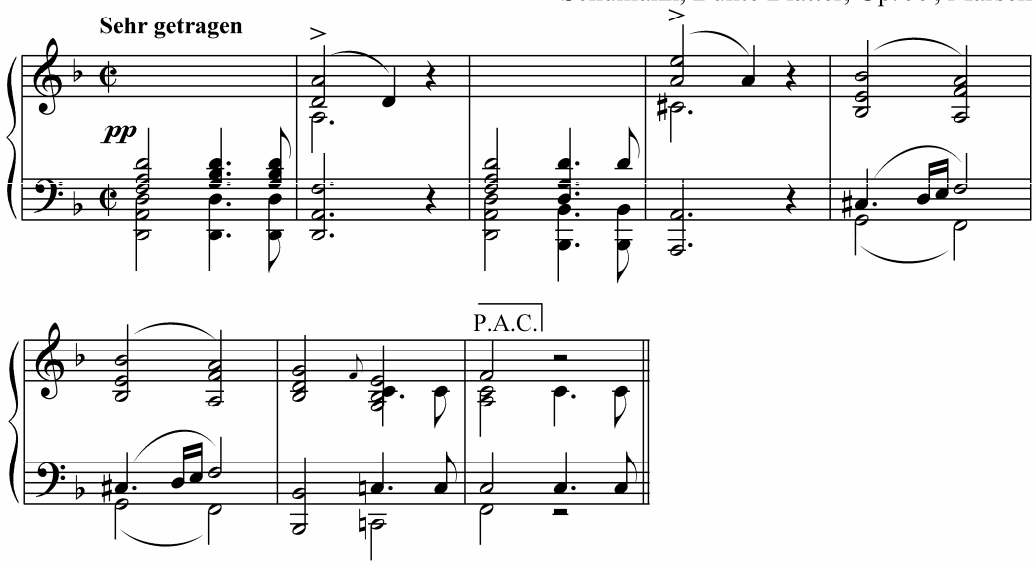
The very first chord of a final (often perfect authentic) cadence is often the modulatory chord (cadential $I^6_4$, $V_7$, $ii_7$, $ii^6_5$, $vii^o_7$, V/V).

If the type of the modulatory chord is not characteristic for the final cadence (inversions of $V_7$, inversions of $vii^o_7$, $ii_2$), it moves to the tonic triad of the new key following the rules of normal chord progressions, after which a normal final cadence would be used to end that phrase.

In case the tonic triad of the new key appears when the modulation is not finished yet (for example, the tonic triad is the common chord and the modulatory chord hasn't produced a final cadence), such tonic triad is better used in 1st inversion or with the 3rd or 5th in soprano, so that when it will be used in the final cadence, it will sound stronger and more final.

The most convincing establishment of a new key can be achieved by the use of a perfect authentic cadence (P.A.C.).

Schumann, Bunte Blätter, Op. 99, Marsch



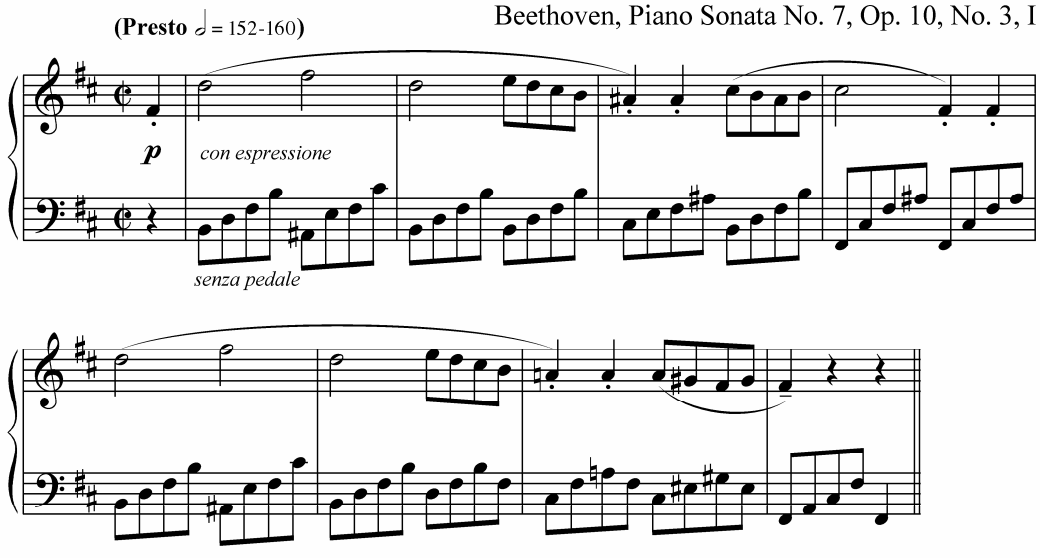

*Exercises*

1. Find closely related keys for B-flat major, A major, G-flat major, D minor, F minor and B minor.

2. Analyze the following excerpts.

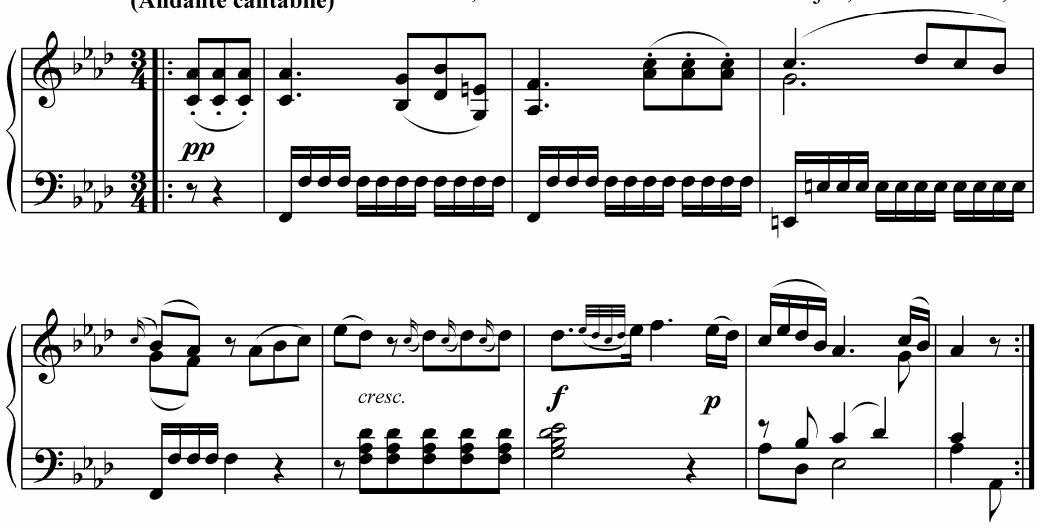
a)

Beethoven, Piano Sonata No. 7, Op. 10, No. 3, I



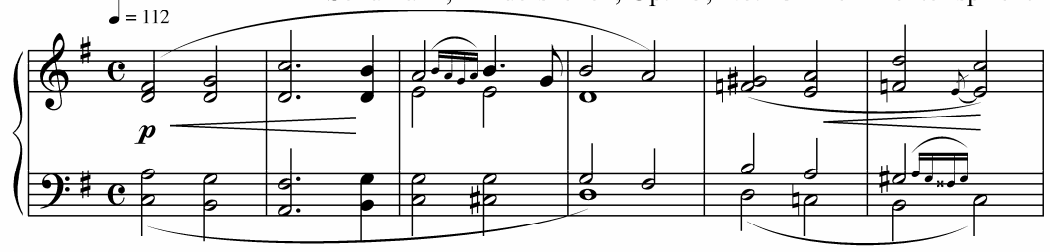

b)

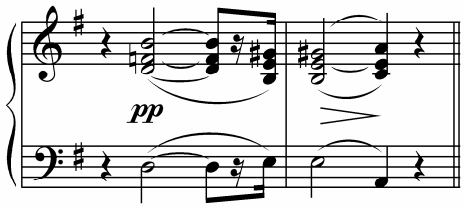
Mozart, Piano Sonata No. 10 in C Major, K. 330/300h, II




c)

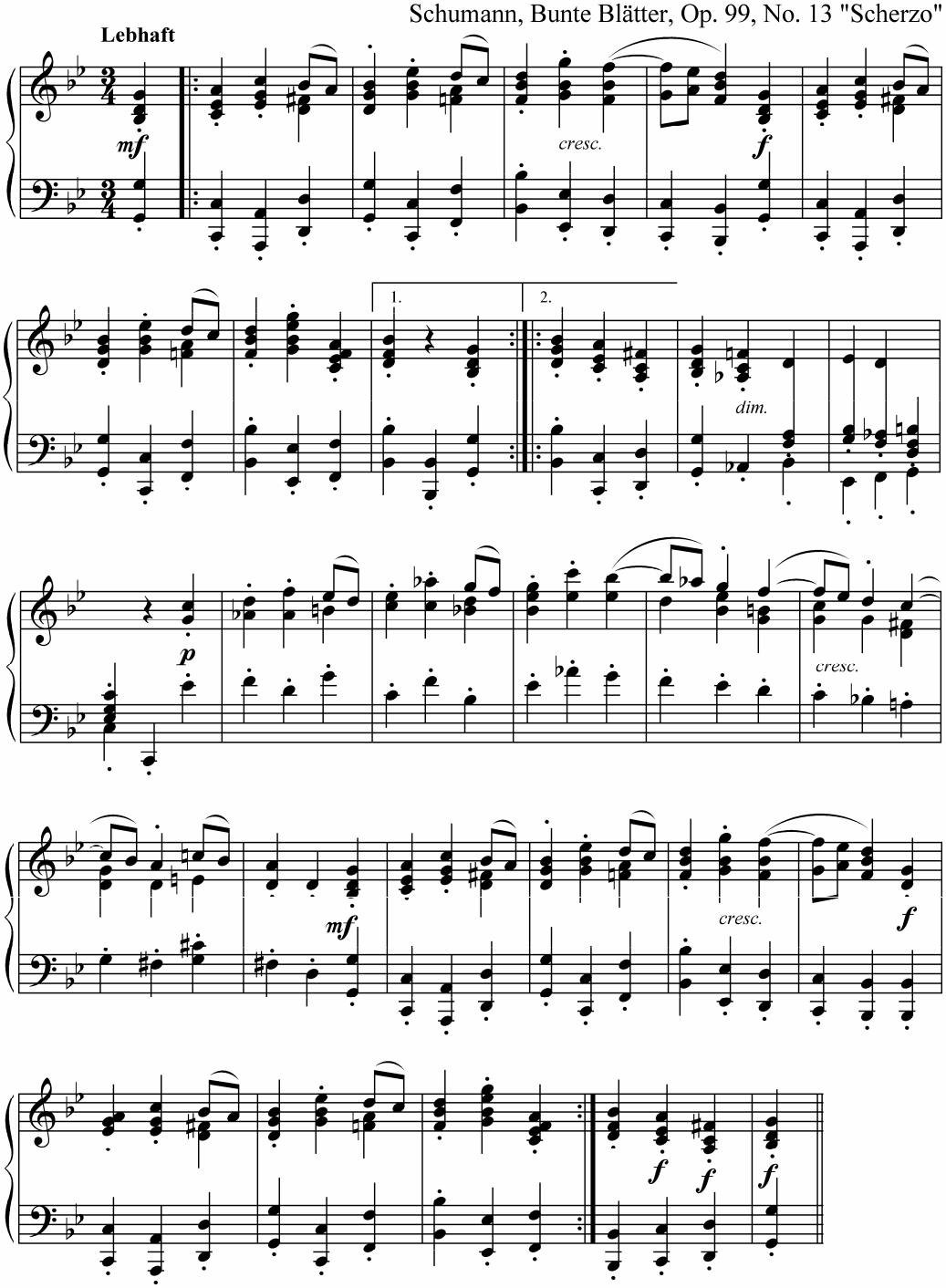
Schumann, Kinderszenen, Op. 15, No. 13 "Der Dichter spricht"






d)

Schumann, Bunte Blätter, Op. 99, No. 13 "Scherzo"



3. Realize the following figured basses and harmonize the sopranos.