Music Theory
Grade 7 Textbook

Jakarta Conservatory of Music

Textbook and Workbook
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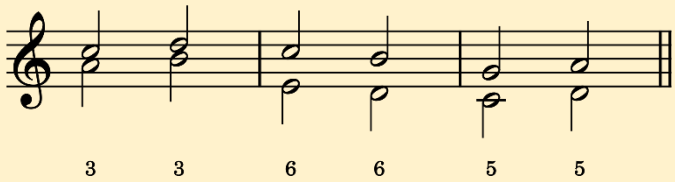
Types of Motion

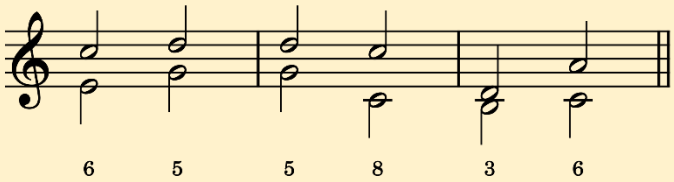
Types of Motion

When two melodies (or musical lines) move at the same time, they can relate to each other in **four main ways**:

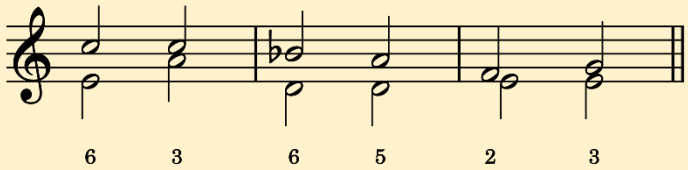
① Parallel motion:
Both voices move in the **same direction,**
and by the **same distance**.



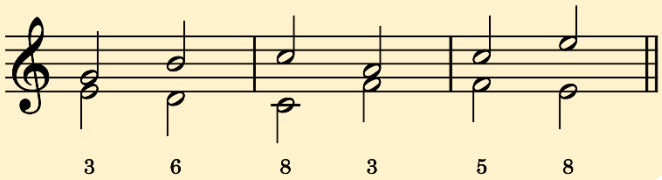
② Similar motion:
Both voices move in the **same direction,**
but **not by the same amount**.



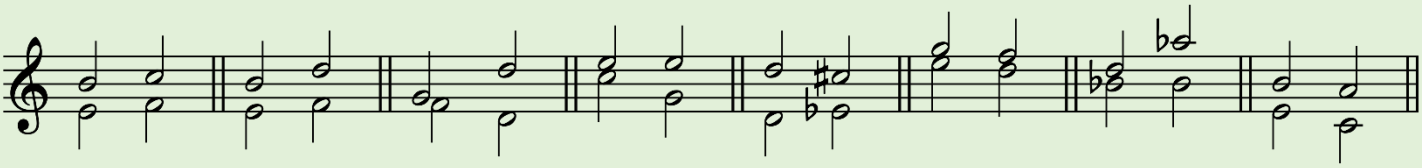
③ Oblique motion:
One voice **stays on the same note**,
while the **other moves up or down**.



④ Contrary motion:
Both voices move in **opposite directions**.
It's like a seesaw!



Exercise: For every measure, decide which type of motion is used and fill in the blank.



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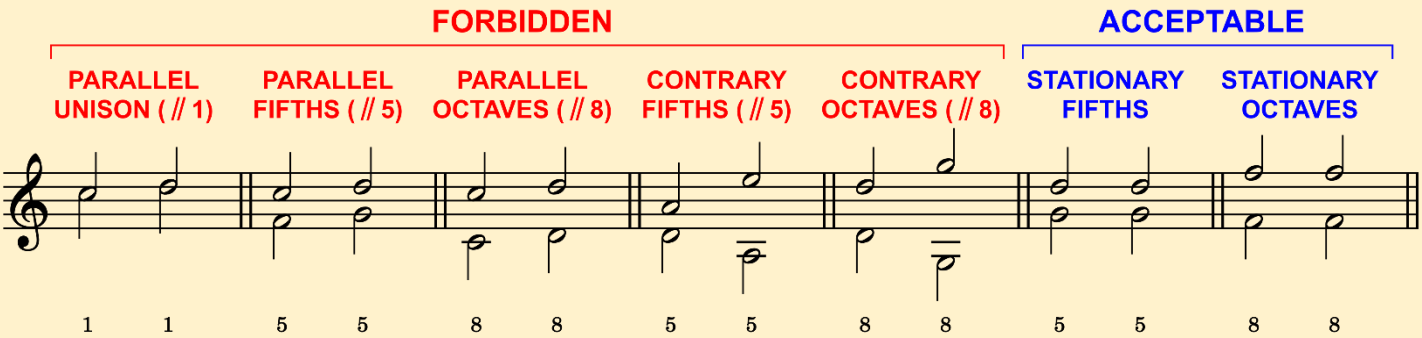
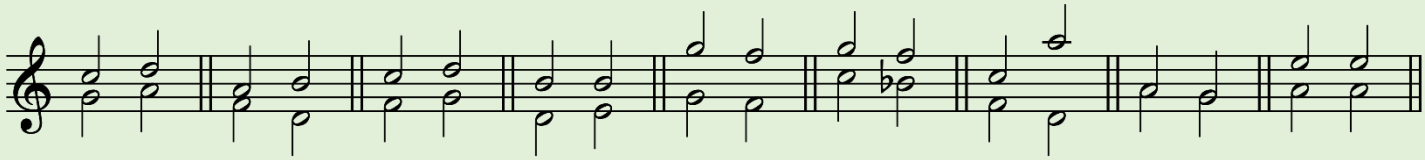
Forbidden Motions: Parallel Fifths and Octaves

When writing music with several parts, try **not to use parallel or contrary motion** that results in **perfect unisons**, **fifths**, or **octaves**. It's fine if those intervals appear without any movement, since the problem comes from how they move, not just that they exist.



This kind of motion can make the harmony feel flat, and the individual voices lose their unique character. It was a more common feature in pre-Renaissance music, before counterpoint rules became more structured.

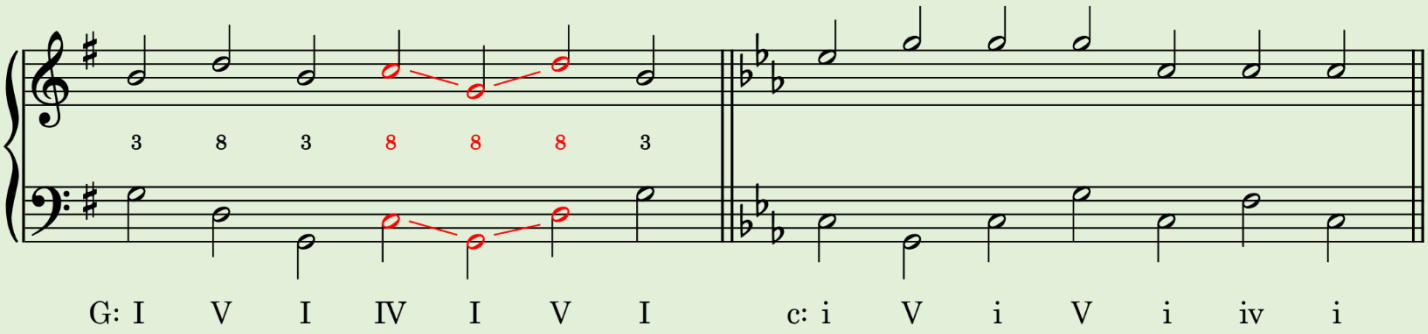
Exercise: For each measure, determine and label the type of motion used. Check if any of the motions are considered unacceptable. Also, is there any motion in the final measure?



When composing music with multiple voices, be mindful to **<u>avoid unintentional parallel motion</u>**, especially if it leads to undesirable intervals. This issue often arises when fundamental composition principles aren't carefully applied.

It's a smart habit to **<u>write out the harmonic intervals</u>** between parts. Doing so helps catch any problematic parallels before they slip by unnoticed.

Exercise: Analyze the following two-voice counterpoint and point out any prohibited motions. The first one has been completed for you as an example.

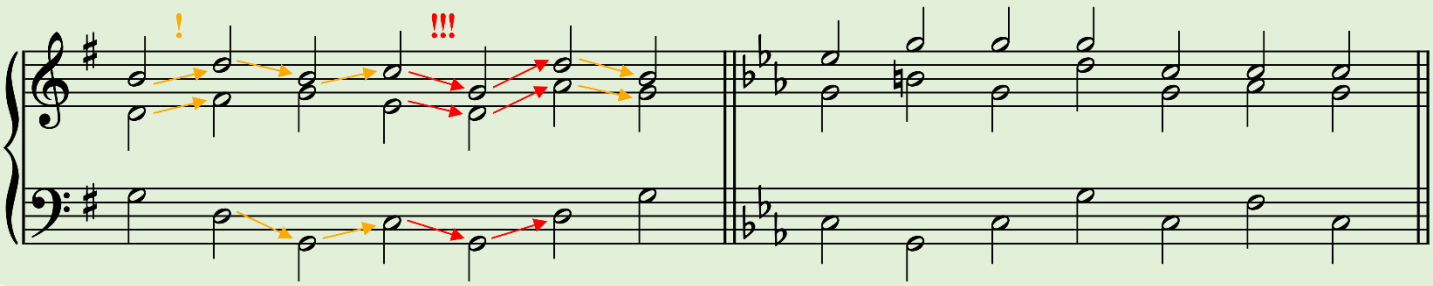


REVIEW

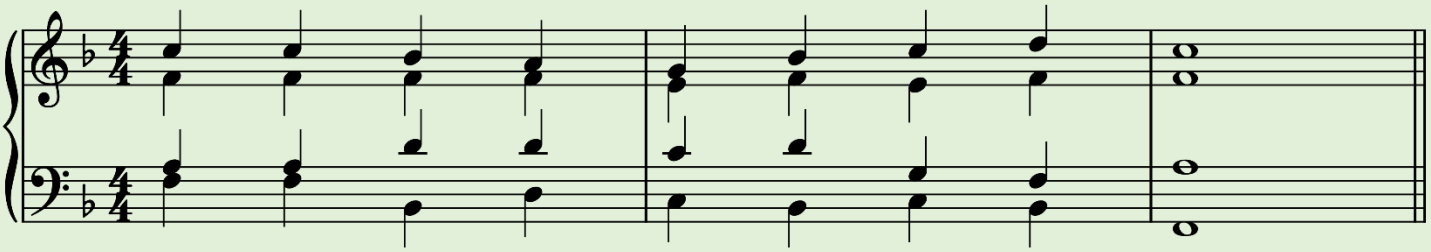
QUESTION	ANSWER
1. List the four ways voices can move in relation to each other in harmonic writing.	

Exercise: Now that the alto voice has been added, continue checking for any **forbidden motions** between it and the other parts—the soprano and bass voices.

‼ **Hint:** Pay close attention to parts that move in the same direction. The more voices that move together, the greater the risk of unwanted parallel motion sneaking in.



Exercise: Examine the following four-part example and identify any **forbidden motions**. Be especially mindful of voice pairs that move in the same direction.



REVIEW

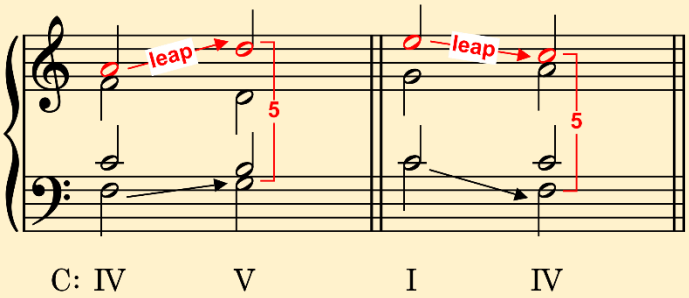
QUESTION	ANSWER
1. What is the difference between similar and parallel motions?	
2. Oblique motion is always acceptable without exceptions. True or false, and why?	
3. Stationary fifths and octaves are forbidden. True or false, and why?	
4. Contrary motion is always acceptable without exceptions. True or false, and why?	
5. List all the forbidden motions that we learned so far.	

Forbidden Motions: Direct Fifths and Octaves

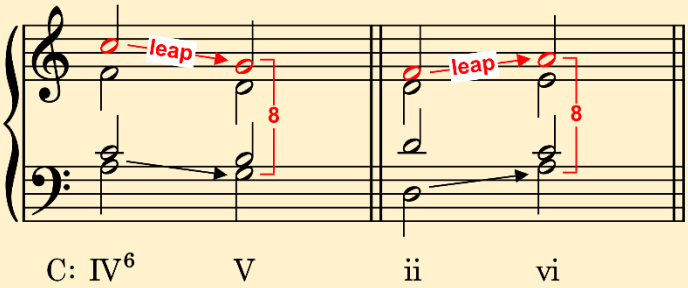
You already know why parallel fifths and octaves should be avoided. There's another type of motion to watch out for: **direct fifths** or **octaves**. They're also called **hidden fifths** or **octaves**.

This occurs when: ① the **soprano and bass parts move in the same direction**, ② and the **soprano leaps**, ③ and they land on a **perfect fifth** or **perfect octave**. Even though it's not true parallel motion, it draws too much attention to the interval, making it sound very similar to the kind of motion we try to avoid.

① **Problematic direct fifths:**

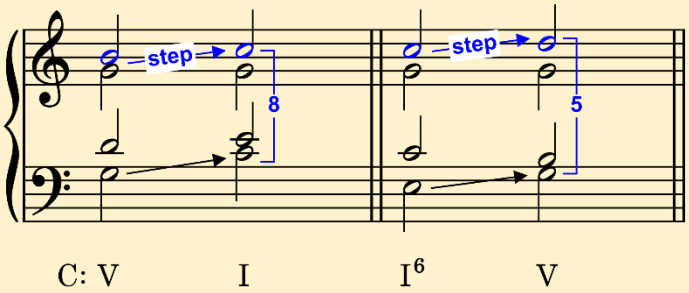


② **Problematic direct octaves:**

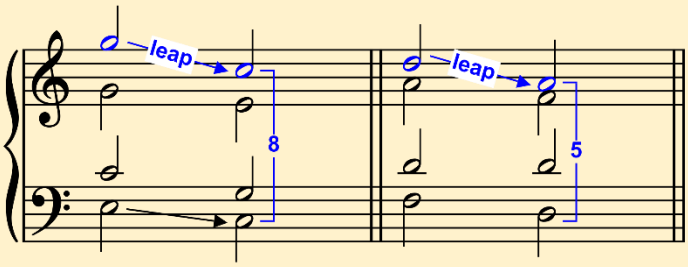


‼ Direct fifths and octaves are **only permitted** when: ① **the soprano moves by step**, not a leap, **or** ② **there's no change in harmony** between the chords.

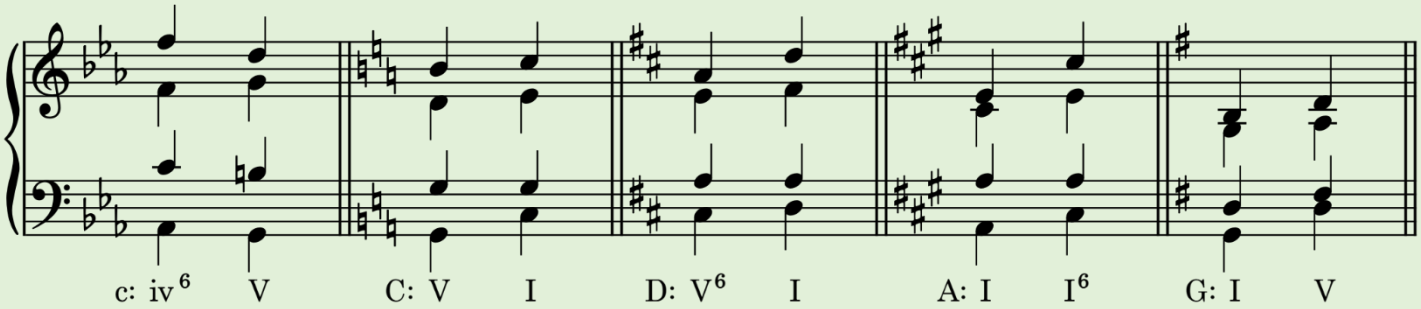
① **Permitted when soprano moves by step:**



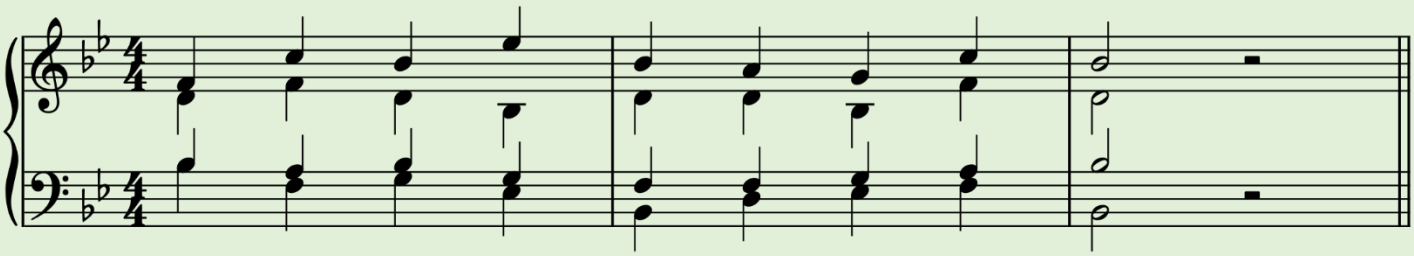
② **Permitted when there's no change in harmony:**



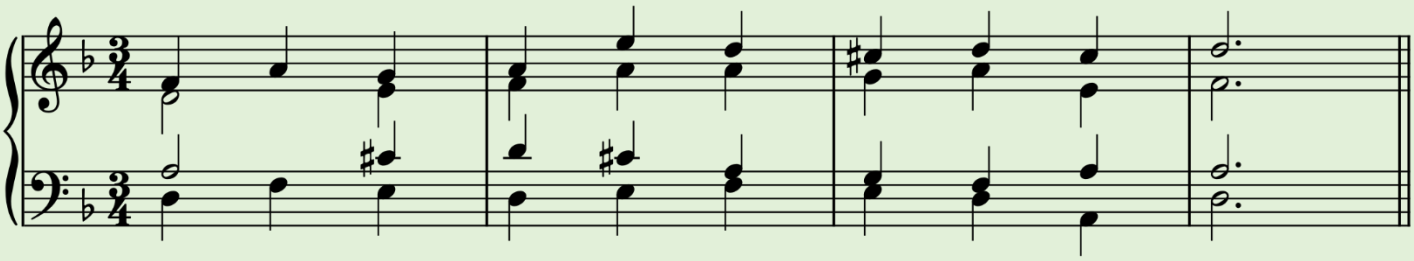
Exercise: Decide whether each direct fifth or octave in the example is acceptable.



Exercise: Find and label the following errors in this passage: ① parallel octaves, ② parallel fifths, ③ direct fifths, ④ contrary fifths, and ⑤ spacing error. ‼ **Hint:** A **spacing error** occurs when the distance between the **soprano and alto** or the **alto and tenor** exceeds an **octave**.



Exercise: Find and label the following errors in this passage: ① parallel octaves, ② parallel fifths, ③ direct octaves, and ④ spacing error.



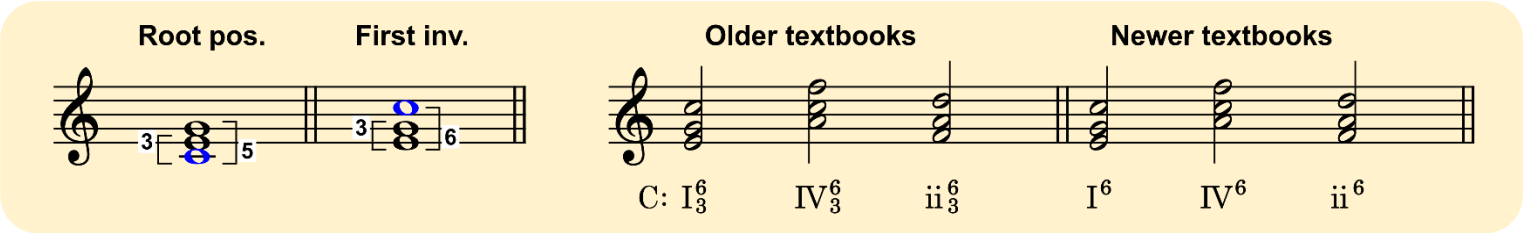
REVIEW

QUESTION	ANSWER
1. How do direct fifths and octaves occur?	
2. Why are direct fifths and octaves problematic?	
3. When are direct fifths and octaves permitted?	
4. There can be problematic direct fifths and octaves between the alto and soprano. True or false, and why?	
5. What does the term “spacing error” refer to?	

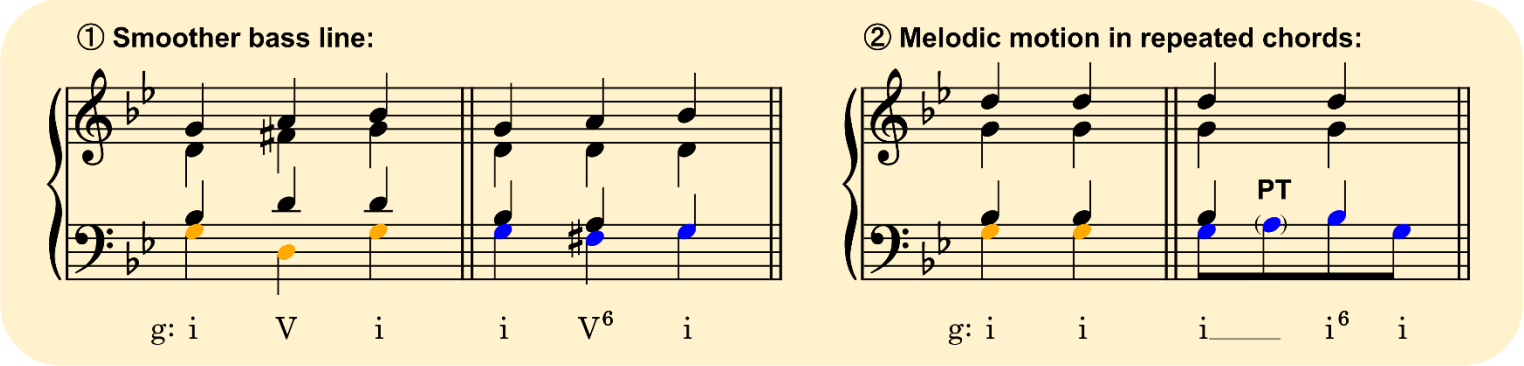
Triads in First Inversion

Triads in First Inversion

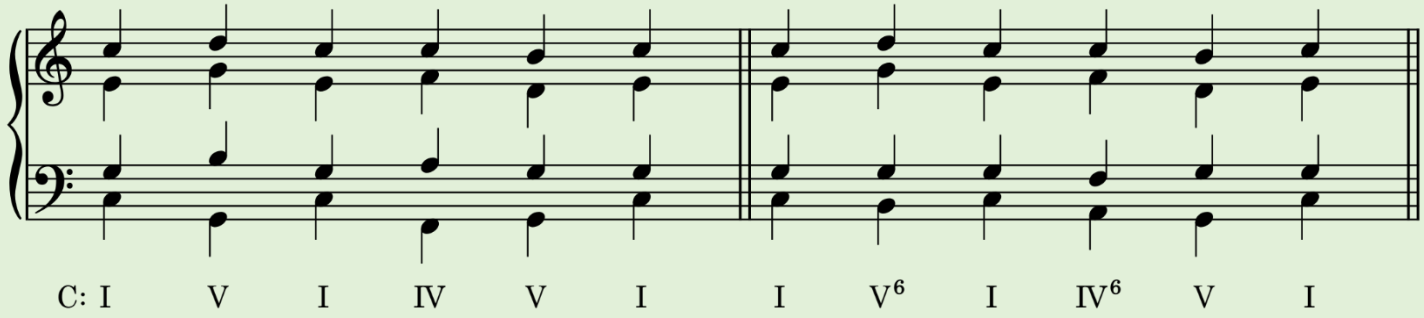
First inversion chords are essential for smooth voice leading, allowing stepwise motion and minimizing awkward leaps between parts. They also help maintain harmonic interest and variety by supporting the bass line without strongly emphasizing the chord root.



First inversion chords help create a smoother, more connected bass line. They're often used to ① make **bass motion more stepwise**, and ② **add melodic variety** when a chord is **repeated**.

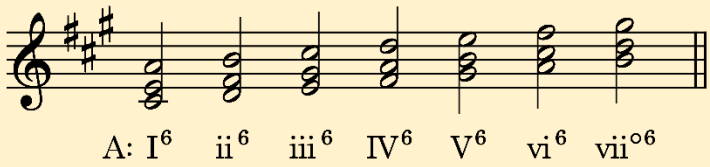


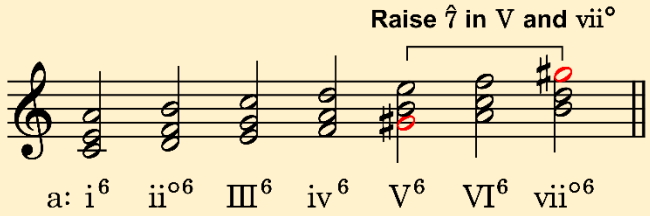
Exercise: Which of the two progressions has the smoother sound? Compare the bass lines.

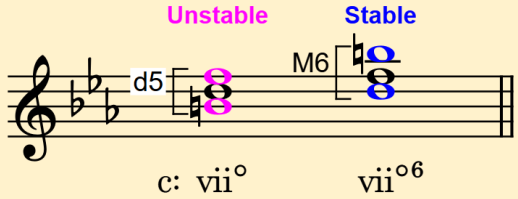


Inversions in Major and Minor Keys

These examples show first inversion triads in both major and minor keys. They can be used freely whenever they help make the bass line smoother and more connected.

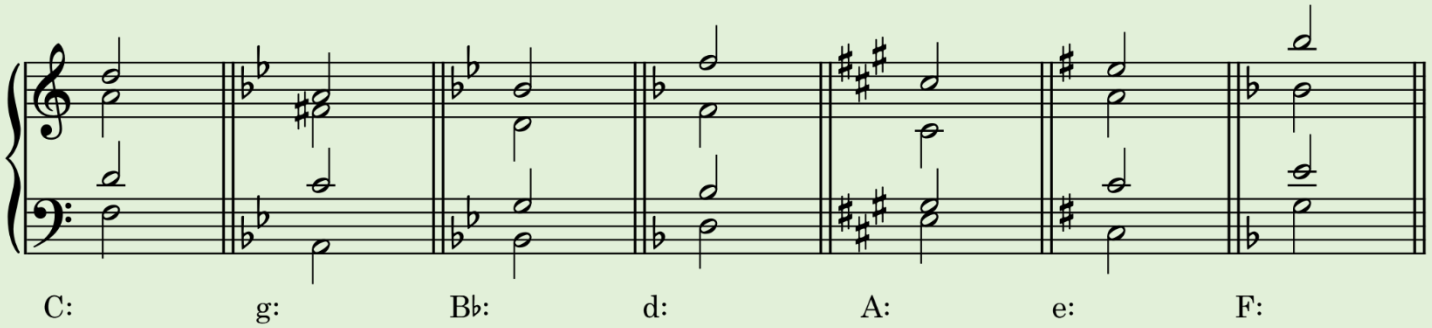




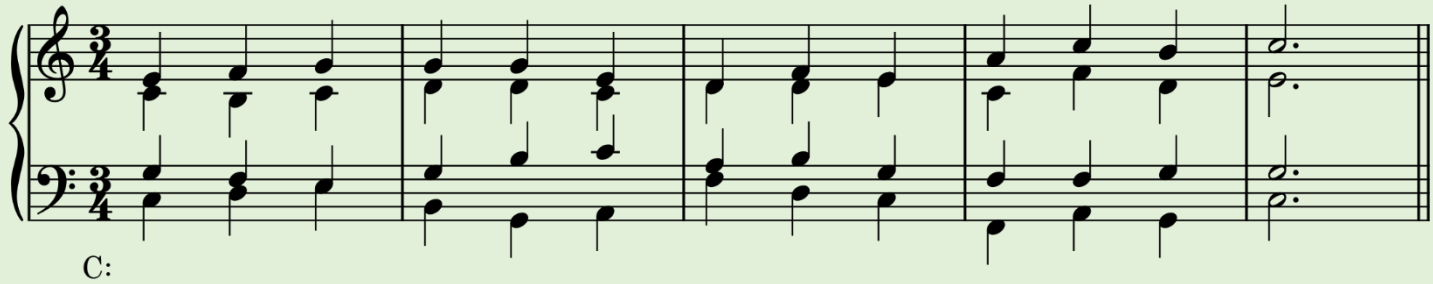


‼ Diminished chord in root position is rarely used due to the **unstable diminished fifth** from the root. It is often used in first inversion as it removes that unstable interval.

Exercise: Label each of the following first inversion chords using the correct **Roman numeral analysis**. ‼ **Hint:** Use uppercase Roman numerals for major chords, lowercase for minor chords, and lowercase with a small circle (°) for diminished chords.



Exercise: Analyze each chord below using Roman numeral notation. You'll find a combination of root position and first inversion chords throughout.

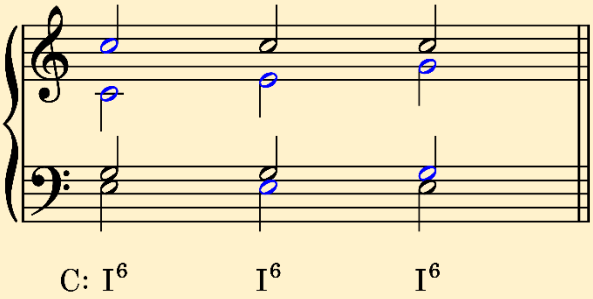


Doubling in First Inversion

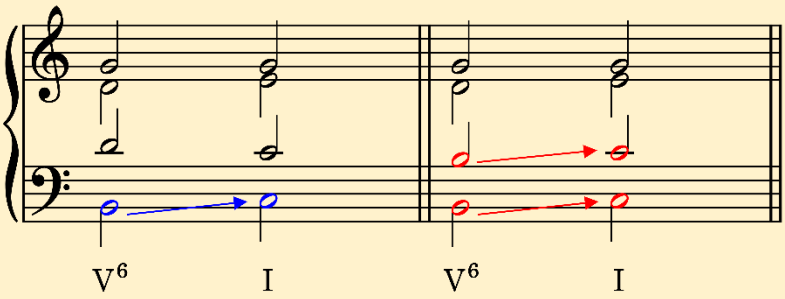
One benefit of using first inversion chords is that they offer greater flexibility in doubling. **Any chord tone can often be doubled**.

However, there's one important exception: **never double the leading tone** when writing **V or vii° chords**. The leading tone wants to rise to the tonic. Doubling it makes that upward pull **overemphasized or awkward**, which can cause **voice leading errors**.

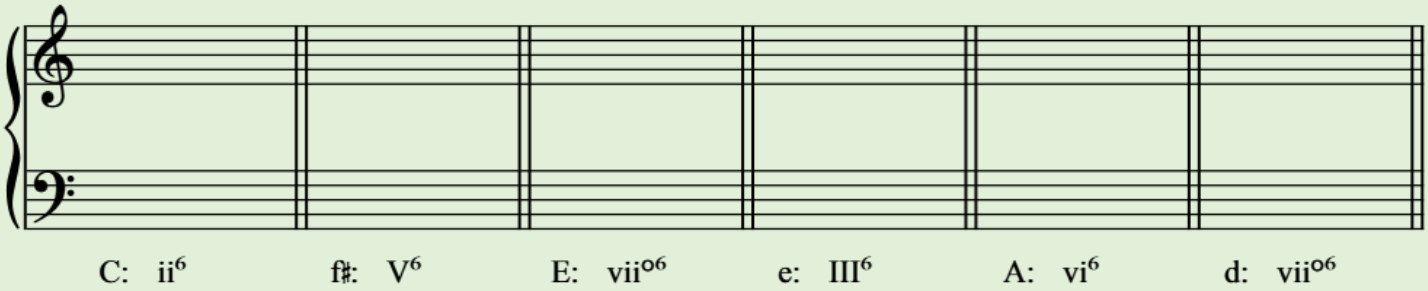
① Flexible doubling:
You may double the root, third, or fifth.



② Do not double the leading tone:
Doubling the leading tone will result in parallel octaves.



Exercise: Write each of the following chords using correct **doubling** practices. Be sure to include the appropriate **key signature** for each example.



REVIEW

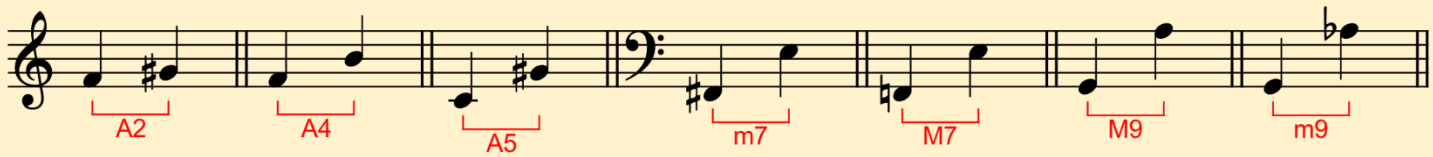
QUESTION	ANSWER
1. You can double any note when writing first inversion chords. True or false, and why?	
2. Diminished triads are very rare in root position. True or false, and why?	
3. $\hat{7}$ must be raised in V and vii°6 in minor keys. True or false?	

Writing Melodies

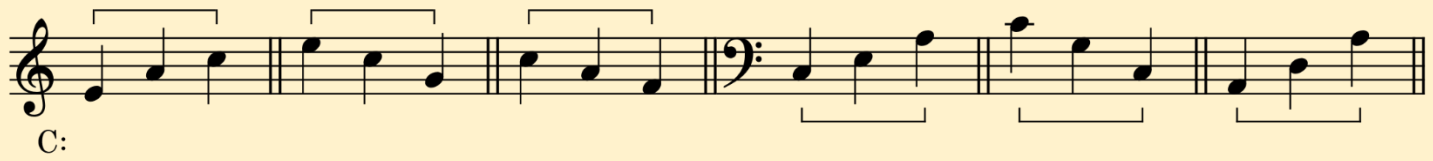
Writing a Soprano or Bass Melody

When writing a soprano or bass melody:
① **Avoid** using **augmented intervals**, **sevenths**, or **intervals larger than an octave**.
② If you have **two consecutive skips** in the same direction, they should outline **a triad or part of one**.
③ **Consider the overall contour of the melody** and aim for **more stepwise motion than leaps** and try to create a **single high point** near the middle.

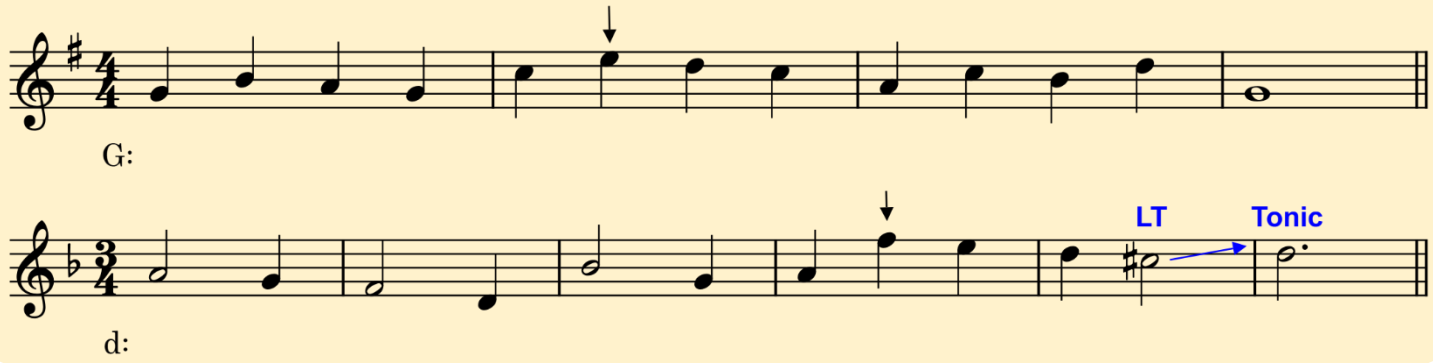
① Avoid using augmented intervals, sevenths, or intervals larger than an octave:



② Two consecutive skips in the same direction should outline **a triad or part of one:**



③ Examples of a soprano line with a good overall contour of the melody:

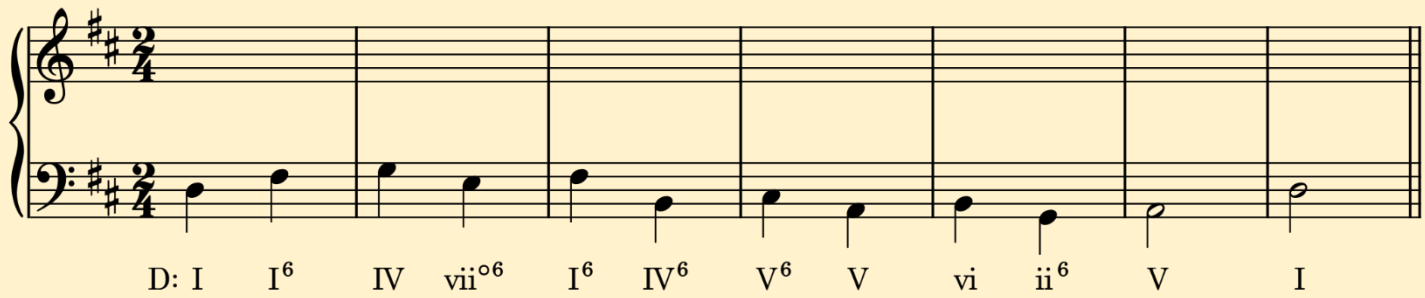


A melodic line that moves **mainly by steps** is known as **conjunct**, while one that features **frequent leaps** is called **disjunct**. Strong melodies typically favor stepwise motion, sprinkling in leaps for variety and expression. Ultimately, let your ears be the judge, if it sounds pleasing, it's working.

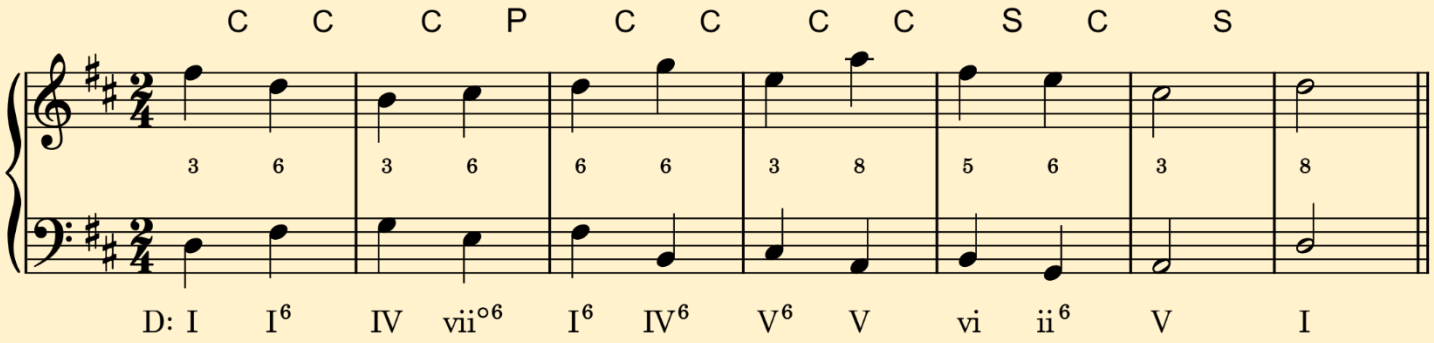
Writing a Two-Voice Counterpoint

When writing a two-voice counterpoint:
① Aim for as much **contrary motion** as possible to enhance their independence.
② Watch out for **forbidden parallels**, as well as **direct fifths and octaves**, especially in outer voices.
③ In cadential progressions like V–I or vii$^{\circ 6}$–I, always **resolve the leading tone up to the tonic**.
④ **Never double the leading tone** in V or vii$^{\circ 6}$ chords.

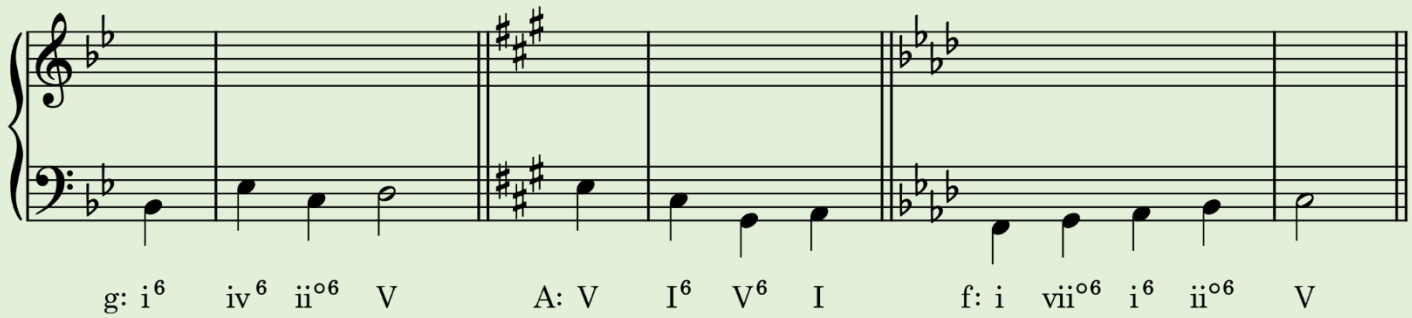
Sample exercise: Compose a melodic counterpoint above the given bass line. As you write, be careful to avoid any **parallels fifths and octaves**, and **direct fifths and octaves**.



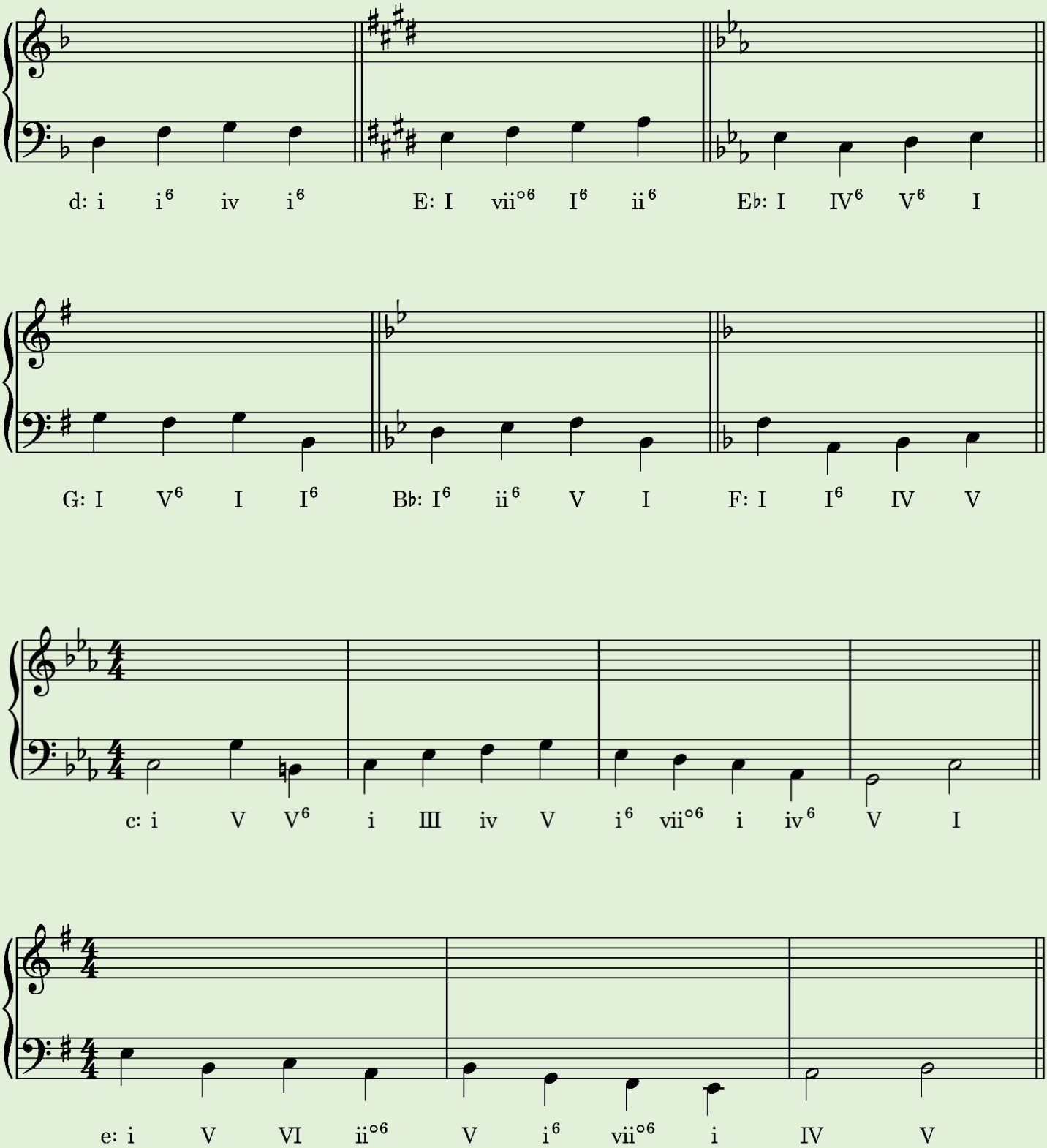
Sample response:



Exercise: Compose a melodic counterpoint above the given bass line. As you write, be careful to avoid any **parallels fifths and octaves**, and **direct fifths and octaves**.



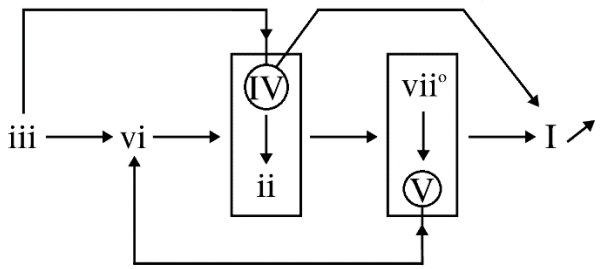
Exercise: Begin each exercise by writing the soprano line. Once that's complete, add the inner voices to complete the harmony.



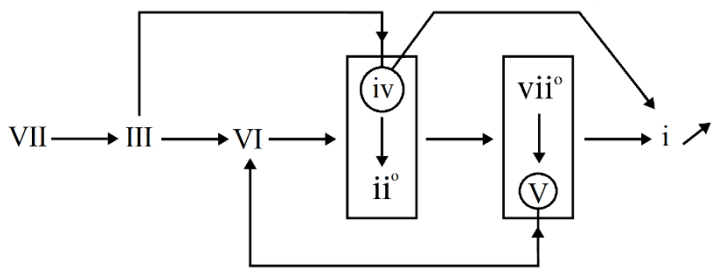
Harmonic Progressions

Chord progressions are essential in shaping the emotional flow and framework of music, particularly throughout the Baroque to Romantic eras. They guide the listener through moments of tension and release, anchoring the music's form and direction. The charts below illustrate some of the most used progressions during these periods:

FORMULA FOR MAJOR KEYS



FORMULA FOR MINOR KEYS



Chords can be categorized into **<u>four different functions</u>**:
① **<u>Tonic function chord</u>**: I. This is the tonal center or “home” chord, providing stability and resolution.

② **<u>Dominant function chords</u>**: V and $\mathrm{vii}^{\circ 6}$. These chords create the strongest sense of tension and typically resolve back to I. **Note:** V is generally stronger than $\mathrm{vii}^{\circ 6}$, so while $\mathrm{vii}^{\circ 6}$ can move to V, the reverse feels less satisfying.

③ **<u>Predominant function chords</u>**: ii and IV. These chords usually prepare for the dominant, guiding the progression forward.

④ **<u>Tonic prolongation function chords</u>**: iii and vi (and $\flat\mathrm{VII}$ in minor). These chords often extend or embellish the tonic area, and tend to move toward predominant chords.

While the framework above covers the standard functional roles, there are notable exceptions and substitute relationships:
① **<u>Plagal progression</u>** IV–I, a gentler resolution than $\mathrm{V}-\mathrm{I}$.

② **<u>Deceptive progression</u>** V–VI, avoids the expected resolution to I.

③ **<u>Functional substitutes</u>**: iii–IV (substitute for $\mathrm{I}-\mathrm{IV}$) and vi–V (substitute for $\mathrm{I}-\mathrm{V}$).

‼ **Caution: <u>Avoid the progression $\mathrm{V}-\mathrm{vi}^{6}$</u>**. It sounds awkward due to its weak voice-leading and disrupted tension-release flow.

Exercise: Create a chord progression that conforms with the diagram presented above by filling in the blanks below. End the progression with a cadence.

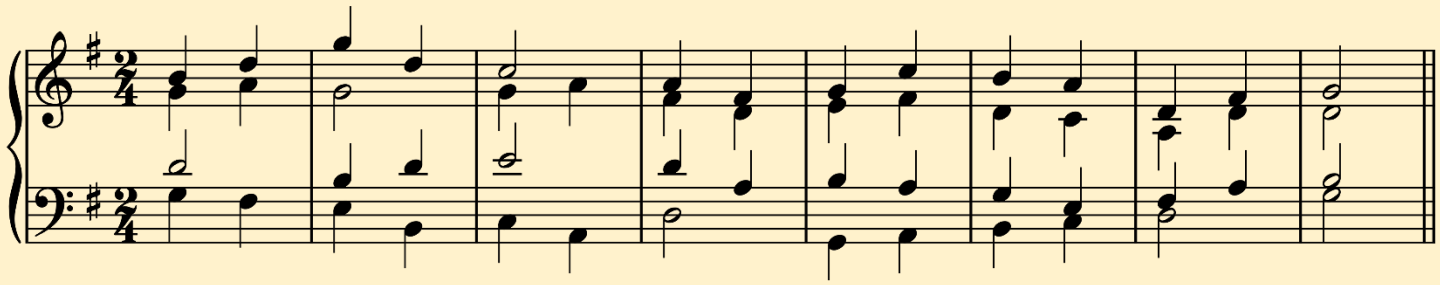
→

MAJOR KEY:	I		I			IV		V				I
MINOR KEY:	V			i		vii$^{\circ 6}$			VI			VI

Exercise: Bracket any portions of these progressions that do not conform to the chord diagrams.

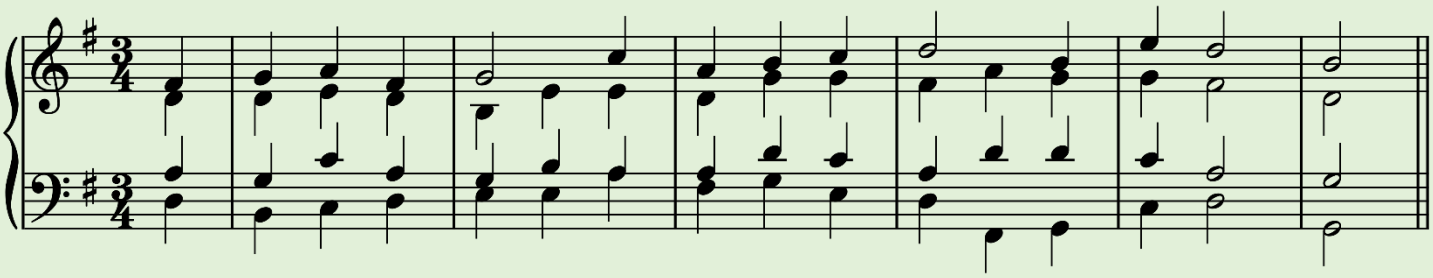
1.	i	vii$^{\circ 6}$	i	iv	VI	V	i	
2.	I	vi	ii	IV	I	V	I	
3.	I	iii	IV	vii$^{\circ 6}$	iii	IV	V	I
4.	i	III	iv	i	iv	V	vii$^{\circ 6}$	i

Examining music through harmonic functions reveals where moments of tension and resolution occur:
① In the **first-level analysis**, each chord is **classified by its harmonic role**, laying the groundwork for structural understanding.
② In the **second-level analysis**, we **extend the initial tonic function** up to the next clear **PD–D progression**. This broader view helps uncover the larger architectural flow of the music



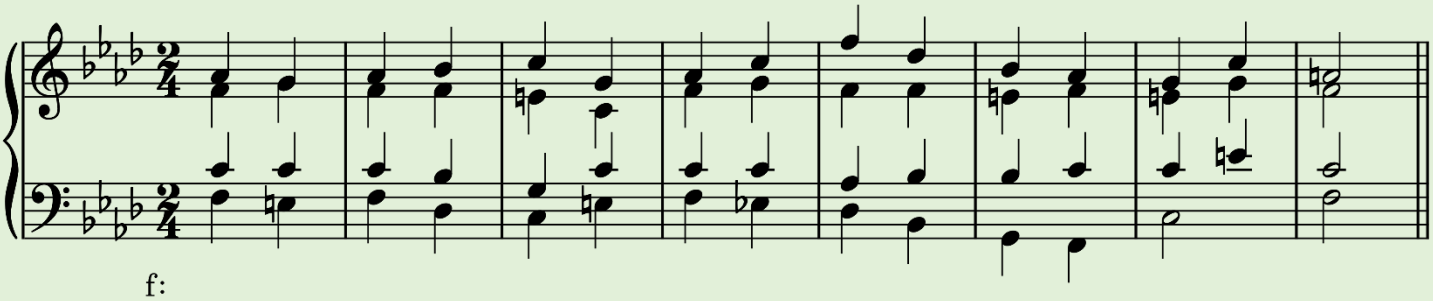
G:	I	V^6	vi	I^6	IV	ii	V	I	vii$^{\circ 6}$	I^6	ii^6	V	I
1st level:	**T**	**D**	**TP**	**T**	**PD**	_____	**D**	**T**	**D**	**T**	**PD**	**D**	**T**
2nd level:	**T**	_____			**PD**	_____	**D**	**T**	_____		**PD**	**D**	**T**
	Rest				Build-up		Tension	Release			Build-up	Tension	Release

Exercise: Look at the musical example below and perform a second-level analysis. Stretch the tonic function until you reach the next clear predominant–dominant (PD–D) sequence.



G:	V	I^6	ii^6	V	vi___	ii	V^6	I	IV^6	V	V^6	I	IV	V	I
1st level:	**D**	**T**	**PD**	**D**	**TP___**	**PD**	**D**	**T**	**PD**	**D___**		**T**	**PD**	**D**	**T**
2nd level:															

Exercise: In the next example, use Roman numeral analysis to explore the harmony. Start by identifying each chord's function for the **first-level analysis**. Then, take it further with a **second-level analysis**.



f:

1st level:

2nd level:

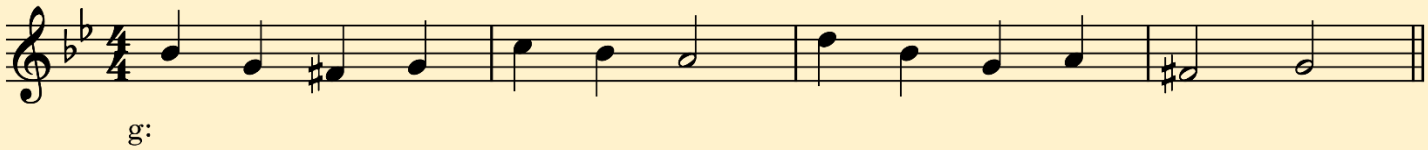
REVIEW

QUESTION	ANSWER
1. What are the four main harmonic functions that chords can serve?	
2. What is the typical direction of movement for each harmonic function?	
3. The progression $V-vi^6$ is acceptable. True or false, and why?	

Harmonizing a Given Soprano Line

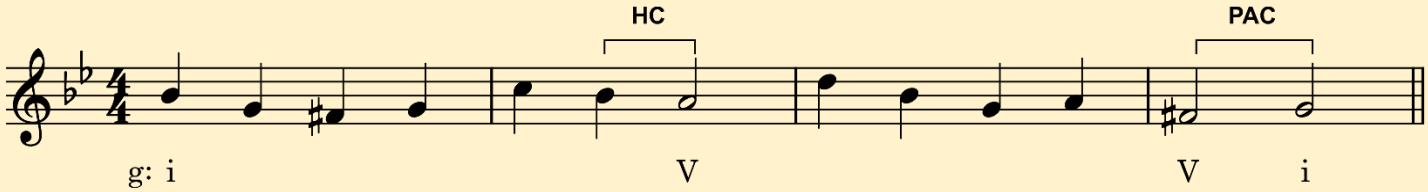
We've covered harmonizing a bass line, now let's shift our focus to the soprano line. Harmonizing from the top down requires a slightly different approach, since each melody note offers a range of possible chords underneath. Here's how we'll work through it, step by step.

Sample exercise: Add a bass line to the given soprano melody to create two-voice counterpoint. Focus on building a solid harmonic foundation using clear progressions. Be mindful to avoid parallel and direct fifths and octaves, maintaining smooth voice leading and independence between the lines.



① Identify the key and pinpoint cadence locations.

- Start your harmonic progression with either I or V to establish tonal grounding.
- Find spots where the music naturally rests, often at the end or midway, for placing cadences.

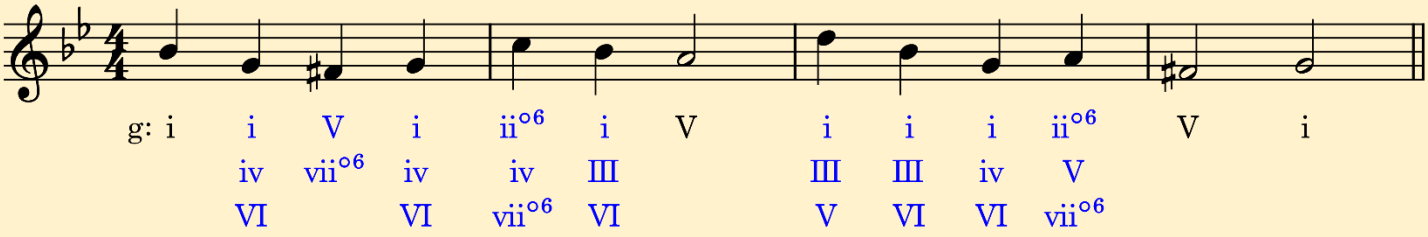


② List all possible chords in root position for each scale degree, excluding $\text{vii}^{\circ 6}$ and $\text{ii}^{\circ 6}$.

CHORDS		iv	CEG
i	GBD	V	DFA
$\text{ii}^{\circ 6}$	ACE	VI	EGB
III	BDF	$\text{vii}^{\circ 6}$	FAC

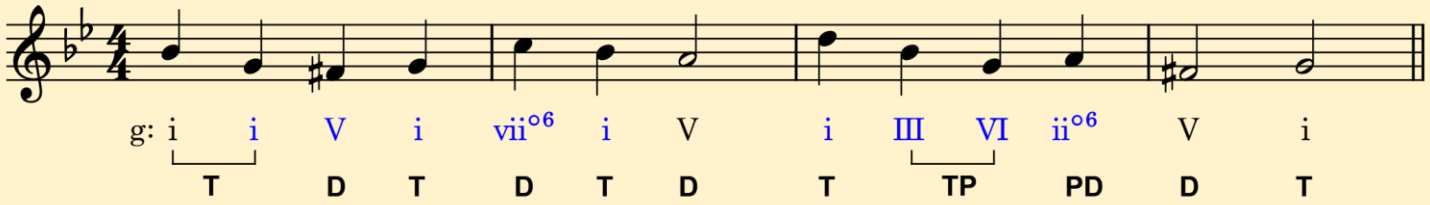
After writing down all possible chords, use the progression chart to craft a sequence that works well musically. Be creative and make sure to steer clear of any parallel fifths, octaves, or augmented intervals.

‼ **Hint: <u>Prioritize tonic and dominant function chords</u>.**



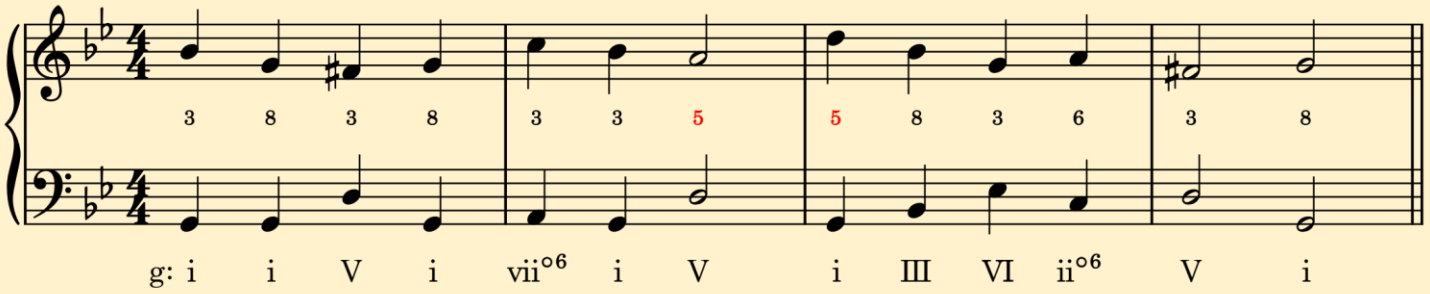
③ Choose a progression that fits well with the melody and overall musical flow.

- Use the progression chart as a guide to help you make effective harmonic decisions.



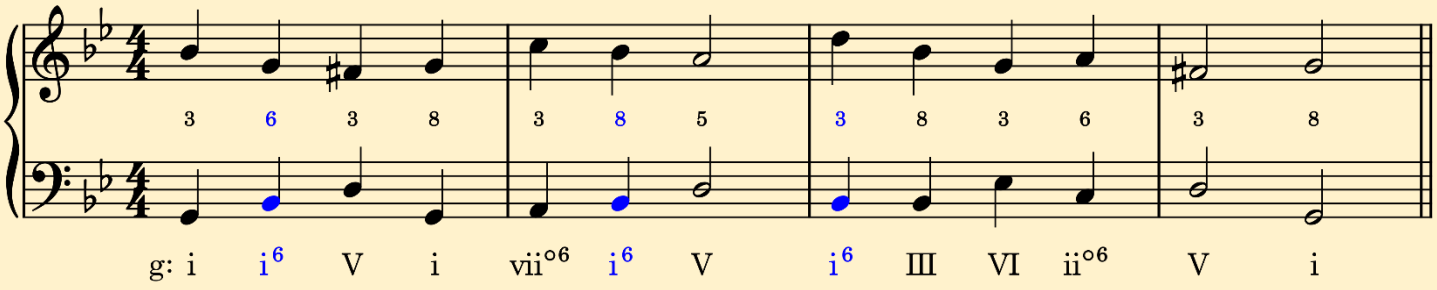
④ Compose the bass line to complement the given soprano melody.

- Carefully inspect the intervals between voices to avoid parallel and direct fifths or octaves.
- In this example, there are contrary fifths from the second bar leading to the third.

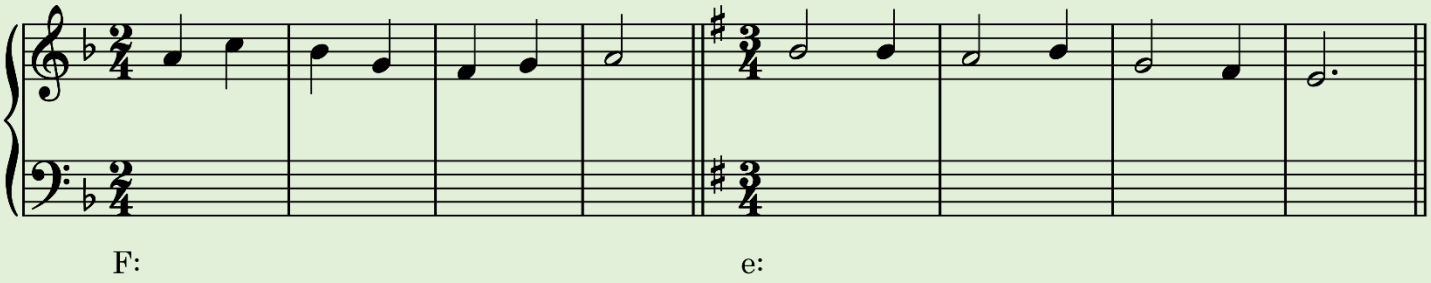


⑤ You can use first-inversion chords to smooth out the bass line and help prevent parallel or direct fifths and octaves between the voices.

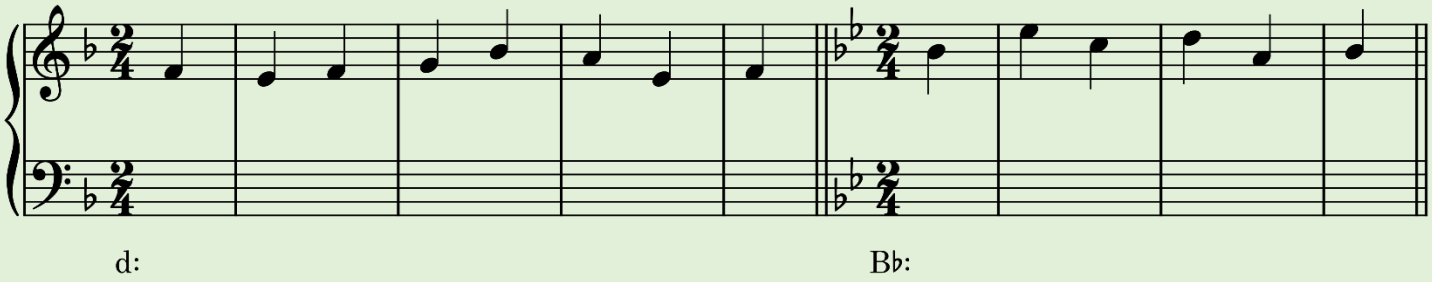
- In the third bar, changing I to I^6 helps avoid contrary fifths.

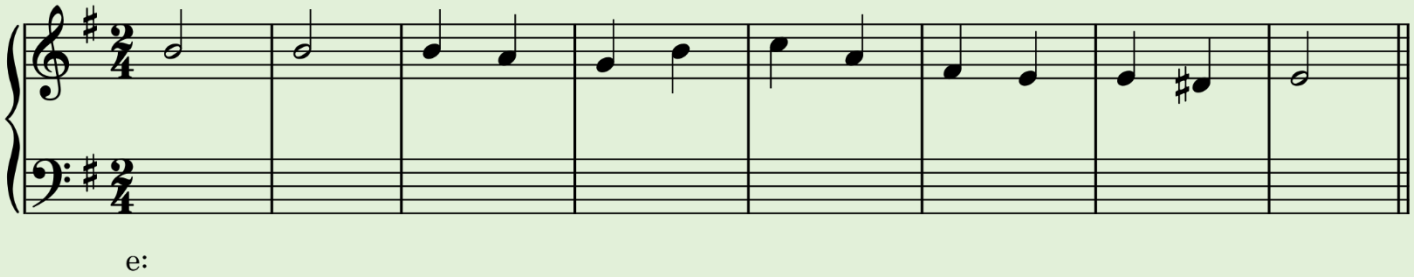


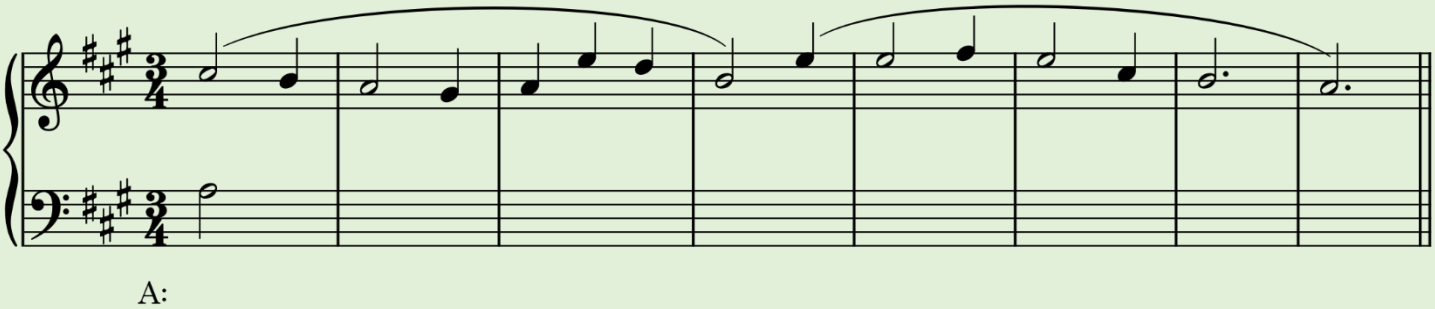
Exercise: Harmonize by composing only the bass line, using the steps you've learned.



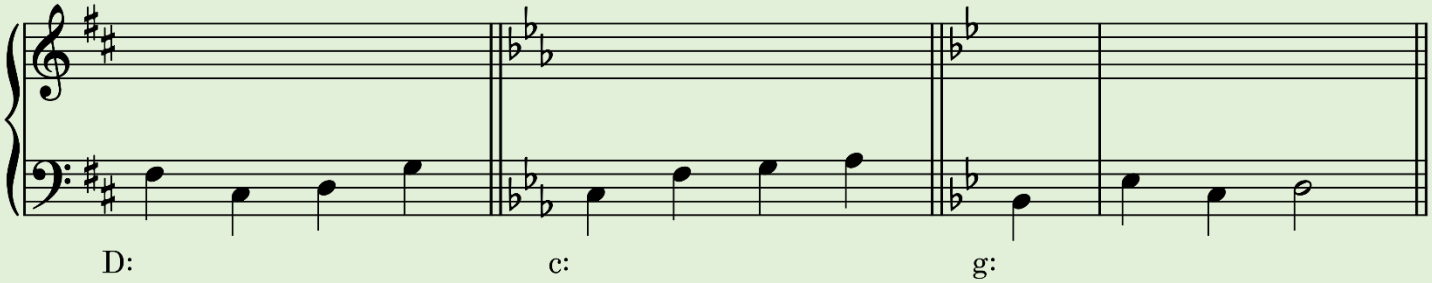
Exercise: Harmonize by composing only the bass line, using the steps you've learned.







Exercise: Begin each exercise by writing the soprano line, then add the inner voices to complete the harmony.

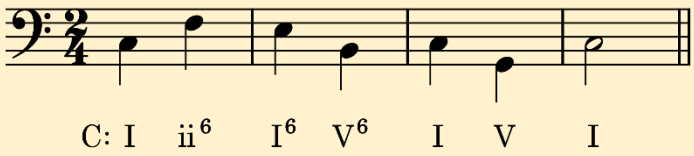


Reading Figured Bass

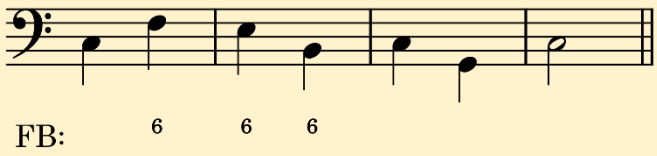
Figured Bass in Major Keys

Developed during the Baroque period, the **figured bass** is a **shorthand method** of indicating harmonies over a given bass line. Compare the two examples in C major below:

① Analysis using Roman numbers.
- Root position chords have no inversion numbers.
- First inversion chords have the numeral "6" attached.



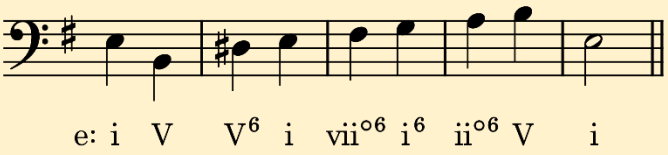
② Analysis using figured bass (FB).
- A blank space indicates a root position chord.
- The numeral "6" indicates a first inversion.



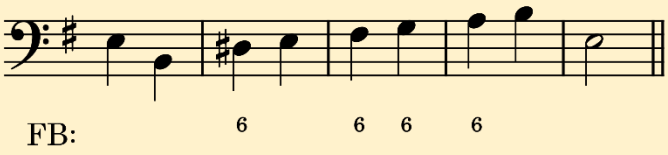
Figured Bass in Minor Keys

These next two examples use the same harmonies, but one's in Roman numerals, the other in figured bass. In minor keys, pay attention to **accidentals and slashed figures**, they're key to decoding the harmony.

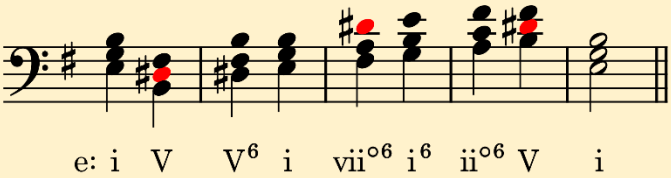
① Analysis using Roman numbers.



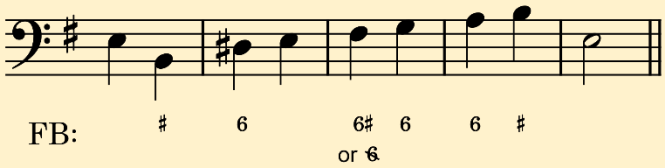
② Start by noting the inversion numbers.



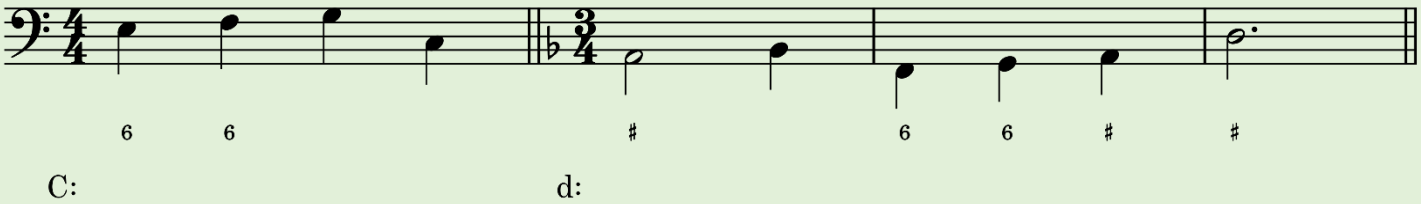
③ With the chord tones revealed.
- Pay attention to where the extra accidentals appear.
- The **leading tone** carries an accidental in minor keys.
- These extra accidentals are to be written in figured bass.



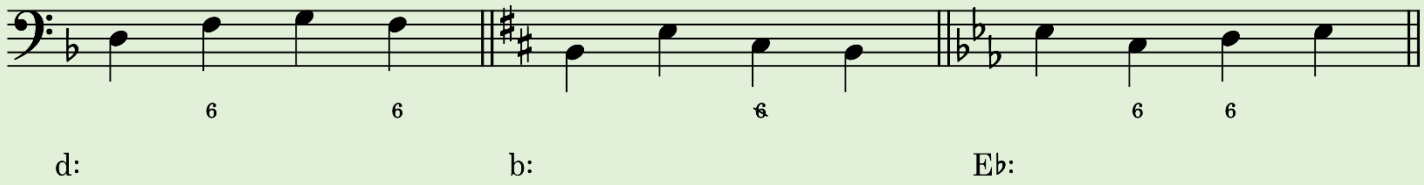
④ Indicate the extra accidentals in figured bass.
♯ = the **third** above the bass has ♯.
6♯ = the **sixth** above the bass has ♯.
~~6~~ = the **sixth** above the bass is **raised by a semitone**.



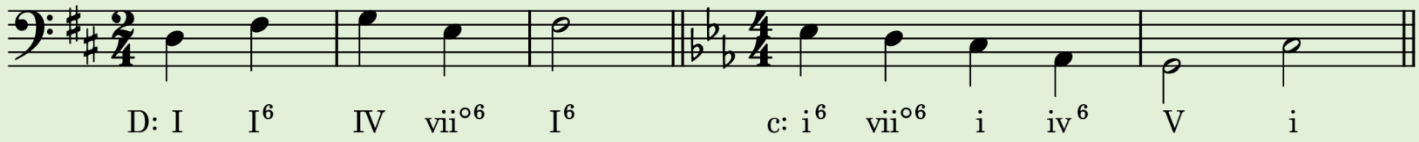
Exercise: Provide a Roman numeral analysis below the figured bass symbols.

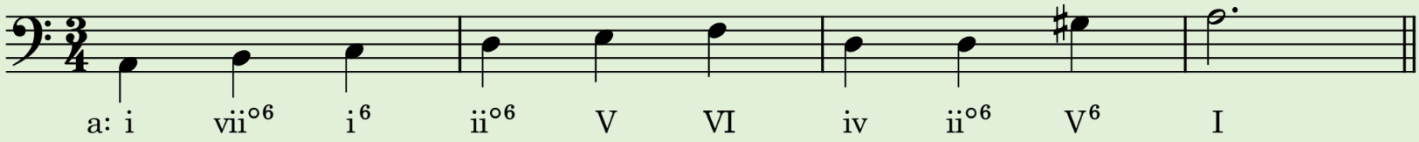


Exercise: Provide a Roman numeral analysis below the figured bass symbols.

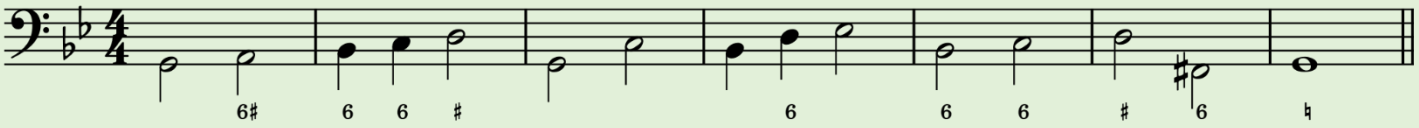


Exercise: Provide figured bass symbols below the Roman analysis.





Exercise: Provide the Roman numeral equivalent for this figured bass line. **Hint:** Notice there's a lone ♮ at the end of the exercise. **<u>All lone accidentals</u>** are given to the **<u>third above the bass</u>**.



REVIEW

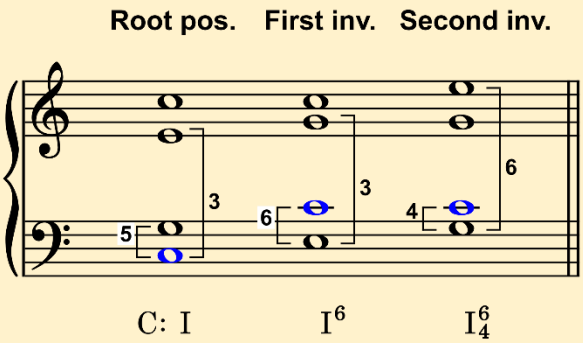
QUESTION	ANSWER
1. What does "6♯" mean in figured bass?	
2. What does a lone ♯ or ♮ mean in figured bass?	
3. What does a "6" mean in figured bass?	

Triads in Second Inversion

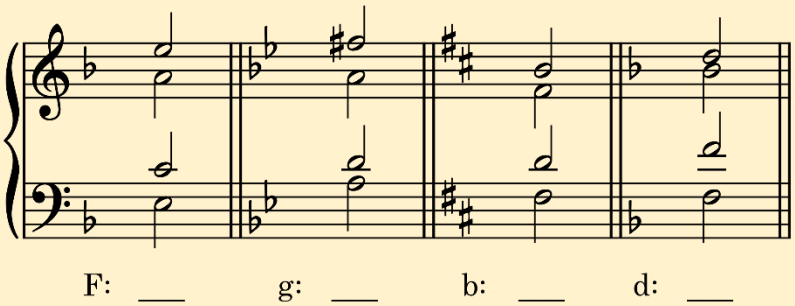
Second Inversion Chords

Second inversion chords are special chords that have specific purposes. Therefore, they **cannot be used as freely** as root position and first inversion chords due to their unstable nature.

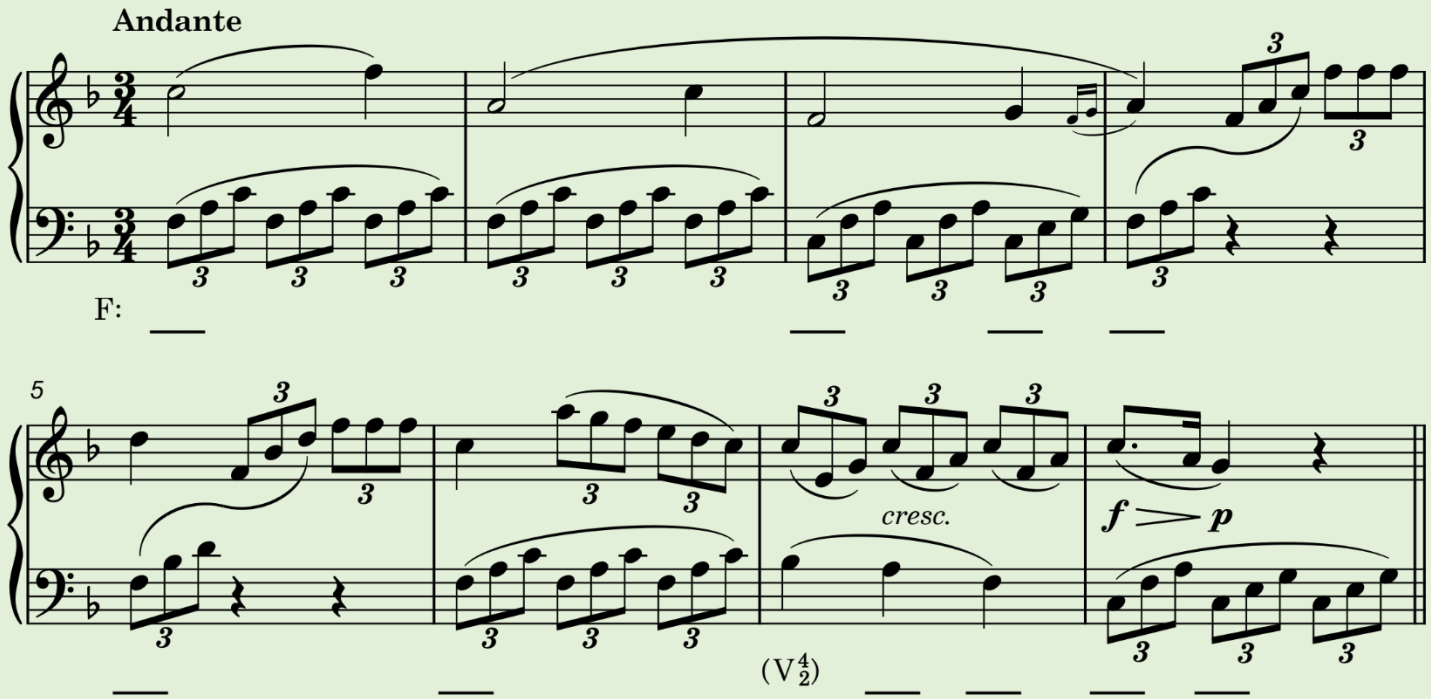
This example demonstrates how a second inversion chord is labelled using Roman numeral analysis.



Exercise: Analyze the following second inversion chords.



Exercise: Label all chords with Roman numerals.



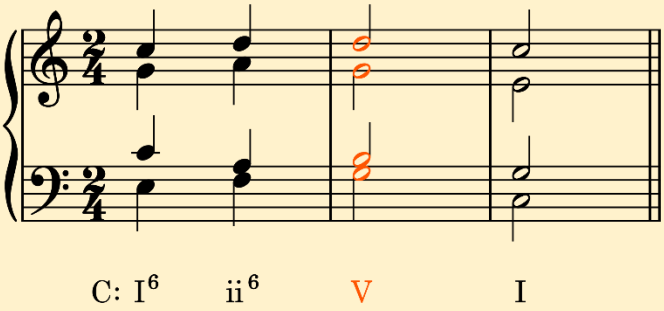
Types of Second Inversion Chords

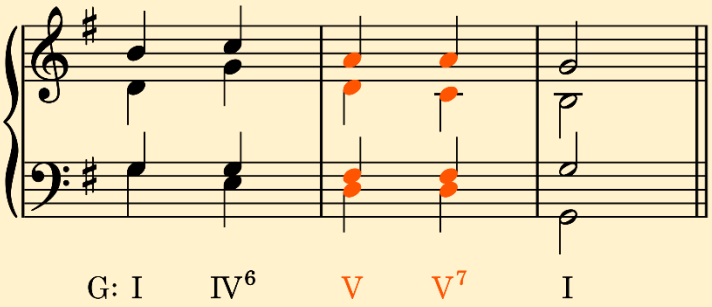
Only four second inversion chord types are typically used in part-writing. We'll spotlight the three most common: ① **cadential tonic** $^6_4$, ② **passing** $^6_4$, and ③ **pedal** $^6_4$.

Cadential Tonic $^6_4$

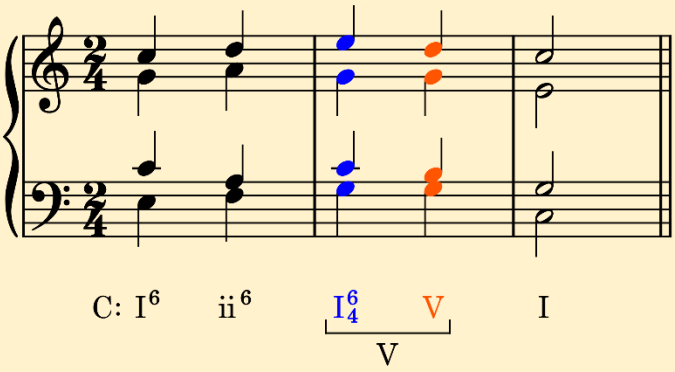
The **cadential tonic** $^6_4$ is used as a typical harmonic approach to a cadence. It is used to **decorate or embellish a V chord**.

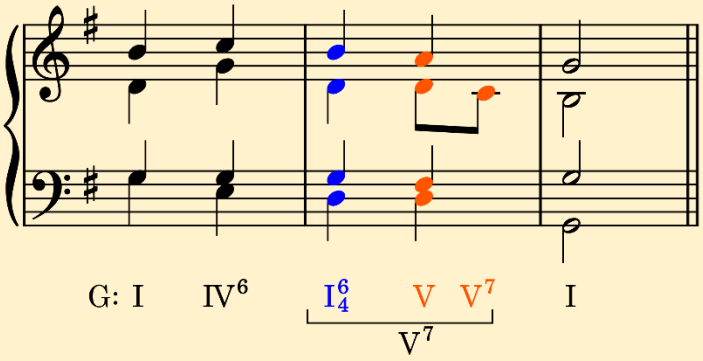
Unembellished dominant.





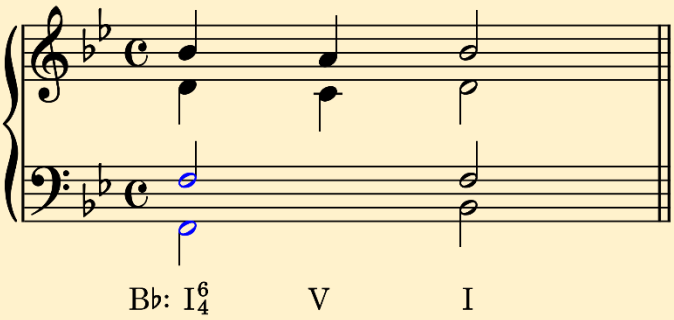
Embellished dominant using the cadential tonic.
• Notice the cadential tonic appears on the stronger beat.



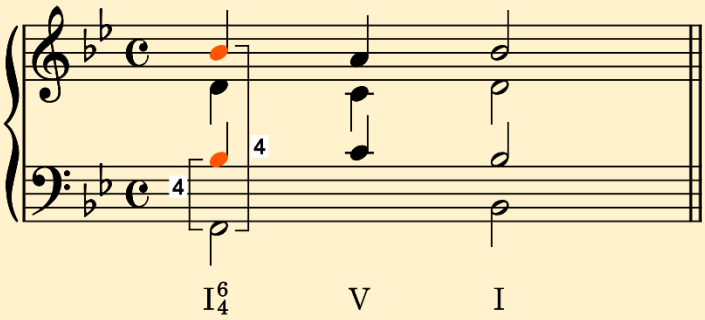


In four-part harmony, the **fifth of the cadential tonic** $^6_4$ **is doubled**. The **fourth above the bass** is dissonant with the bass and **shouldn't be doubled**.

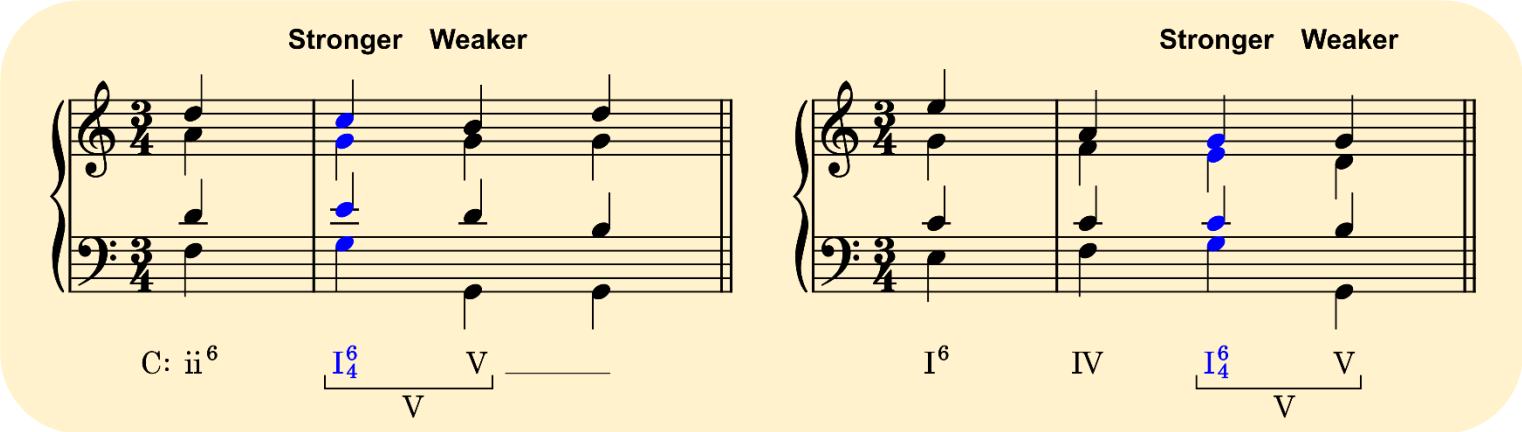
The bass of the cadential tonic is doubled.
• So that the root of the dominant is also doubled.



Avoid doubling the root (the fourth above the bass).
• It is dissonant and should not be doubled.

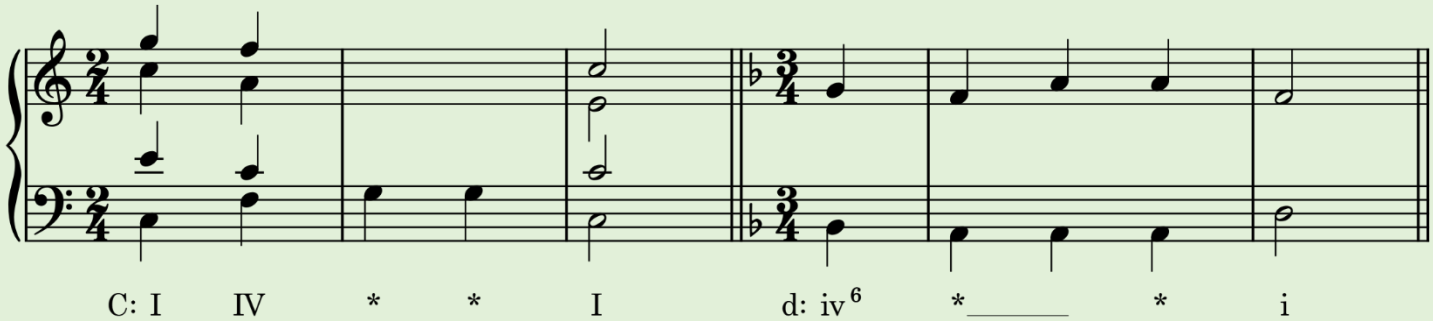


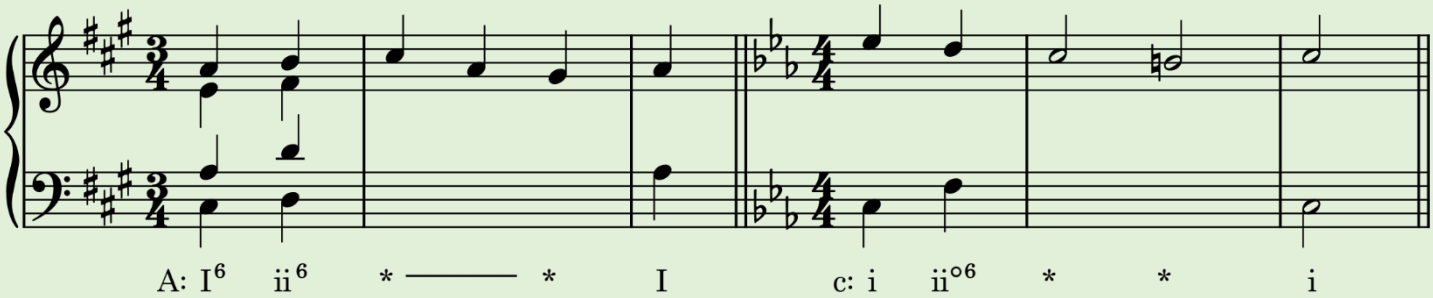
Since it derives from accented embellishing tones that decorate a dominant harmony, a **cadential tonic** $^{6}_{4}$ **must appear on a stronger beat** (or stronger part of the beat) than the V to which it resolves.



Exercise: Complete the four-voice chorale by adding the missing information, including Roman numeral analysis. Ensure that each example contains a **cadential tonic** $^{6}_{4}$.

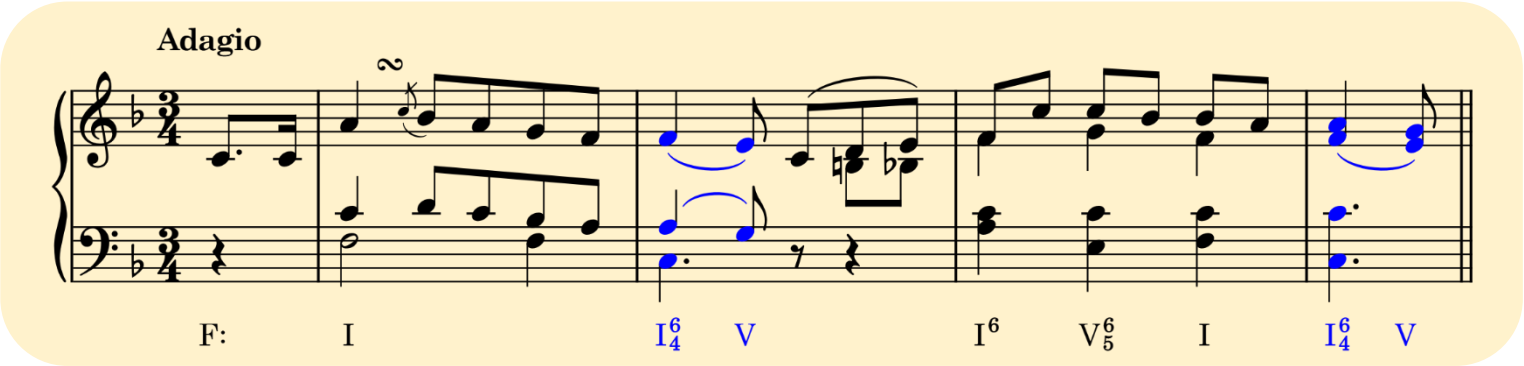
You may find the following steps helpful when deciding where to place it:
① Determine whether the bass sustains the **dominant scale degree** for at least **two beats**.
② Verify if the **first occurrence of the dominant** falls on a **strong beat**.
③ If both conditions are met, insert a **cadential tonic** $^{6}_{4}$.





The **cadential tonic** $^{6}_{4}$ was a popular harmonic formula in the common practice period. There are many examples in the music by Haydn, Mozart, Beethoven, and in the music that came after them.

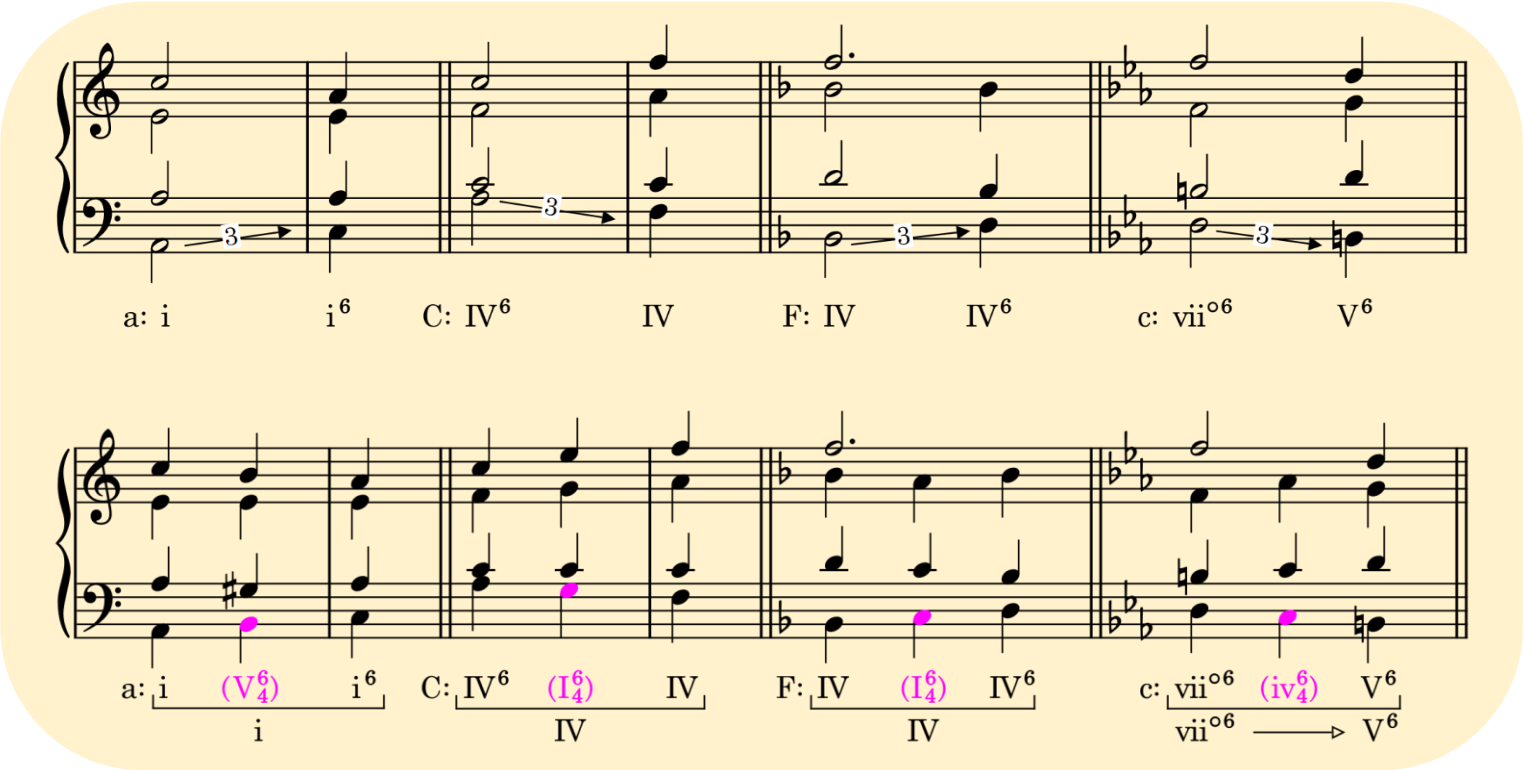
Here is an example from the 2nd movement of Beethoven's Piano Sonata No. 1. The formula is used twice but it is slightly different the second time.



Passing $^{6}_{4}$

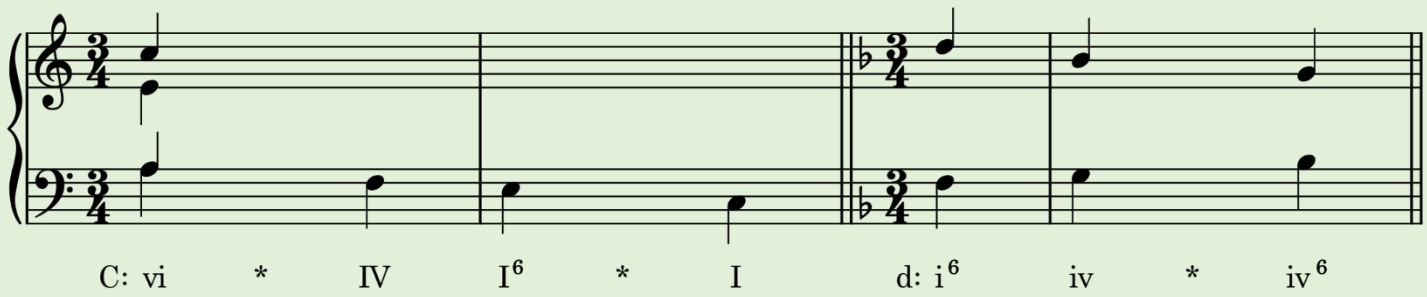
The **passing** $^{6}_{4}$ occurs when the bass line moves stepwise in one direction, either ascending or descending.

It typically serves to **connect two stable harmonies** (in root position or first inversion) that are a **third apart** in the bass. In this chord, the **fifth is doubled** to maintain balance and voice-leading clarity.



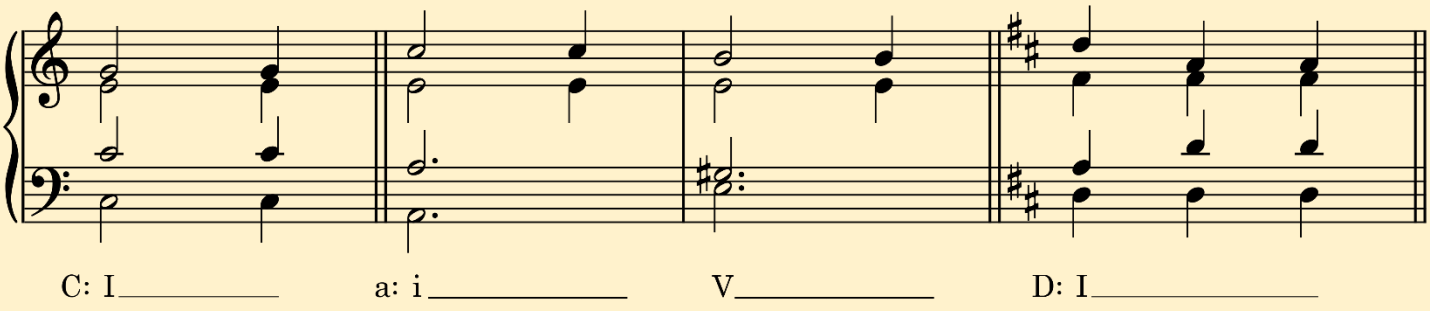
Exercise: Complete the four-voice chorale by filling in the missing elements, including Roman numeral analysis. Each example should feature a **passing** $^{6}_{4}$.

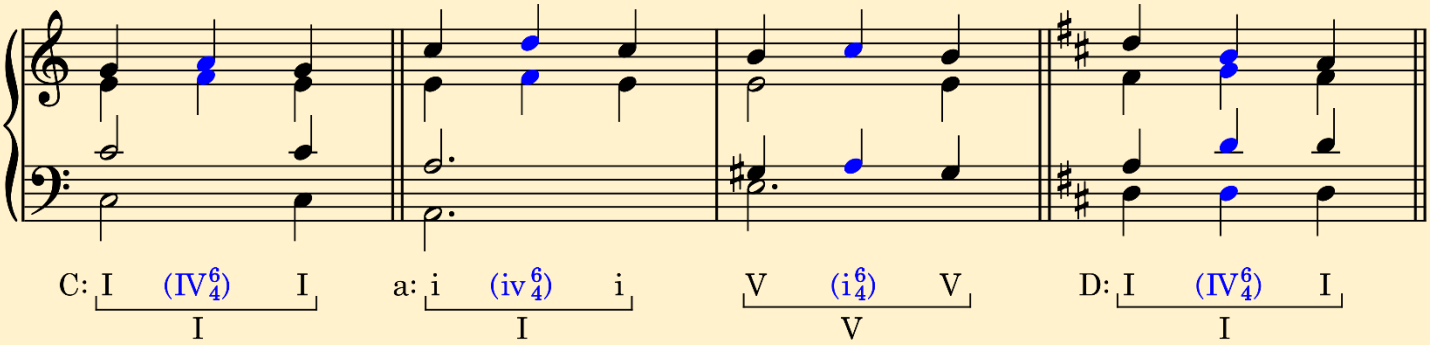
Use the following guide to help determine where to place it:
① Observe whether the bass moves **stepwise (up or down)** across **three consecutive chords**.
② Check that the **first and third chords** are **stable harmonies** (in root position or first inversion).
③ If both criteria are met, insert a **passing** $^{6}_{4}$ between them.



Pedal $^{6}_{4}$

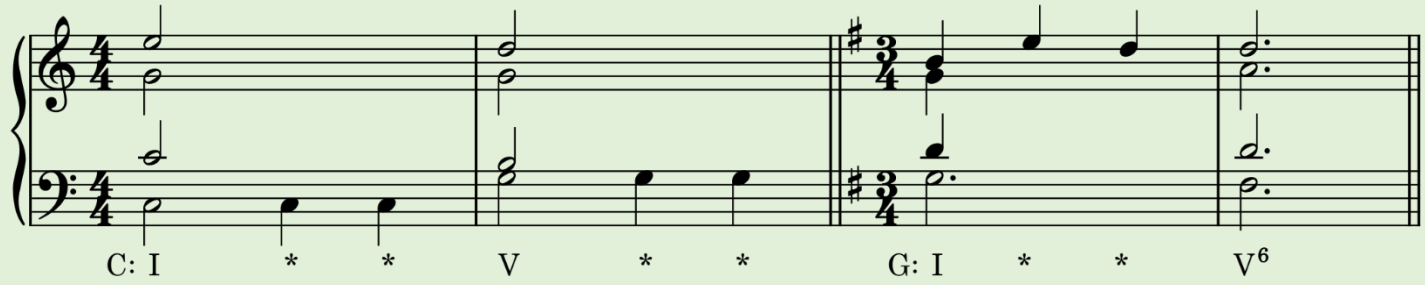
The **pedal** $^{6}_{4}$ **chord** features a **stationary bass** while the upper voices move in neighboring motion. It's used to **decorate a long-held chord**, like the **tonic** or **dominant**, without changing its function. The chord's **fifth** is also **doubled**.



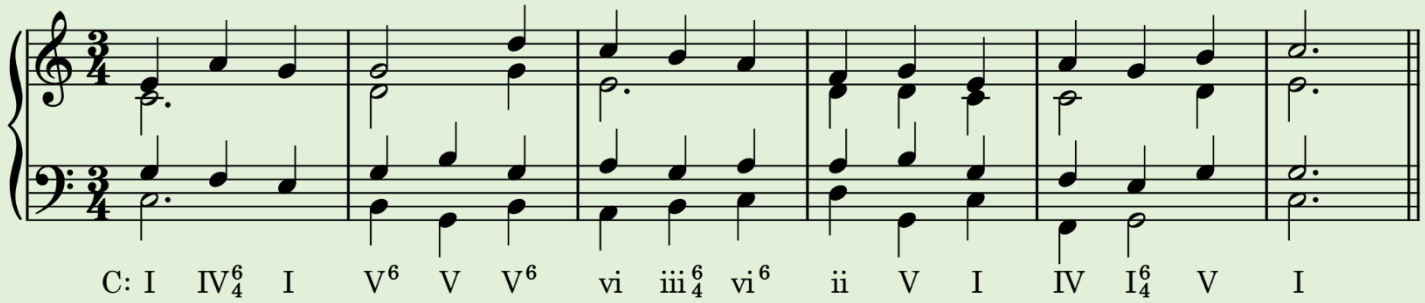


Exercise: Complete the missing parts of this four-part chorale. Add in the correct Roman numeral analysis and be sure to include a **pedal** $^{6}_{4}$ **chord** in each example.

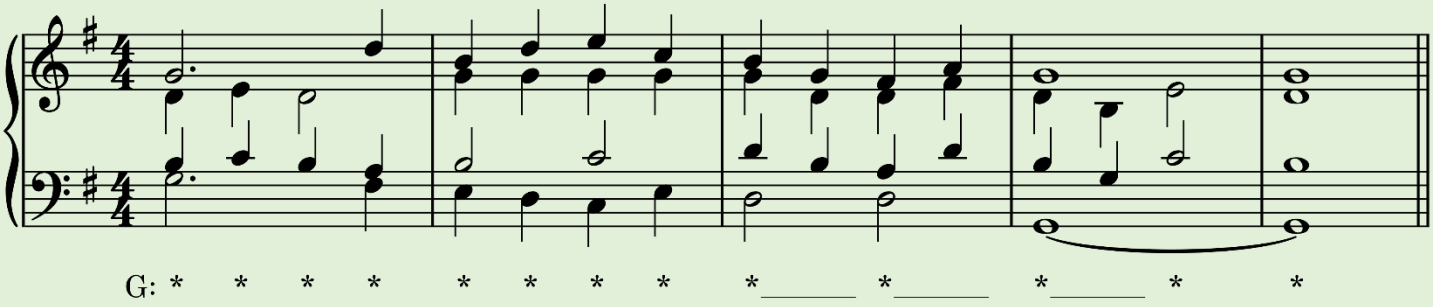
① Look for a spot where the **bass note stays the same** for at least 3 beats.
② Check that the **chords before and after** are **strong, stable chords** (not another $^{6}_{4}$!).
③ If both are true, that's a great place to use a **pedal** $^{6}_{4}$ **chord**.



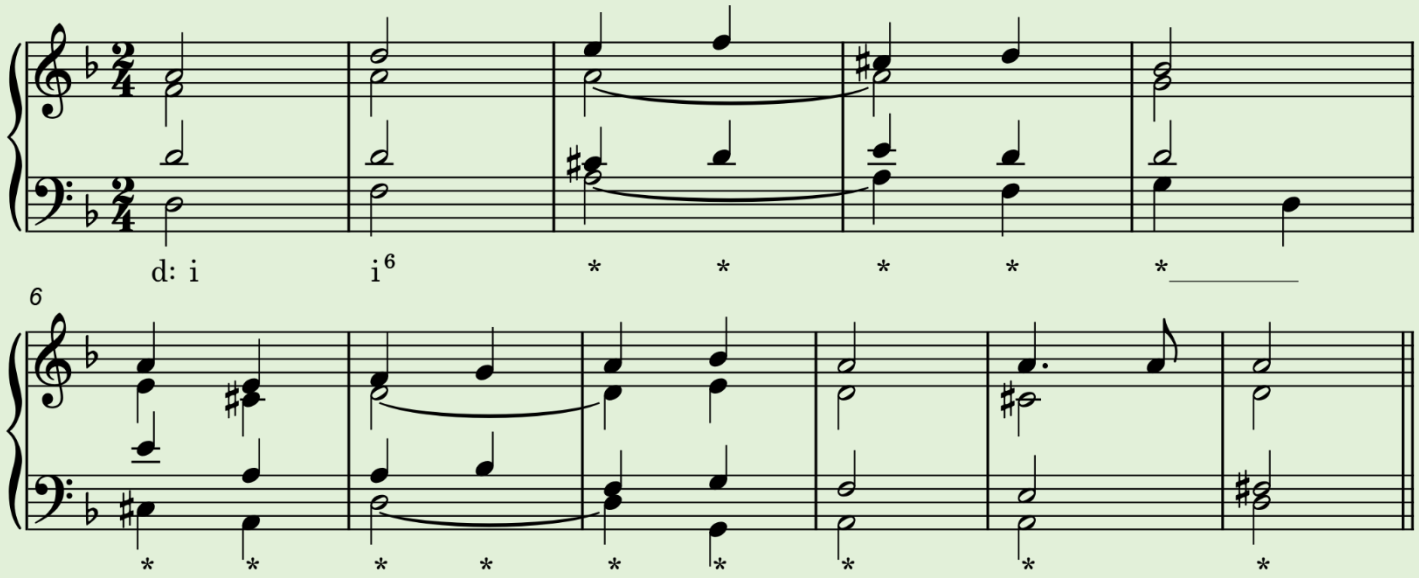
Exercise: Identify all types of second inversion chords in the following chorale.



Exercise: Analyze using Roman numbers and identify all types of second inversion chords in the following chorale.

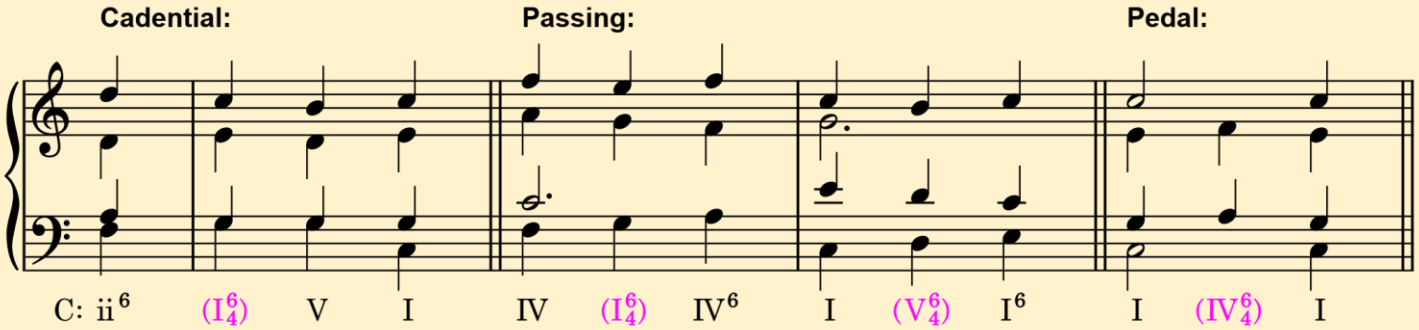


Exercise: Analyze using Roman numbers and identify all types of second inversion chords in the following chorale.



Summary of Second Inversion Chords

Here's a quick summary of the different types of second inversion chords. The cadential $\frac{6}{4}$ and passing $\frac{6}{4}$ are the most common and used most often. The pedal $\frac{6}{4}$ also appears, but it's not quite as frequent.



REVIEW

QUESTION	ANSWER
1. What is the doubling in $\frac{6}{4}$ chords?	
2. Cadential tonic $\frac{6}{4}$ falls on a weaker beat than the chord that follows it. True or false?	

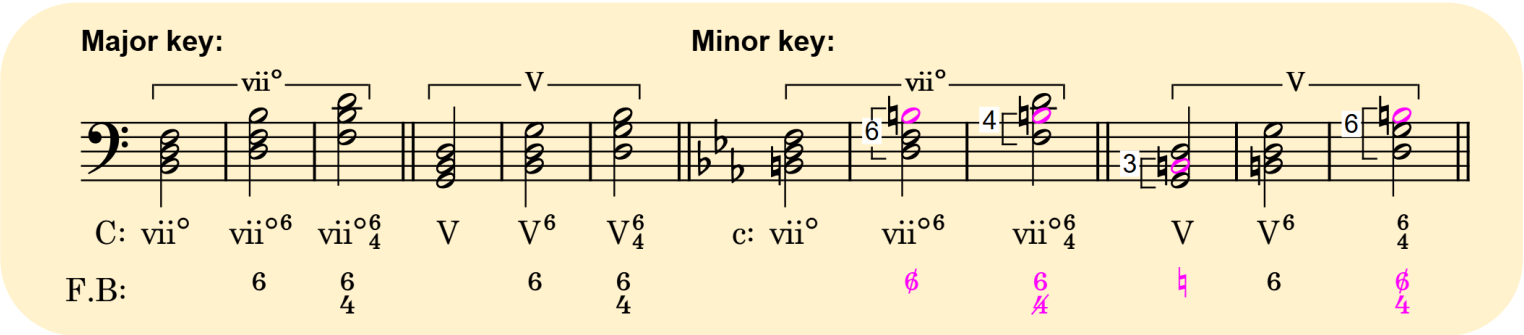
Figured Bass

Writing second inversion chords is simple, **just write** $^{6}_{4}$ in the figured bass to show the inversion. Look at the examples below of vii° and V chords written in root position, first inversion, and second inversion.

In **major keys**, figured bass is usually **straightforward**, there are no added accidentals since the key signature takes care of everything.

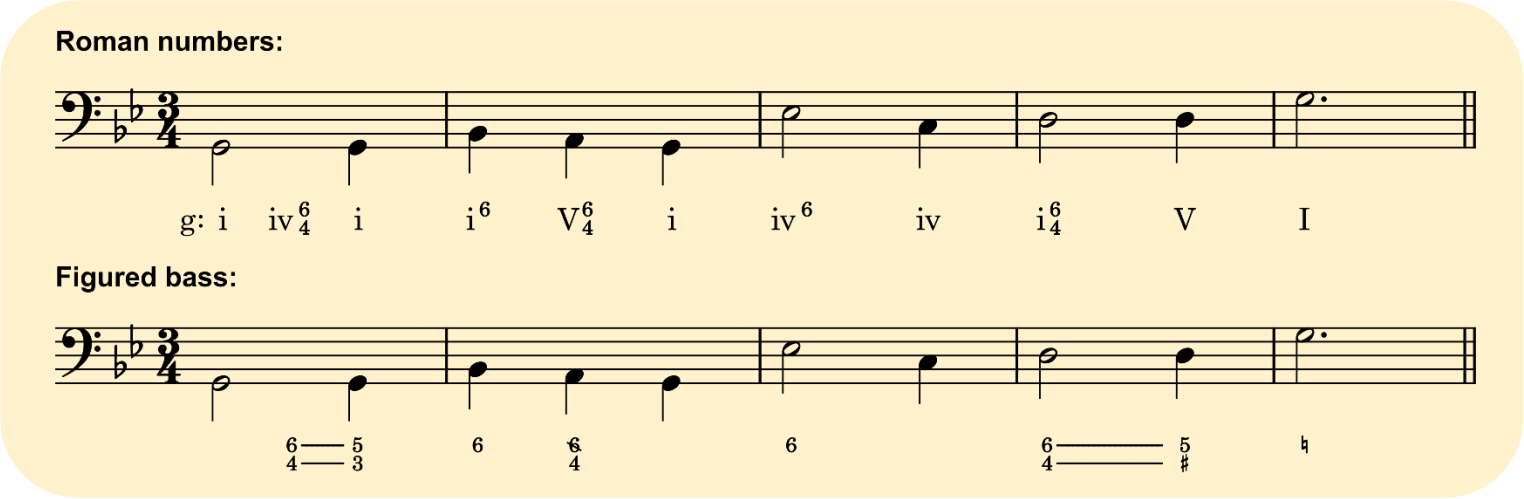
In **minor keys**, be extra careful! **Accidentals** often show up outside the key signature, especially for the **leading tone** (the raised $\hat{7}$).

✅ **Tip to remember:** Always apply the rules for writing accidentals in figured bass so your chords sound correct!

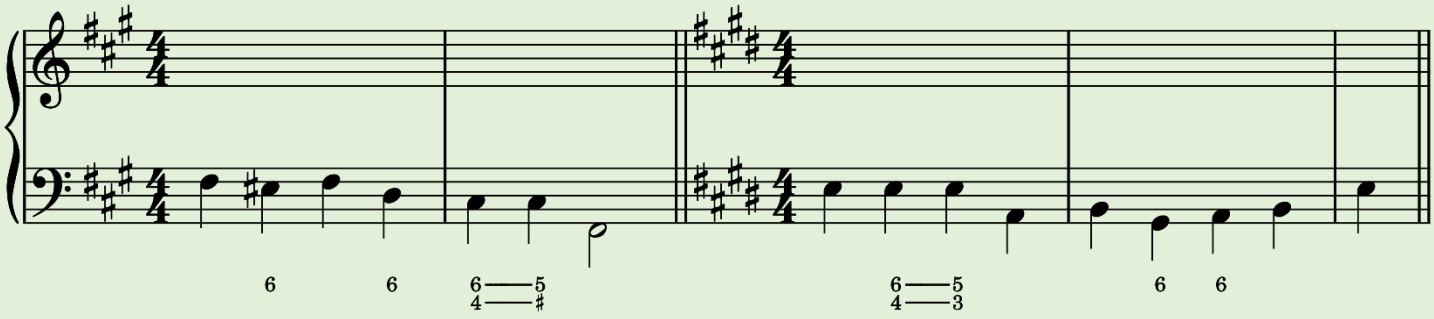


We usually leave root position chords blank in figured bass because the 5th and the 3rd above the bass are assumed.

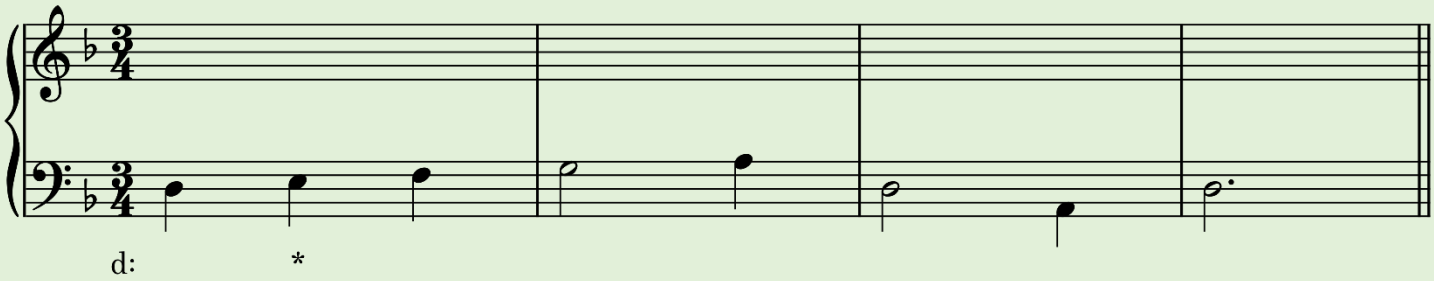
But if a $^{6}_{4}$ chord comes right before it and the bass note stays the same, we show the change in intervals by writing $^{6-5}_{4-3}$. This helps show that the upper voices are moving, even though the bass doesn't.

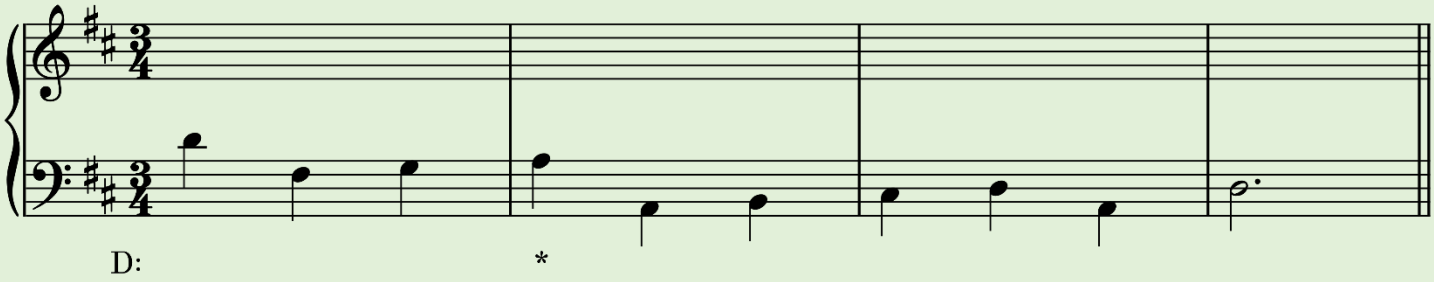


Exercise: Complete the exercise in four-part harmony, following the voice-leading rules. Be sure to write the correct Roman numeral analysis underneath the figured bass.

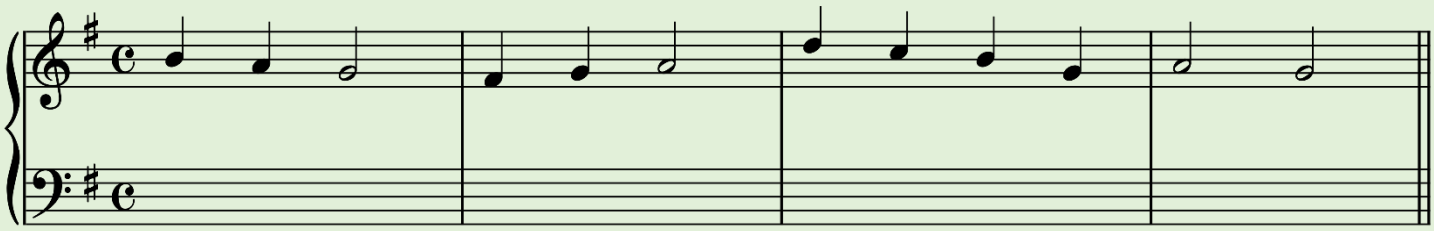


Exercise: Create a strong chord progression, then write a soprano line that fits and works well with the bass. Add alto and tenor parts to complete four-part harmony. Be sure to include a $\frac{6}{4}$ chord under each asterisk.





Exercise: Harmonize the melody in four parts and be sure to include at least one $\frac{6}{4}$ chord.



Nonharmonic Tones

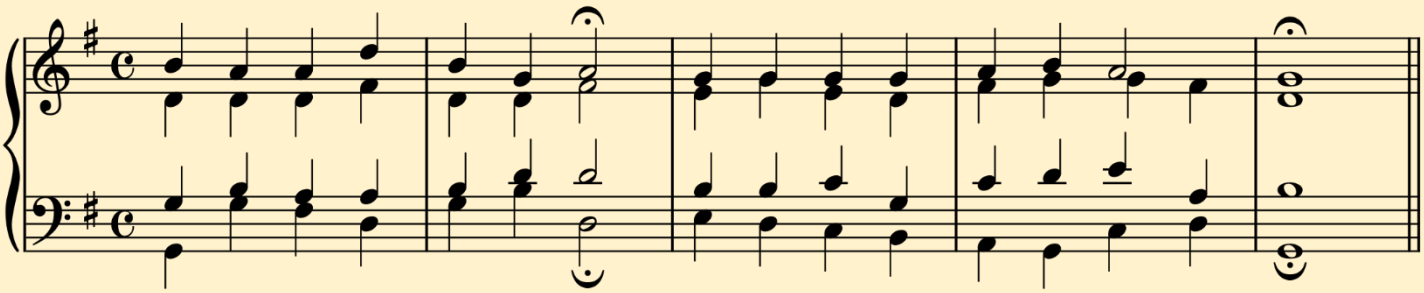
Nonharmonic Tones

Nonharmonic tones (also called non-chord tones) are notes that **don't belong to the underlying chord** but are used to create tension, motion, or expressive color in music. Most nonharmonic tones are **dissonant** and create intervals of a **2nd, 4th, or 7th**.

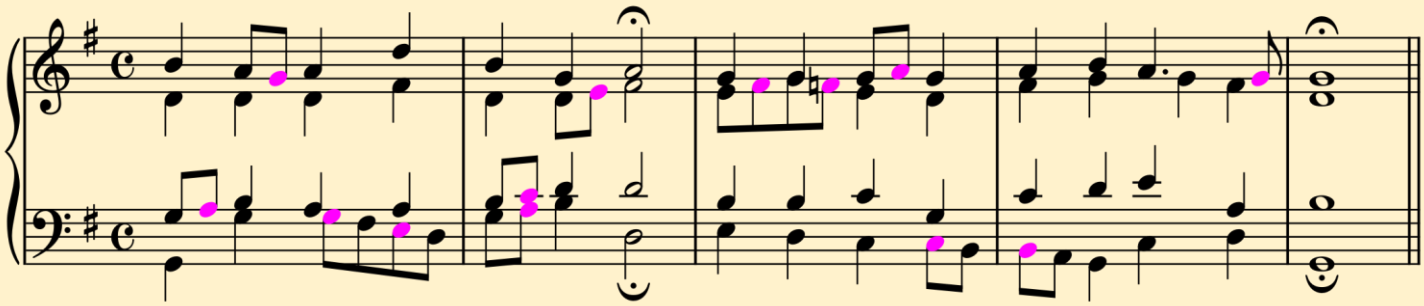
Non-harmonic tones generally occur in a pattern of three pitches:

①	②	③
Preceding tone (chord tone)	**Nonharmonic tone (non-chord tone)**	Following tone (chord tone)

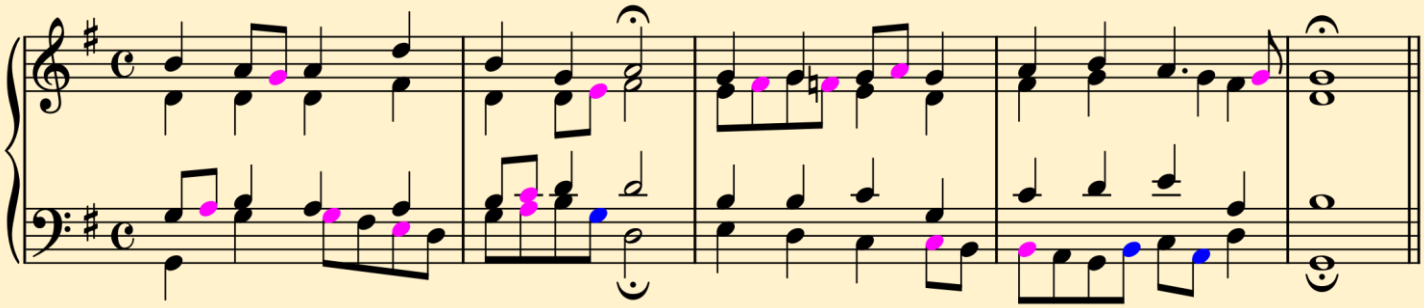
Example showing only chord tones:



Same example with nonharmonic tones added:



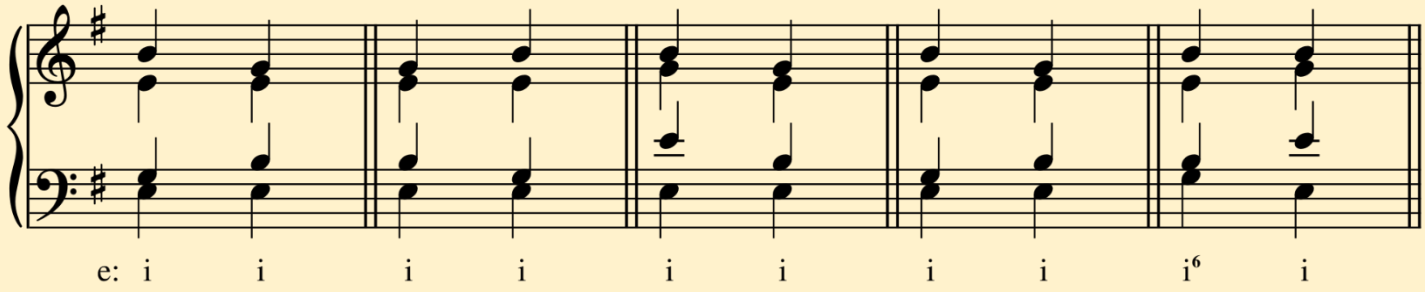
Same example with chordal skips (arpeggiations) added:
Chordal skips are not nonharmonic tones because they belong to the underlying chord.



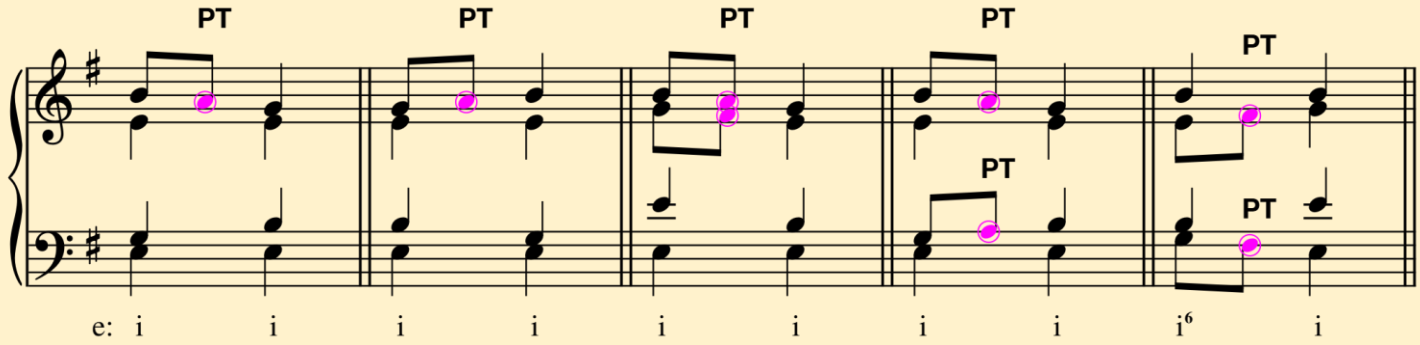
Passing Tones

Passing tones are among the most used nonharmonic tones. They occur between **two chord tones a 3rd apart**, connecting them through **stepwise motion in one direction**.

Unembellished version:

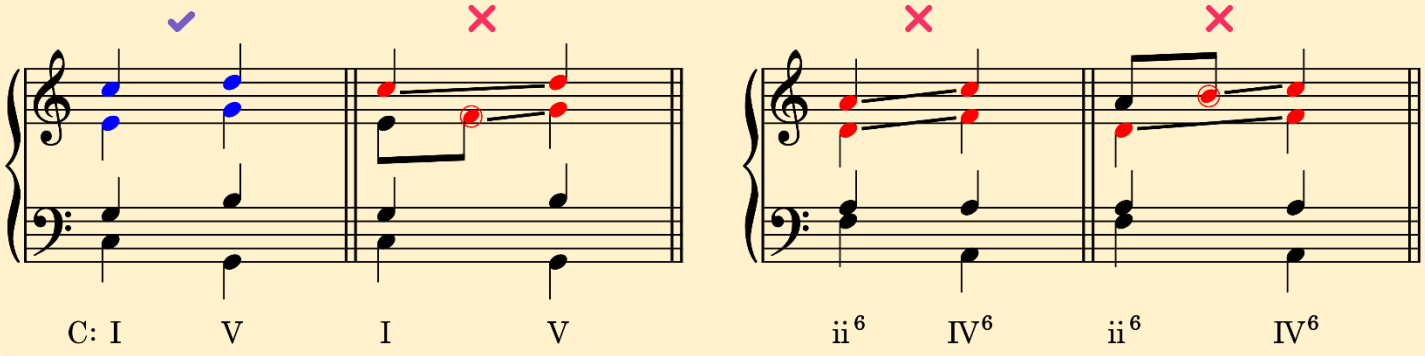


Embellished version with passing tones:

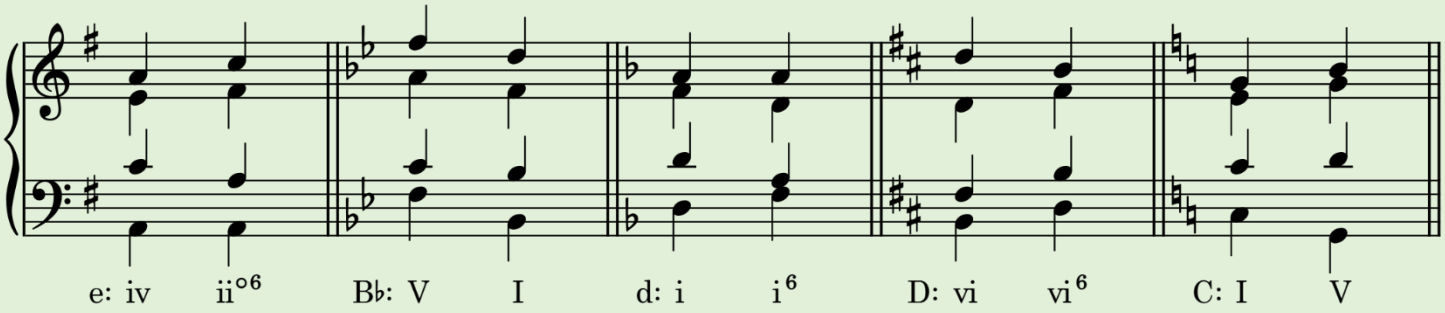


Parallel Fifths and Octaves

When writing passing tones, make sure that it does not result in **parallel fifths or octaves**. Passing tones also **do not hide** existing parallel fifths or octaves.

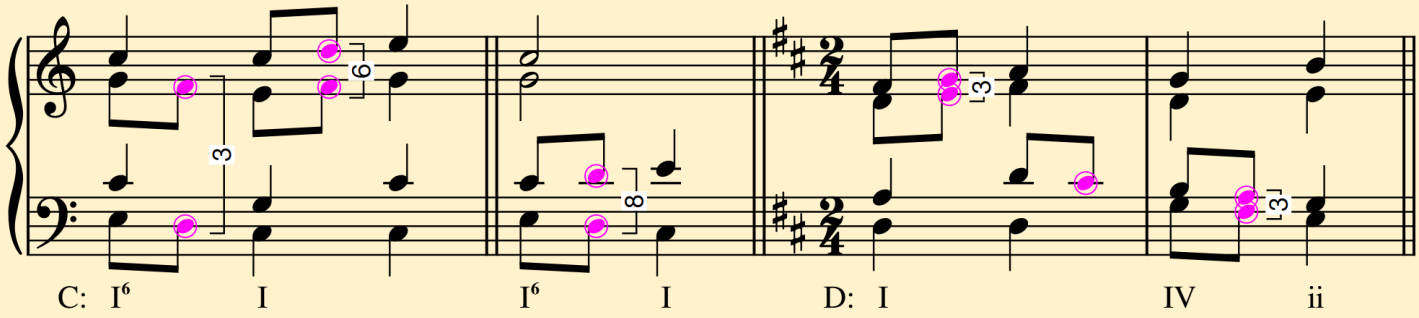


Exercise: Add only one passing tone to each measure.

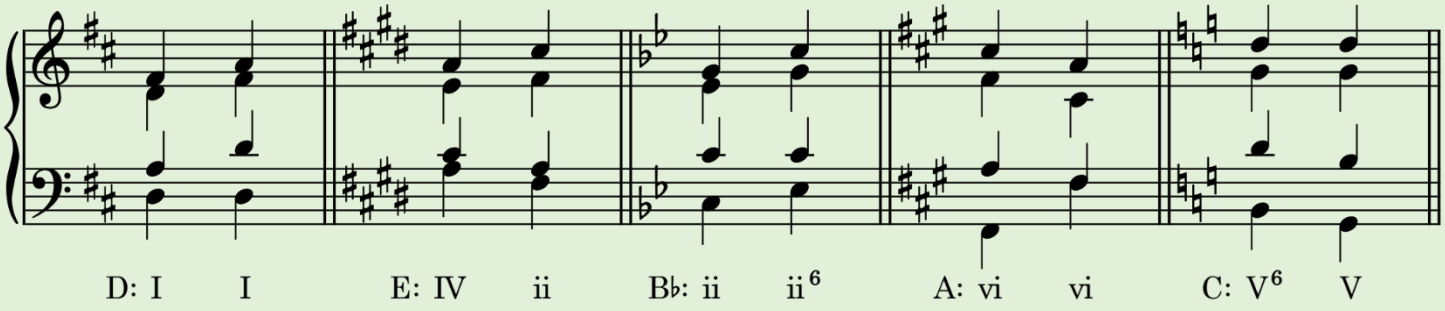


Simultaneous Passing Tones

When writing simultaneous passing tones, make sure that they are **consonant** with each other. Consonant intervals include unison, 3rd, 5th, 6th, and octave. The reason is to **prevent harmonic clashes**.

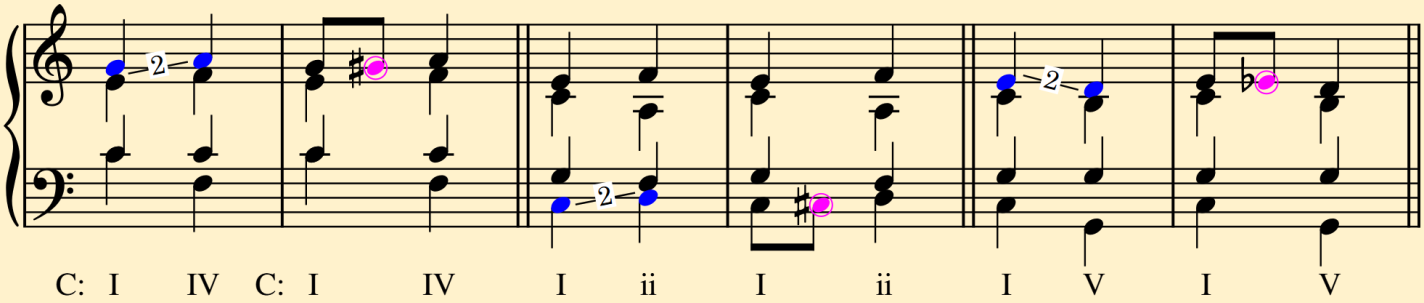


Exercise: Add two simultaneous passing tones to each measure.

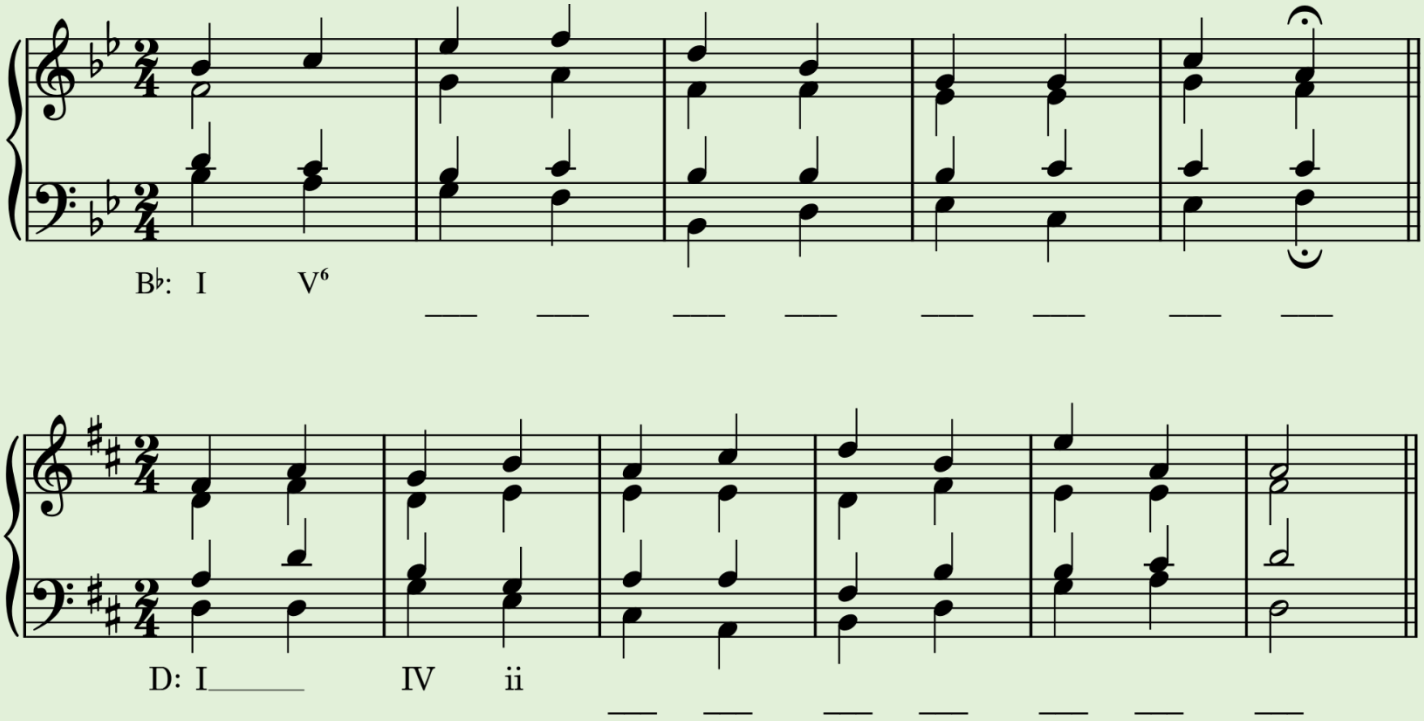


Chromaticism

Chromatic passing tones can also be used to connect notes a **second apart** in either direction, though they should be applied sparingly.



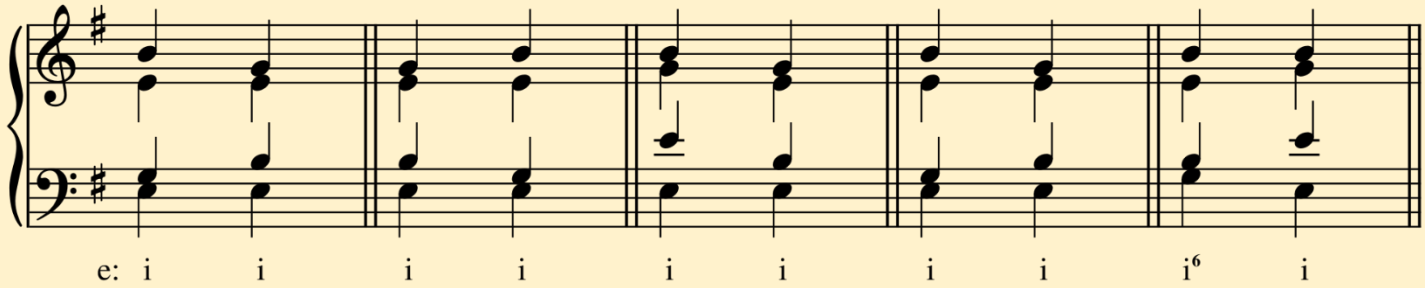
Exercise: Analyze the following chorales using Roman numeral notation and incorporate passing tones where appropriate. Ensure that their use does not introduce objectionable parallel intervals.



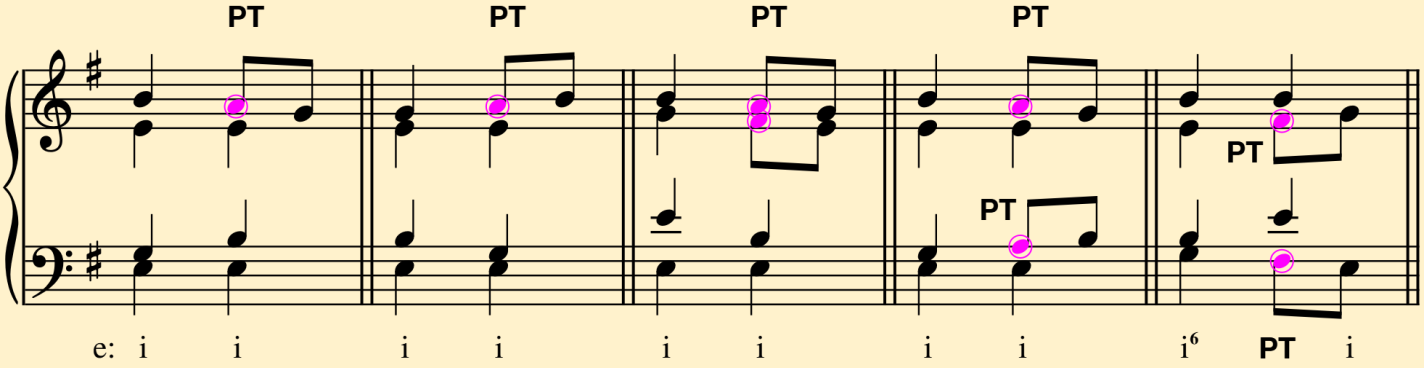
Accented Passing Tones

Accented passing tones can also enhance the expressiveness of chorales by introducing **dissonance on strong beats**, making the harmonic texture more engaging and dynamic.

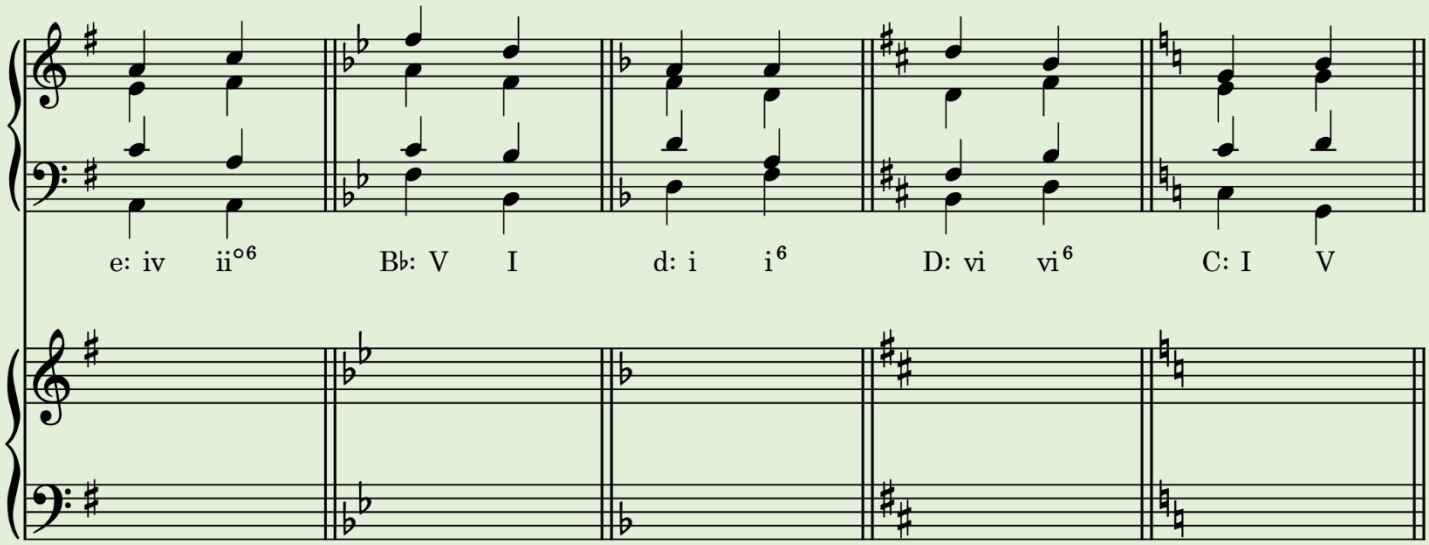
Unembellished version:



Embellished version with accented passing tones:

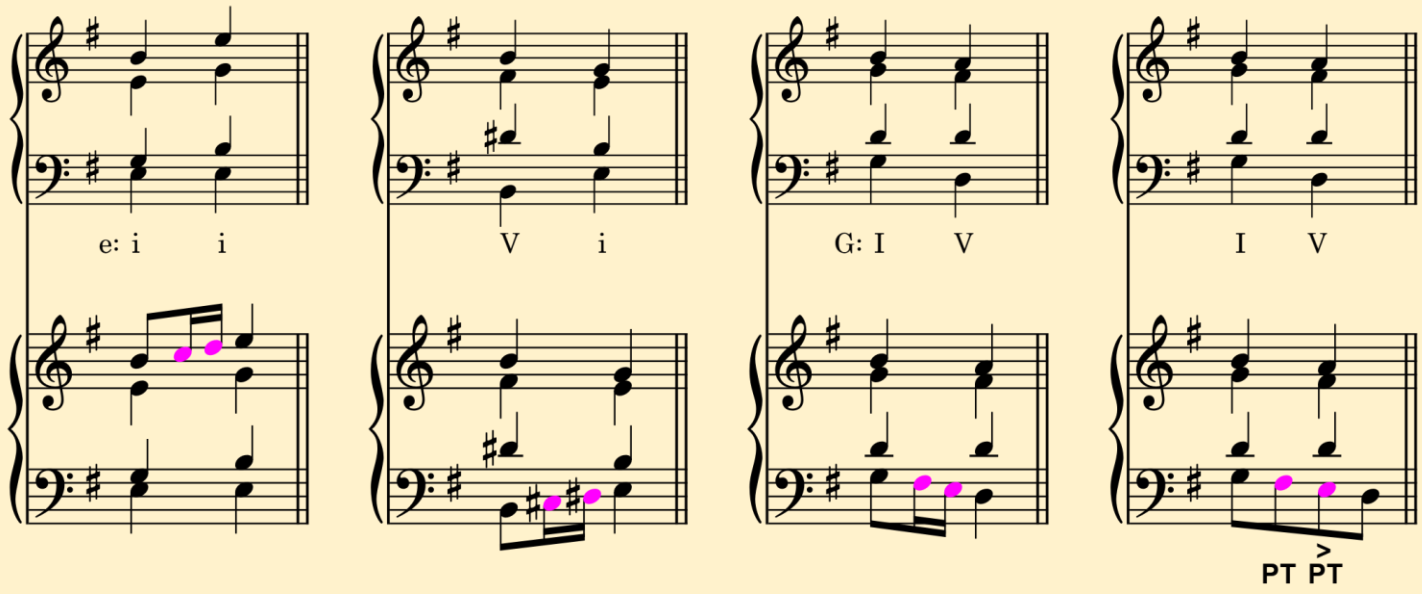


Exercise: Add one or two accented passing tones at the same time in each measure. If you do, make sure they create consonant intervals between the voices.

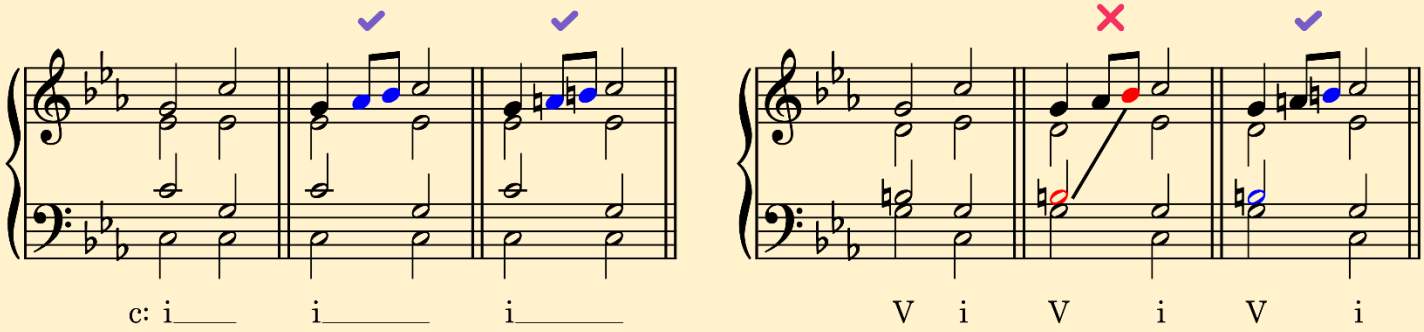


Passing Tones in Succession

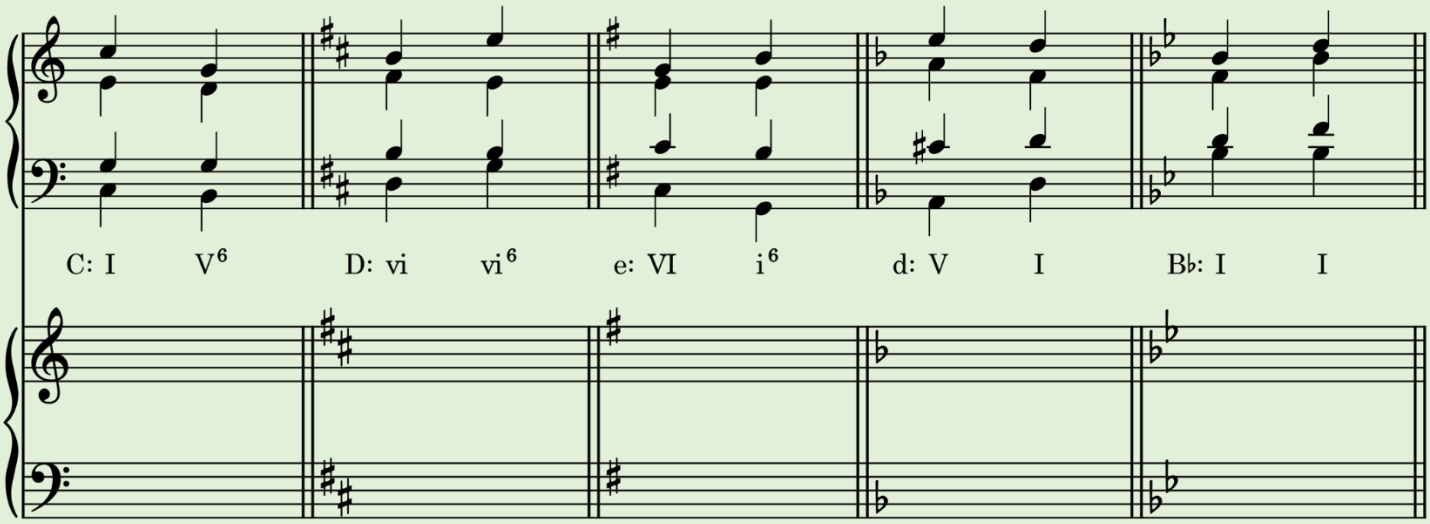
You can use multiple passing tones in succession to **connect notes that are a wider interval apart**, such as a 4th. These can include a **mix** of unaccented and accented passing tones (see examples below).



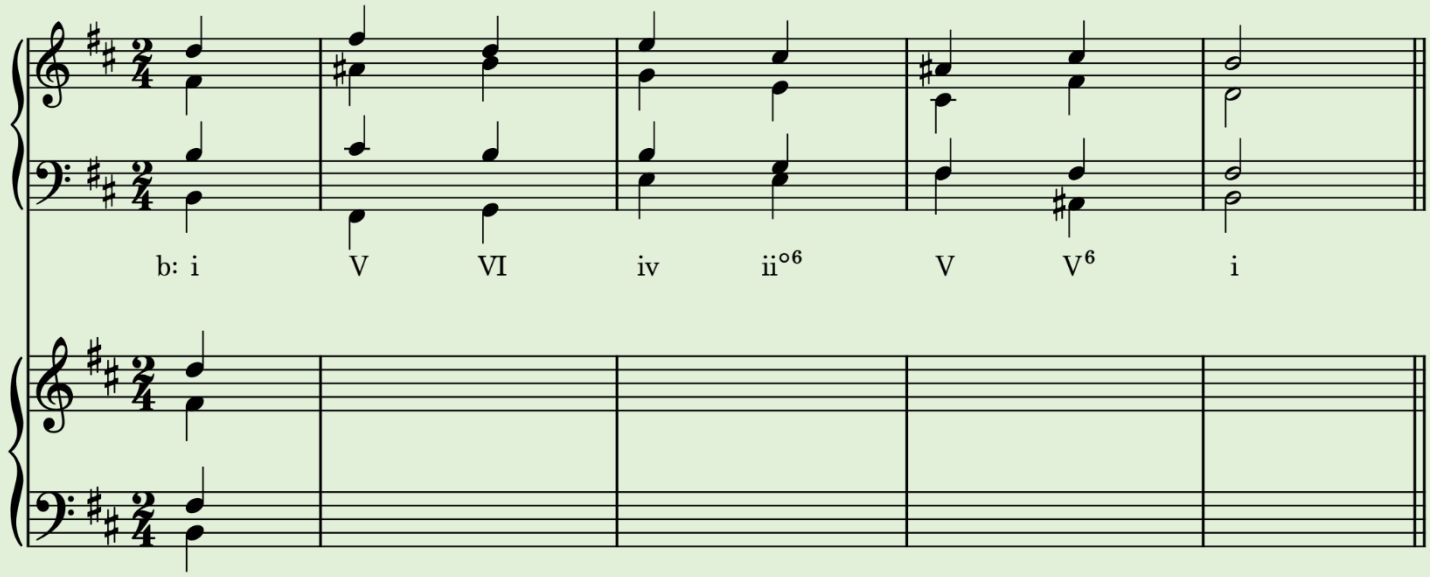
IMPORTANT: When writing successive passing tones ascending from $\hat{5}$ to $\hat{1}$ in minor keys, consider using the **<u>ascending melodic minor form</u>**, especially in progressions like V–i.



Exercise: Add successive passing tones for each measure.



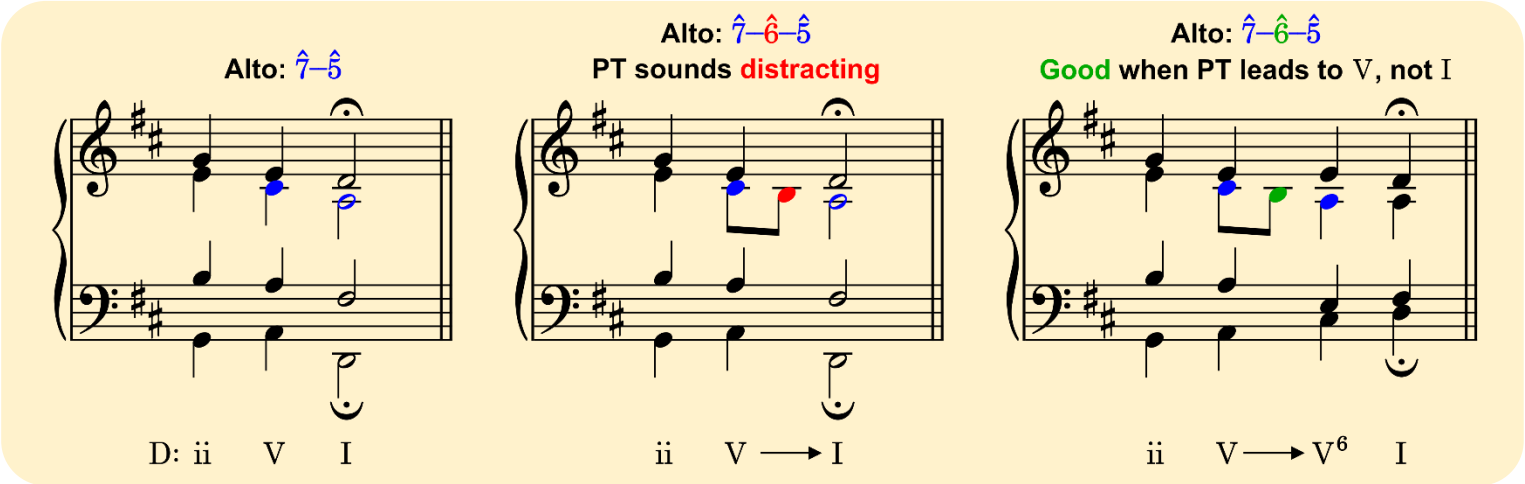
Exercise: Add passing tones to the existing chorale. Do you see places where you can have more than one passing tone in a row? Be careful with creating parallel fifths or octaves.



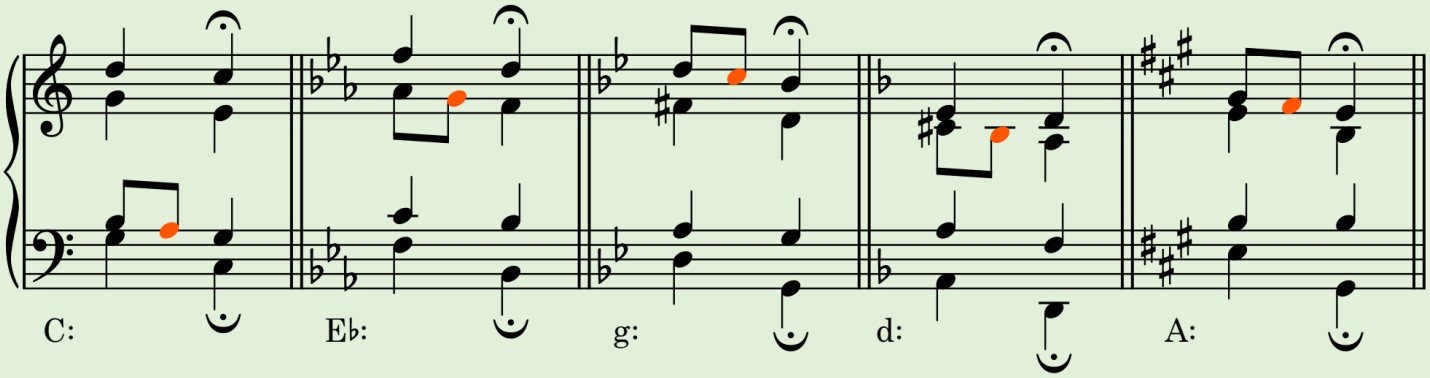
Passing Tones at a Perfect Cadence

At the end of a phrase with a perfect cadence (V–I), **<u>avoid adding a passing tone between scale degrees $\hat{7}$ and $\hat{5}$</u>**.

The leading tone ($\hat{7}$) naturally resolves upward to the tonic ($\hat{1}$), and introducing a descending motion to $\hat{5}$ can disrupt this resolution, making the cadence feel awkward.



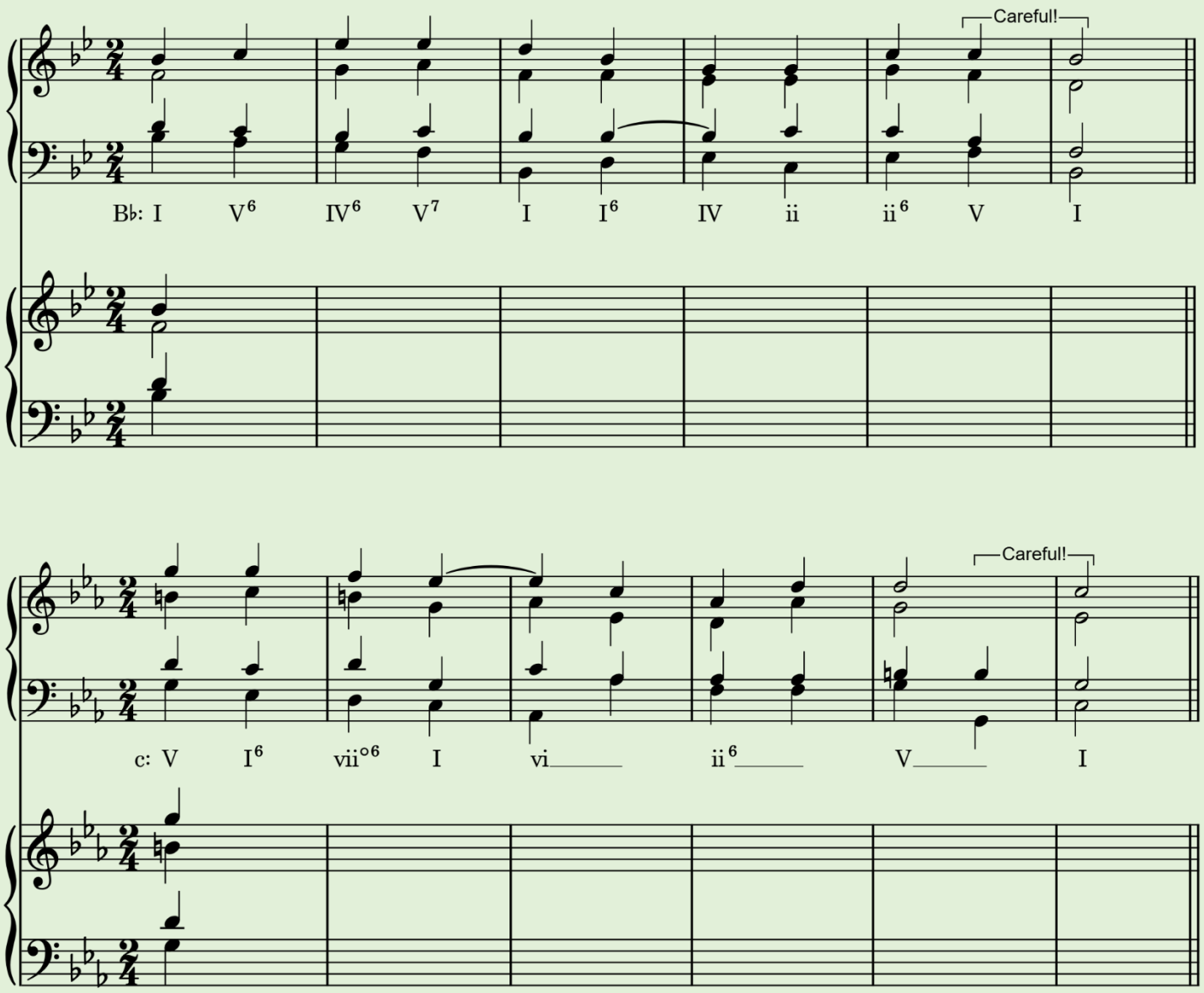
Exercise: In the following cadence excerpts, determine whether the passing tones are used appropriately. Provide your reasoning and be sure to analyze the underlying harmonic progressions where necessary.



REVIEW

QUESTION	ANSWER
1. What is the difference between successive and simultaneous passing tones?	
2. What is a chromatic passing tone?	

Exercise: Embellish the chorale below by adding passing tones. You may include simultaneous passing tones when they form consonant intervals between voices. **<u>Be mindful of the cadence at the end</u>**, while a passing tone might seem fitting, it could weaken the harmonic resolution if placed incorrectly.



REVIEW

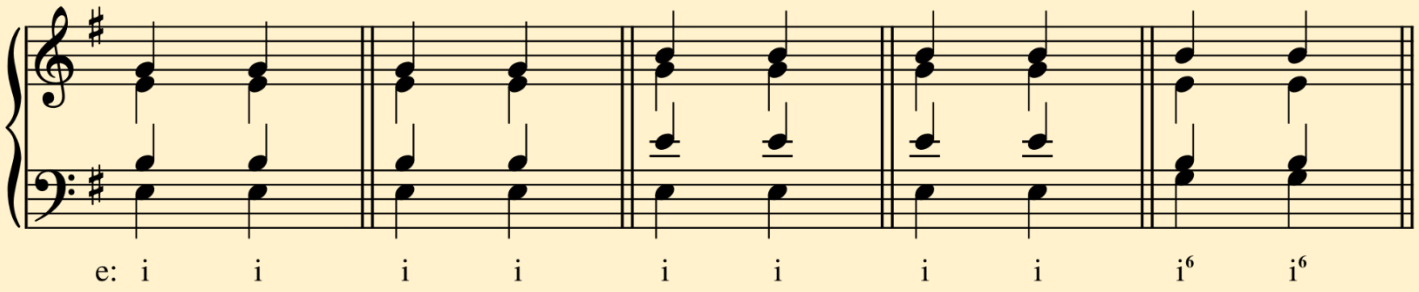
QUESTION	ANSWER
1. What is the difference between unaccented and accented passing tones?	

Neighbor or Auxiliary Tones

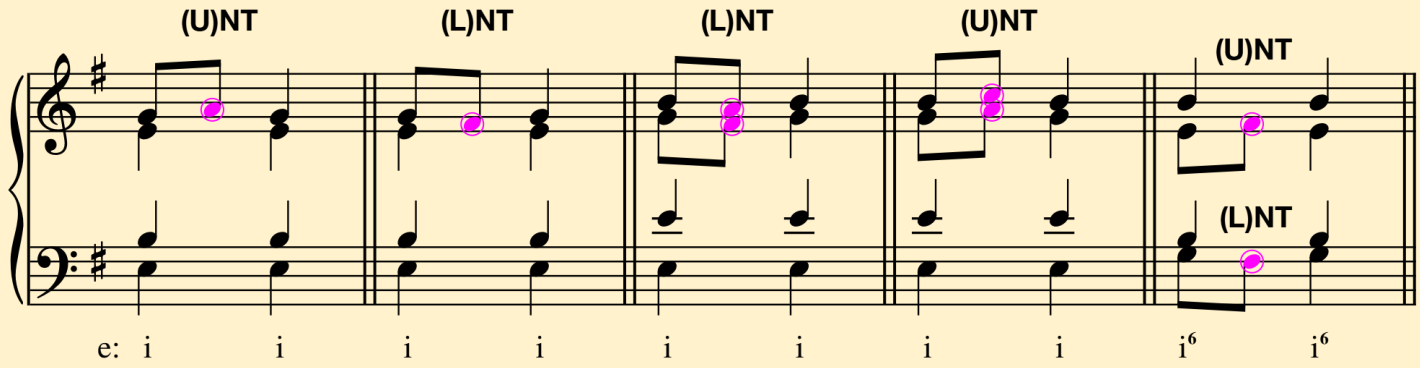
Like passing tones, neighbor (or auxiliary) tones are among the most common non-harmonic tones. They add **movement between repeated notes** by **stepping away and back** in a **zigzag motion**.

Neighbor tones can be **unaccented** (landing on a weak beat) or **accented** (landing on a strong beat).

Unembellished version:

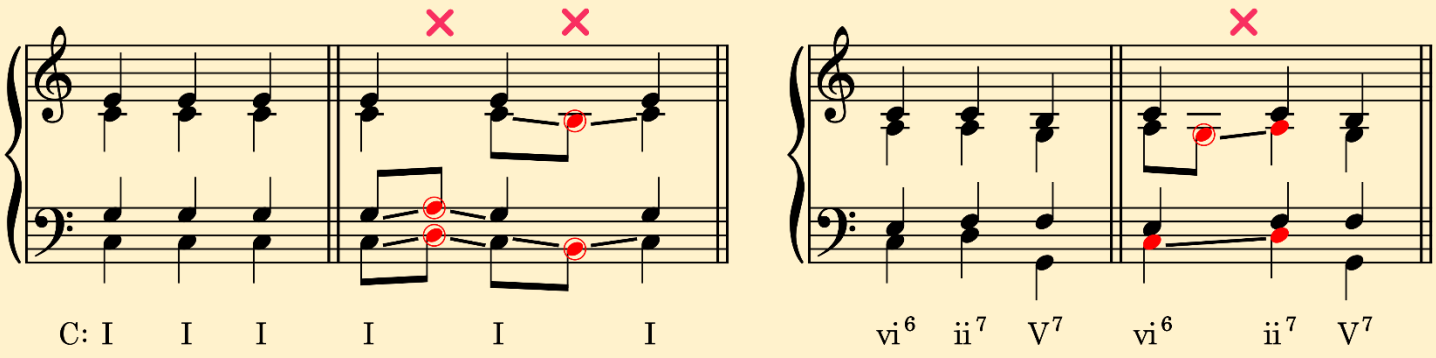


Embellished version with (upper and lower) neighbor tones:

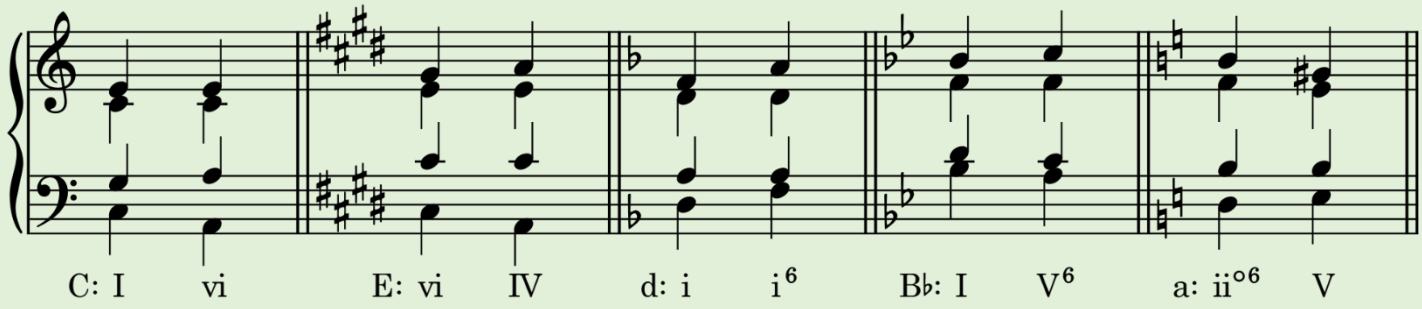


Parallel Fifths and Octaves

When using neighbor tones, always make sure they don't lead to **parallel fifths or octaves between voices**.



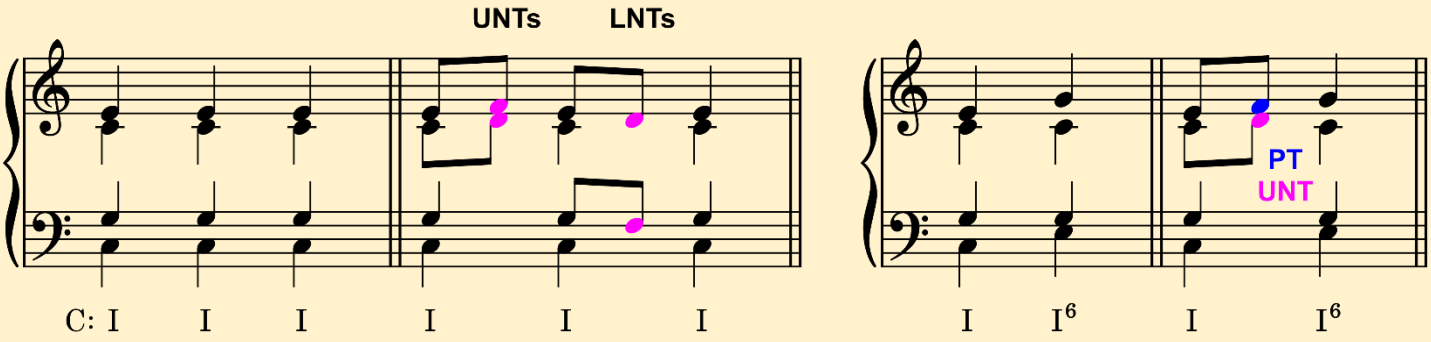
Exercise: In each measure below, add one neighbor tone to the melody. Make sure that your added note creates smooth voice leading and doesn't result in parallel fifths or octaves between the voices.



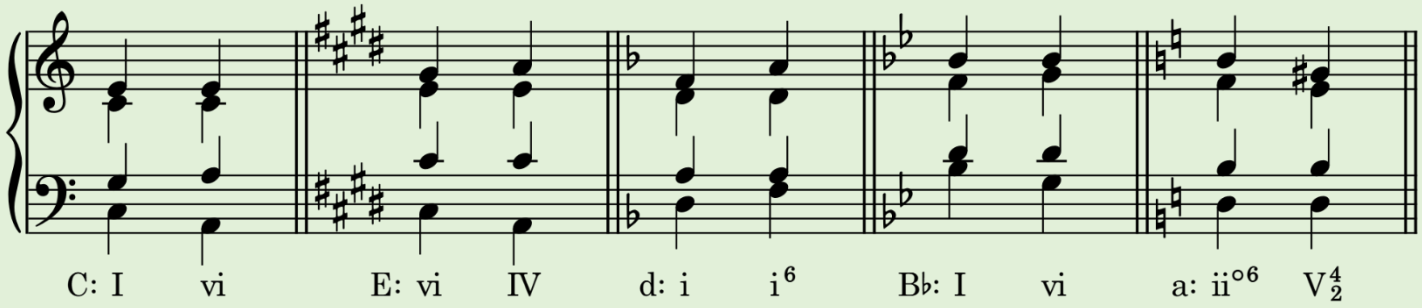
Simultaneous Neighbor Tones

When using neighbor tones at the same time, make sure they **form a consonant interval**, like a 3rd, 5th, 6th, or octave.

You can also **combine neighbor tones with passing tones**, but the pair must be consonant too.

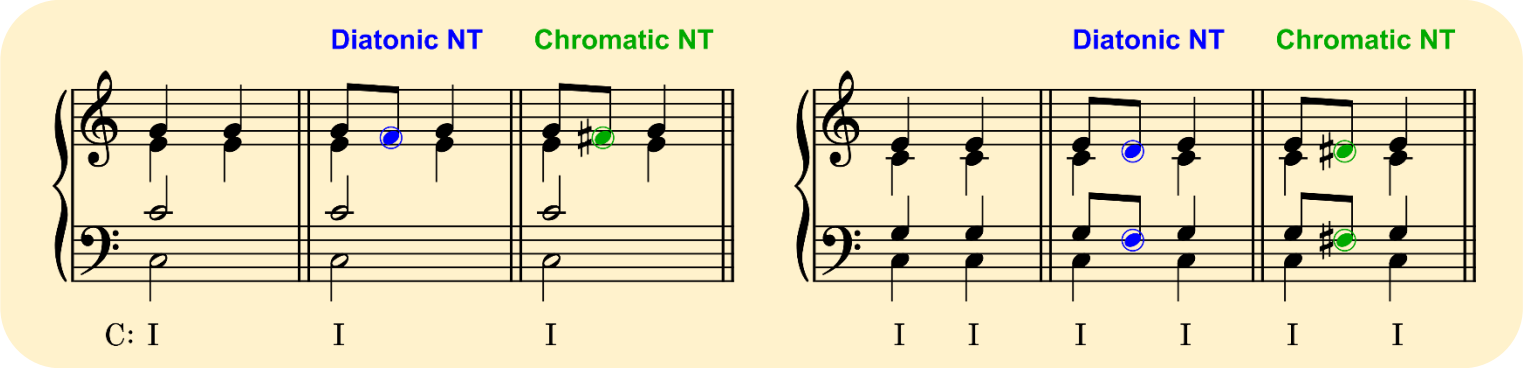


Exercise: For each measure, add either: two neighbor tones at the same time, or one passing tone and one neighbor tone together. Make sure the tones form a **consonant interval**.

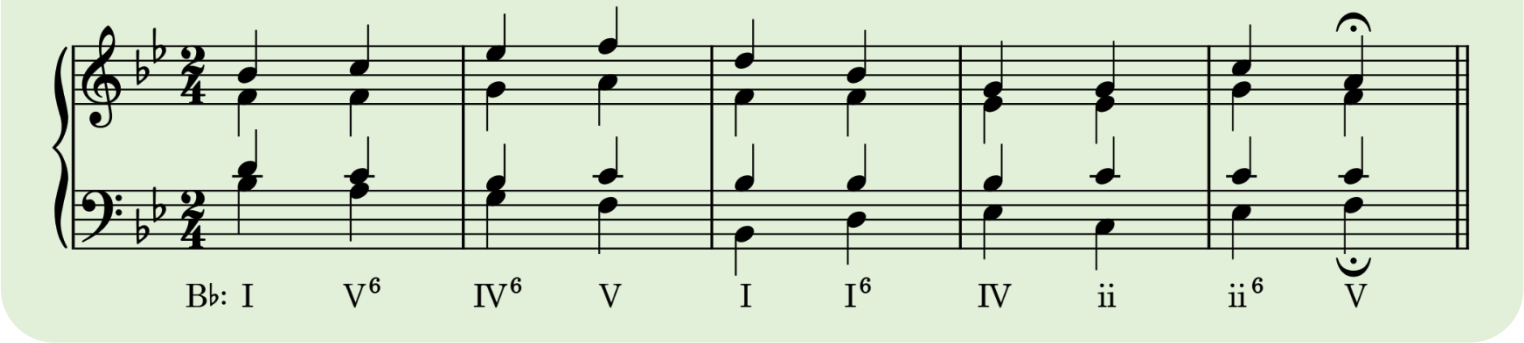


Chromatic Neighbor Tones

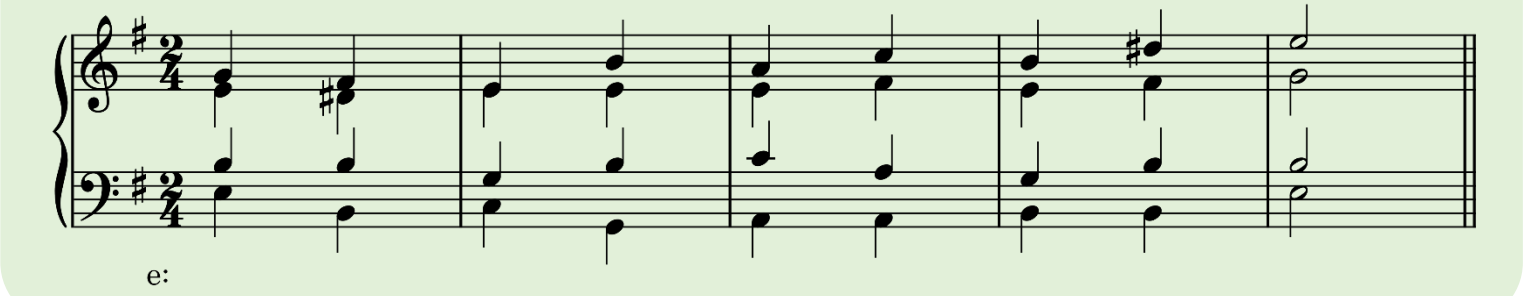
A chromatic neighbor tone is a note that steps away from a main note **using a half step that's not in the key**, then returns back. It adds tension and color, which are great for expressive moments in music.



Exercise: Add neighbor tones to this chorale. Make sure they don't create objectionable parallels.



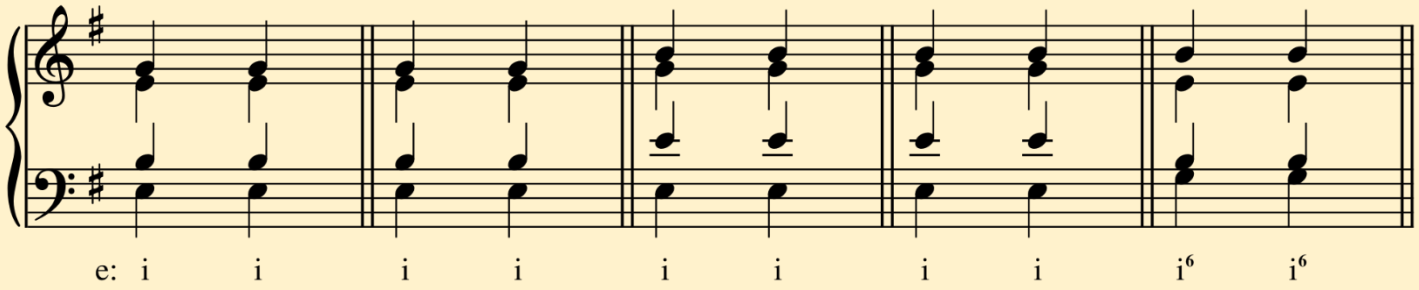
Exercise: Look at the chords and write their Roman numerals. Then, add passing and neighbor tones where they fit, but be careful not to create parallel fifths or octaves. Keep everything smooth and musical.



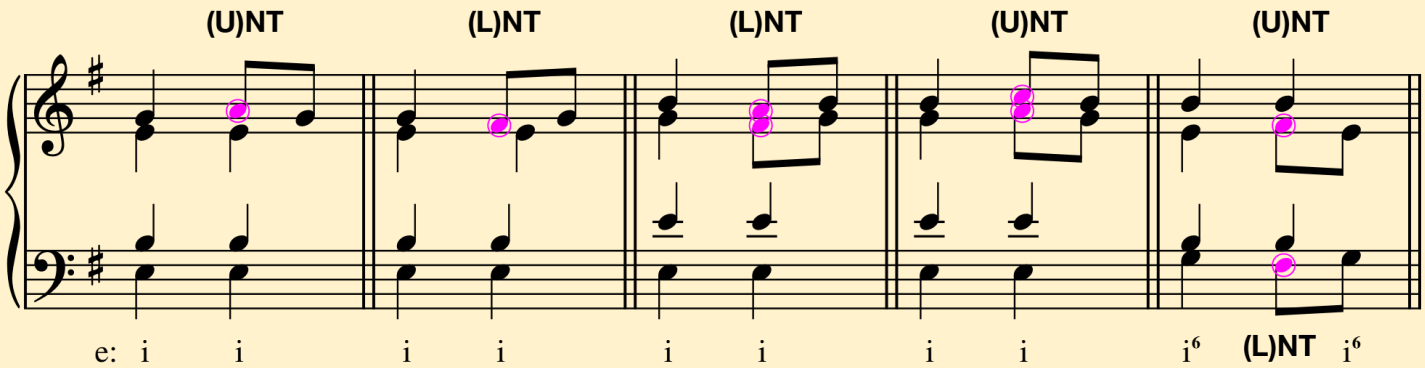
Accented Neighbor Tones

We've already learned how to write unaccented neighbor tones. Now let's try adding **accented neighbor tones** to give our chorales more movement and expression.

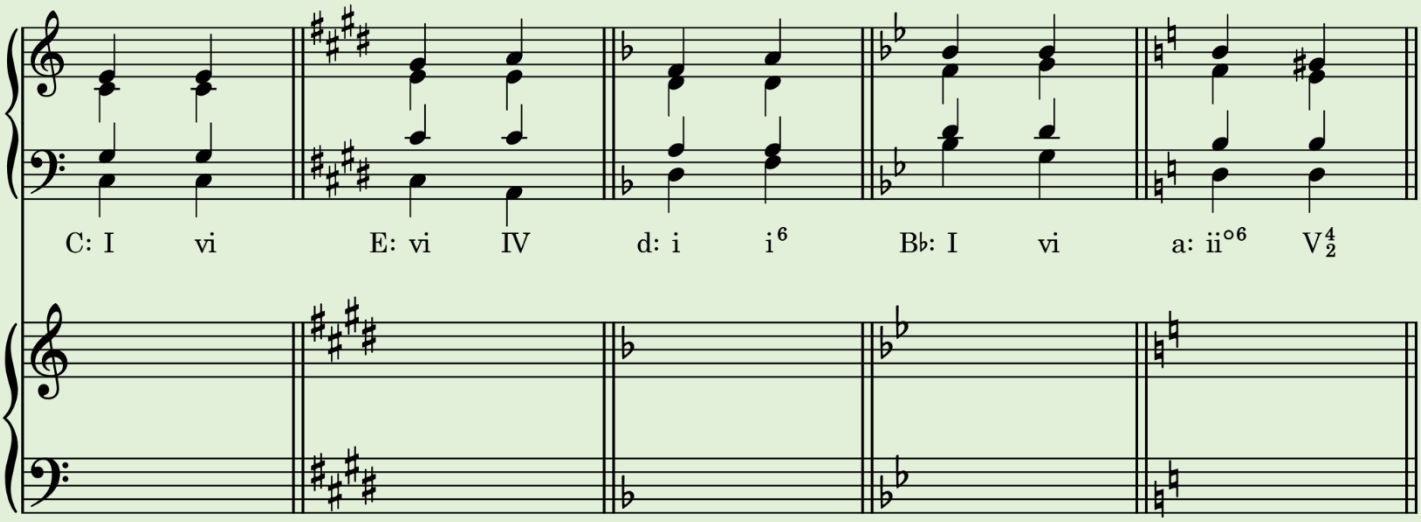
Unembellished version:



Embellished version with accented (upper and lower) neighbor tones:



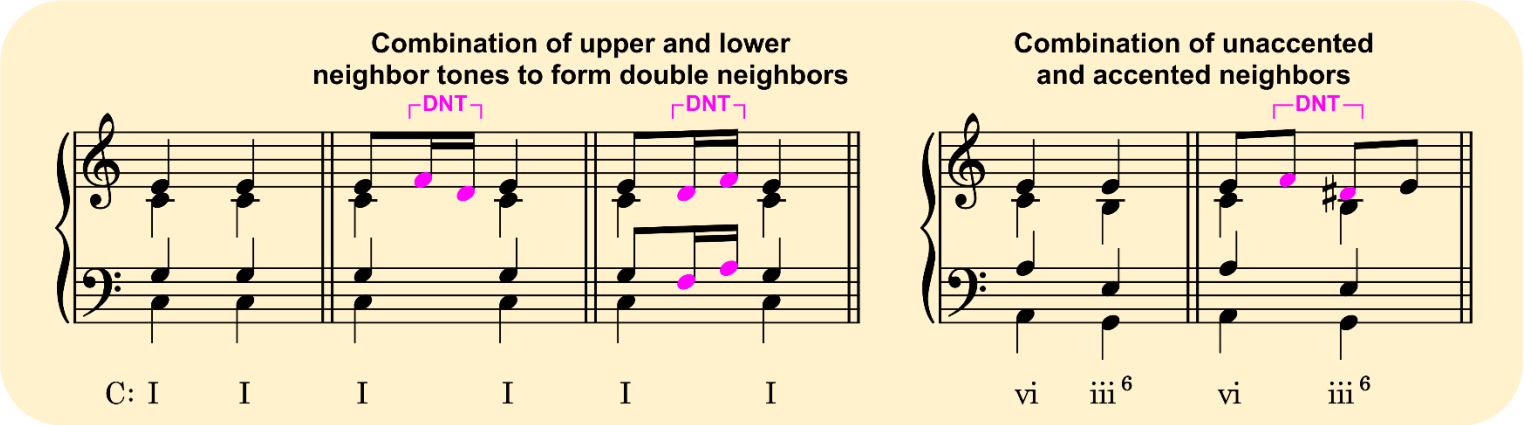
Exercise: In each measure, add one or two accented neighbor tones at the same time. If you write them together, make sure they form a consonant interval like a 3rd, 5th, 6th, or octave.



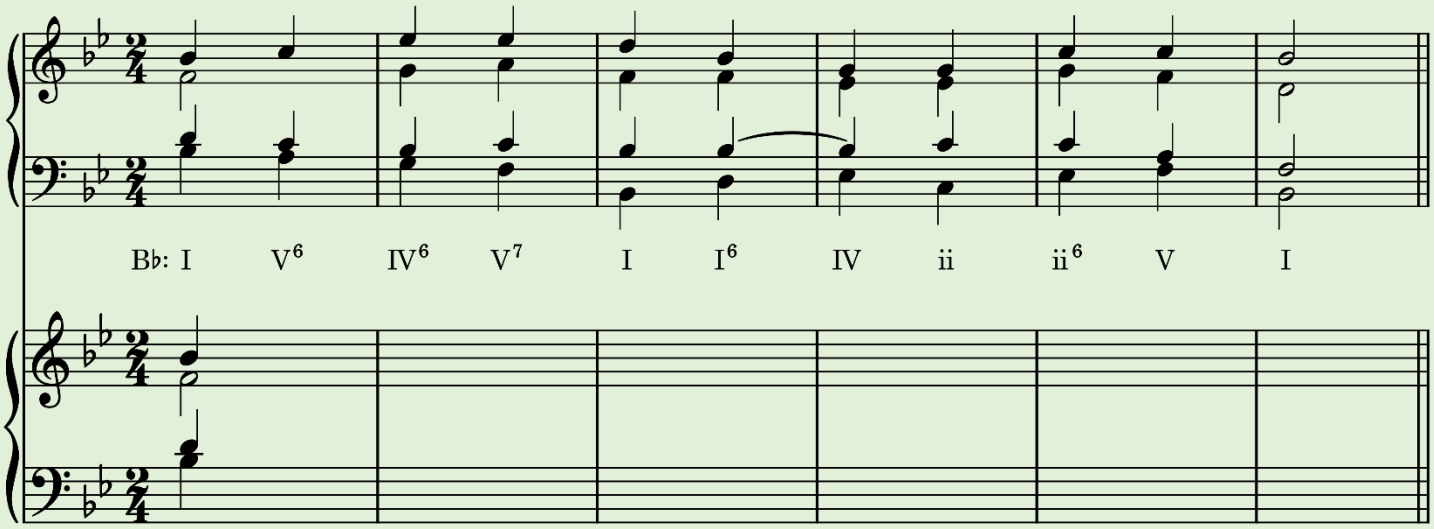
Double Neighbor Tones

A double neighbor tone is a pair of notes that **surrounds a main note**. One steps above it, and the other below it.

Instead of just moving away and back in one direction like a regular neighbor tone, double neighbors go **up then down** (or **down then up**) before **returning to the starting note**.



Exercise: Embellish the following chorale **using only neighbor tones**. You may use simultaneous neighbor tones if they are consonant with each other.



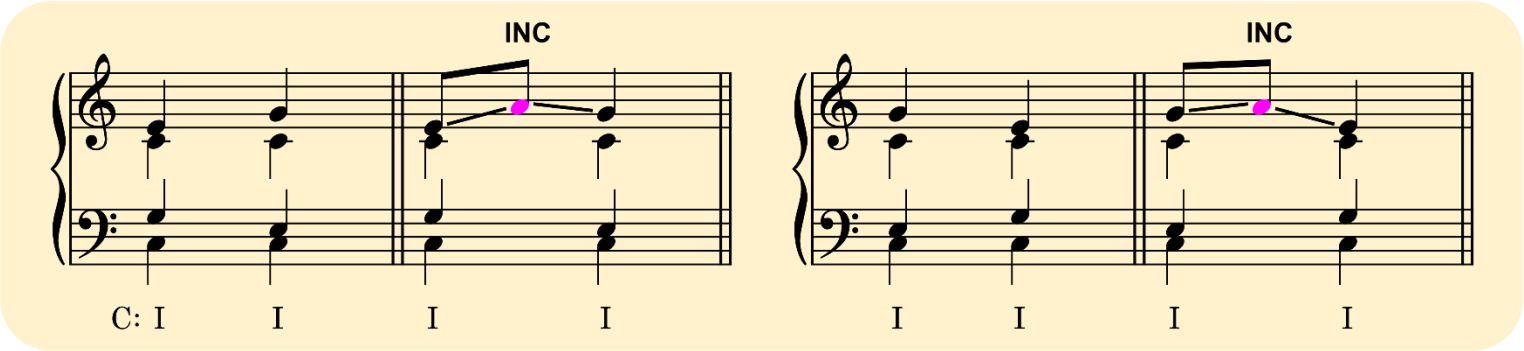
REVIEW

QUESTION	ANSWER
1. What is a double neighbor tone?	

Incomplete Neighbor Tone

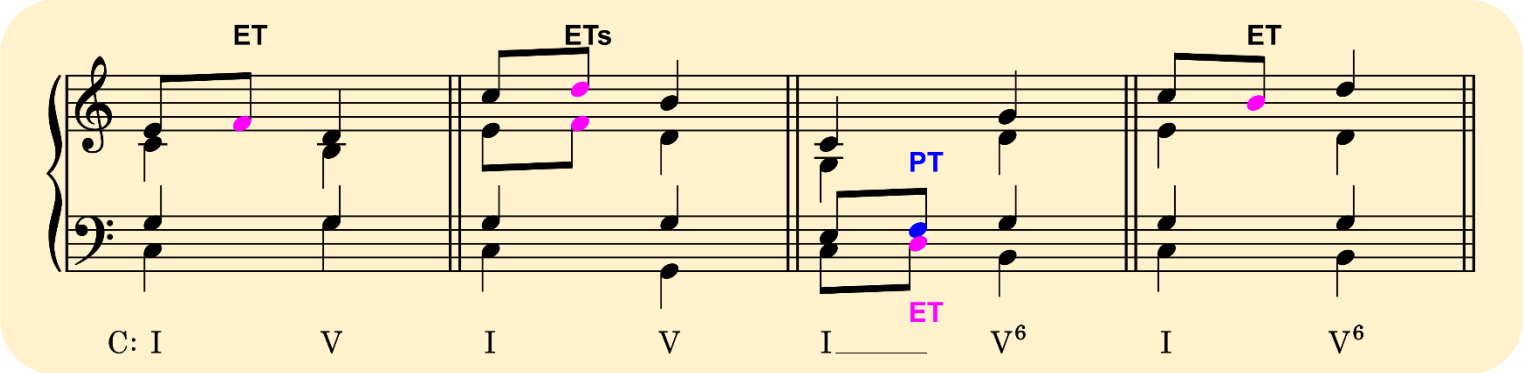
An incomplete neighbor tone is an embellishing tone that is either approached by **leap and left by step** in the **opposition direction**, or approached by **step and left by leap** in the **opposite direction**.

It's usually **unaccented**, meaning it falls on a weak beat.



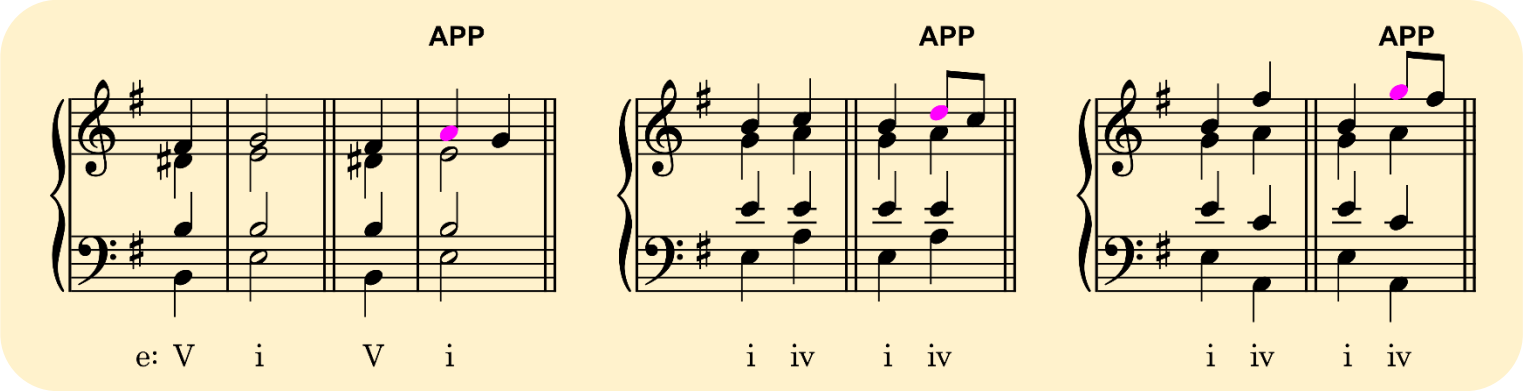
Incomplete Neighbor: Escape Tone

An incomplete neighbor tone that **steps in** and **leaps out** in the **opposite direction** is also called an **escape tone**. Many escape tones are **unaccented**.



Incomplete Neighbor: Appoggiatura

An incomplete neighbor tone that **leaps in**, **steps out**, and lands on a **strong beat** in the **opposite direction** is also called an **appoggiatura**.

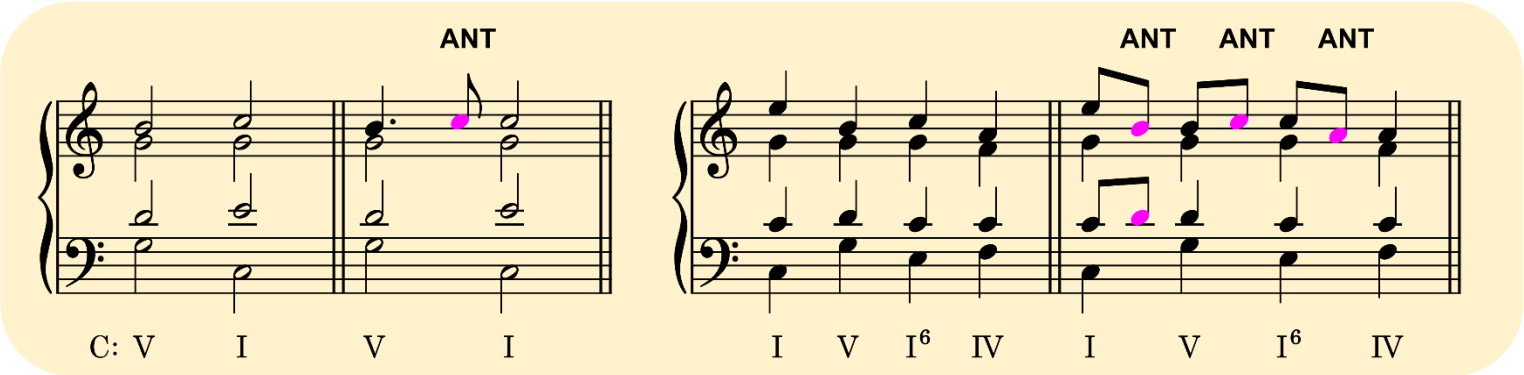


Type	Incomplete Neighbor Tone (General)		
		↪ **Escape Tone**	↪ **Appoggiatura**
Approach	Step or leap	Step	Leap
Resolution	Leap or step (opposite direction)	Leap (opposite direction)	Step (opposite direction)
Beat placement	Unaccented	Unaccented	Accented

Anticipation

An anticipation is a nonharmonic tone that **arrives early**. It plays a note from the next chord before that chord actually happens.

It's usually **unaccented**, meaning it falls on a weak beat.



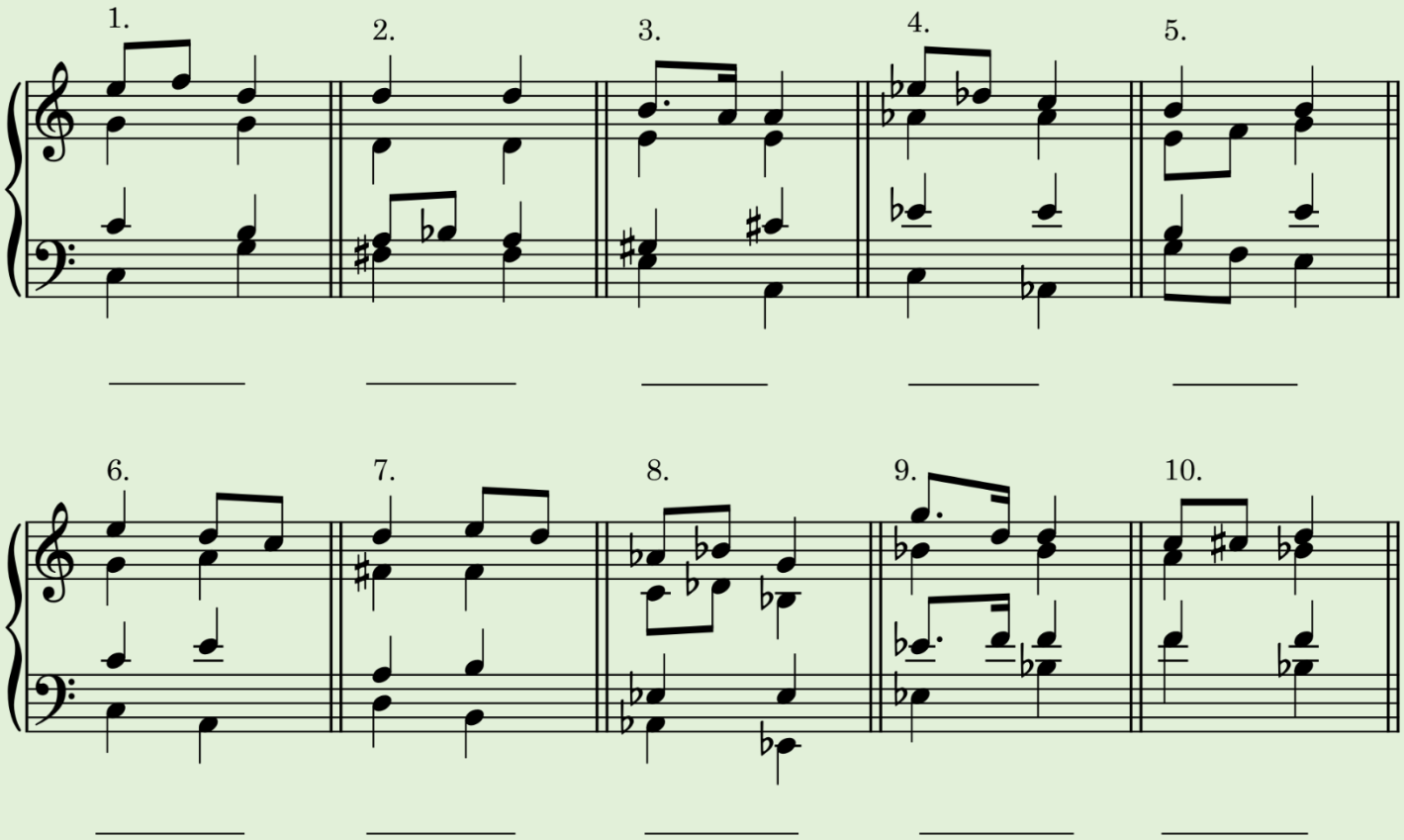
REVIEW

QUESTION	ANSWER
1. What is an incomplete neighbor tone?	
2. What is an escape tone?	
3. What is an appoggiatura?	
4. Escape tones and appoggiaturas are types of neighbor tones. True or false?	
5. Notes of anticipation are always accented. True or false?	

Exercise: The following are nonharmonic tones excerpted from music literature.

① Circle the nonharmonic tone(s).

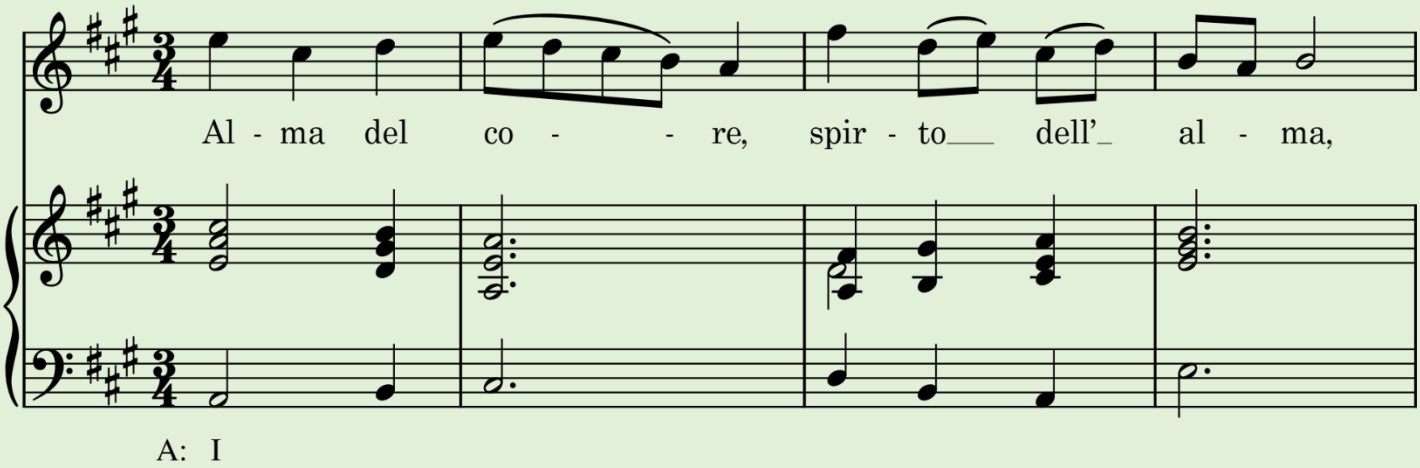
② Name the type of each nonharmonic tone in the space provided.



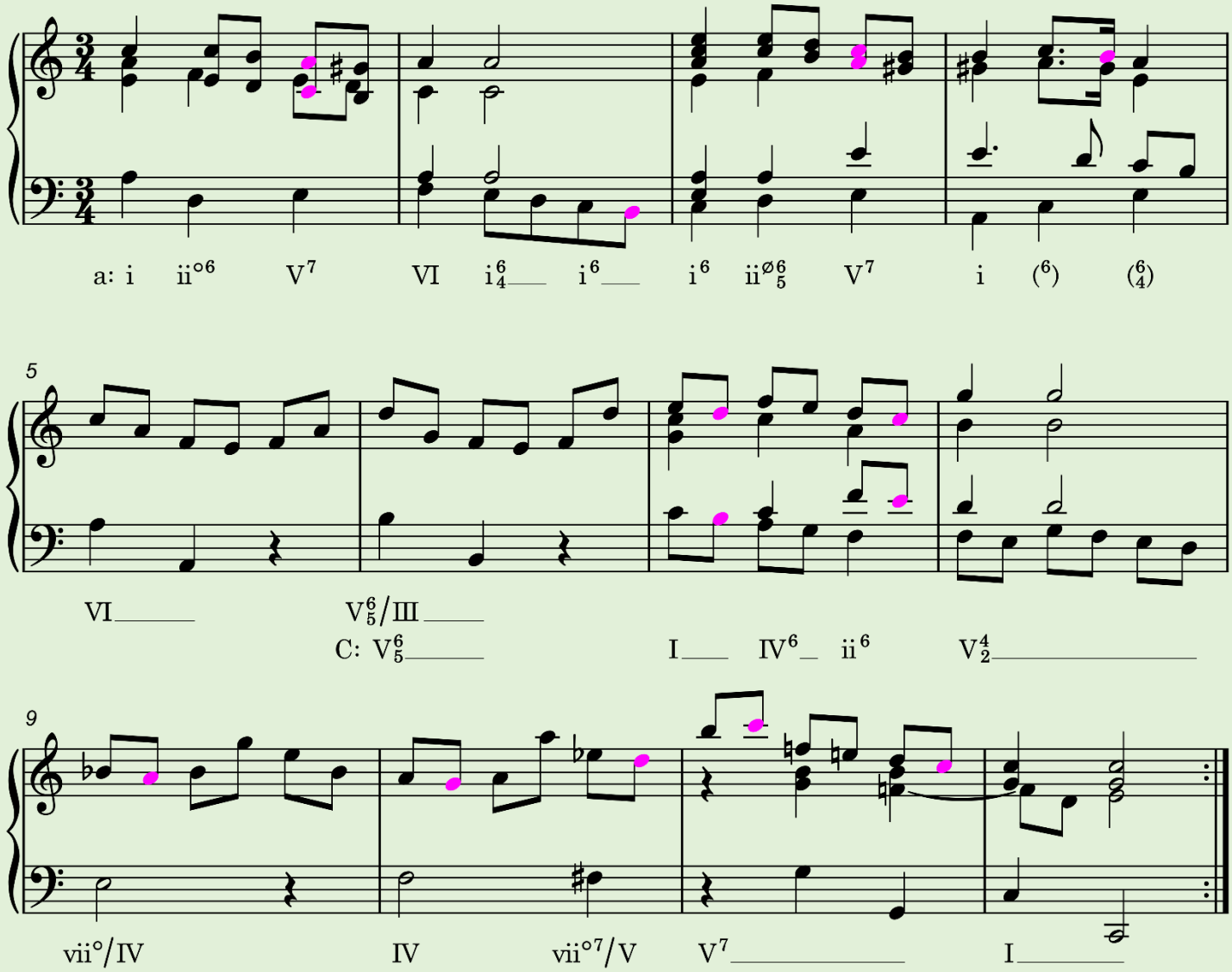
Exercise: The following is an example from music literature.

① Analyze each chord with Roman numerals, also indicating its position. Some chords are provided to help you understand the procedure.

② Circle and indicate the type of each nonharmonic tone next to the circle.



Exercise: The following is an example from music literature. Analyze each highlighted nonharmonic tone by writing the type next to it.



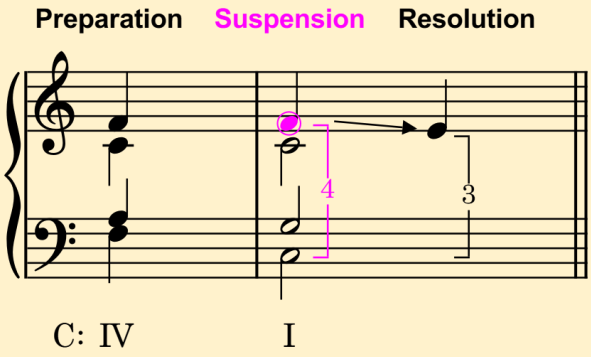
REVIEW

QUESTION	ANSWER
Which nonharmonic specifically follows a step-then-skip pattern?	
What is a note of anticipation?	
There are upper and lower passing tones. True or false?	
4. What are the consonant and dissonant harmonic intervals?	

Suspension

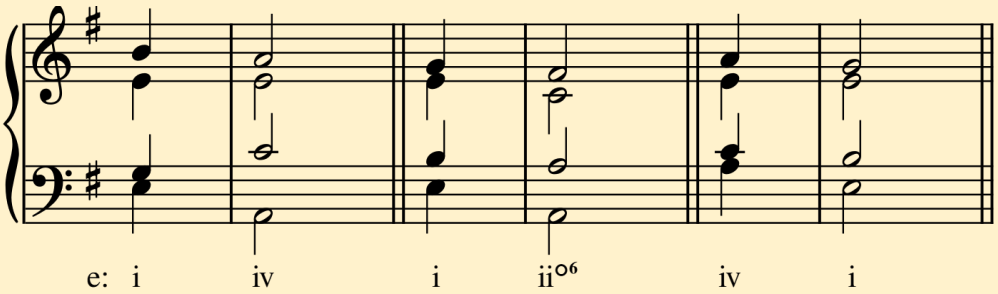
A suspension is an **accented nonharmonic tone**—it creates tension on a strong beat. It always follows this pattern:

① **Preparation** stage: the top note belongs to the harmony on that beat.
② **Suspension** stage: the harmony changes, but the note is suspended.
③ **Resolution** stage: the suspended note resolves down a step.

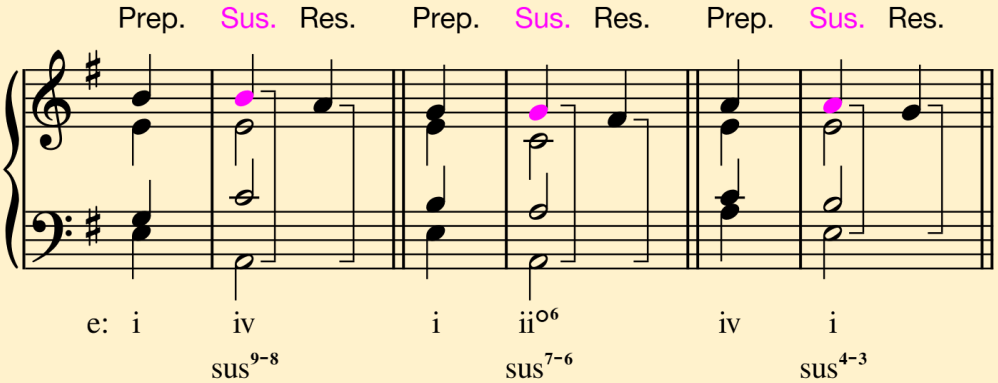


A suspension is like a **musical delay** by holding on to a note before letting it resolve.

We name the suspension by looking at how far the suspended note is from the bass:
① **9–8 suspension** means it moves from a 9th to an 8th above the bass.
② **7–6 suspension** means the note is a 7th above the bass, then resolves down to a 6th.
③ **4–3 suspension** means the note goes from a 4th above the bass down to a 3rd.



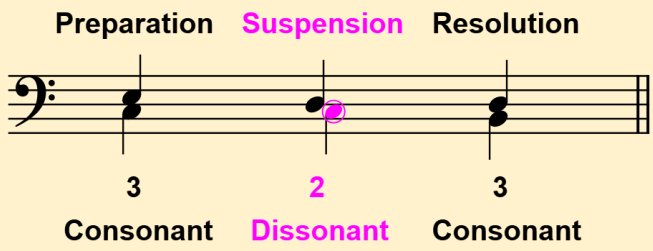
In the first example, the chords move normally and the soprano steps down smoothly.

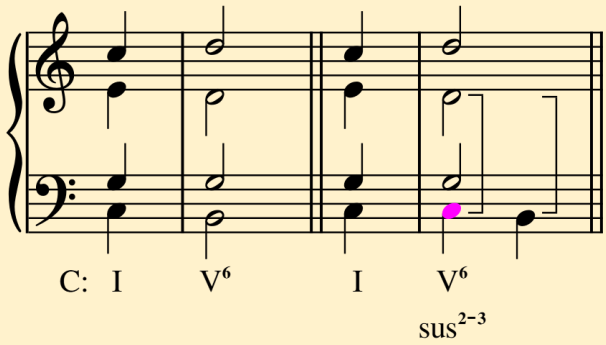


In the second, we add suspensions. The soprano holds a note across the chord change, creating tension on the strong beat. Then it steps down to resolve the tension.

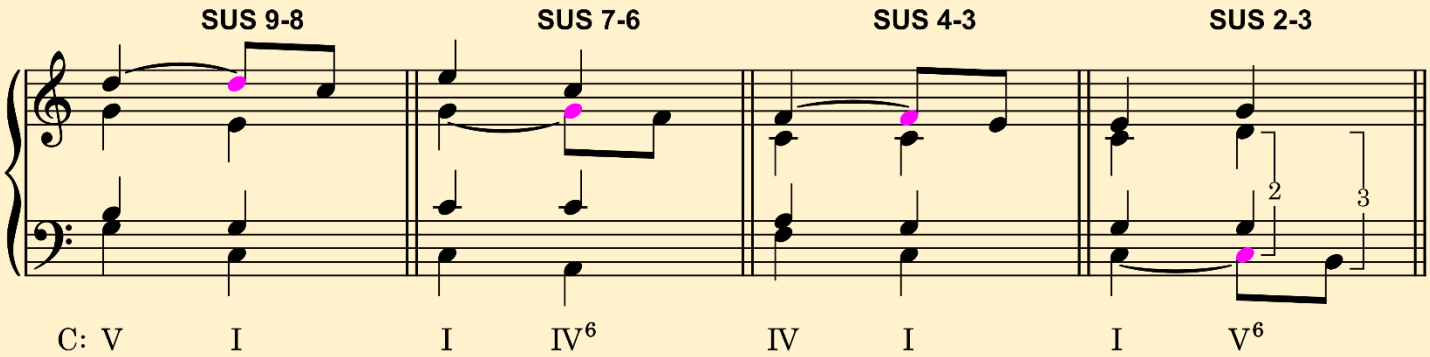
A **2–3 suspension** is a type of suspension where the held note happens in the **bass voice**, not in the upper voices like usual. The bass starts with a note that's a 2nd above the new harmony and then **steps down** to a 3rd, resolving the tension.

It's a special case because most suspensions happen in the soprano or alto — but this one flips the idea and makes the bass do the work

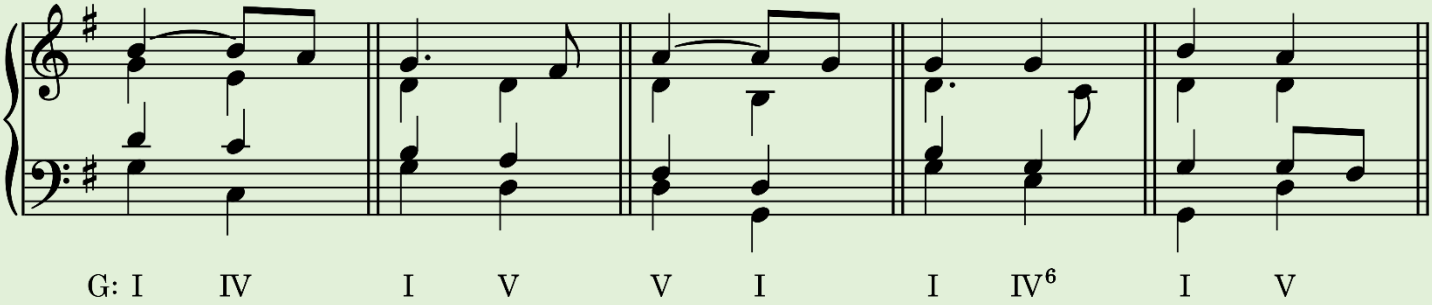




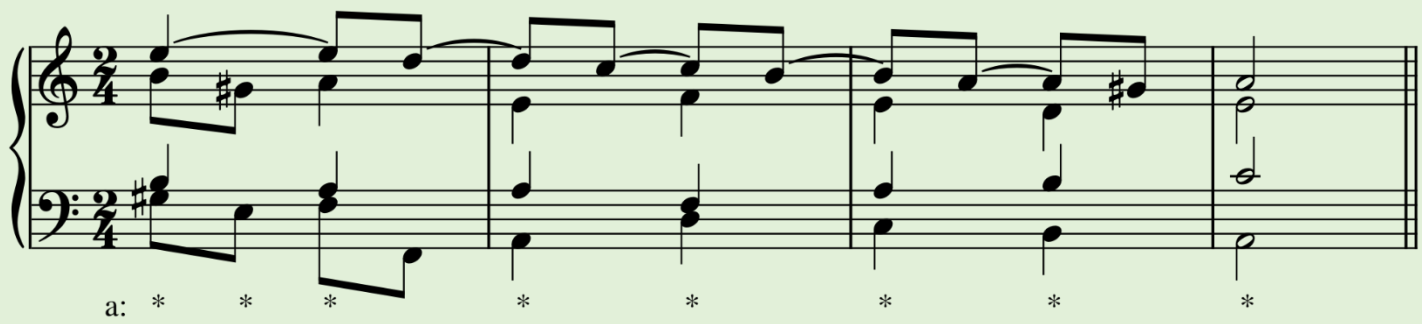
Suspensions occur only between two voices. You may ignore the other voices when considering the preparation, suspension, and resolution. The following are suspensions found in a four-voice setting.



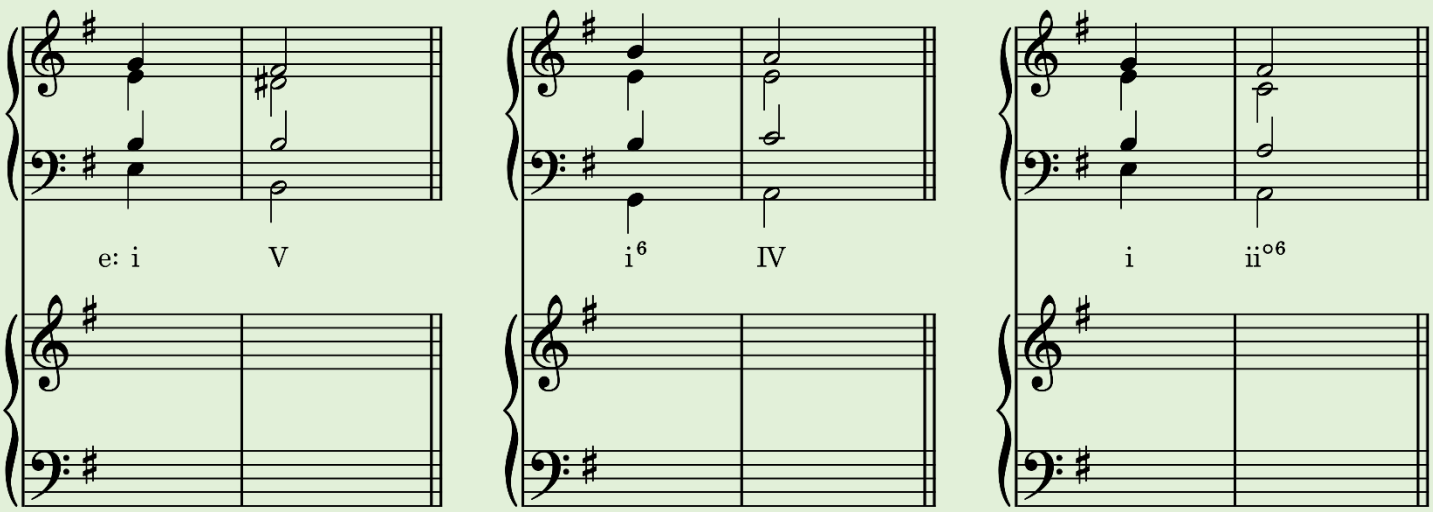
Exercise: Mark the suspended tone and label using appropriate interval numbers. The harmonic analysis is already provided to help you out.



Exercise: Provide a Roman number analysis and label any suspensions you find.



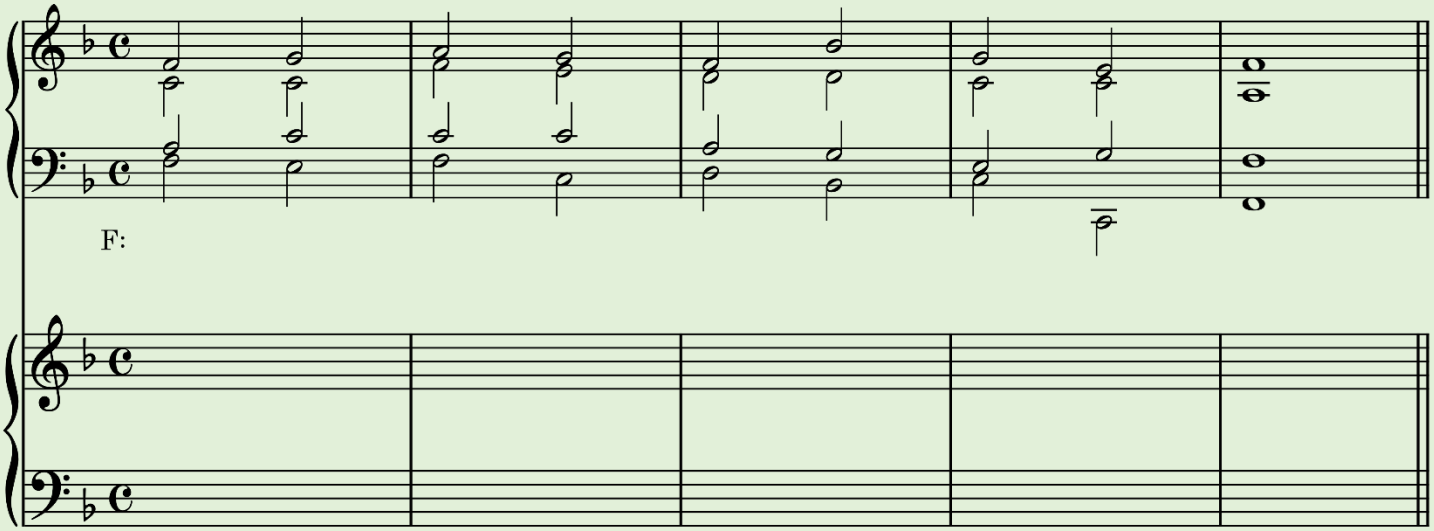
Exercise: Copy the top staves into the blank staves underneath, but this time add suspensions. The simplest way is to look for spots where the melody moves down by step, and check if it creates a 9–8, 7–6, 4–3, or 2–3 suspension against the bass.



REVIEW

QUESTION	ANSWER
1. What are the three stages of a suspension?	
2. The suspended tone falls on a weak beat. True or false?	
3. The suspended tone is always dissonant with the bass. True or false?	

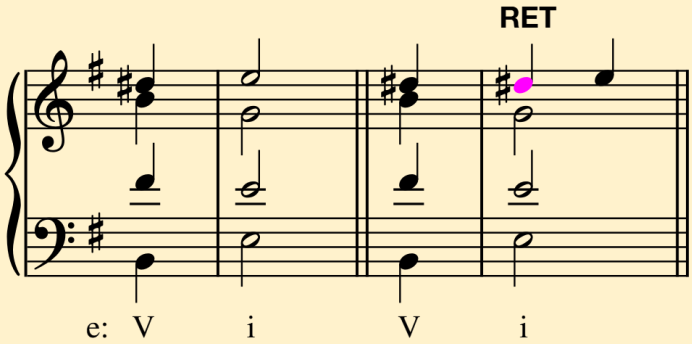
Exercise: ① Use Roman numerals to analyze each chord in the phrase. ② Copy the phrase onto the blank staves below and add at least four nonharmonic tones. Make sure two or more are suspensions. ③ Then label all nonharmonic tones in your version. For each suspension, include its interval label (e.g., 4–3, 7–6, 9–8).

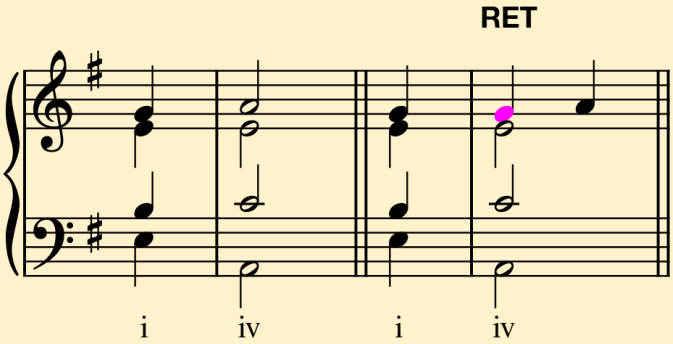


Retardation

A retardation is a type of nonharmonic tone that works like a suspension. It holds a note into the next chord to create tension, but instead of resolving down, **it resolves upward by step**. It often appears in the soprano voice, adding a gentle lift to the resolution.

Unlike suspensions, retardations **aren't labeled with interval numbers** between the dissonant tone and the bass.

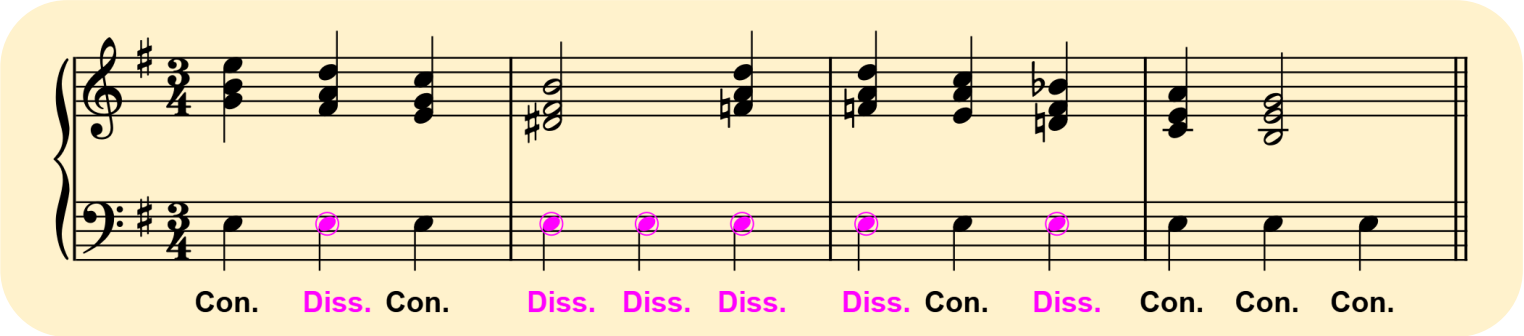




Pedal Tone

A pedal tone (also called a pedal point or pedal note) is a **sustained or repeated note**, usually **in the bass**, that stays the same while the **chords and harmonies above it change**.

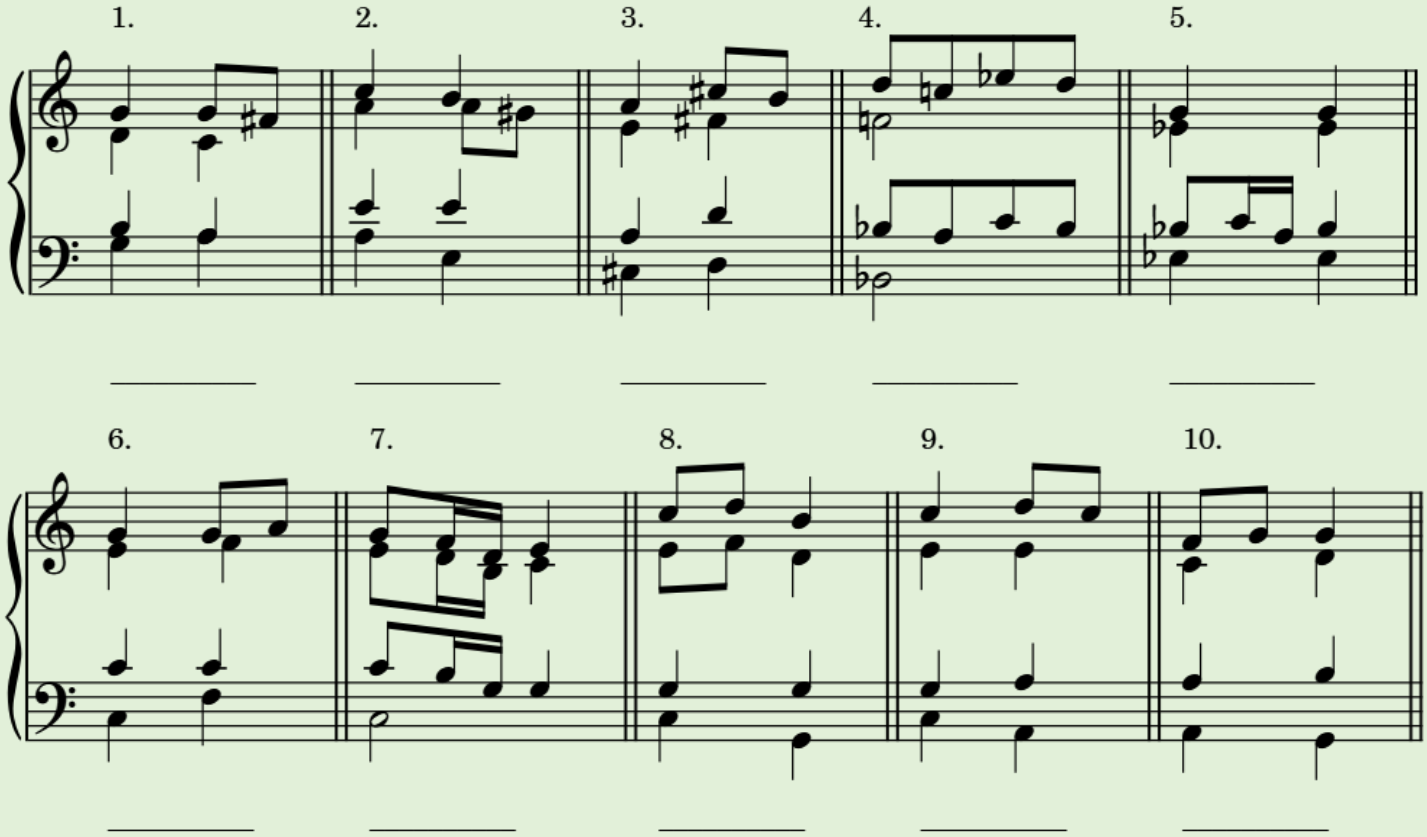
Even when the harmony becomes dissonant against the pedal tone, it holds steady, creating tension, drama, or a sense of grounding. You'll often hear pedal tones on the **tonic** or **dominant**



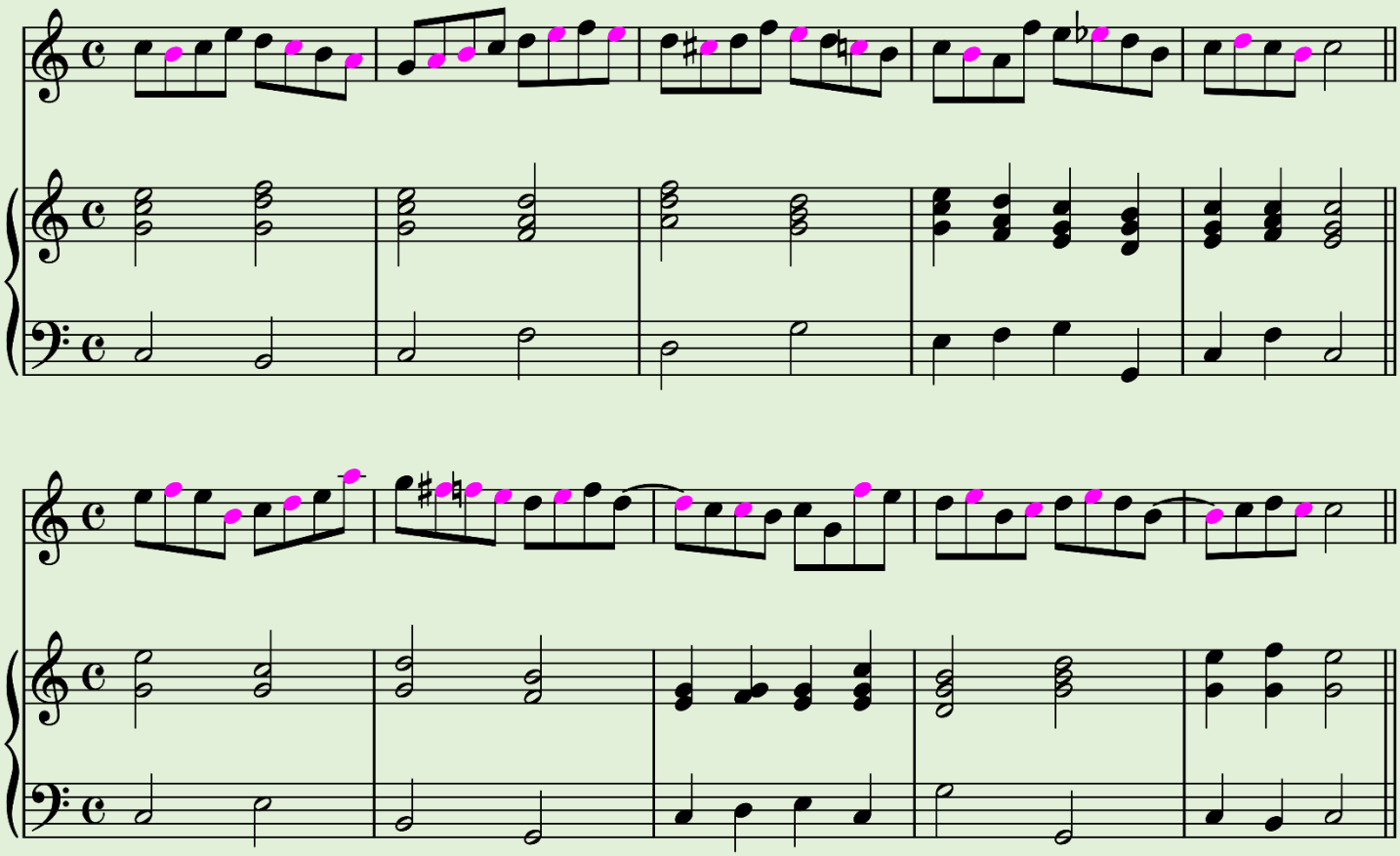
Exercise: Following are nonharmonic tones excerpted from music literature.

① Circle the nonharmonic tone or tones.

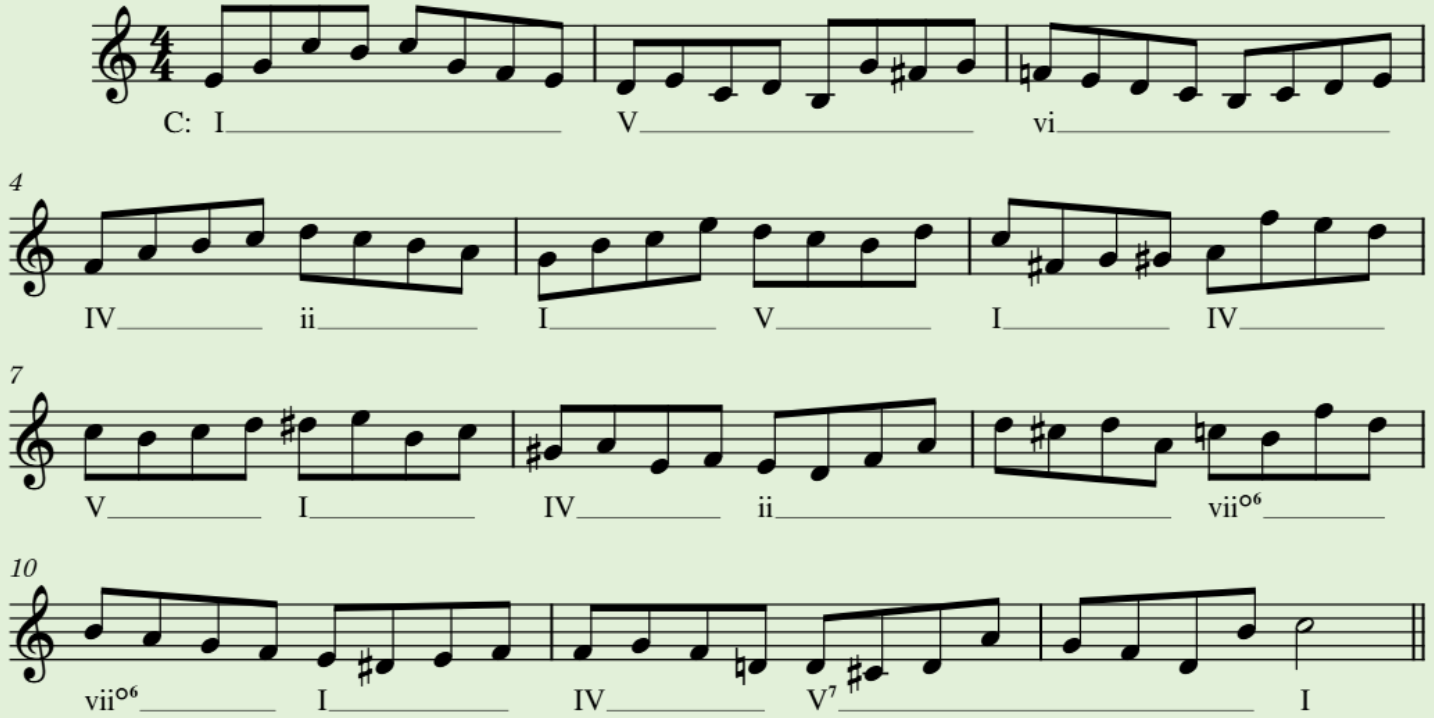
② Write the name of the type of nonharmonic tone in the blank provided.



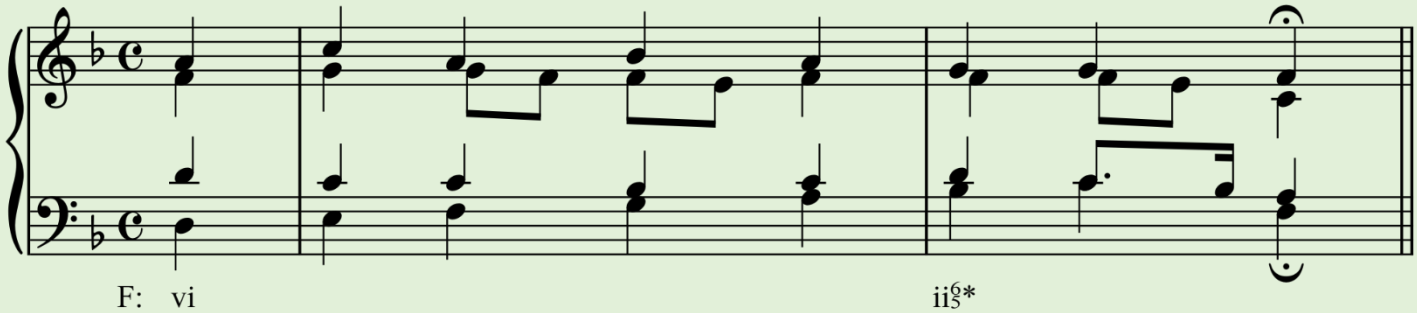
Exercise: Locate and label each nonharmonic tone in the following examples.



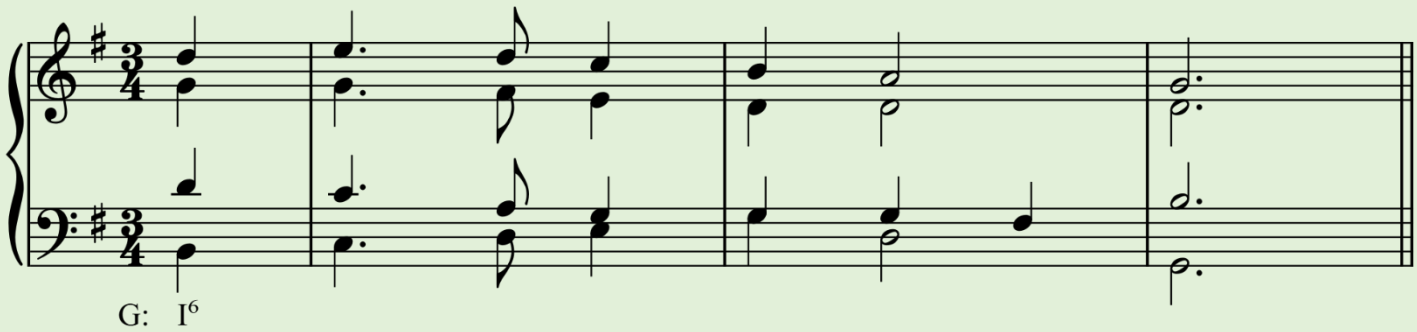
Exercise: Locate and label each nonharmonic tone in the following example.



Exercise: Analyze each chord with Roman numerals. Circle and indicate the type of each nonharmonic tone. Indicate the type of cadence used at each phrase ending.

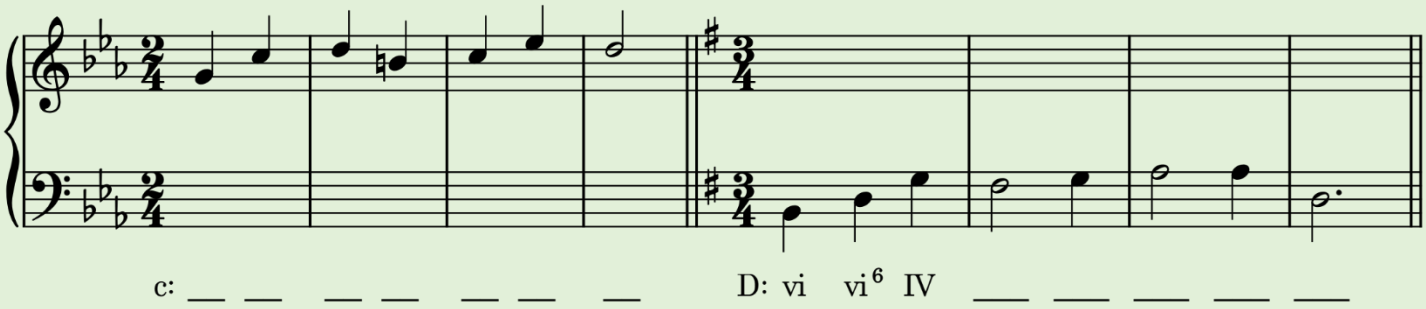


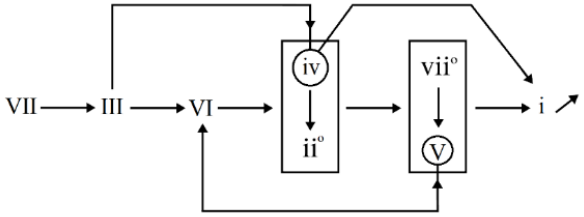
Cadence: _____

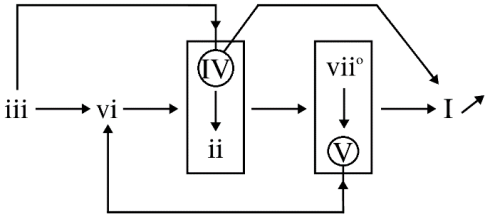


Cadence: _____

Exercise: Fill out in four-part harmony by using a suitable harmonic progression. You may use a $^{6}_{4}$ chord and add nonharmonic tones for variety.



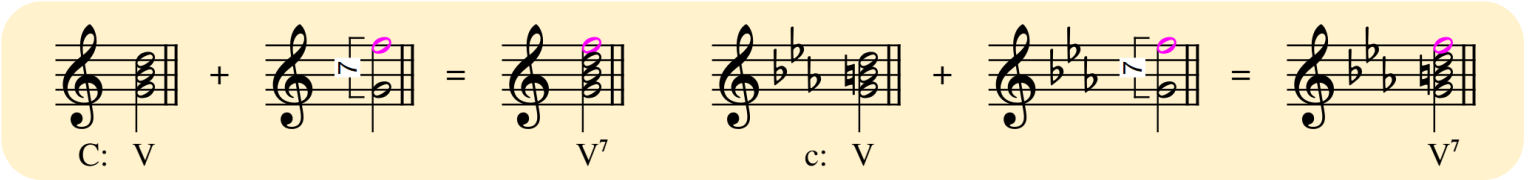




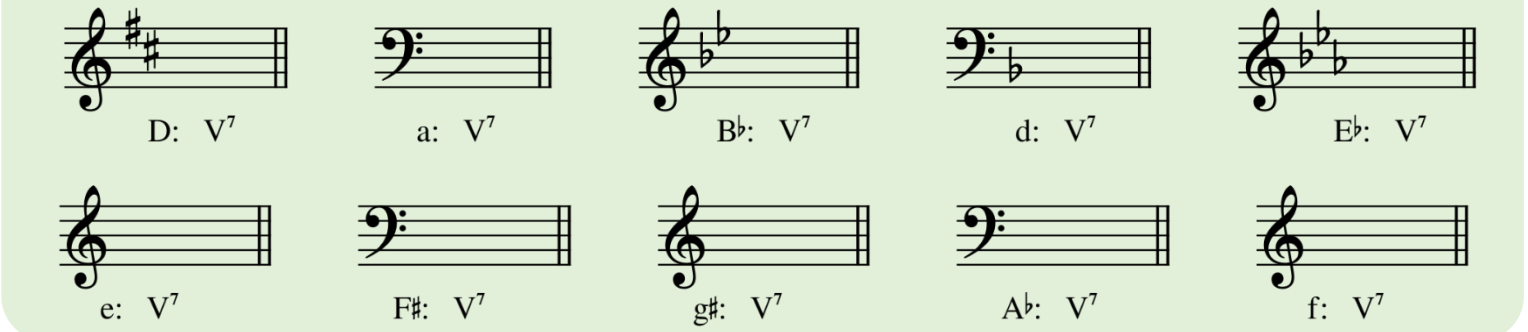
Seventh Chords

Harmony

In Grade 7, students will learn to identify and apply V^7 (**dominant seventh**) chords in part-writing. These chords have the **same spelling and sound** in both **major and minor keys**.

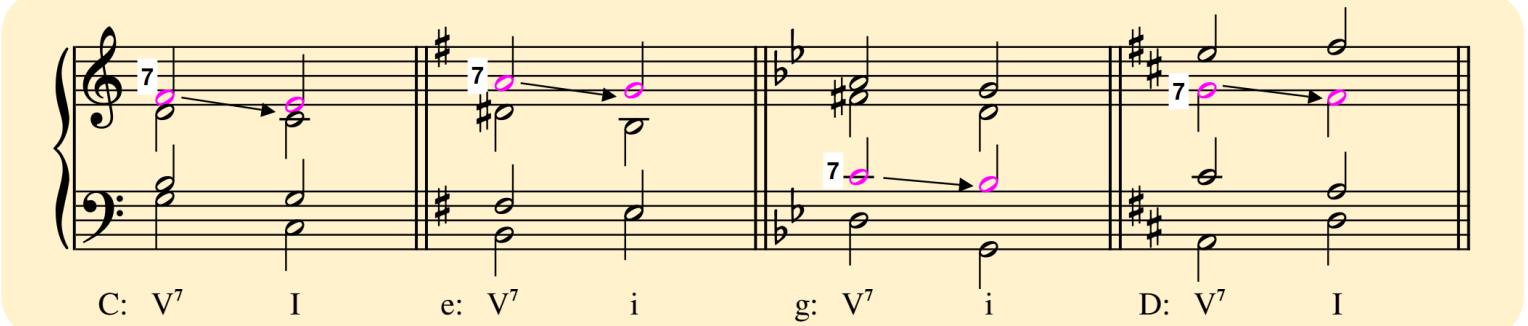


Exercise: Complete the chords using the given Roman numerals. For the second line, include appropriate key signatures.

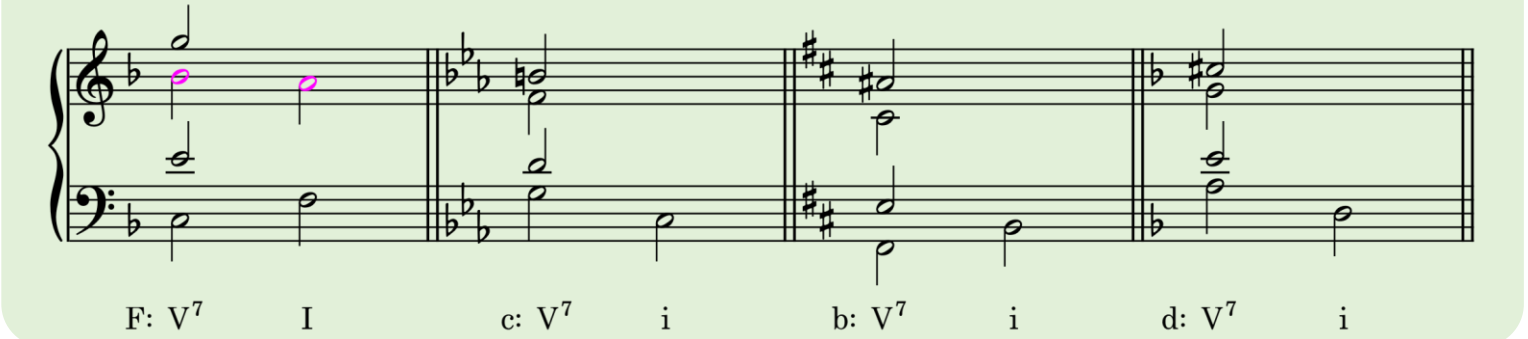


Resolution

The **chordal seventh** in a V^7 chord ($\hat{4}$) is considered a **dissonance** and typically **resolves downward by step**.

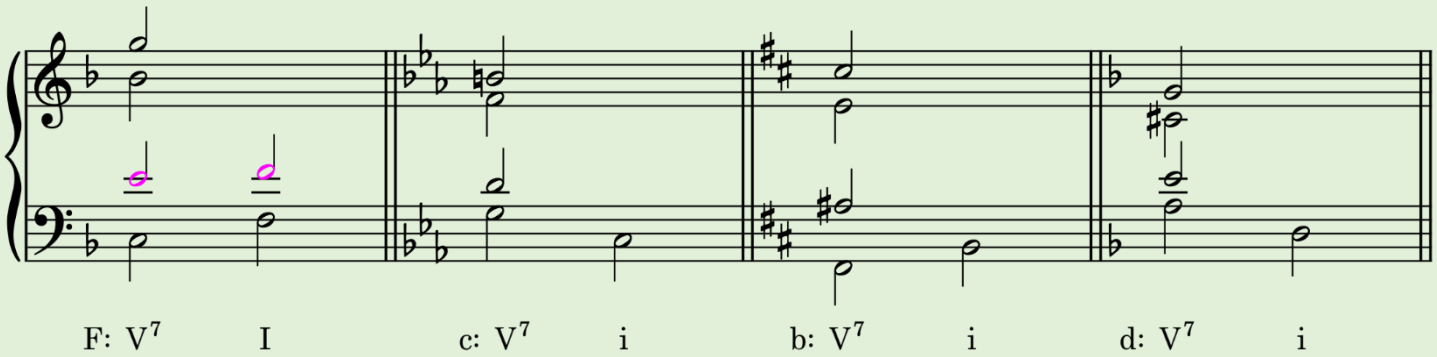


Exercise: Highlight the chordal seventh in each of the following V^7 chords and demonstrate its resolution. For now, disregard the other voices.



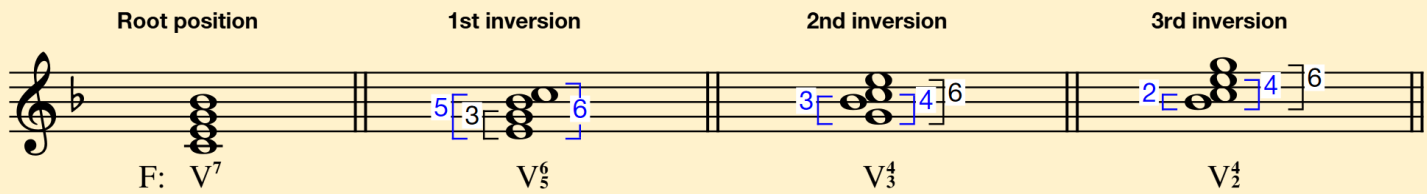
The **leading tone ($\hat{7}$) typically resolves upward to $\hat{1}$**, especially when placed in an outer voice. In inner voices (alto or tenor), this resolution is optional.

Exercise: Identify and highlight the leading tone in each V^7 chord, including those in inner voices. Resolve each to the tonic ($\hat{1}$) and disregard the remaining voices for now.

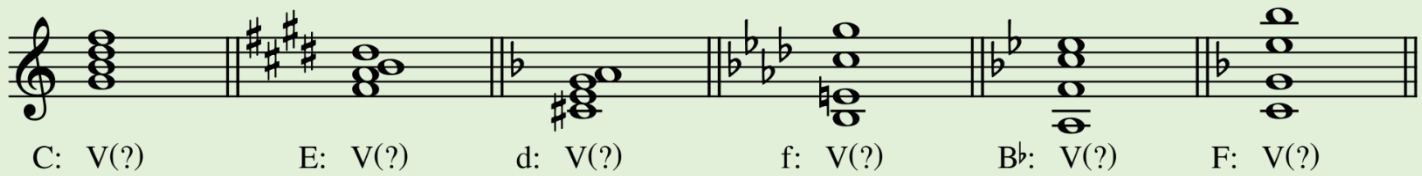


Inversions

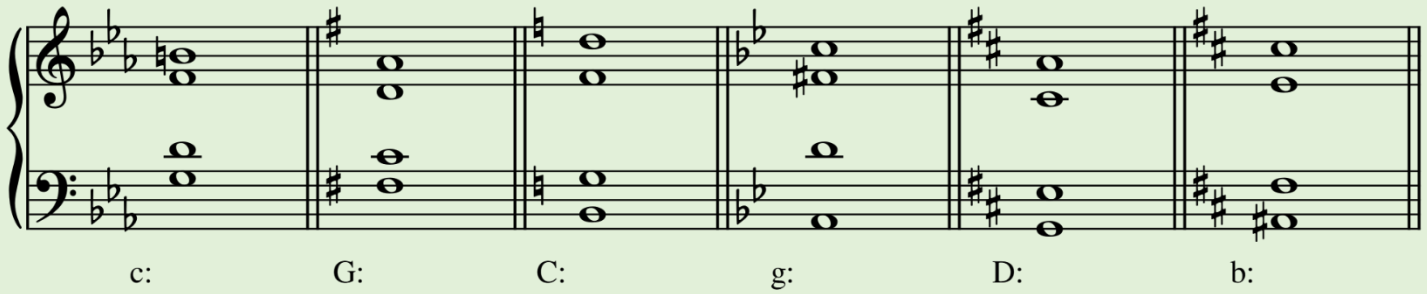
Seventh chords can appear in any inversion. Understanding the **intervallic structure above the bass note** is essential for accurate analysis and part-writing.



Exercise: For each V^7 chord, identify its inversion by analyzing the intervals above the bass note.

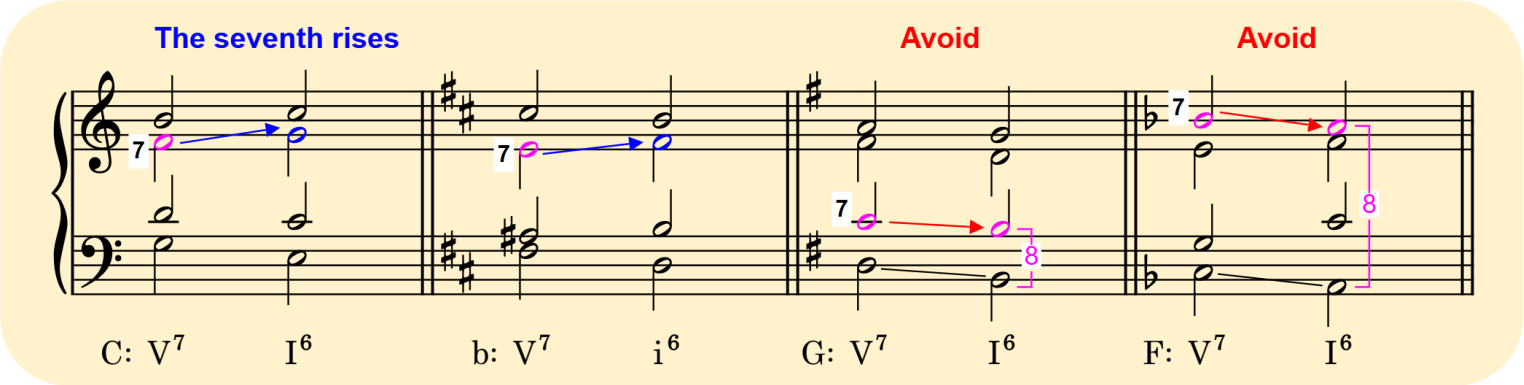


Exercise: Provide a Roman number analysis for each of the following V^7 chords.

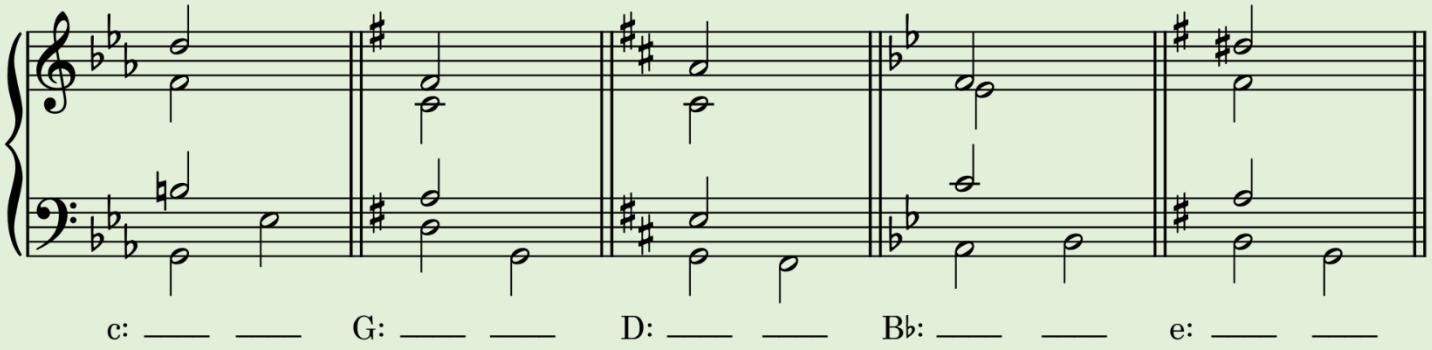


EXCEPTION

In a V^7–I^6 progression, the **chordal seventh should resolve upward**. If it resolves downward, the resulting motion between the bass and the voice containing the seventh may resemble **parallel octaves**.

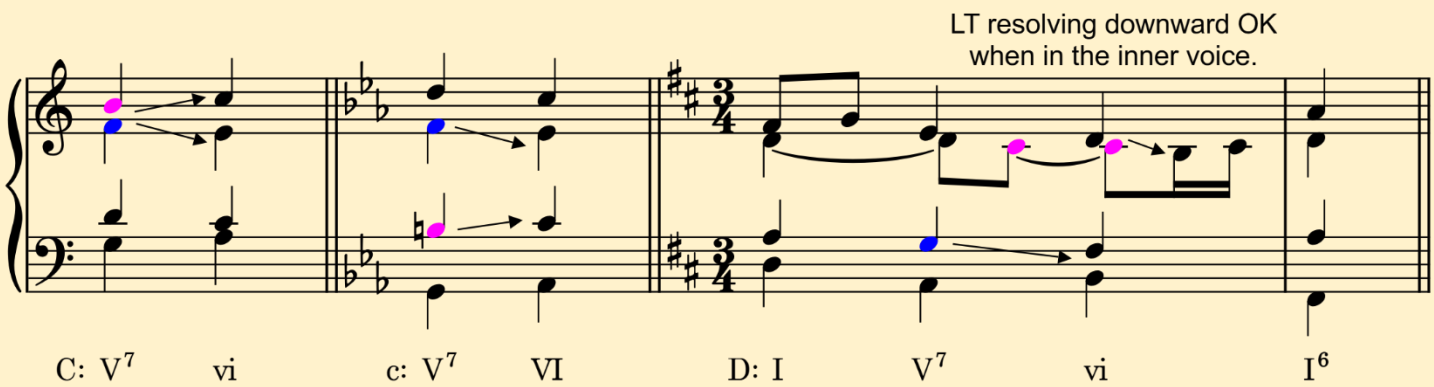


Exercise: Each item below features a V^7–I progression or its inverted counterpart. **Highlight both the chordal seventh and the leading tone** in each V^7 chord, and **demonstrate their resolution**. Disregard the other voices, but take special care when resolving V^7–I^6 to avoid voice-leading issues.

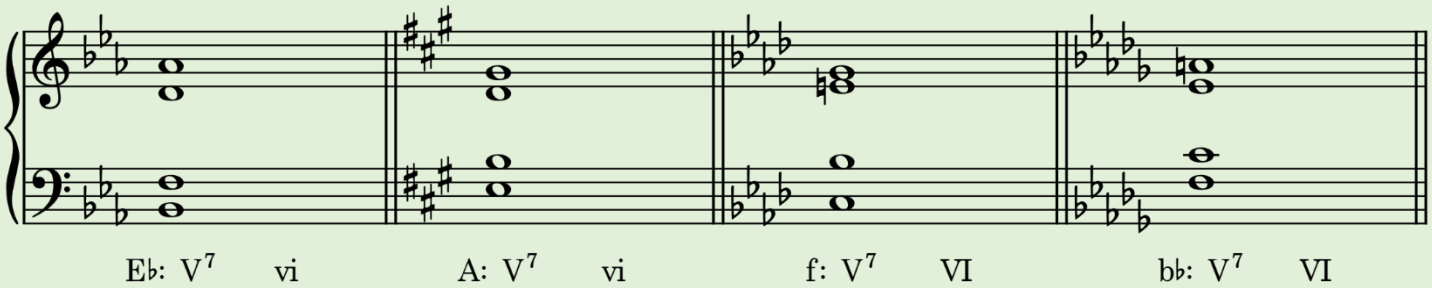


V^7–vi (VI)

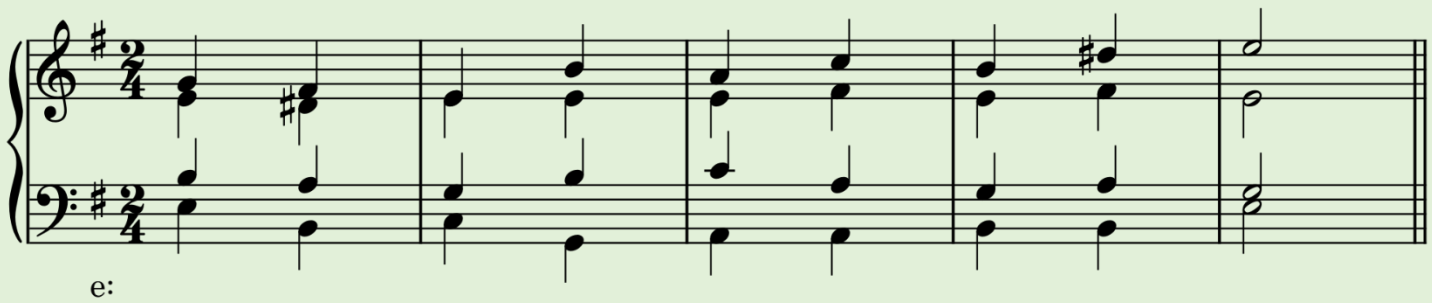
Instead of resolving to I, V^7 may resolve deceptively to vi (VI). The leading tone and chordal seventh resolve as usual. Note that **doubling the 3rd of vi (VI) is standard practice in V–vi (VI)**.



Exercise: For each V^7 chord, resolve the chordal seventh downward by step and the leading tone upward to the tonic. Then, double the third of the vi (VI) chord. ✅ **Tip:** This resolution forms a deceptive cadence. Pay special attention to voice leading and standard doubling practices.



Exercise: Locate the V^7 chords in the chorale below. For each, highlight the chordal seventh and the leading tone, and demonstrate how each resolves.



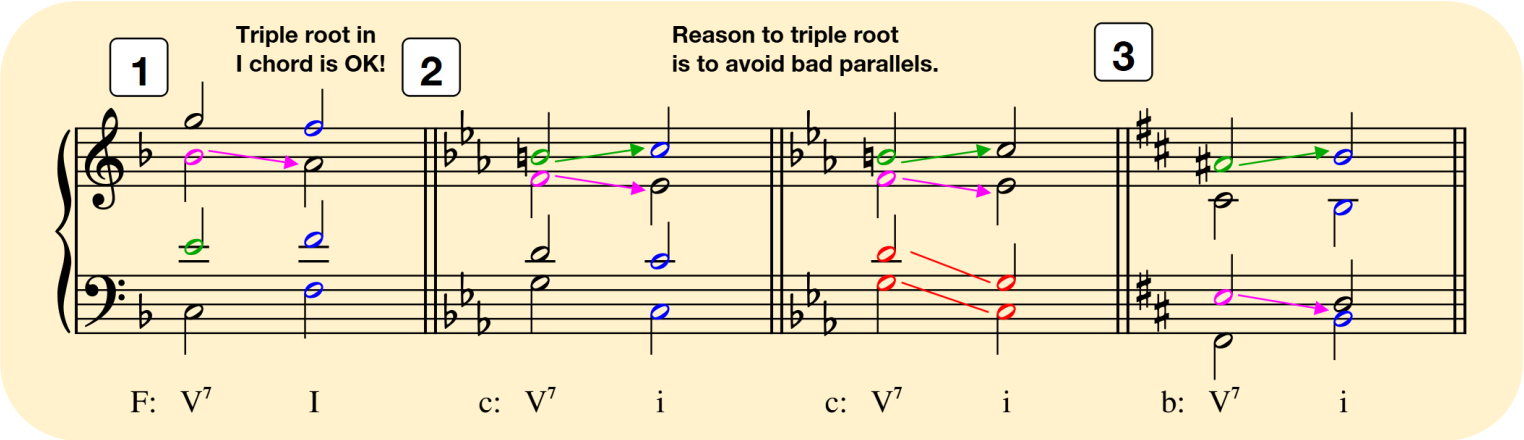
REVIEW

QUESTION	ANSWER
1. Where does the chordal seventh resolve to in a V^7–I progression?	
2. What is the exception to the resolution of the seventh?	
3. What is the inversion number of V^7 in first inversion?	
4. What is the inversion number of V^7 in second inversion?	
5. What is the inversion number of V^7 in third inversion?	
6. It is not OK when the leading tone does not resolve to the tonic in the inner voice. True or false?	

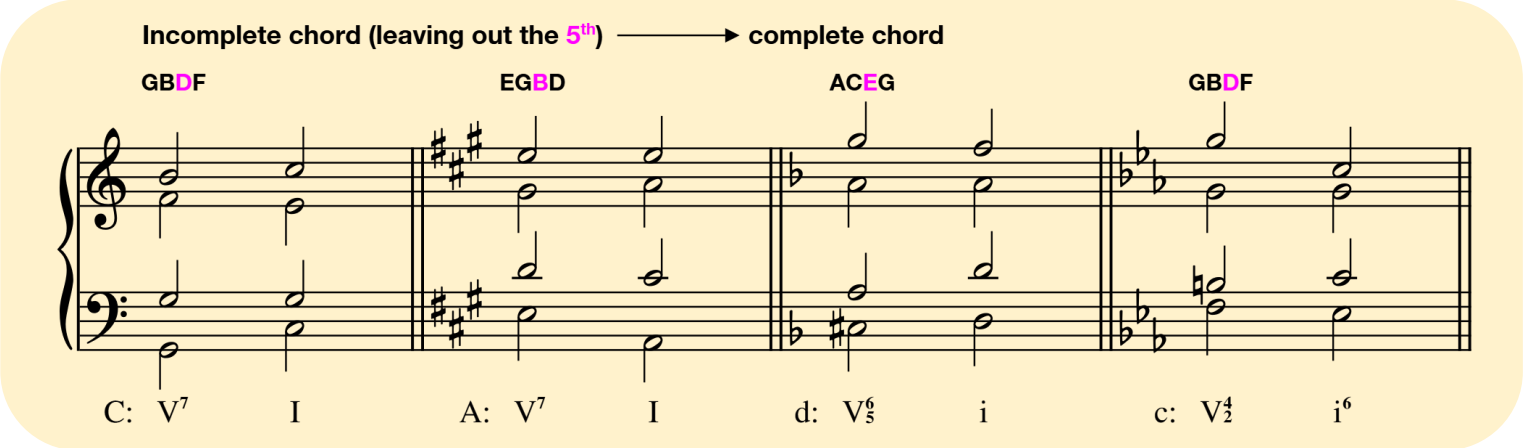
Incomplete Chords

In a V^7–I (or i) progression, one of the chords **may omit its fifth**, resulting in an **incomplete voicing**. In the examples below, the tonic chord (I or i) **leaves out the fifth** and **triples the root**.

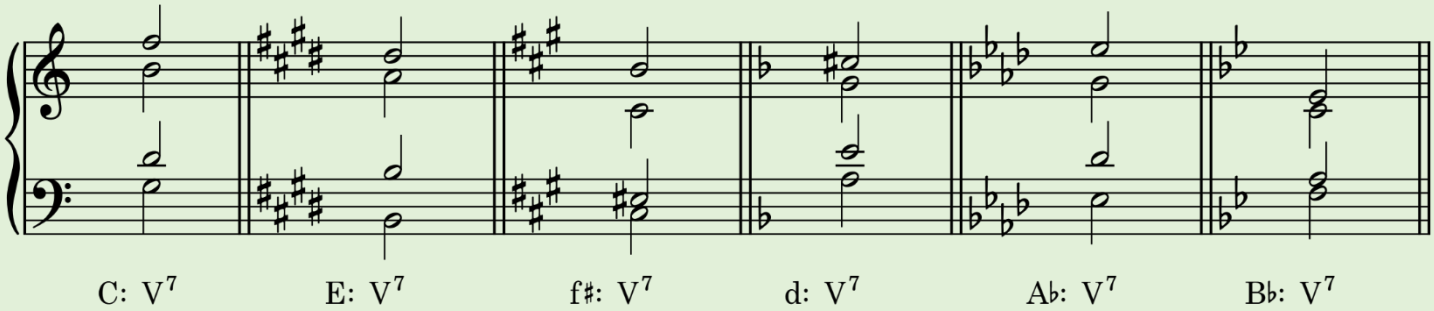
However, it's crucial that if **one chord is incomplete**, **the other remains complete**. Both chords must not omit essential tones simultaneously.



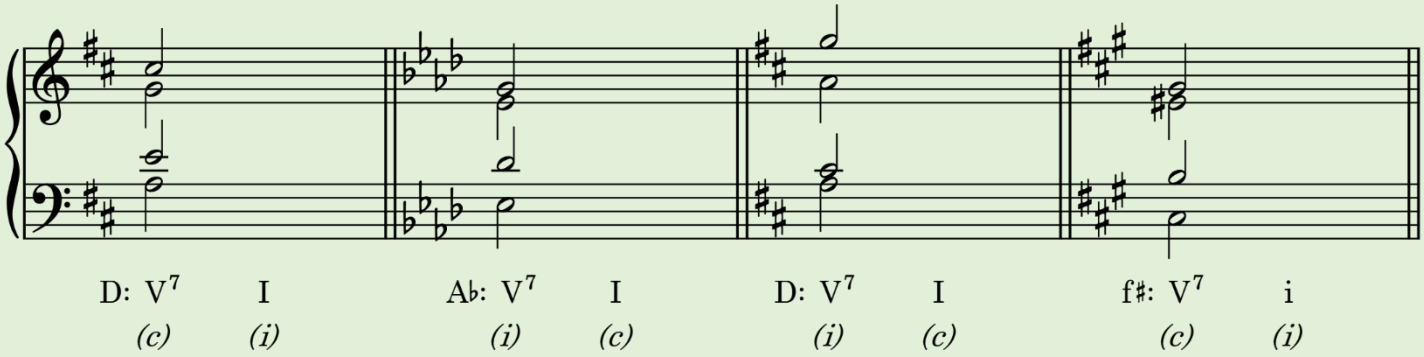
In the following examples, the V^7 chord is incomplete. It **omits the fifth** and **doubles the root**.



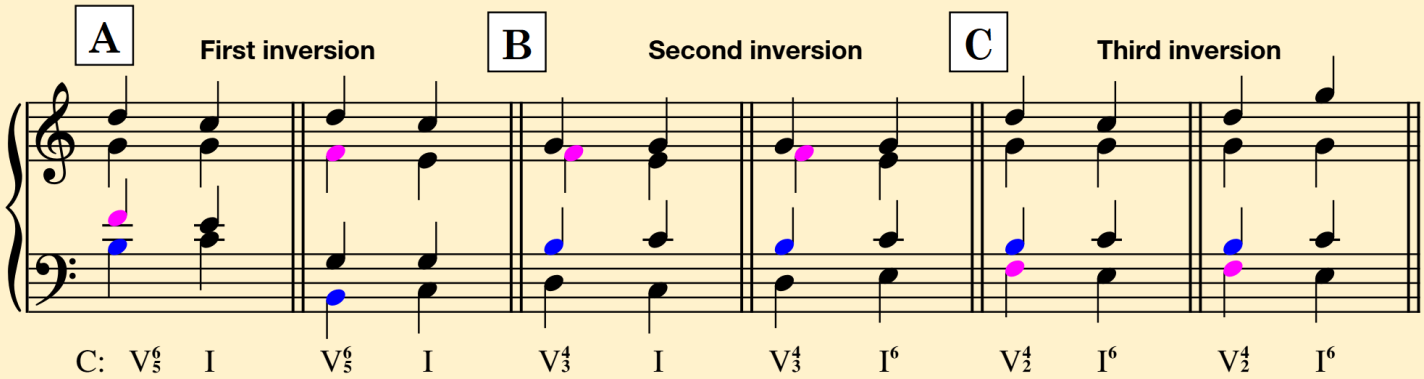
Exercise: Identify whether the seventh chord is **complete** or **incomplete**.



Exercise: Complete the four-part exercises below. Each chord is labeled as **complete** or **incomplete**. Use this information to guide your voice leading. ✅ **Tip:** Ensure that if one chord is incomplete, the other remains complete to maintain harmonic clarity.



For inverted V^7 chords, the resolution of the **chordal seventh** remains essential. It must still **move downward by step**. Pay close attention to the leading tone: it must rise to the tonic when placed in an outer voice, but this resolution is optional in inner voices.

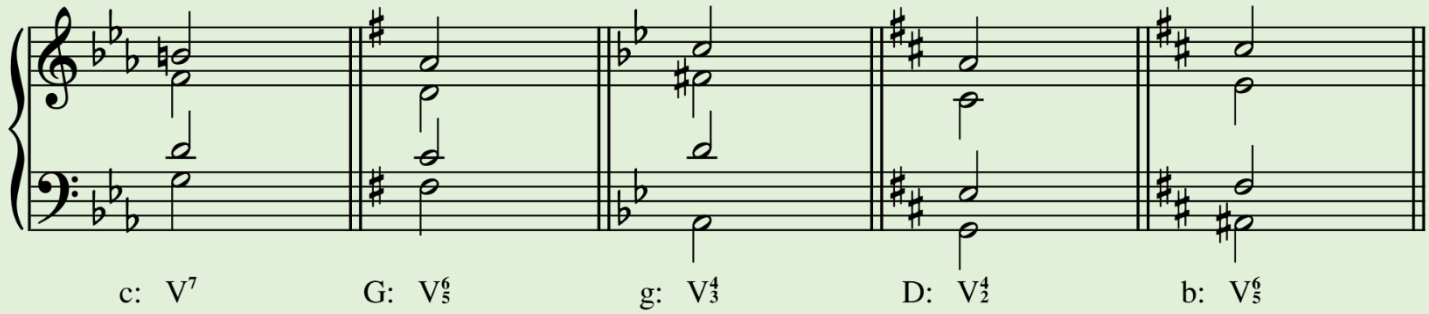


Leading tone in outer voices must rise to the tonic. Hence V^6_5 can **only** go to I.

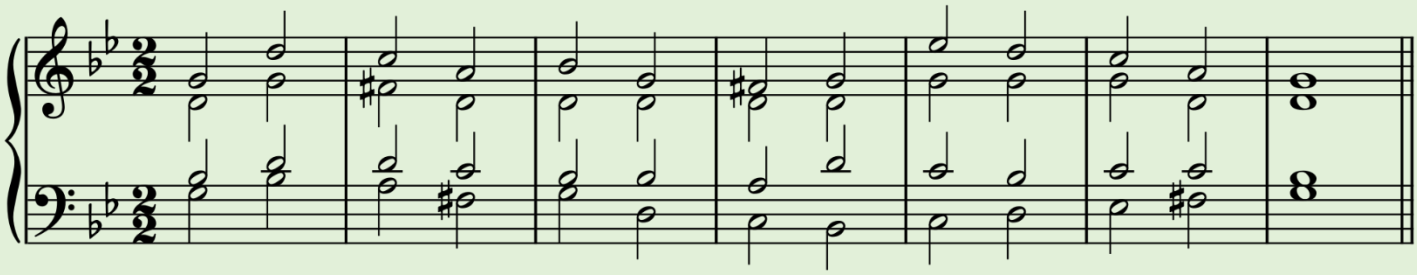
V^4_3 can go to either I or I^6.

The **seventh** must resolve downward. Hence, V^4_2 can **only** go I^6 because the 7th is in the lowest note.

Exercise: Complete the four-part exercises below. You may resolve using an **incomplete I chord**, where omitting the fifth and tripling the root is acceptable.



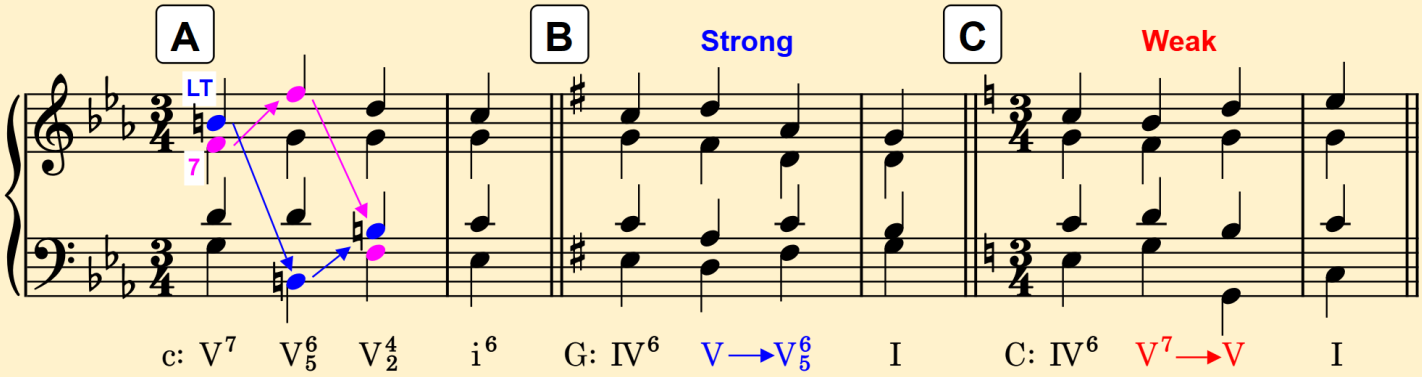
Exercise: Analyze the following chorales using Roman numbers.



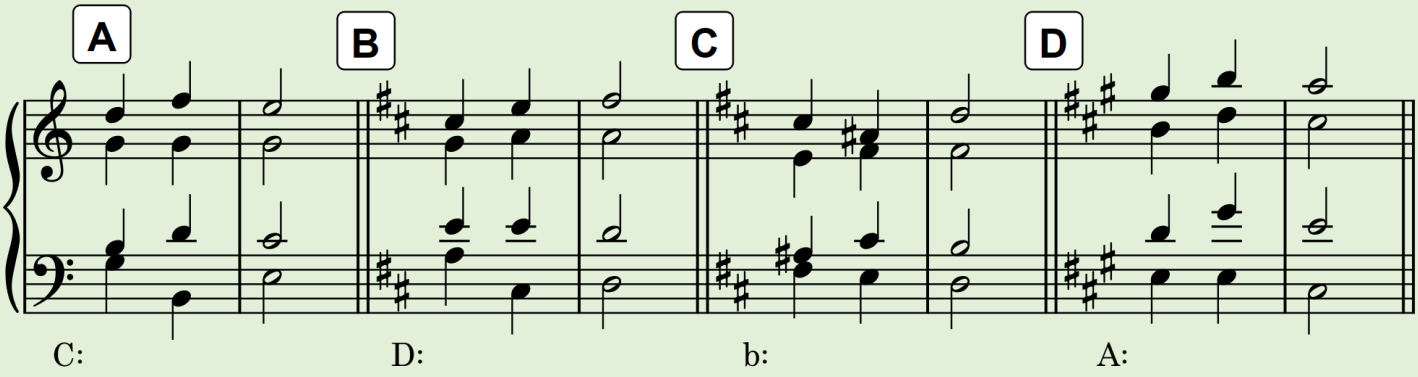
Prolongation of V

The $V^{(7)}$ chord may be **repeated or prolonged** before resolving to the tonic (I). During this prolongation, both the **chordal seventh** and **leading tone** can be **freely transferred** between voices.

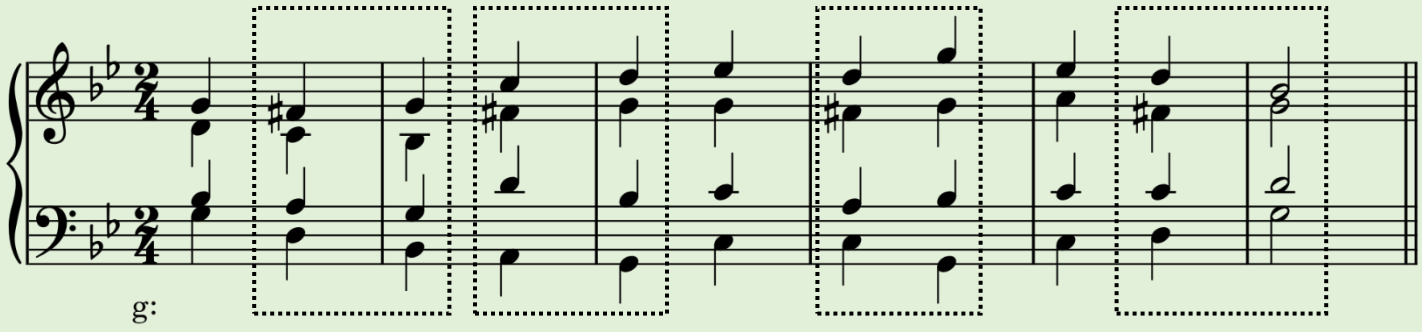
Note that while a V chord can progress to V^7, the reverse is not standard. **V^7 does not typically revert to V**, as its dominant function is more strongly expressed.



Exercise: The following examples contain instances of poor voice leading. Begin by labeling each chord with its Roman numeral function. Then, identify and explain the problematic voice-leading moments.



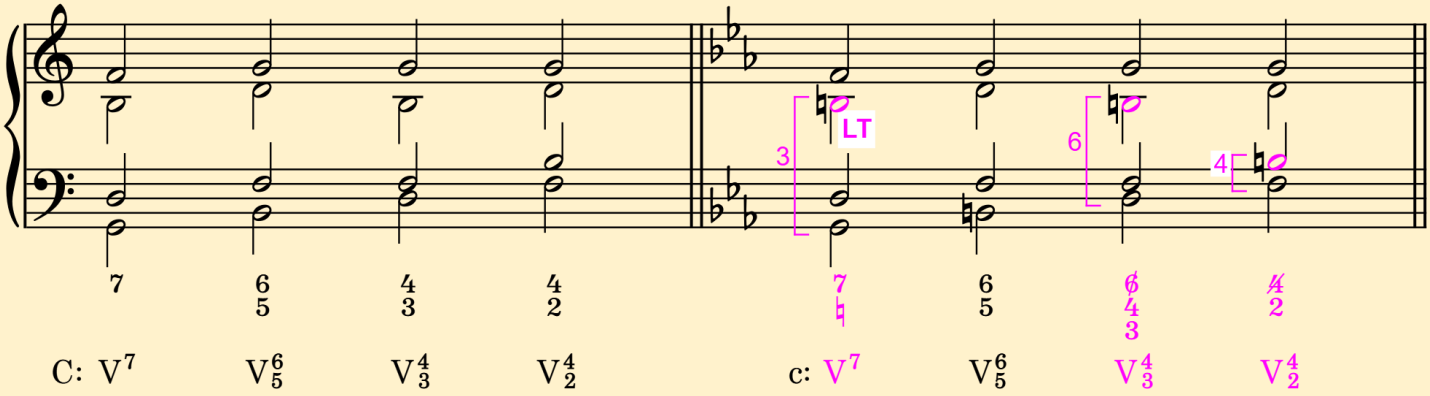
Exercise: Focus only on the boxed progressions below. Analyze each and identify any poor voice-leading practices.



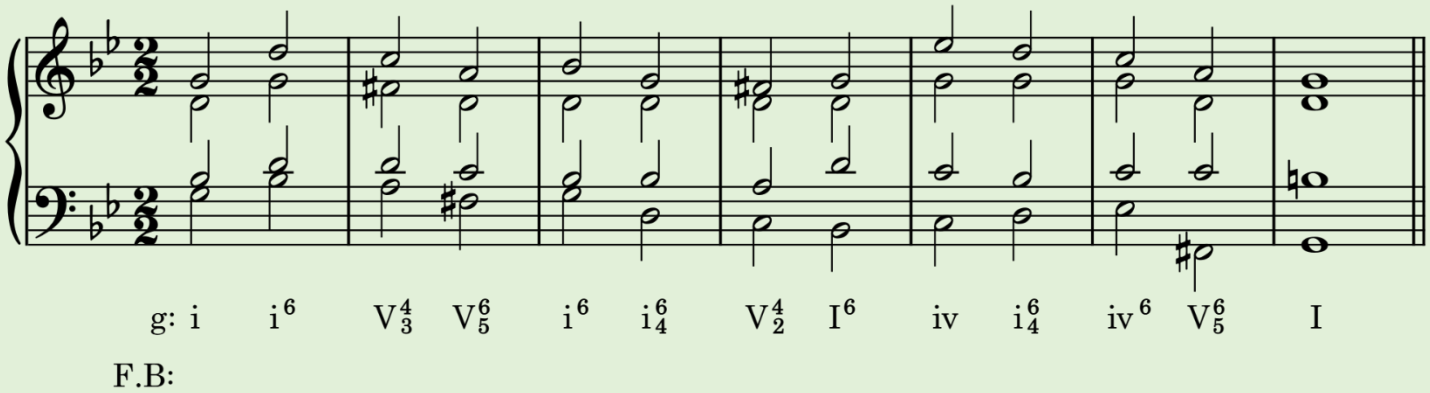
Figured Bass

Figured bass symbols for V^7 chords in major keys are straightforward. Simply **duplicate the interval numbers** exactly.

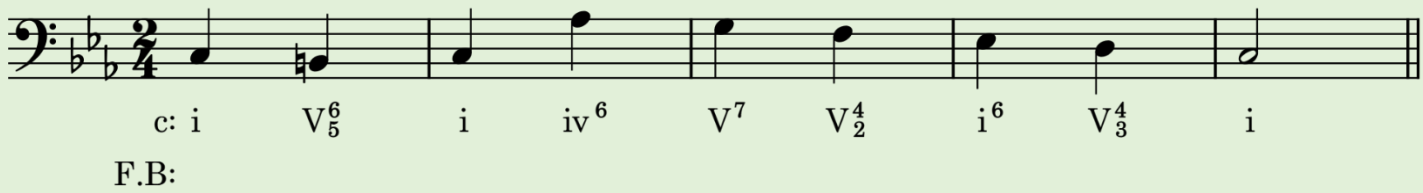
In minor keys, however, extra care is needed for chords containing **accidentals**, particularly those built on the raised $\hat{7}$.



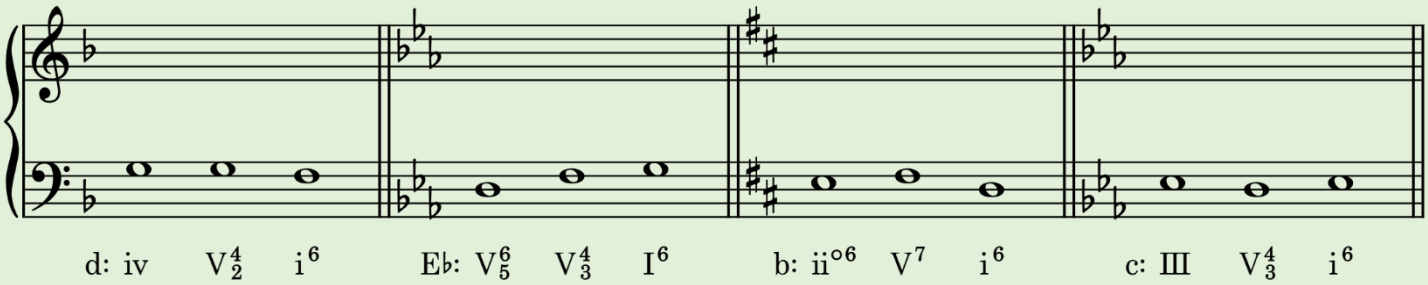
Exercise: Provide the figured bass symbols for each chord in the progression below. ✅ **Tip:** Pay close attention to inversions and any accidentals—especially in minor keys, where raised leading tones can affect interval structure.

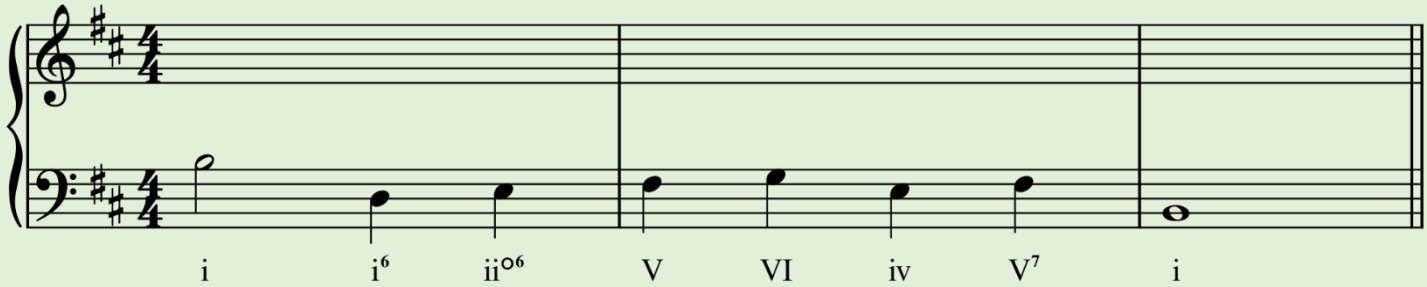


Exercise: Provide the figured bass symbols for each chord in the progression below.



Exercise: Complete the four-part harmony using the provided harmonic progression.



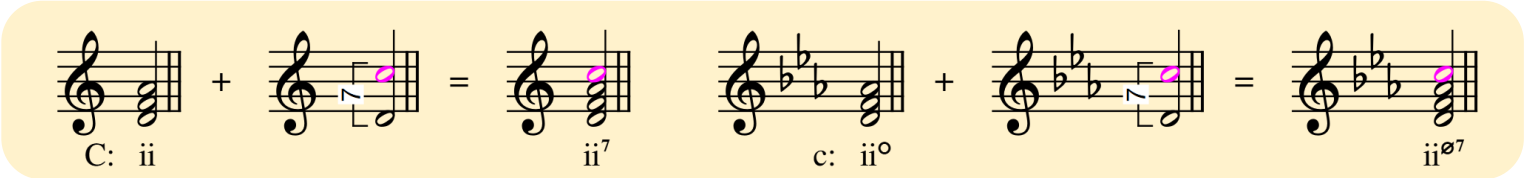


REVIEW

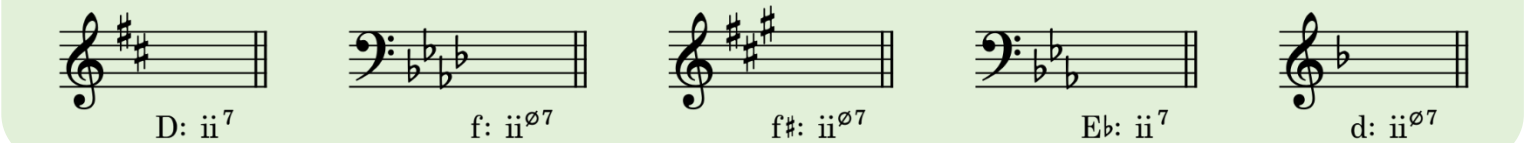
QUESTION	ANSWER
1. Both chords in a V^7–I progression can be incomplete. True or false?	
2. What is the doubling for an incomplete V^7 chord?	
3. What is the doubling for an incomplete I chord?	
4. V^7 can progress to a V chord. True or false?	
5. Under what circumstances does the chordal seventh of a V^7 chord resolve upward?	

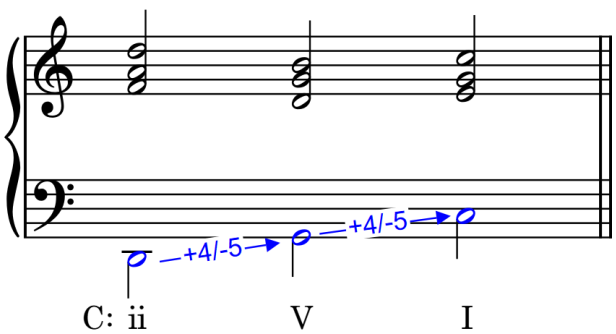
Supertonic Sevenths

Having explored the V^7 chord in detail, we now turn our attention to the **supertonic seventh chord**, its inversions, and voice leading. In both major and minor keys, the supertonic seventh exists in two distinct forms: **the minor ii^7** and the **half-diminished $\mathrm{ii}^{\varnothing 7}$**.



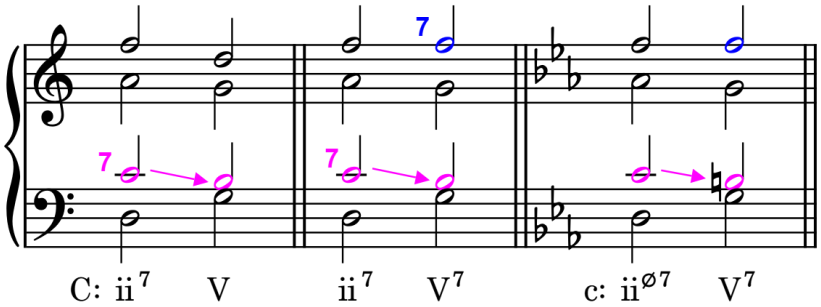
Exercise: Build supertonic seventh chords according to the Roman numeral analysis.



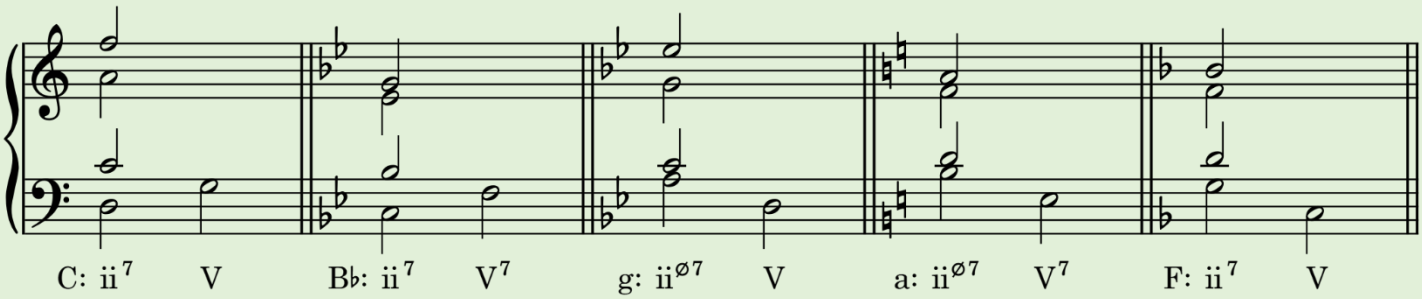


The **supertonic chord** has a **strong tendency to progress to the V**, mirroring the dominant's strong pull toward I. Both progressions feature root movement by **descending fifth** or **ascending fourth**, reinforcing their functional relationship within tonal harmony.

The supertonic seventh chord may resolve to either V or V^7. Its chordal seventh follows standard resolution practice: **descending by step** to the next chord tone.

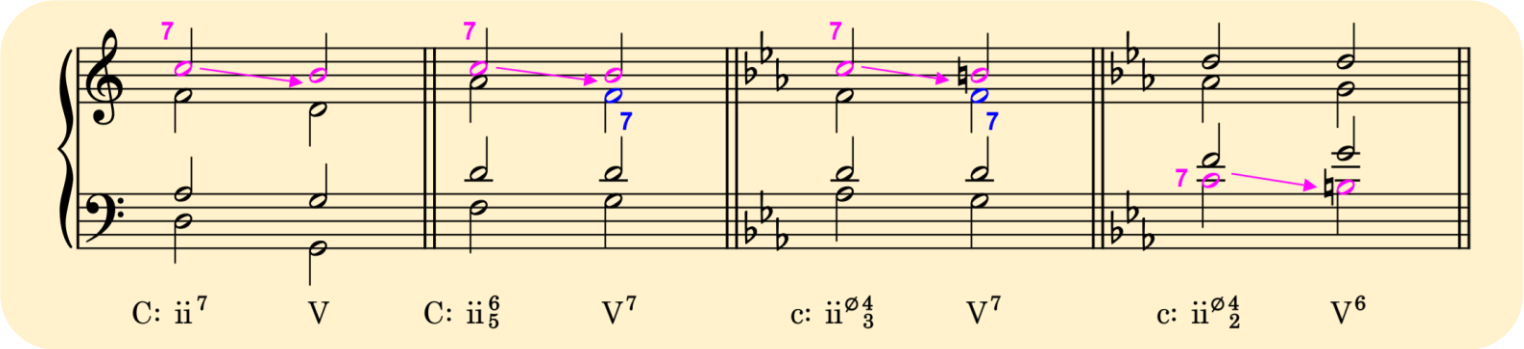


Exercise: In each of the following supertonic seventh chords, identify the chordal seventh and demonstrate its resolution.

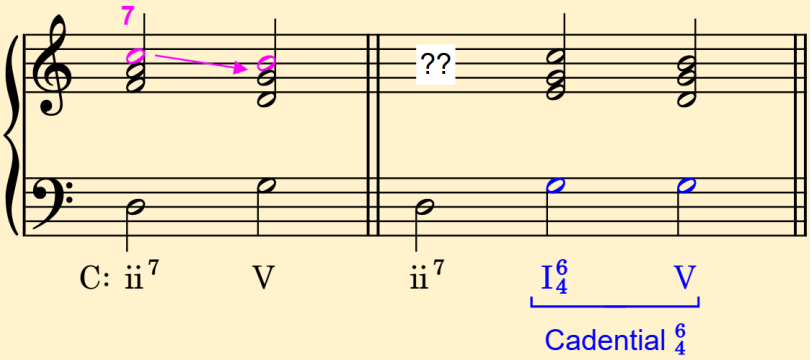


Inversions and Resolution

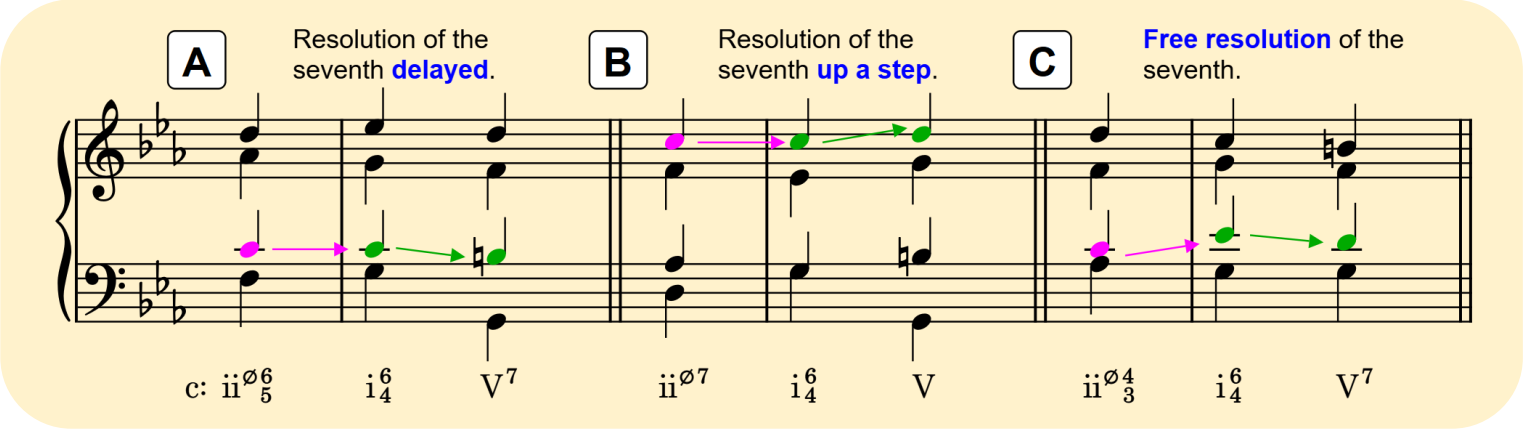
The inversion figures for supertonic seventh chords match those used for V^7 chords. Regardless of inversion, the **chordal seventh** in the supertonic seventh must still **resolve downward by step**.



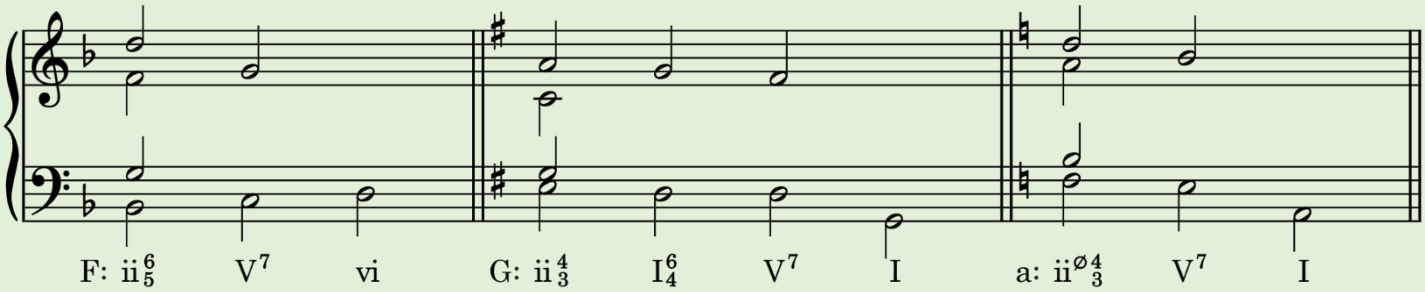
We've previously learned that a cadential I^6_4 chord can be used to embellish a V chord. **But does this affect the resolution of the chordal seventh?**



When the supertonic seventh chord progresses to a cadential I^6_4–V, the **chordal seventh** is **not required to resolve downward by step**.



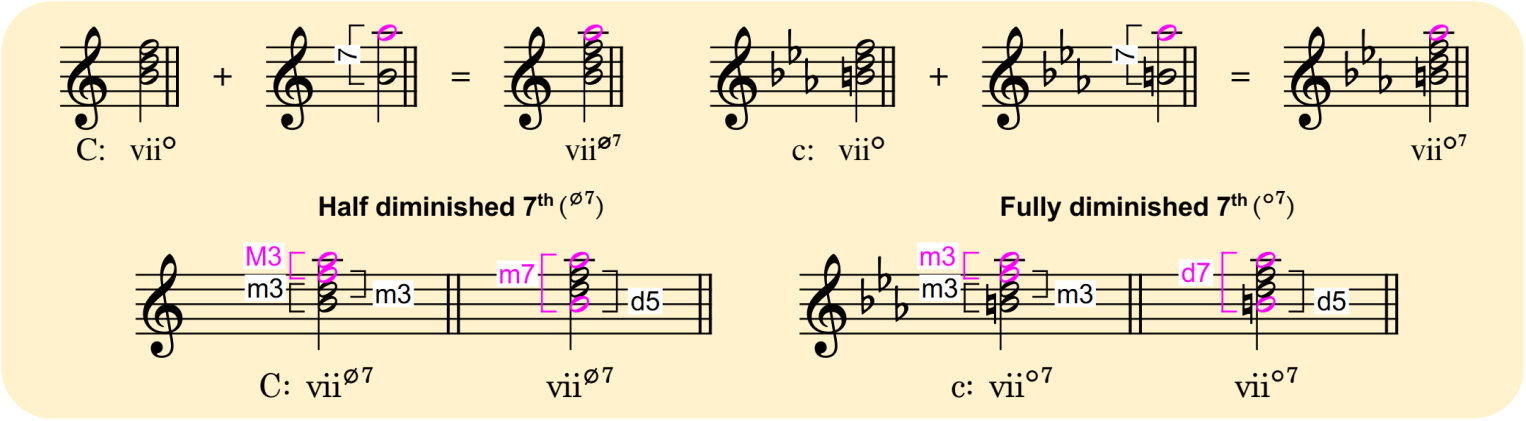
Exercise: Fill in the missing voices using proper voice leading.



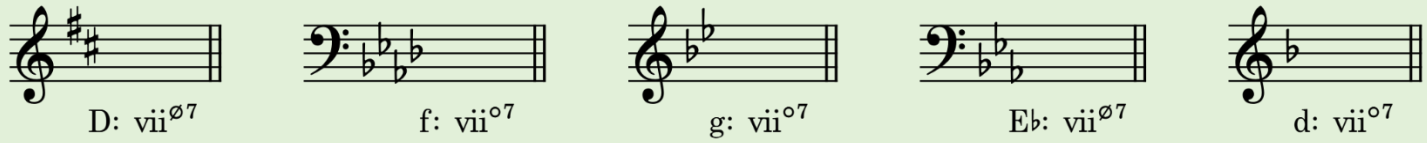
Leading Tone Sevenths

The leading-tone (LT) seventh chord is our third essential seventh chord. Similar to the supertonic seventh, it comes in two distinct forms: the **fully diminished** $\text{vii}^{\circ 7}$ and the **half-diminished** $\text{vii}^{\varnothing 7}$.

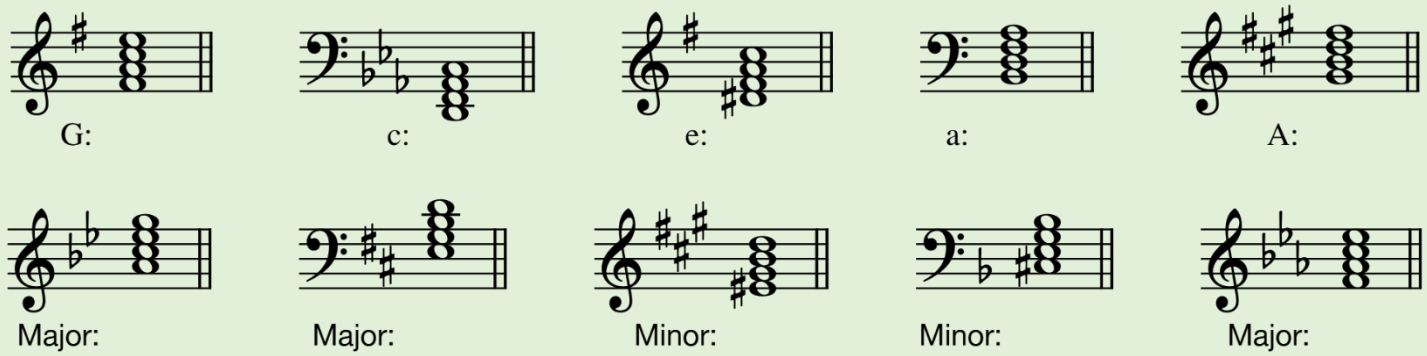
In **major keys**, the LT seventh chord is a **half diminished** ($^{\varnothing 7}$) chord. While in **minor keys**, it is a **fully diminished** ($^{\circ 7}$) chord.

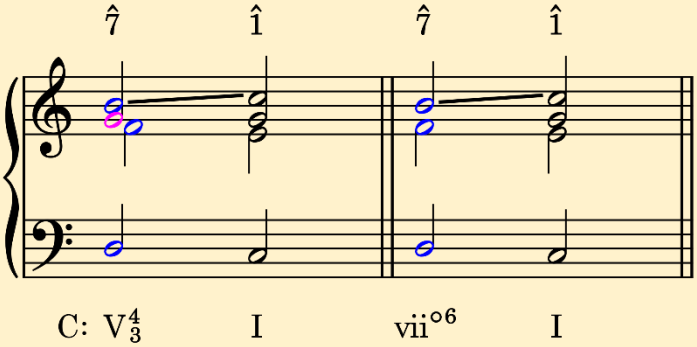


Exercise: Construct leading-tone seventh chords based on the given Roman numeral analysis.



Exercise: Provide the appropriate Roman numeral analysis based on its harmonic context. In the second row, identify the key (major or minor). Note: Some chords include supertonic sevenths.

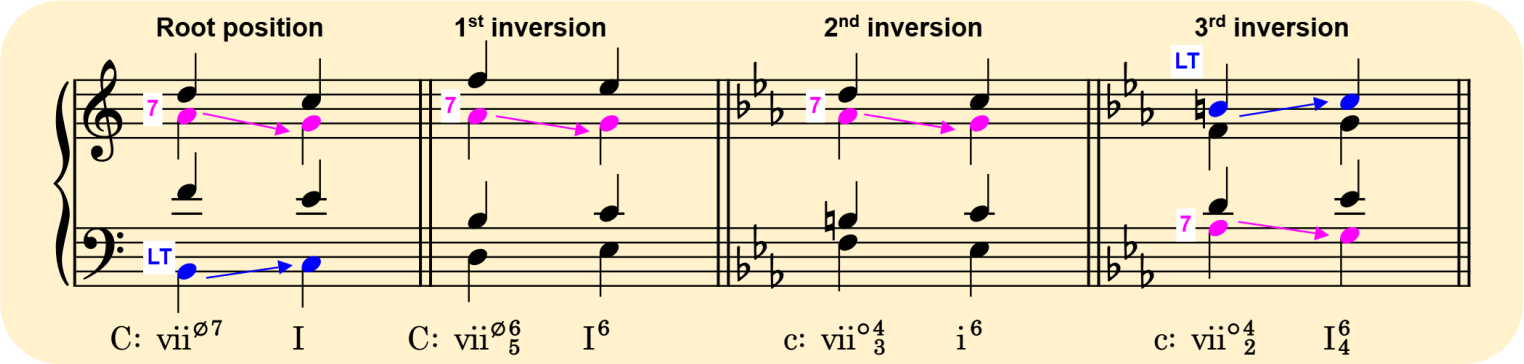




The vii° **chord** has a **strong tendency to resolve to** I. Functionally, it resembles a V^7 chord: both contain the leading tone that drives resolution, but vii° **lacks the root of** V^7, resulting in a more compact structure.

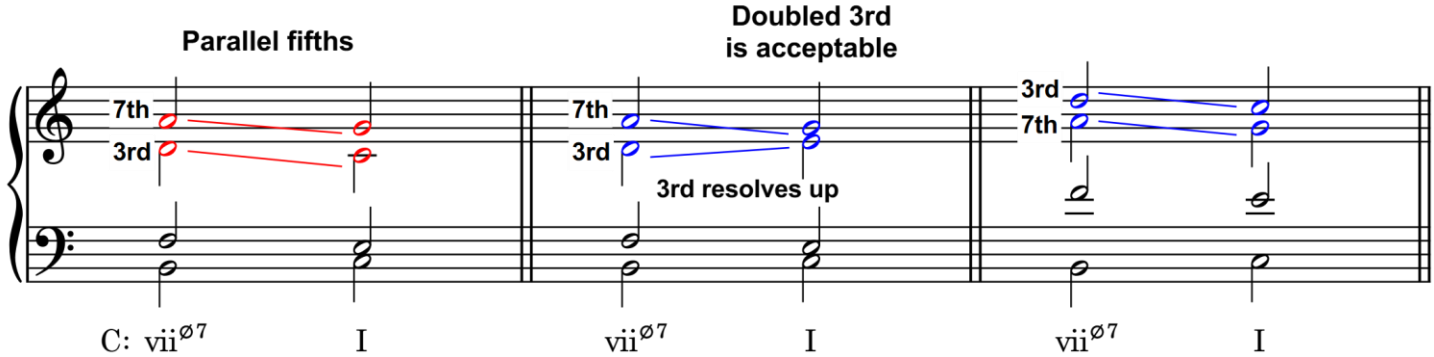
Resolution

Just like the V^7 chord, the **chordal seventh** is a dissonant tone that must **resolve downward by step**. Additionally, the **leading tone**, when placed in an **outer voice**, must **resolve upward to the tonic**.



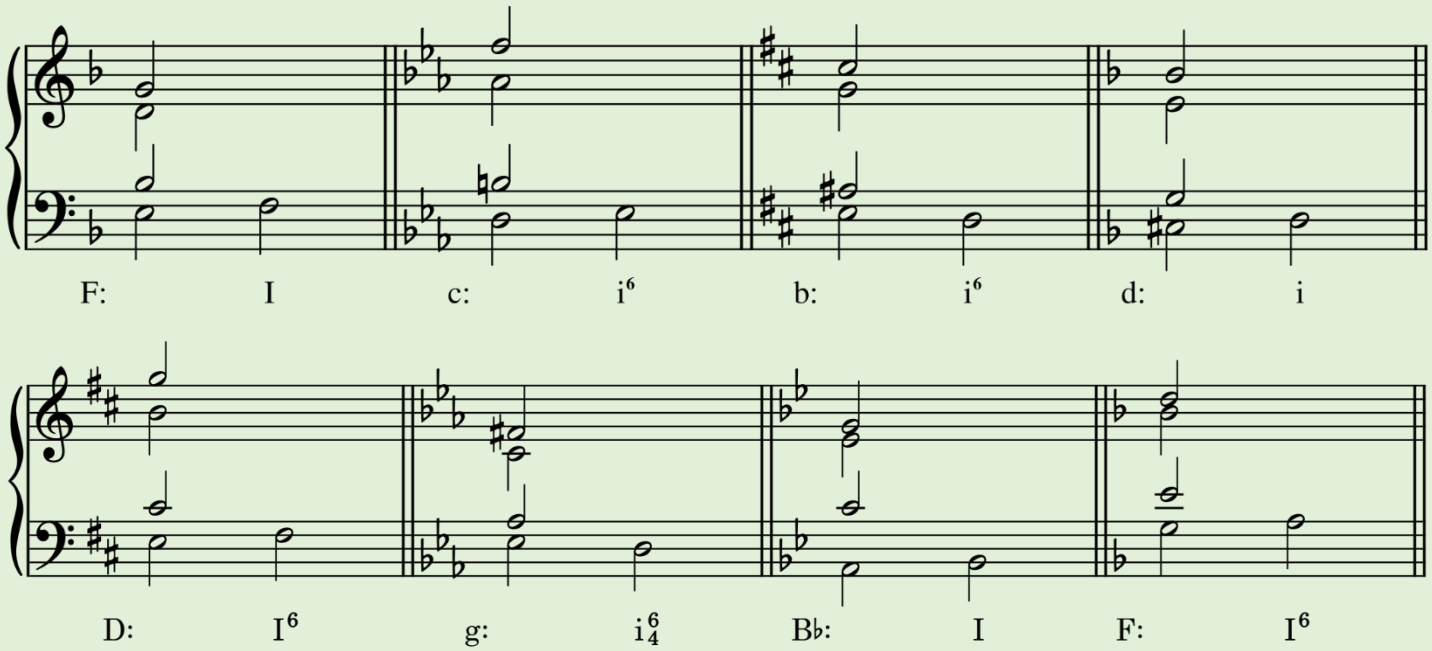
EXCEPTION

When the 7th of a $vii^{ø7}$ chord is voiced above the 3rd of the chord, **resolve the 3rd of the chord up by step** while resolving all other tendency tones normally. This is to avoid undesirable parallels.



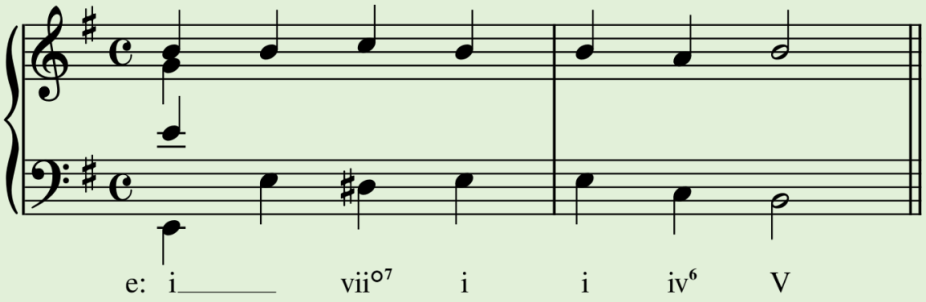
Exercise: Analyze each of the following leading-tone seventh chords (vii^{o7} or $vii^{ø7}$) using Roman numerals. Identify the chordal seventh and the leading tone, and show their proper resolution.

✅ **Tip: Resolve all voices by step**.

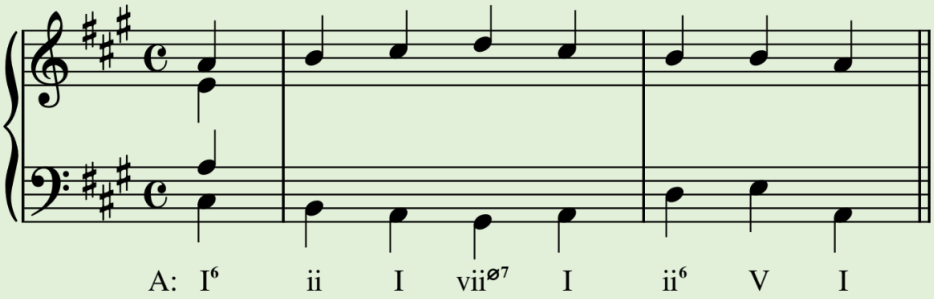


Exercise: For the following two excerpts by Bach, add the alto and tenor voices based on the provided Roman numeral analysis. Ensure that your harmonization follows proper voice-leading conventions.

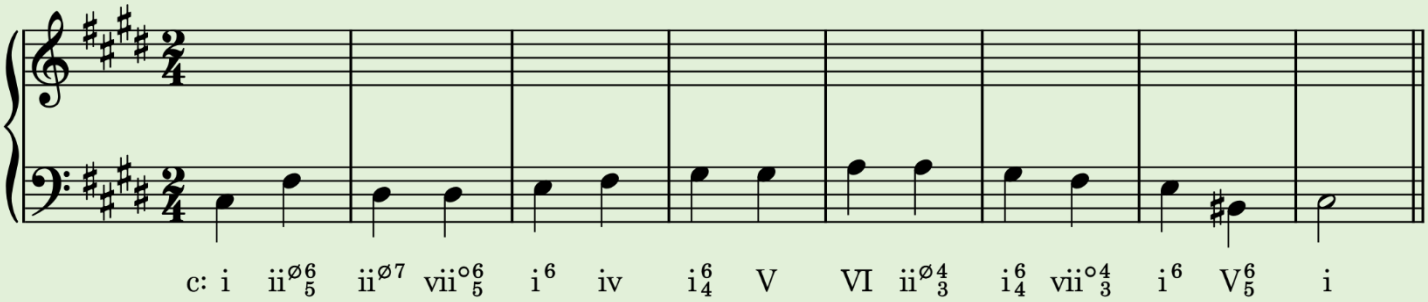
"Meines Lebens letzte Zeit", BWV 381, mm. 1-2 (modified).

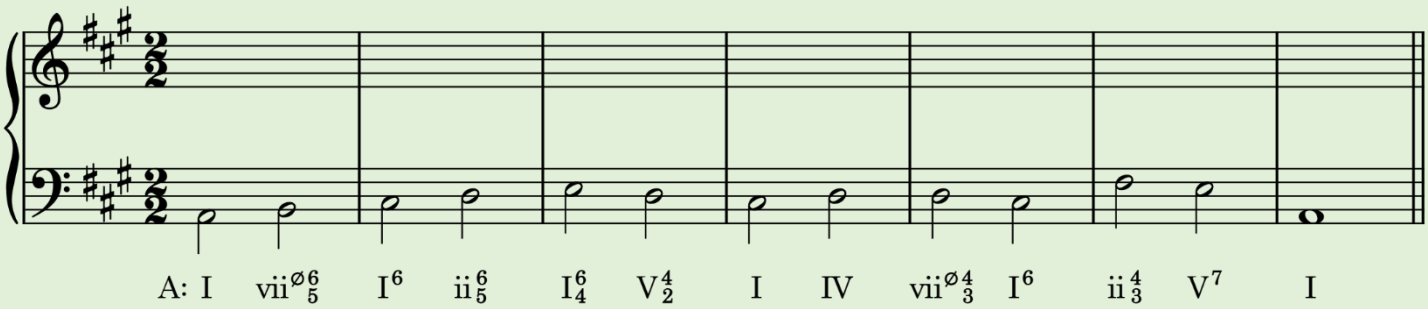


"Mach's mit mir, Gott, nach deiner Güt", BWV 377, mm. 3-4 (modified).



Exercise: For the following two exercises, add the soprano, alto, and tenor voices according to the given Roman numeral analysis.





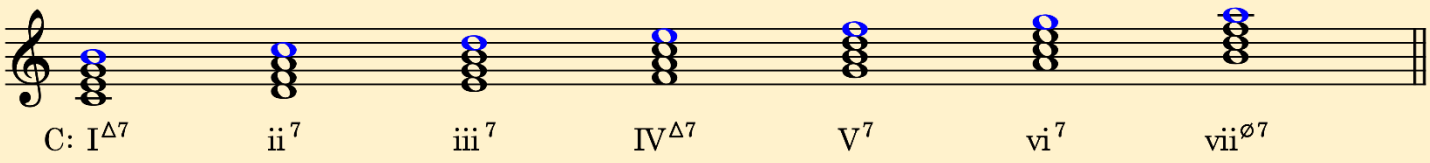
Other Sevenths

Seventh chords can be built on any scale degree, though dominant, supertonic, and leading-tone sevenths are the most common, especially in traditional harmony.

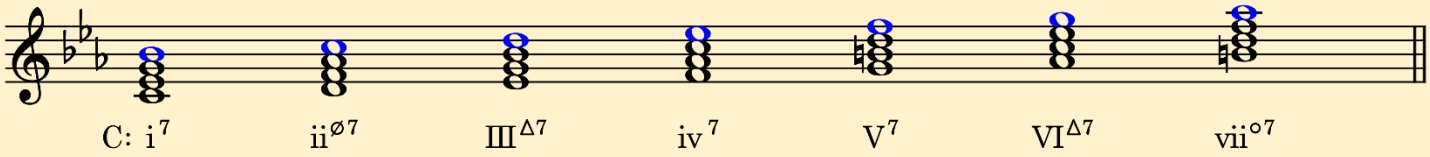
Below is a list of seventh chords in both major and minor scales. **The symbol $^{\Delta 7}$ indicates a major-major seventh chord**, which combines a **major triad with a major seventh**.

Seventh chords can be constructed from any scale degree:

Major scale:

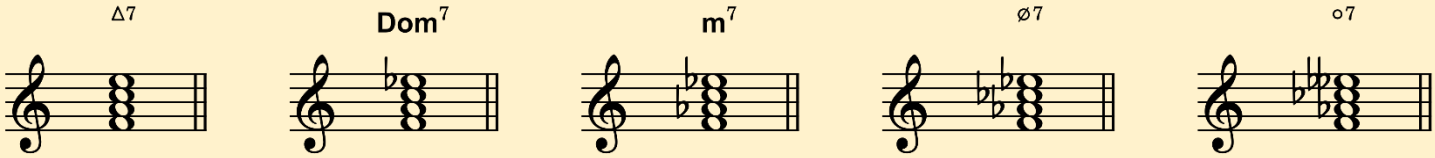


Harmonic minor scale (except for III):

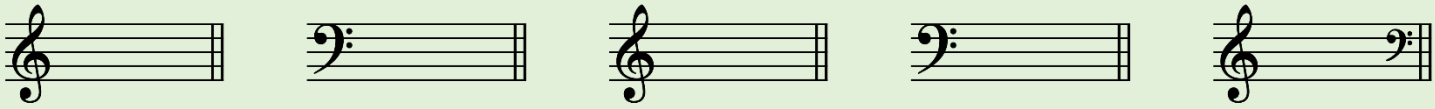


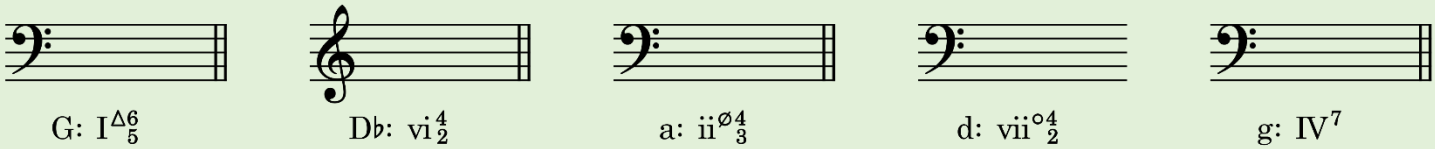
By now, we've learned the five most common types of seventh chords:
① **Major-major seventh** ($^{\Delta 7}$): major triad + major seventh.
② **Major-minor seventh** (dominant^{7}): major triad + minor seventh.
③ **Minor-minor seventh** (m^{7}): minor triad + minor seventh.
④ **Half-diminished seventh** ($^{\varnothing 7}$): diminished triad + minor seventh.
⑤ **Fully-diminished seventh** ($^{\circ 7}$): diminished triad + diminished seventh.

Types of seventh chords:

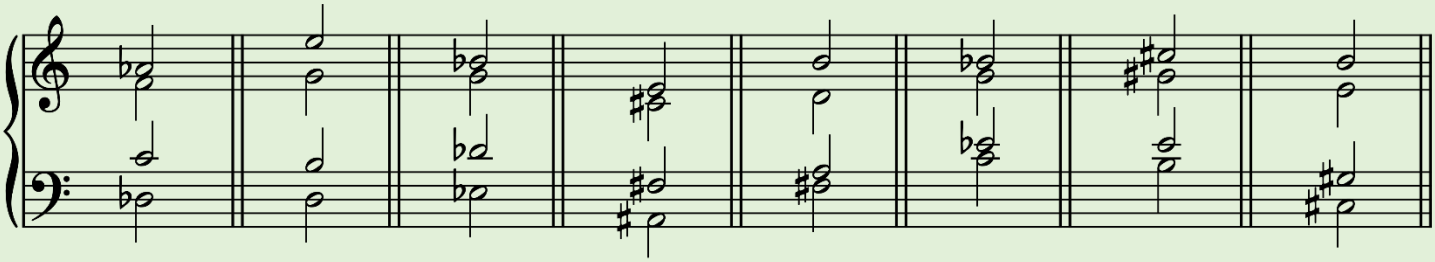


Exercise: Notate the following chords. Use accidentals, not key signatures.



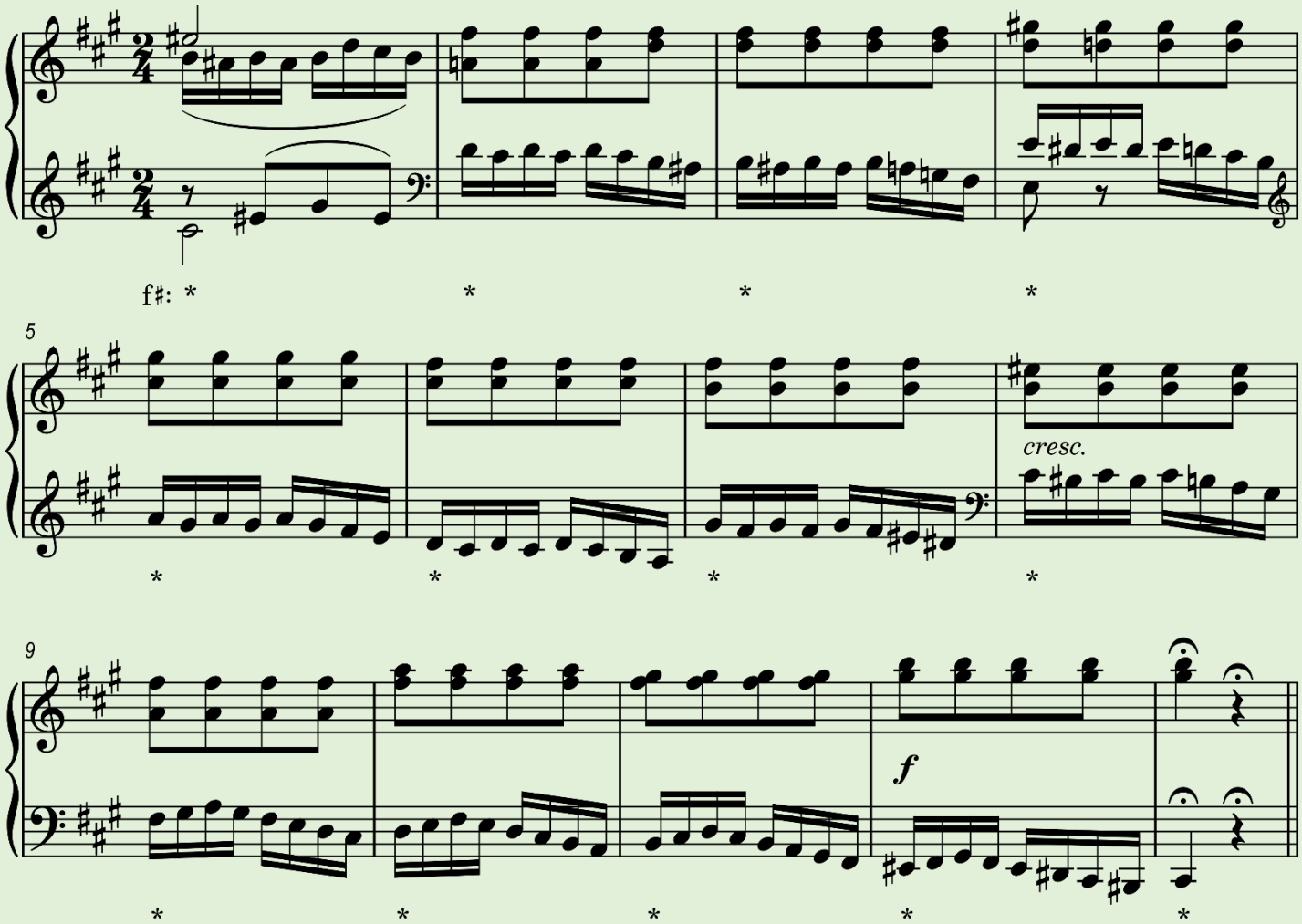


Exercise: Analyze the following chords. Be sure your symbols indicate chord quality and inversion.



A♭:____ D: ____ f: ____ b: ____ A: ____ B♭:____ c♯:____ E: ____

Exercise: Label all the chords where * appears. **Note:** The 16th-note (semiquaver) neighbor tones in measures 1–8 are **<u>nonharmonic tones</u>**, **<u>not chordal sevenths</u>**.



Secondary Dominants

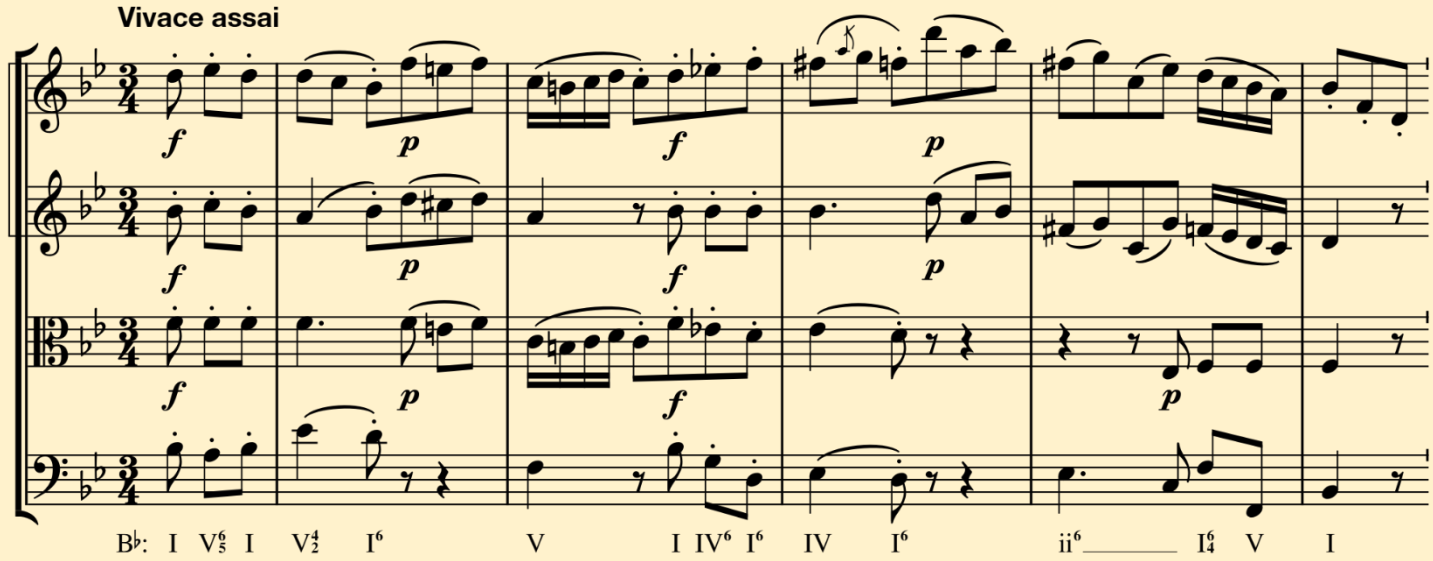
Chromatic Harmony

Chromaticism refers to the use of notes that fall outside the key of the passage. These notes add color and expressive nuance to the music.

There are two main types of chromaticism:
① **Nonessential chromaticism:** This involves chromatic notes used as **nonharmonic tones**, like passing tones, neighbor tones, or suspensions. They briefly decorate the harmony without changing its structure.

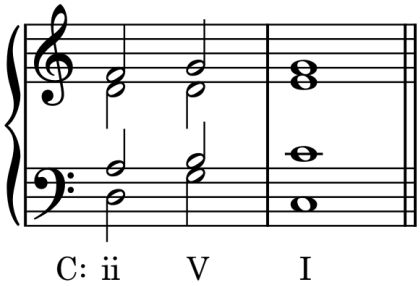
② **Essential chromaticism:** This involves chromatic notes functioning as **chord tones** within altered or chromatic chords. These chords shift the harmonic landscape and often play a role in modulation or expressive intensification.

Example of nonessential chromaticism:

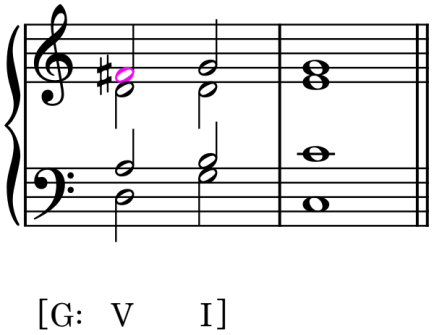


Secondary Chords & Tonicization

Secondary chords are the most common example of essential chromaticism in tonal music. These chords momentarily **borrow from another key**, adding richness and tension to the harmony.



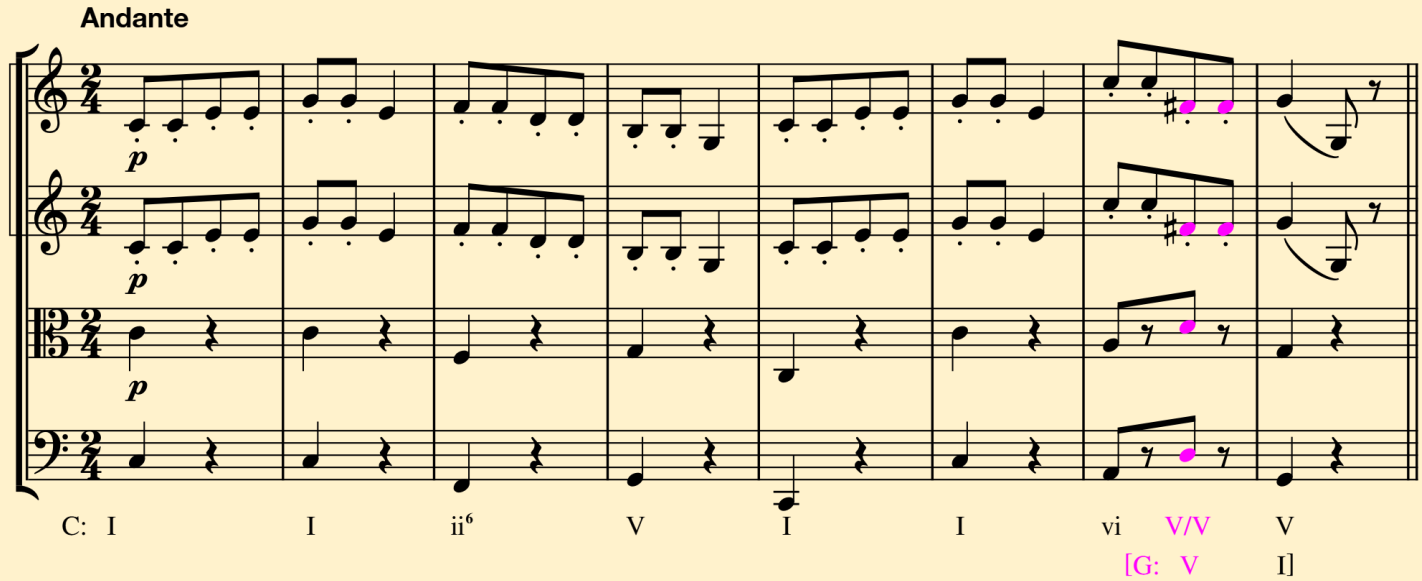
Sounds like a LT



By changing the F to **F♯** in the ii chord, the **voice leading to G becomes stronger**.

The **F♯** sounds like a **leading tone**, and the progression sounds like a V–I in the key of G major.

Example of essential chromaticism:



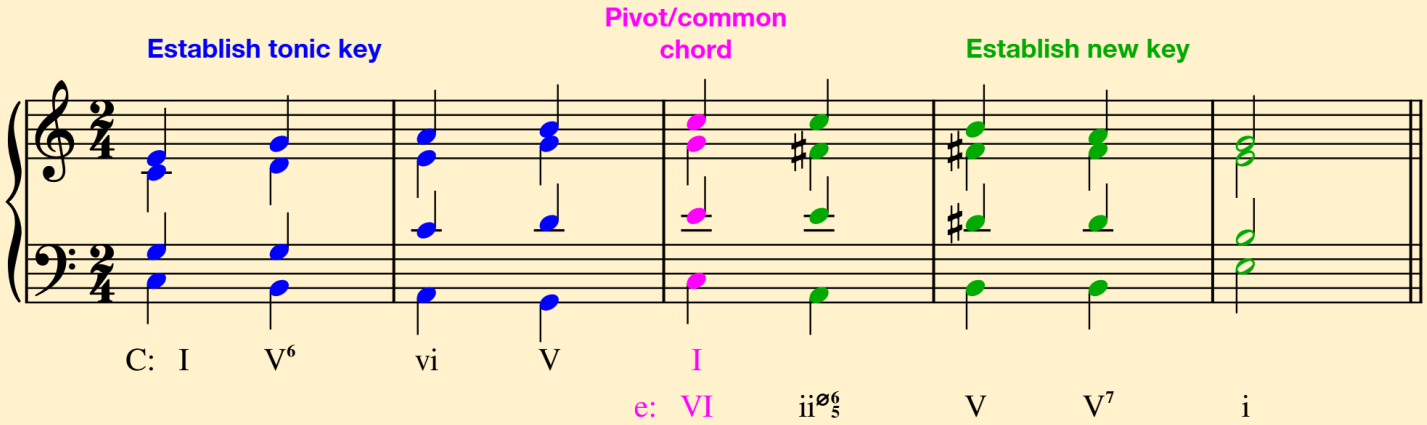
Analysis of Excerpt

The last two chords might look like a V–I **progression in G major**, but the overall passage stays in **C major**. The second chord, D major, doesn't naturally fit in C major—after all, C major doesn't contain F♯, which is part of D major.

However, since D major behaves like the dominant of G, we analyze it as V/G (spoken "five of G") or V/V. This is called a **secondary dominant**—a chord that temporarily acts like the dominant of another key.

Because D major includes F♯, the leading tone to G, it makes **G major sound like a tonic briefly**. That's called **tonicization**: it creates a momentary sense of another key without a full modulation.

Example of a modulation:



Spelling Secondary Dominants

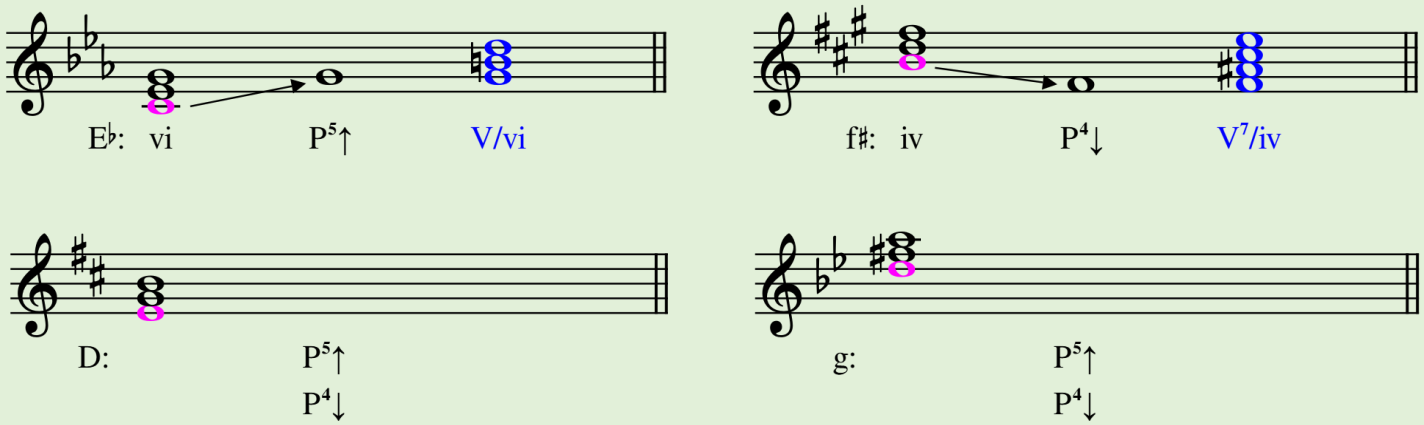
To spell a **secondary dominant**, follow these three steps:

① **Identify the chord being tonicized**. This is the chord that will sound like a temporary tonic.

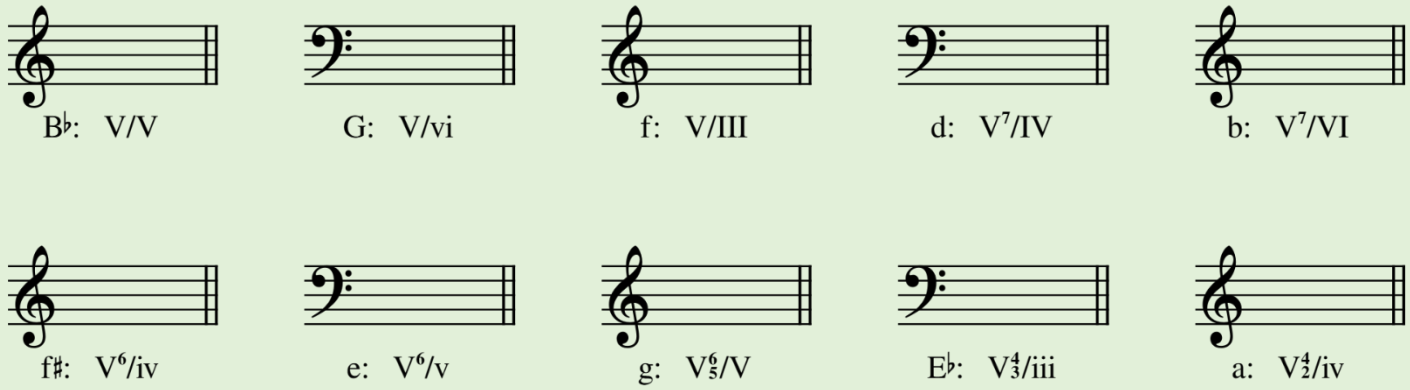
② **Find its dominant** by going **down a perfect fourth** or **up a perfect fifth** from the root of that chord.

③ **Build the dominant chord** by using your new note as the root to spell: a **major triad** (for V of […]) or a **dominant seventh chord** (for V^7 of […]).

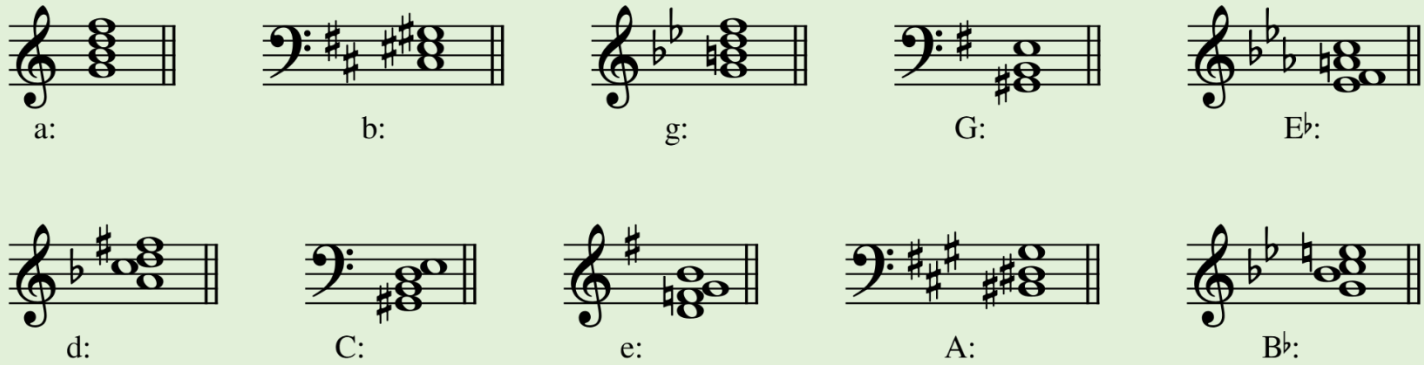
Finding secondary dominants (V and V^7) in different keys



Exercise: Notate these secondary dominants in the specified inversions. Add key signatures.



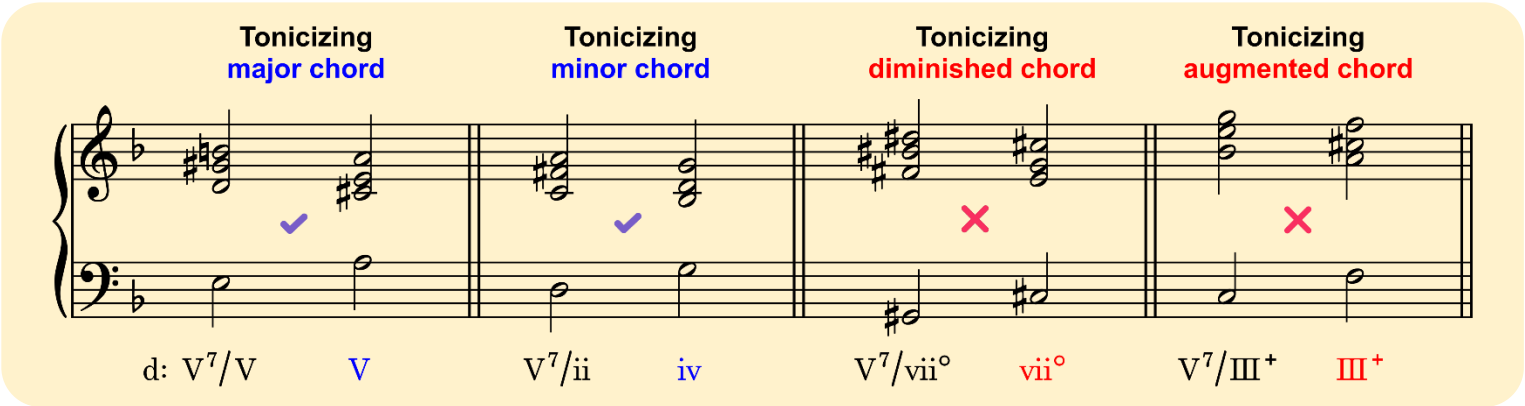
Exercise: Label these secondary dominants using Roman numbers.



Secondary Dominants

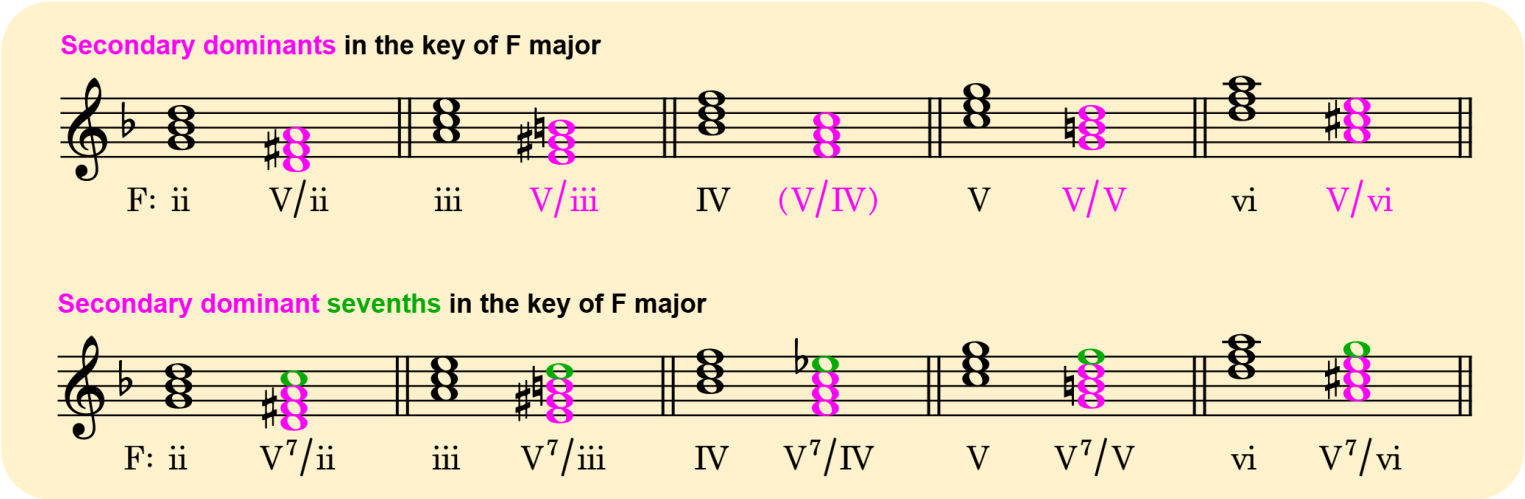
Since the **tonic triad is always major or minor**, only **major and minor chords** can be tonicized by secondary dominants. This means you won't see progressions like $\mathrm{V}/\mathrm{III}^{+}$ or $\mathrm{V}/\mathrm{vii}^{\circ}$, because **augmented** and **diminished** chords can't serve as tonic triads.

However, any other diatonic chord except the tonic itself can be tonicized using a **secondary dominant** (either a V or V^{7} chord).



The V **chord is always major**, so **all secondary V chords** are also spelled as **major triads**. When writing them, be sure to use the correct accidentals to reflect notes outside the key.

To make the progression more expressive, you can also use **secondary V^{7} chords**. A V^{7} chord includes a **major triad** plus a **minor seventh** above the root.

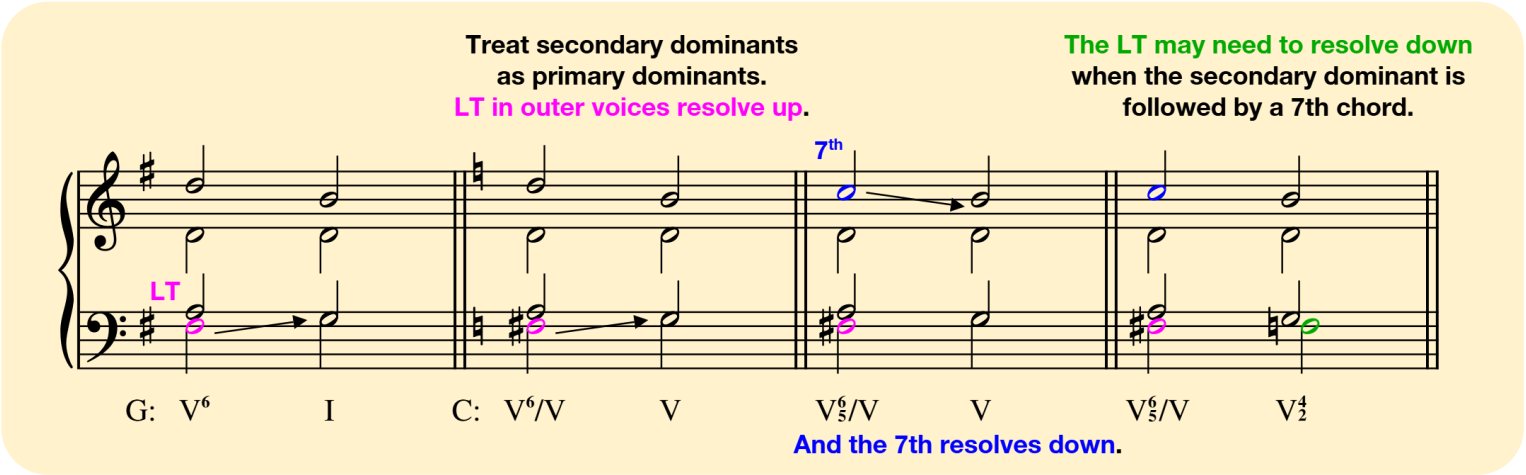


You might notice that V/IV **is written in parentheses**. This suggests that the chord may be better understood using its **primary function** within the key. In this case, V/IV **can simply be analyzed as I**, since it fits naturally without needing secondary dominant labelling.

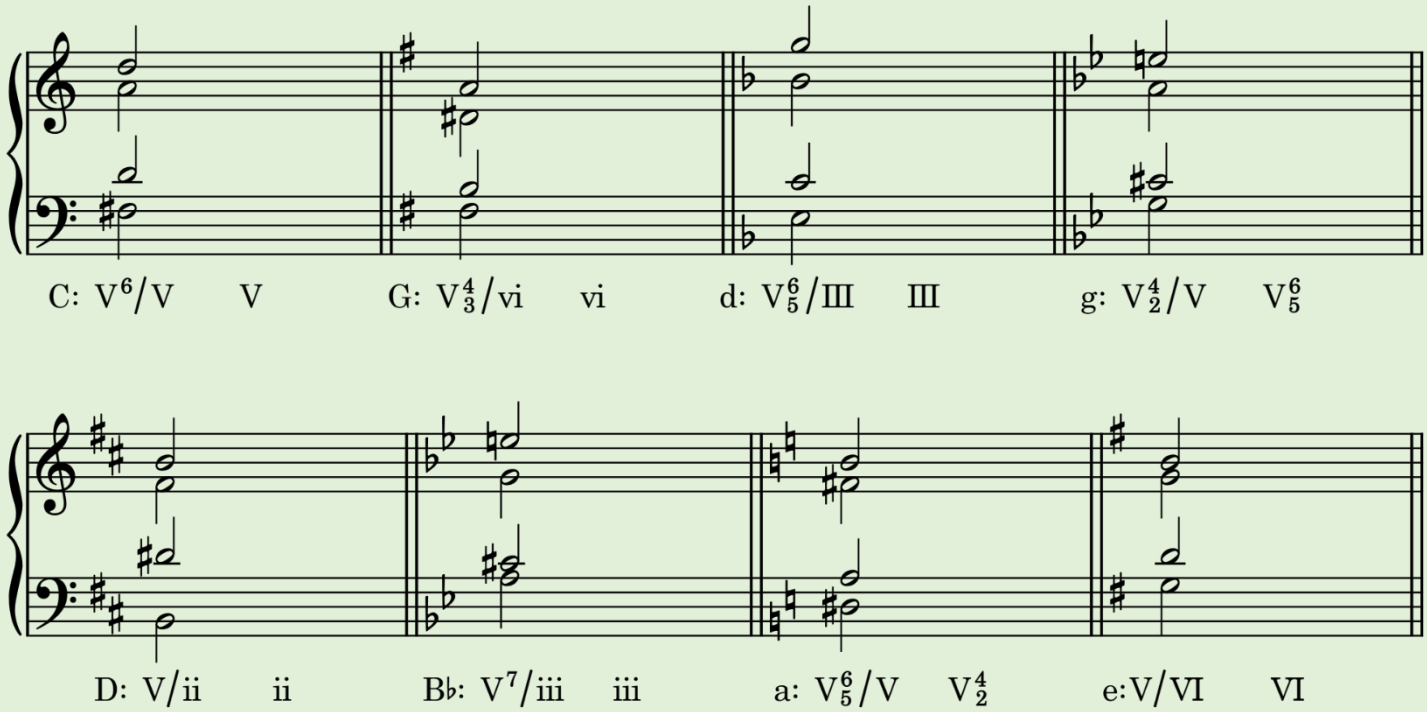
Secondary Dominants in Context

Secondary dominants typically **resolve the same way as primary dominants**—with the **leading tone (LT) moving upward to the tonic**, and the **seventh resolving downward**. It's important to track how these “secondary” tones resolve, especially in voice leading.

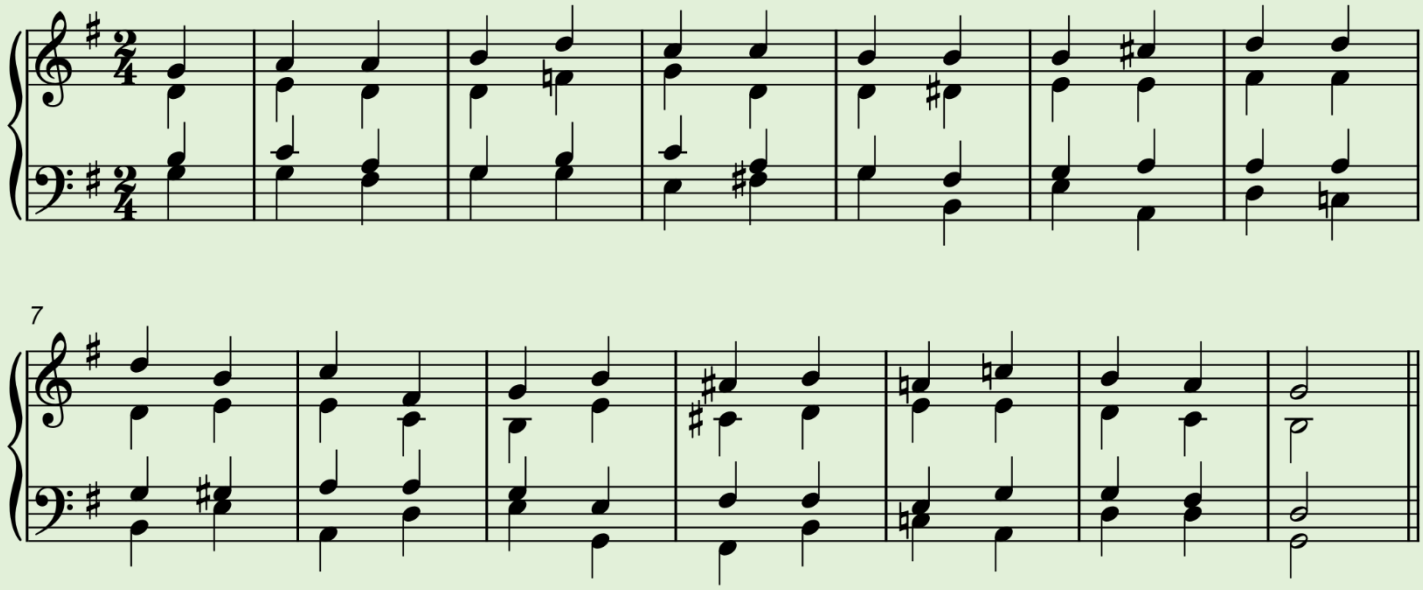
However, there's a **key exception**: when a **secondary V^7 chord resolves to a seventh chord**, the **leading tone** may not rise to a tonic. Instead, it **might resolve downward**, even in outer voices to become the **seventh of the new chord**. This ensures smooth voice leading and avoids awkward leaps or doubled notes.



Exercise: Provide appropriate voice leading to the resolution chord.



Exercise: Analyze the following passage using Roman numerals.



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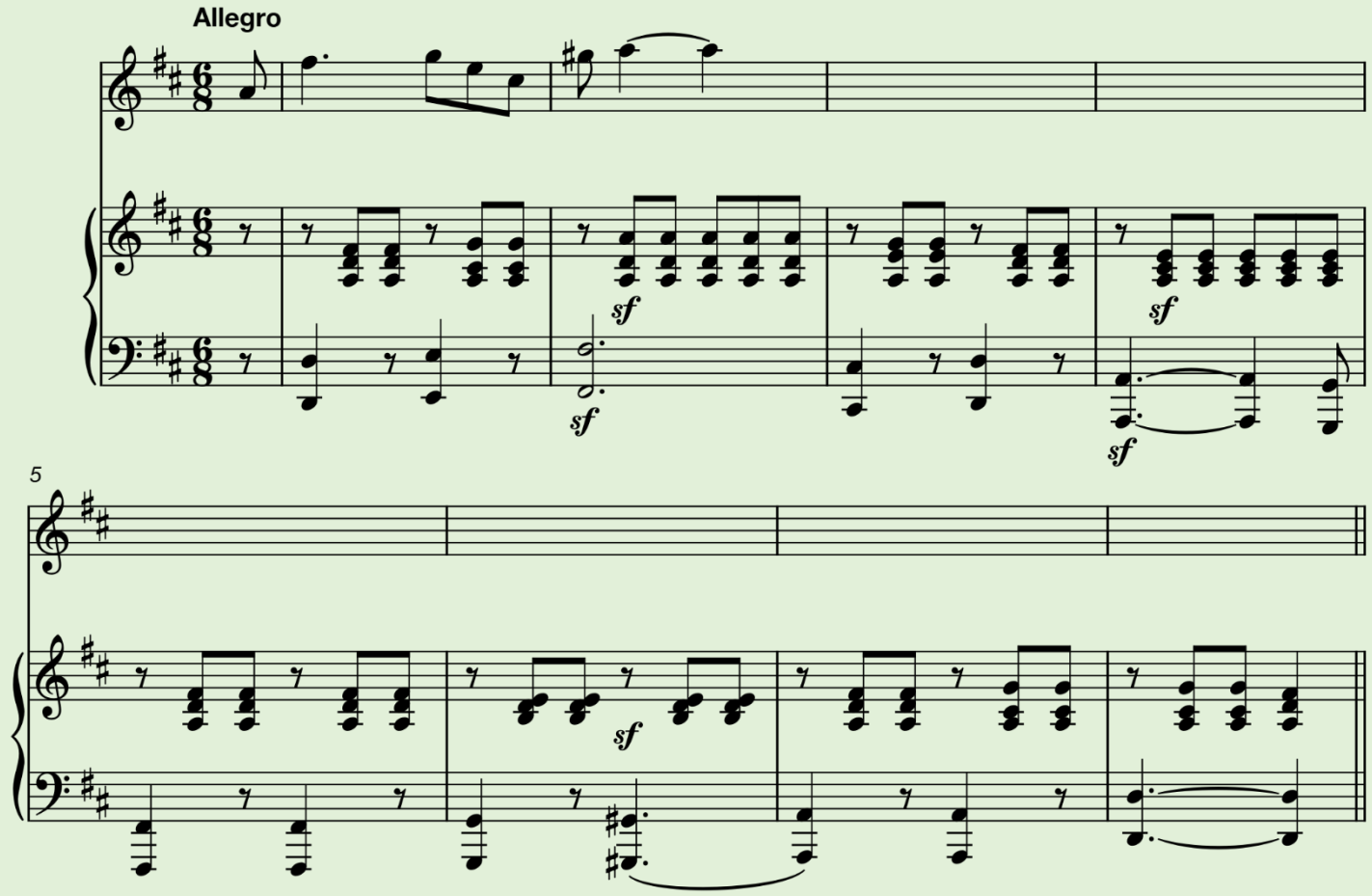
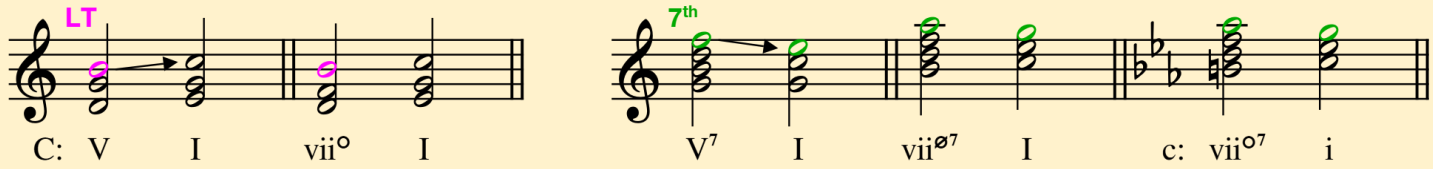
Exercise: Analyze the following excerpt using Roman numerals. **Bonus:** Write a melody that fits the harmony. Make sure to resolve tones like the leading tone and any chordal sevenths.



Secondary Leading Tone

Chords V and vii° share a similar harmonic function: they both strongly pull toward the tonic (I). That's why we can also tonicize other chords (not just I) using the secondary leading-tone chord, like vii°/X.

Leading tone chords resolving to a I:



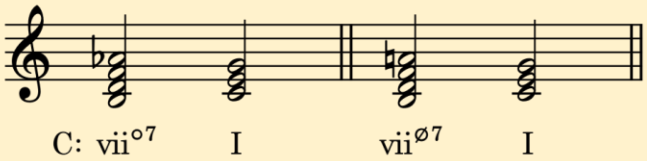
Keep in mind these important principles:

① **Both** vii°7 and viiø7 can **resolve to a major chord**.

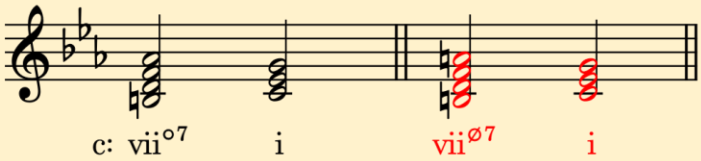
② **Only** vii°7 can **resolve to a minor chord**.

In practice, **<u>secondary vii°7 chords</u>** tend to be **<u>used more often</u>** than viiø7, because they create a stronger sense of tension and resolution.

Resolving to a major chord:



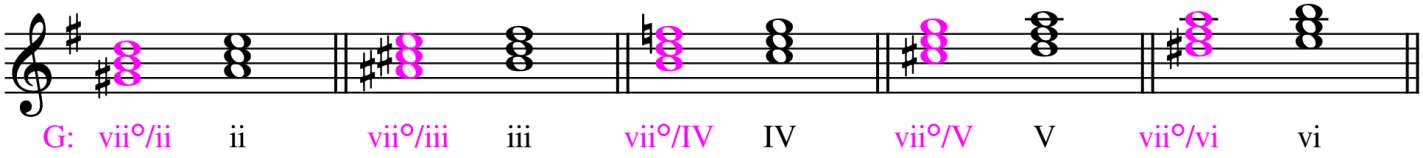
Resolving to a minor chord:



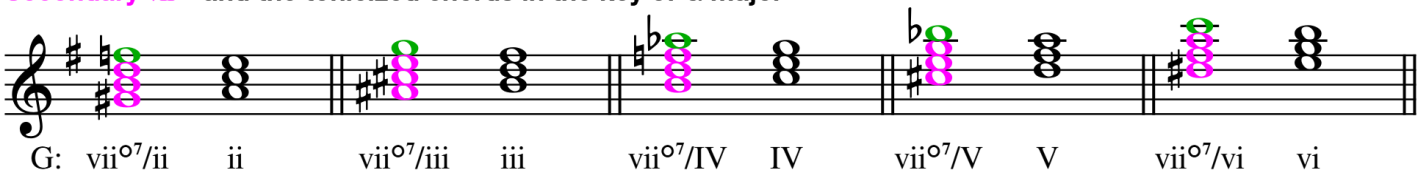
Sounds awkward

Because the tonic triad is always major or minor, **<u>only major</u>** and **<u>minor triads</u>** can be tonicized by secondary leading tones.

Secondary leading tone and the tonicized chords in the key of G major



Secondary vii°7 and the tonicized chords in the key of G major

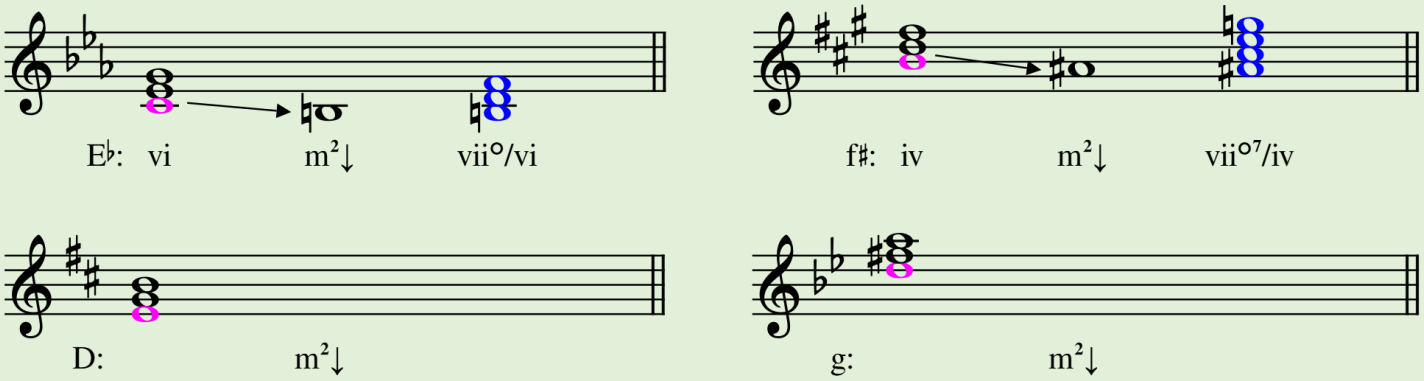


Spelling Secondary Leading Tones

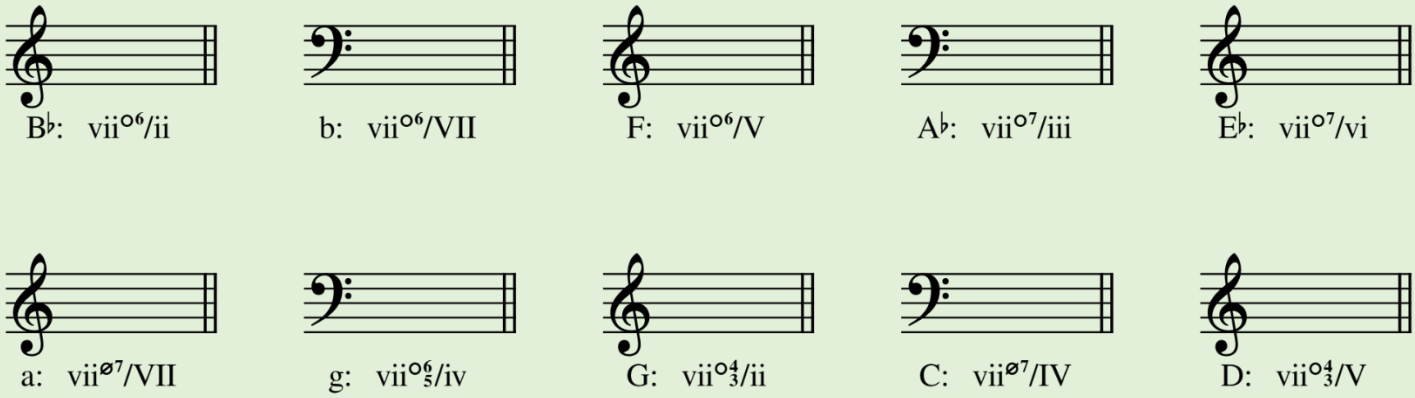
To spell a **secondary leading-tone chord**, follow these steps:

1. **Identify the chord** being tonicized
2. Find the **note a half step (minor 2nd) below its root**.
3. Build the chord by using a **diminished triad** (for vii° of […]) or a **fully diminished seventh chord** (for vii°7 of […] or a **half diminished seventh chord** (for vii⌀7 of […]).

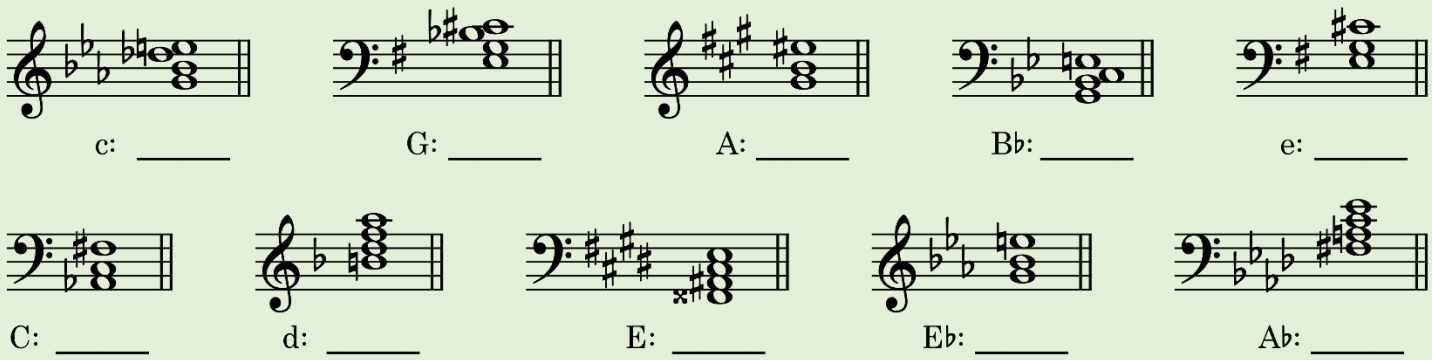
Finding secondary leading tones (vii°, vii°7, and vii⌀7) in different keys



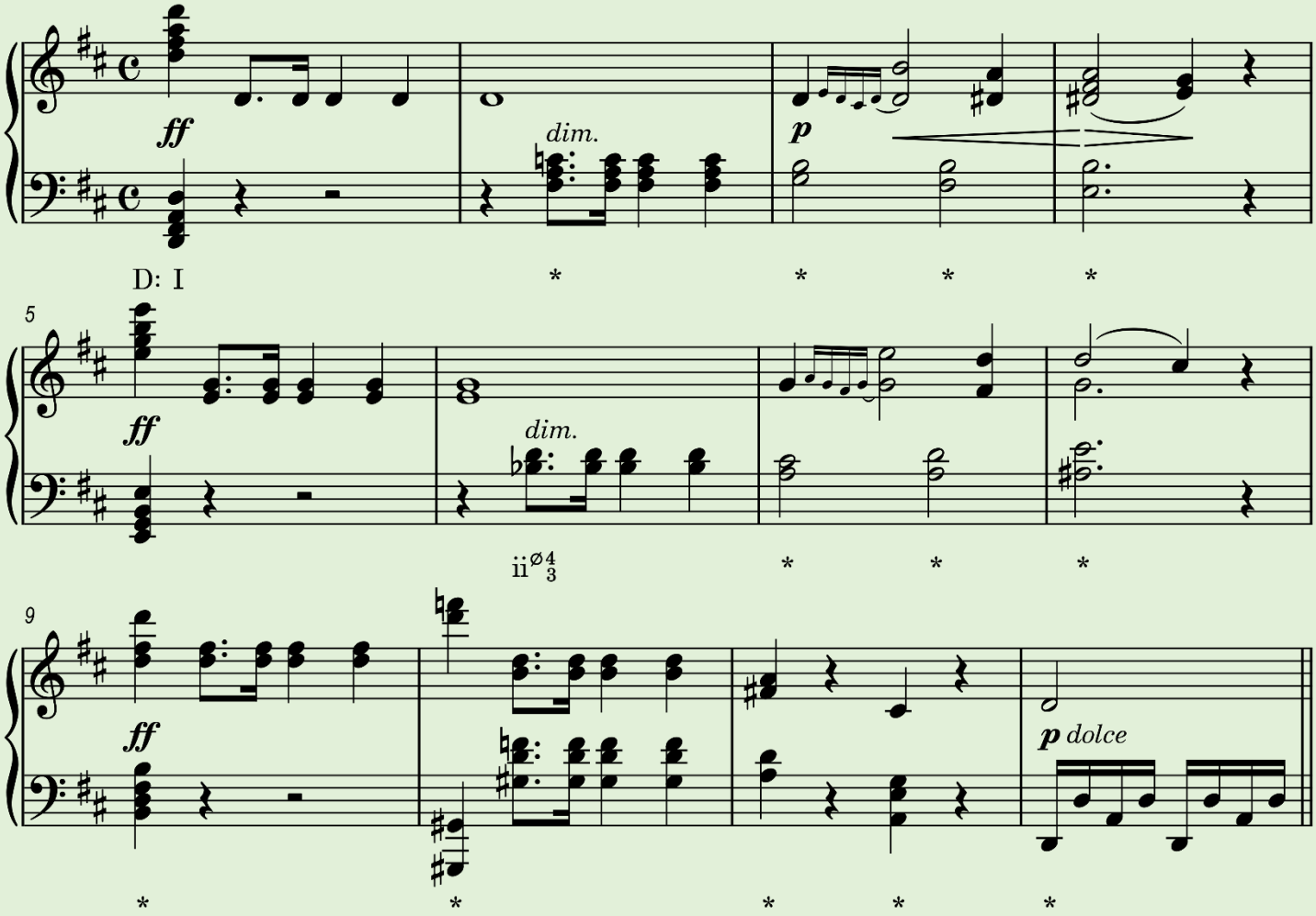
Exercise: Notate these secondary leading tones in the specified inversions. Add key signatures.



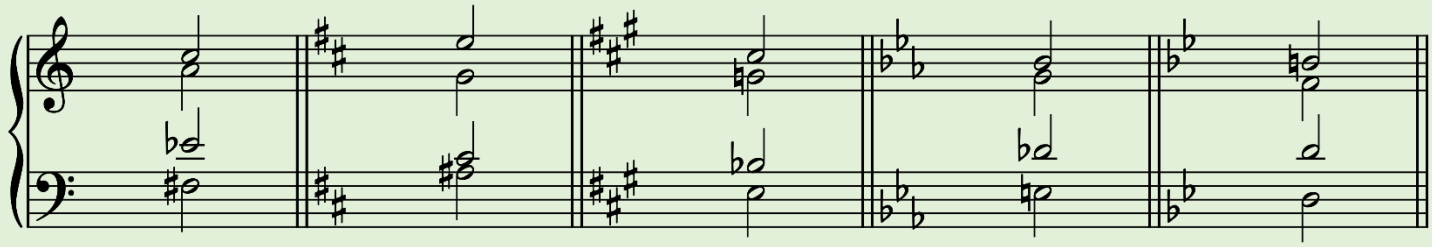
Exercise: Label any chord that would be secondary leading tone chord. Label all others with an *x*.



Exercise: Listen carefully to this excerpt and then put roman numerals in the blanks provided.

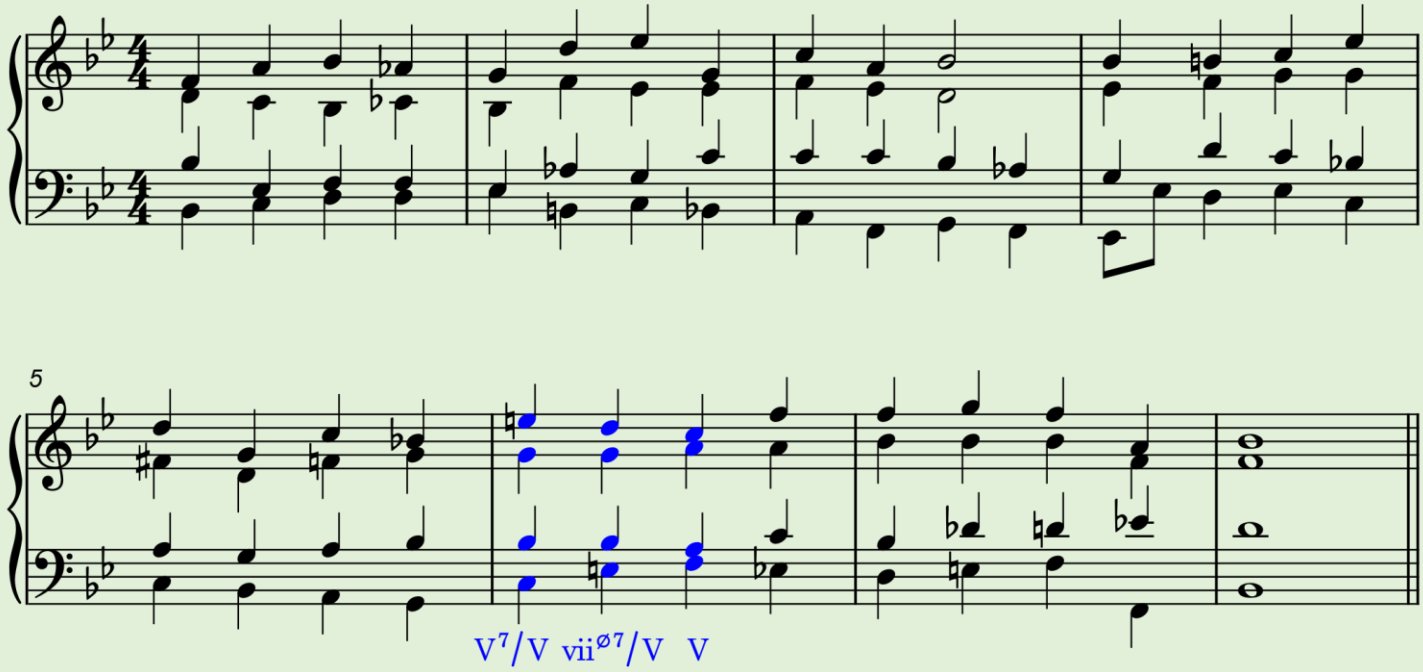


Exercise: For each problem, start by analyzing and resolving the given chord, paying close attention to how the **<u>chordal seventh and leading tone</u>** should be handled. Next, create a smooth, preferably stepwise harmonic progression that leads into the chord naturally. Use Roman numerals.

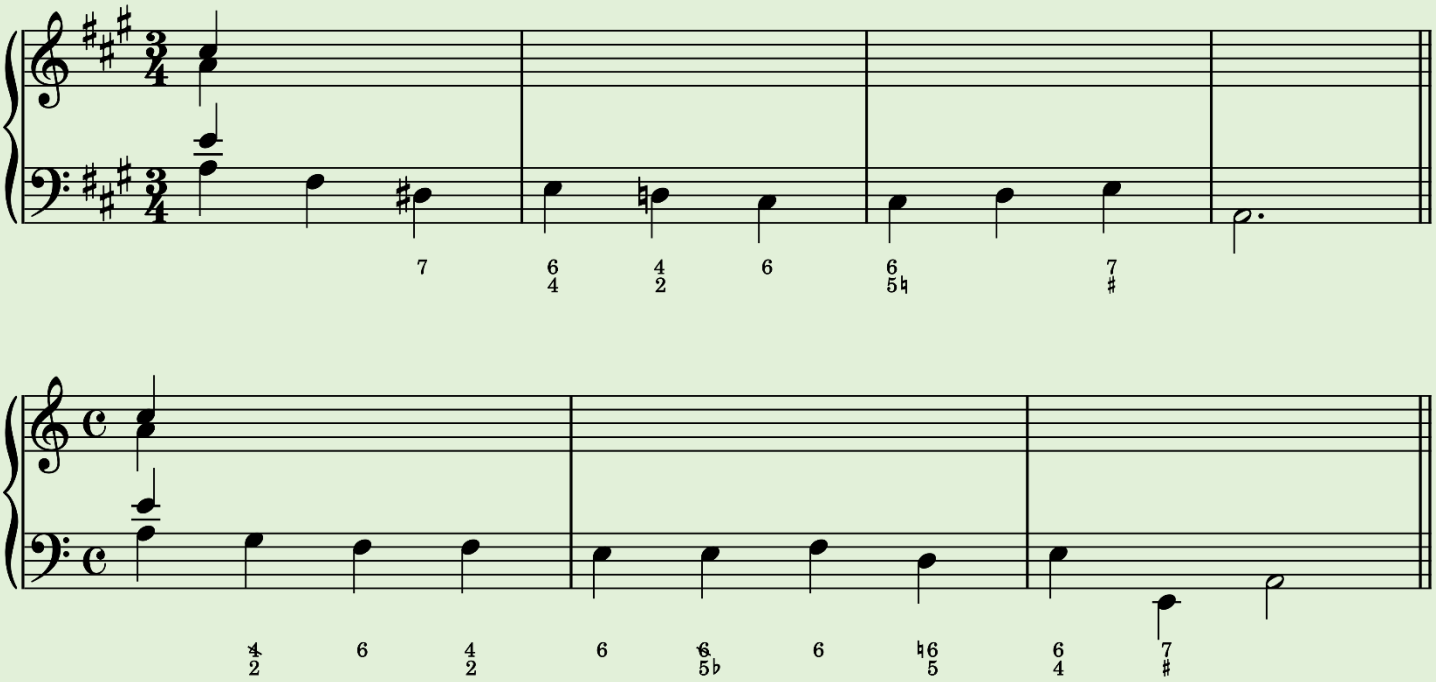


C: ___ ___ ___ D: ___ ___ ___ A: ___ ___ ___ E♭: ___ ___ ___ B♭: ___ ___ ___

Exercise: Analyze the following passage using Roman numerals.

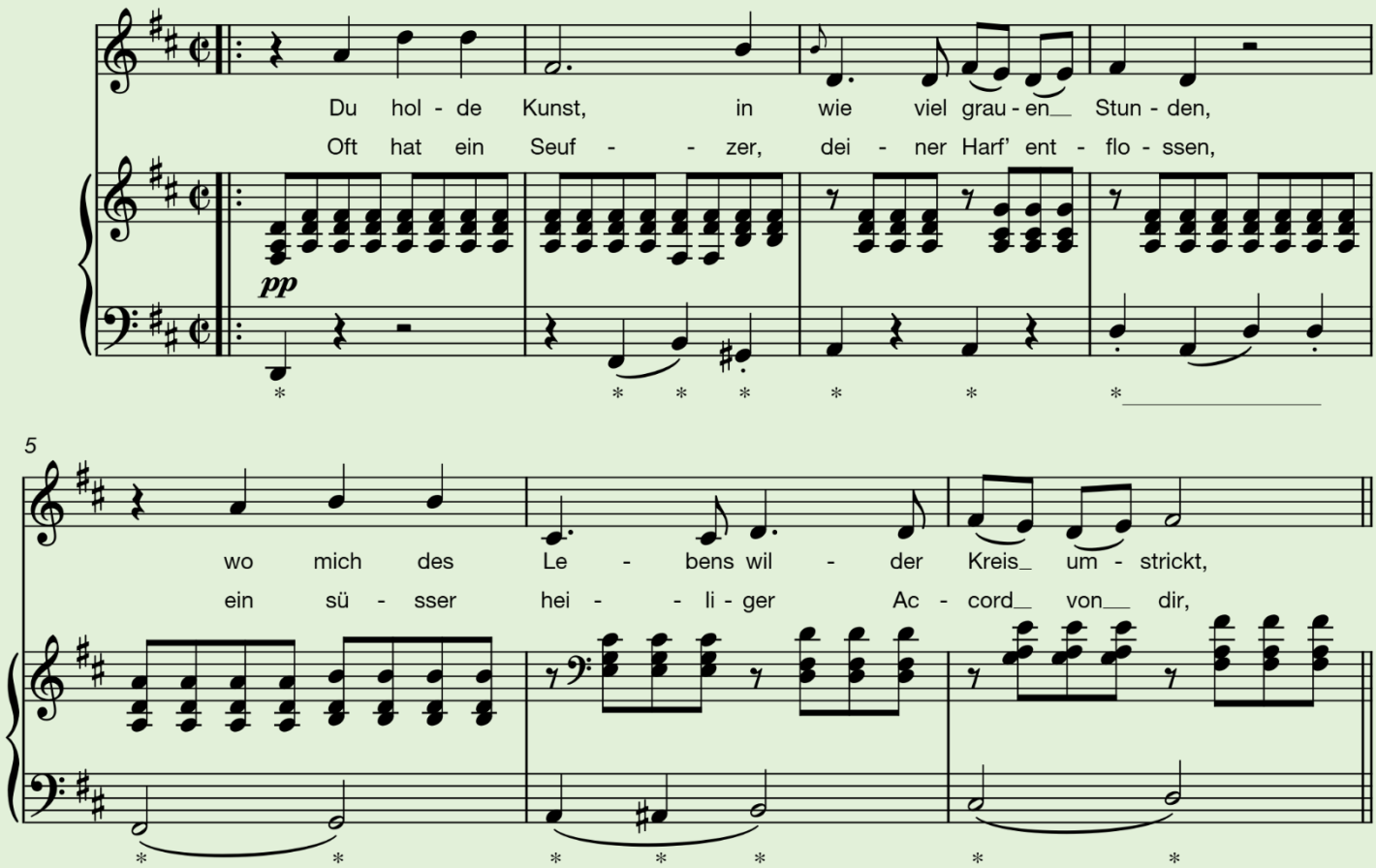


Exercise: Analyze the harmonies indicated by each figured bass and create an SATB choral arrangement. Prioritize smooth voice leading, even if it means choosing a simpler or less prominent soprano line.



Exercise: The following excerpt uses secondary leading tone chords that produce **melodic and harmonic tension** toward cadential points. Analyze using Roman number analysis, and ultimately figured bass. How would you describe the melodic movement in the bass?

Schubert: An die Musik, Op. 88, No. 4



REVIEW

QUESTION	ANSWER
1. Secondary dominants and secondary leading tone chords are diatonic. True or false?	
2. A $\mathrm{vii}^{\varnothing 7}$ resolving to a minor i chord is considered a strong and typical progression. True or false?	
3. It's common in tonal music to tonicize augmented or diminished chords. True or false?	

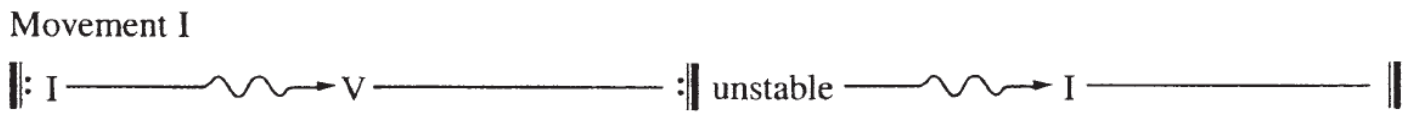
Modulation

Modulation

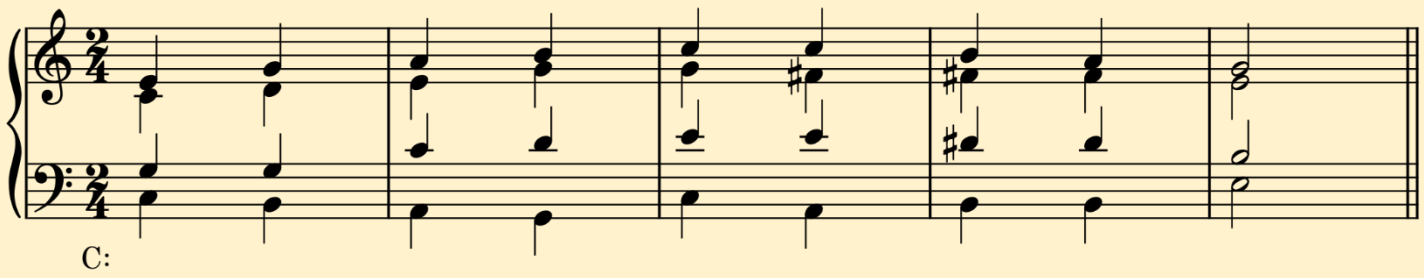
Modulation occurs when there is a **shift of tonal center** within a movement. Although a tonal work or movement begins and ends on the same key, **other tonalities will be explored** and established in the middle.

The longer the work, the more time it will touch on keys other than the tonic. The following is a representation of the tonal structure of a Classical piano sonata. The crooked arrows refer to the modulations.

General structure of a sonata:

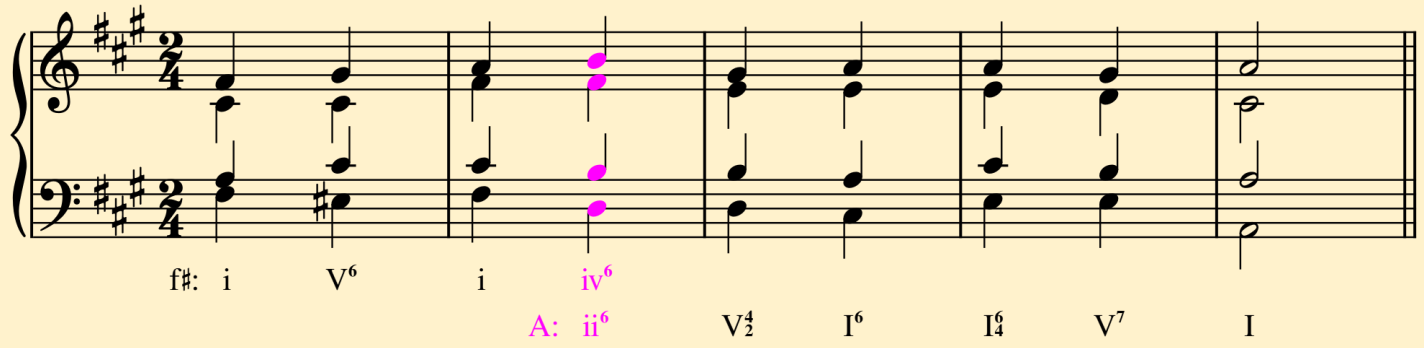


Example of a modulation in a musical phrase:



Key Relationships

Modulation happens when **music shifts from one tonic (home key) to another**. In tonal music, most modulations occur between **closely related keys**—keys whose signatures differ by **no more than one sharp or flat**.



Examples of closely related keys:

Starting key: C major		
Sharp/Flat	**Major**	**Minor**
1♯	G	e
0♯, 0♭	C	a
1♭	F	d

Starting key: c minor		
Sharp/Flat	**Minor**	**Major**
2b	g	B♭
3b	c	E♭
4b	f	A♭

Exercise: Complete the following tables.

Starting key: E major		
Sharp/Flat	**Major**	**Minor**
	E	

Starting key: b♭ minor		
Sharp/Flat	**Minor**	**Major**
	b♭	

Another way to identify closely related keys is by looking at the **subdominant and dominant of the starting key**—and also their **relative minors or majors**. These keys often share similar key signatures, making modulation between them more natural.

Starting key: C major		
Degree	**Major**	**Minor**
Dominant	G	e
Tonic	C	a
Subdominant	F	d

Starting key: c minor		
Degree	**Minor**	**Major**
Dominant	g	B♭
Tonic	c	E♭
Subdominant	f	A♭

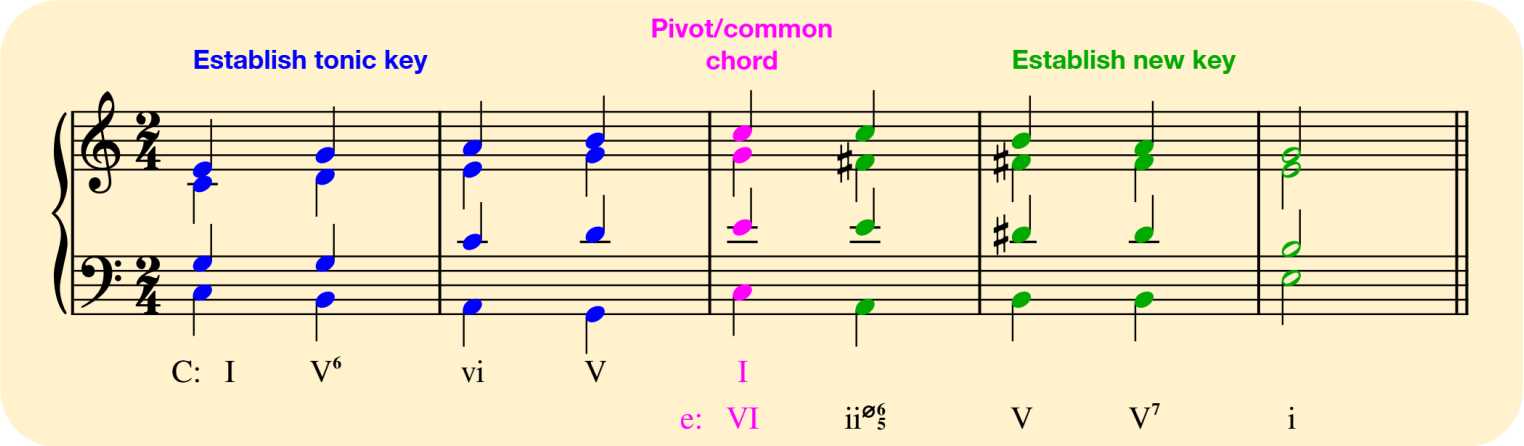
Exercise: Complete the following tables.

Starting key: F♯ major		
Degree	**Major**	**Minor**
Dominant		
Tonic	F♯	
Subdominant		

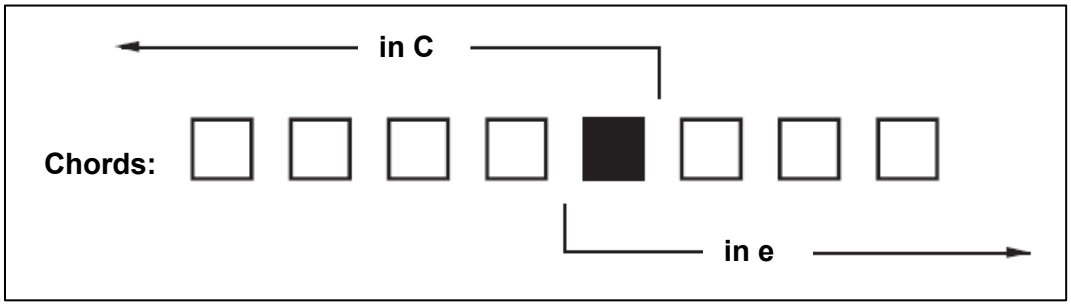
Starting key: g minor		
Degree	**Minor**	**Major**
Dominant		
Tonic	g	
Subdominant		

Common-Chord Modulation

The most common type of modulation is **common-chord modulation**, which uses a **common (pivot) chord** to connect **two different keys**. This chord **functions naturally in both the original and the new key**, allowing a seamless transition between tonalities.



The SATB example above can be visualized in the diagram below, where the **shaded rectangle marks the common (pivot) chord** used to modulate from C major to E minor.



Closely related keys always **share at least one diatonic triad**, which can serve as a **pivot chord** for smooth modulation. The table below shows potential pivot chords between two keys. Those that belong to both keys are highlighted in green.

Note: When working with minor keys, use the harmonic minor scale to determine diatonic chords—except for III, which is taken from the natural minor. This gives: i, ii°, III, iv, V, VI, and vii°.

Key: C major Roman numbers and chord symbols	I	ii	iii	IV	V	vi	vii°
	C	**Dm**	**Em**	**F**	**G**	**Am**	**B°**
Key: e minor Roman numbers and chord symbols	**C**	**D♯°**	**Em**	**F♯°**	**G**	**Am**	**B**
	VI	vii°	i	ii°	III	iv	V

Analyzing Common-Chord Modulation

Analyzing Modulation – Step-by-Step Procedure:

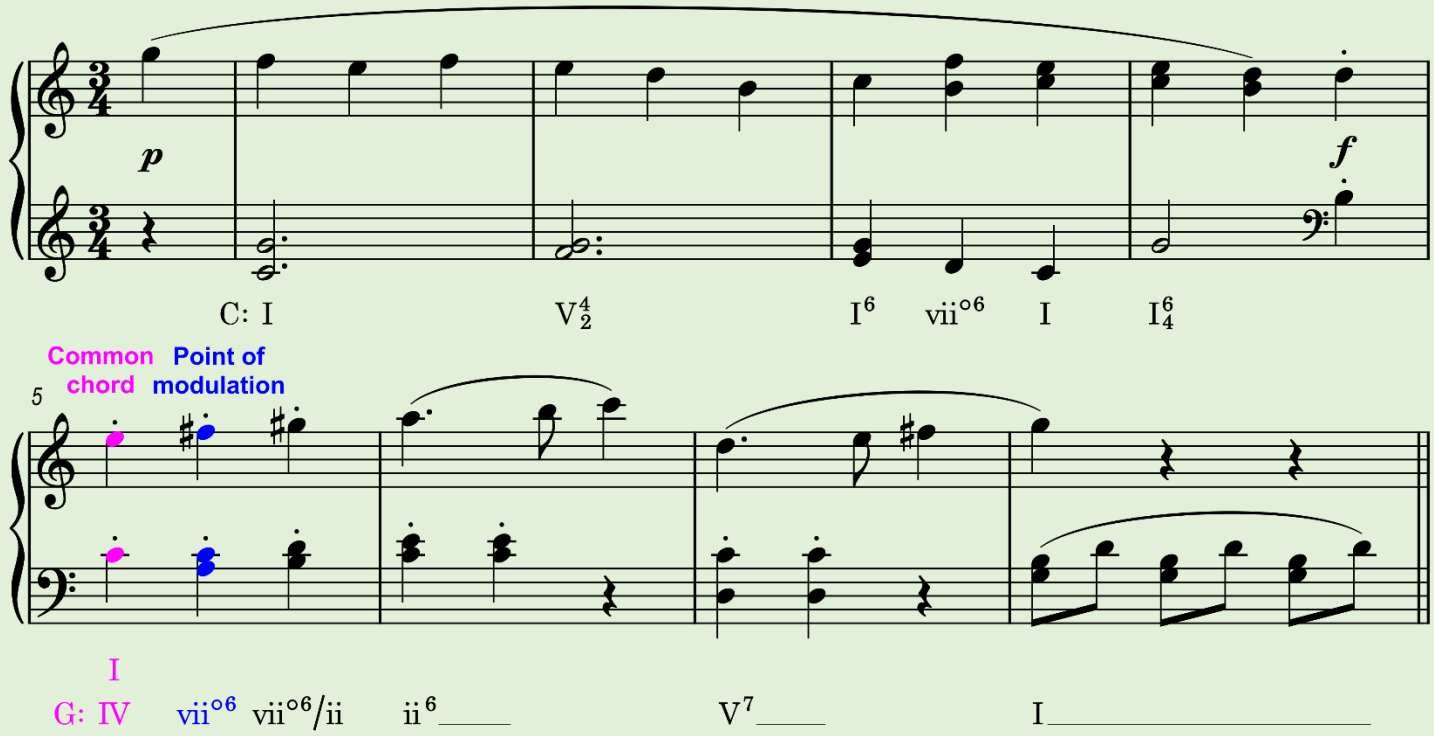
① Listen carefully to the passage to get a sense of its tonal direction.

② Identify the **point of modulation**—this is the first chord that **functions more naturally in the new key** than in the original one. It often includes:

- An **accidental not found in the original key**, or
- A I_4^6 **chord in the new key**.

③ **Step back one chord** from the one found in Step 2. If a diatonic chord appears that belongs to both keys, this is likely the **common chord**.

Exercise: Try to follow the steps above to find the common chord.

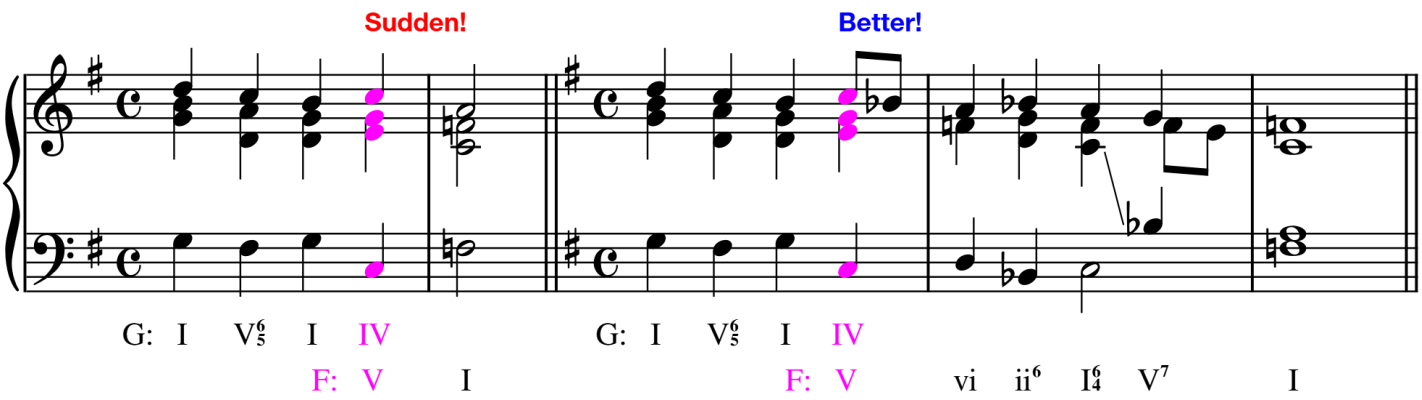


REVIEW

QUESTION	ANSWER
1. What are closely related keys?	
2. What is the point of modulation?	
3. How to find the common or pivot chord?	

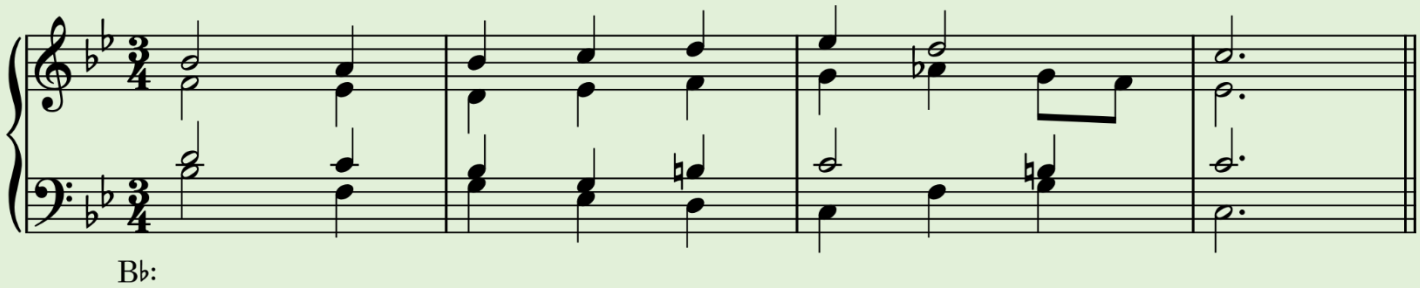
When analyzing a modulation, V or vii° from either key is usually the least effective choice for a pivot chord. These chords tend to sound too abrupt and lack tonal blending between keys.

V and vii° as common chords will sound effective when they are **followed by several chords**, especially through a V–vi **interrupted progression** and/or a **cadential** $^{6}_{4}$ that delays the final resolution.

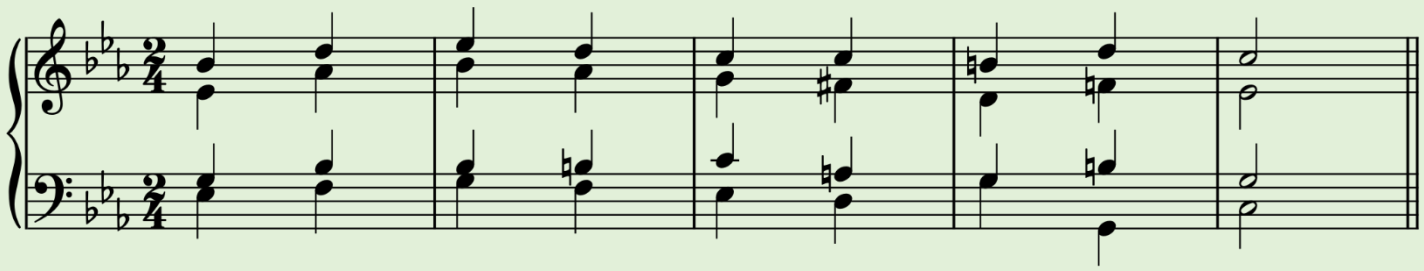


Exercise: Complete the table to identify the common chords shared by B♭ major and C minor. Using the results, highlight and name the shared chord in the excerpt below. Finally, analyze the SATB harmonies using Roman numerals, clearly showing how the progression relates to each key.

Key: B♭ major Roman numbers and chord symbols	I						
	B♭						
Key: c minor Roman numbers and chord symbols	**B°**						
	vii°						



Key: _____ Roman numbers and chord symbols	I						
Key: _____ Roman numbers and chord symbols							

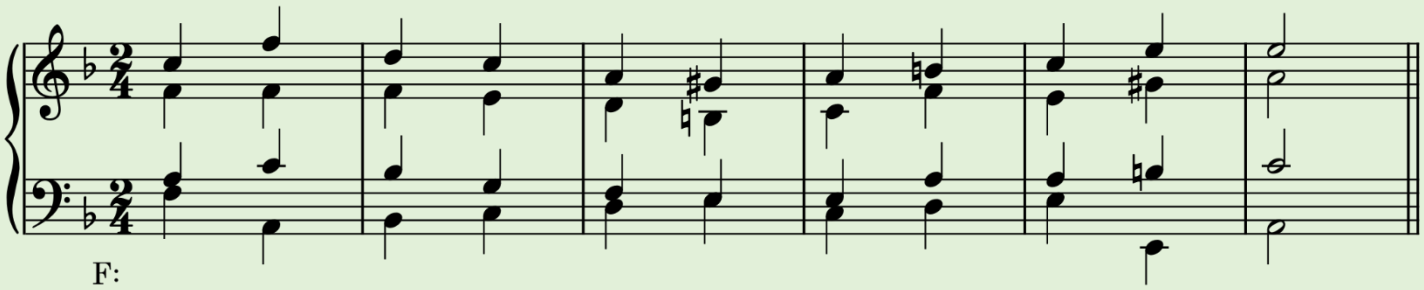


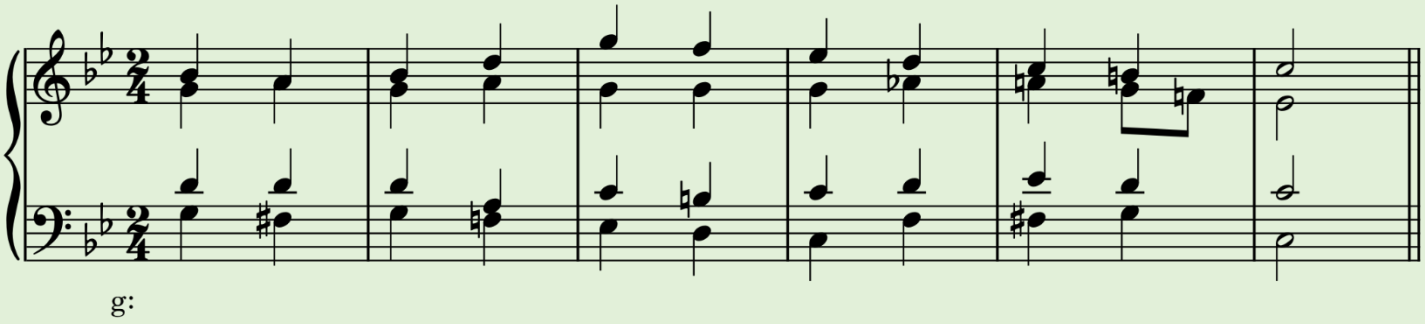
Exercise: In each example below:

① Identify the point of modulation—the first chord that clearly belongs to the new key.

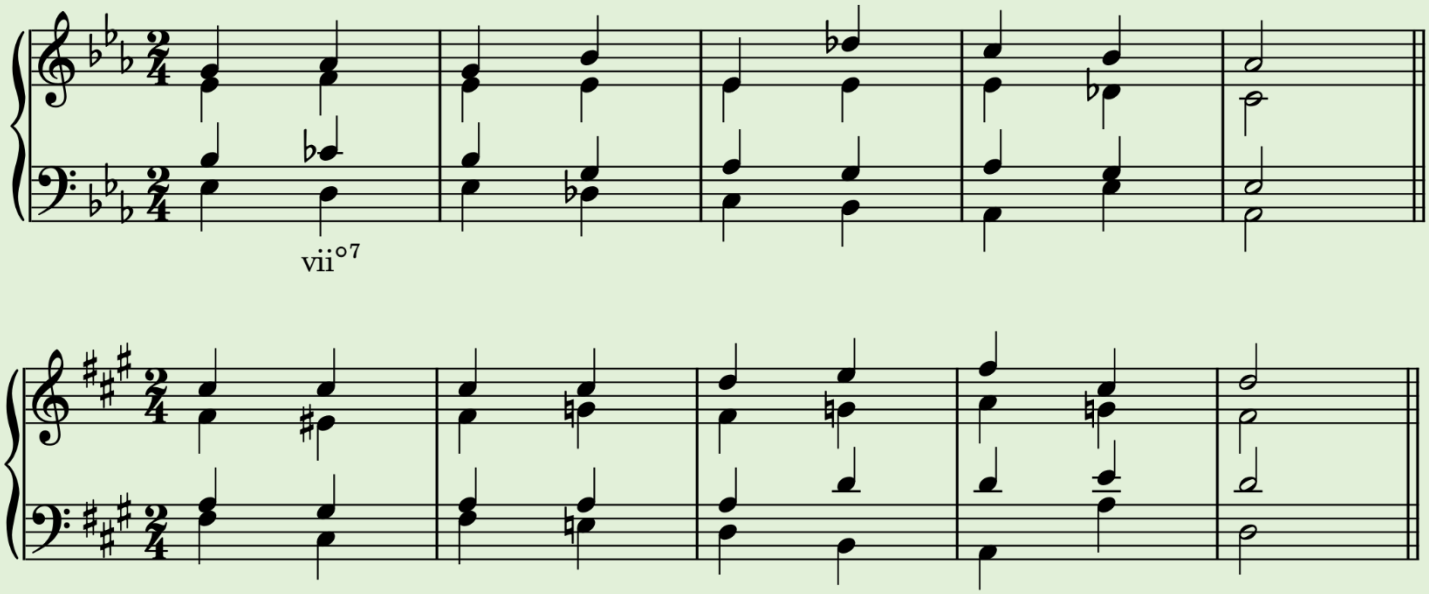
② Locate the common (pivot) chord that bridges the original and new key.

③ Label all chords in Roman numerals, showing their function within the appropriate key.



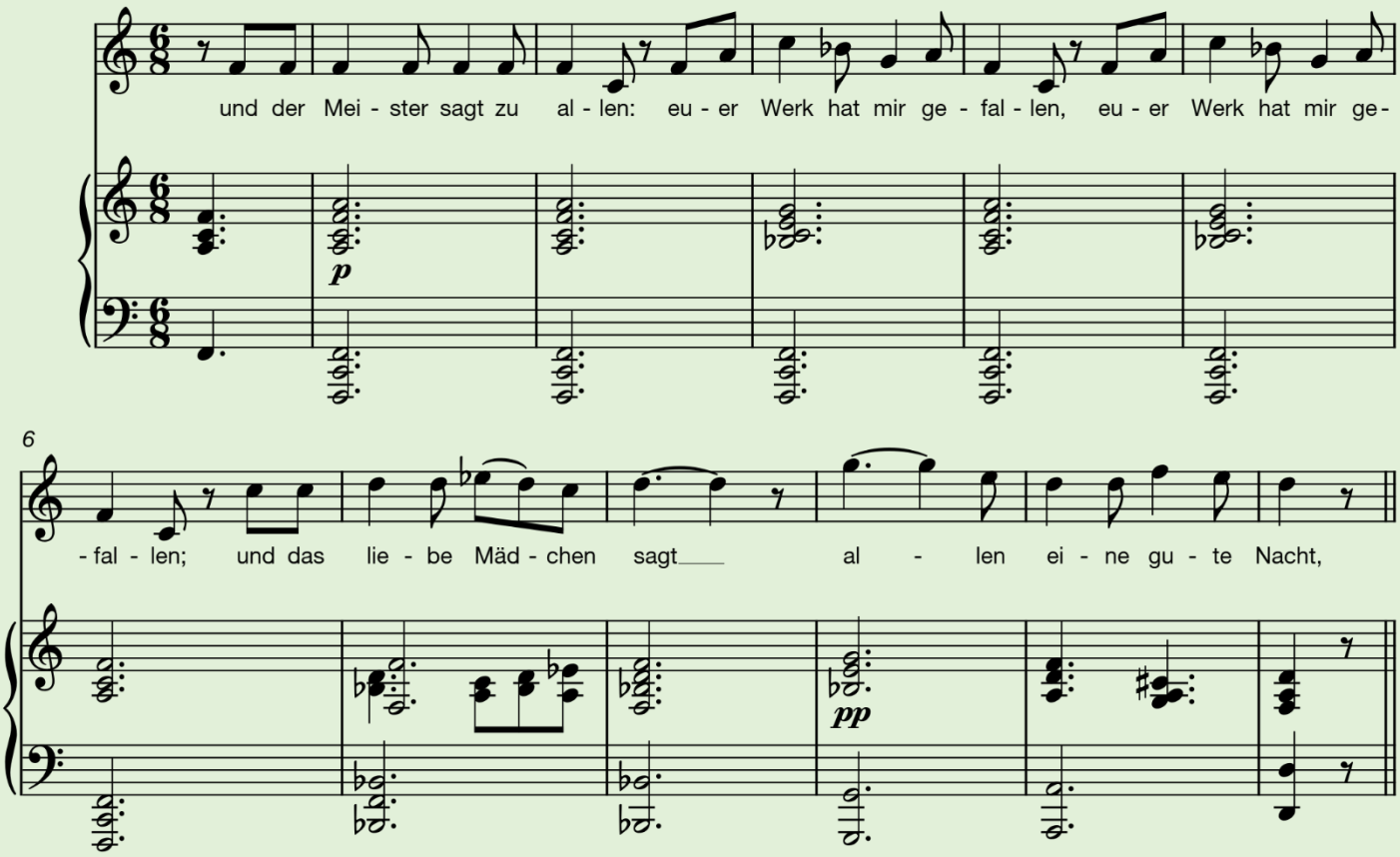


Exercise: Each of the following chorales includes a modulation. Analyze the harmony using Roman numerals and identify the chord that functions as the common chord between the original key and the new key.



Exercise: Analyze each chord change in the excerpt using Roman numerals, keeping in mind that some progressions may allow for multiple valid interpretations; the modulation occurs at the cadential I_4^6 chord in the second key, which marks the turning point.

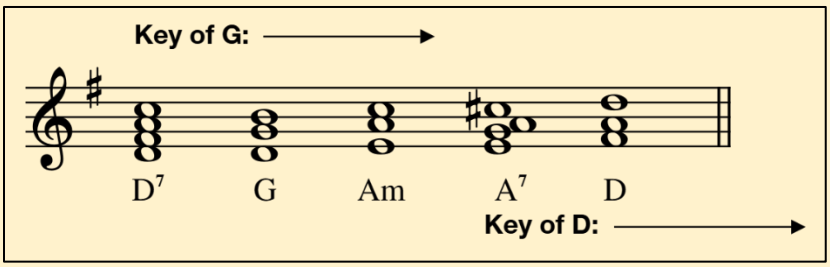
Schubert, *Am Feierabend*, Op. 25, No. 5



Chromatic Chords as Common Chords

Sometimes it is possible to have a **chromatic chord** such as a secondary chord as a **common chord**. Do you still remember the steps on how to find the common chord?

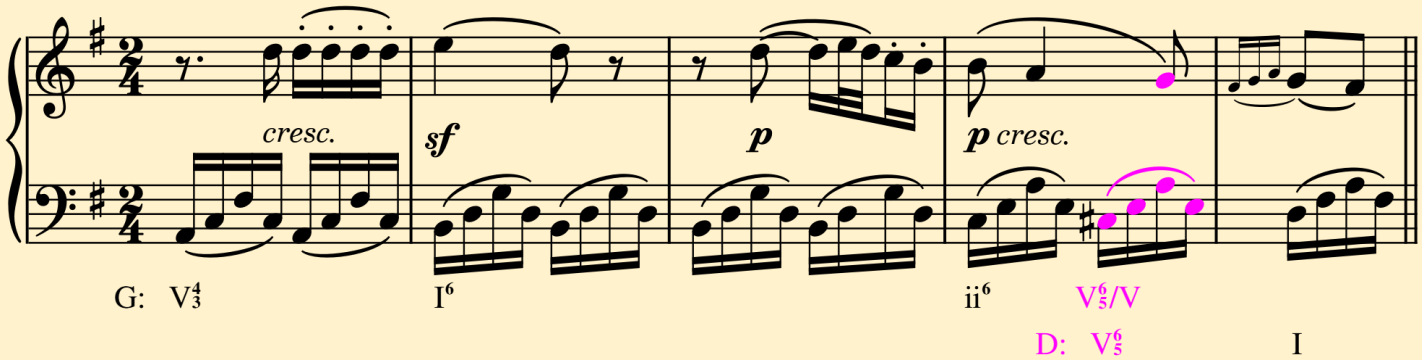
If the chord behind the **point of modulation** is **not diatonic** to the new key, then you may treat the **point of modulation** as the **common chord**. Look at the following example.



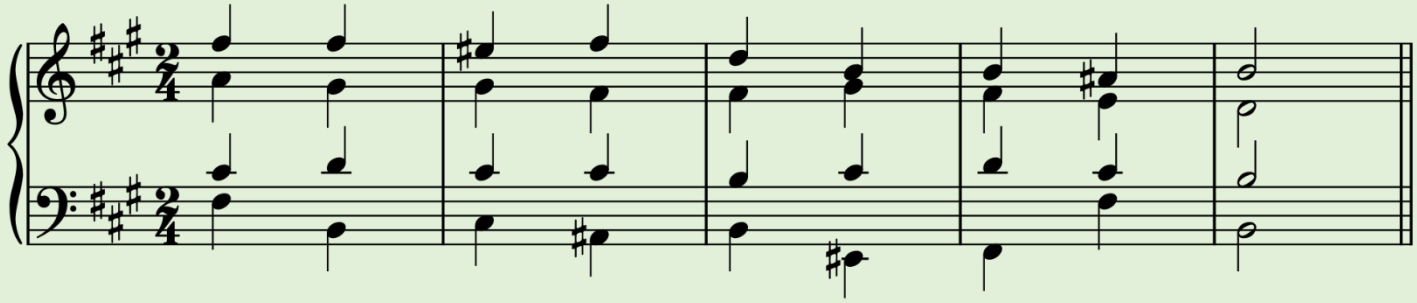
The **point of modulation** occurs on the **fourth chord (A^7)** because it is functioning more naturally in D major.

However, the Am chord before it cannot serve as a common chord because it **does not make sense in D major**.

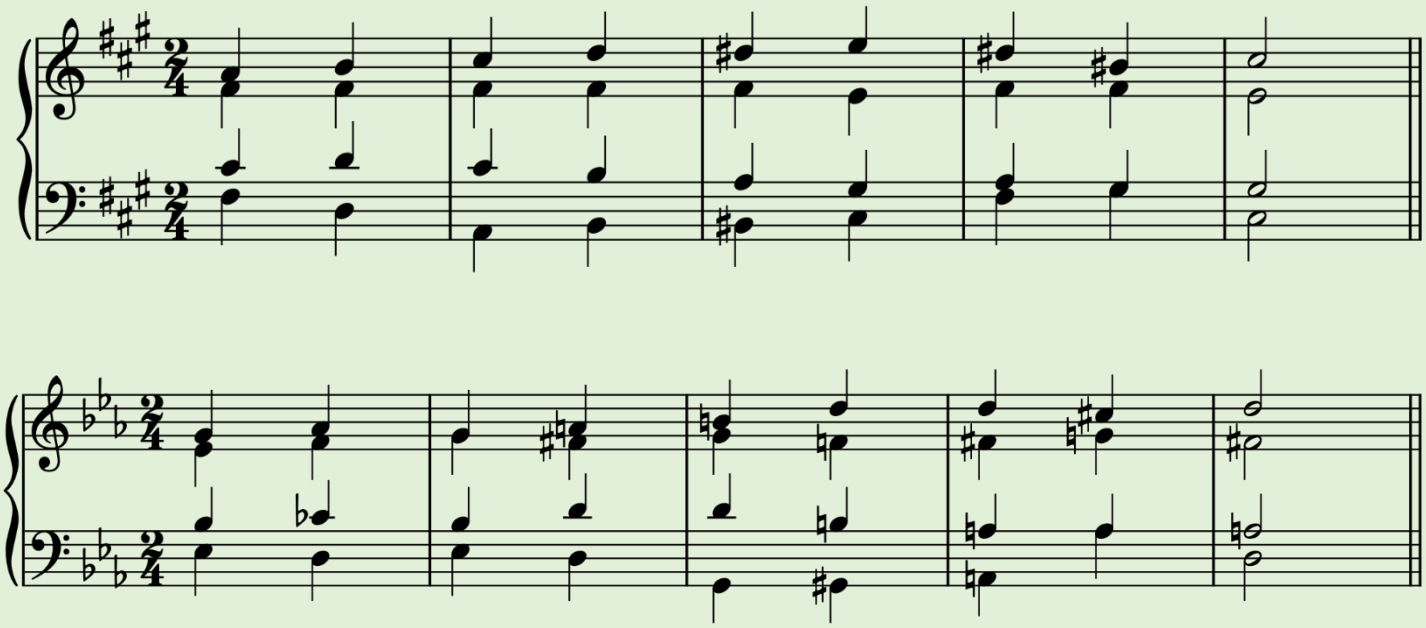
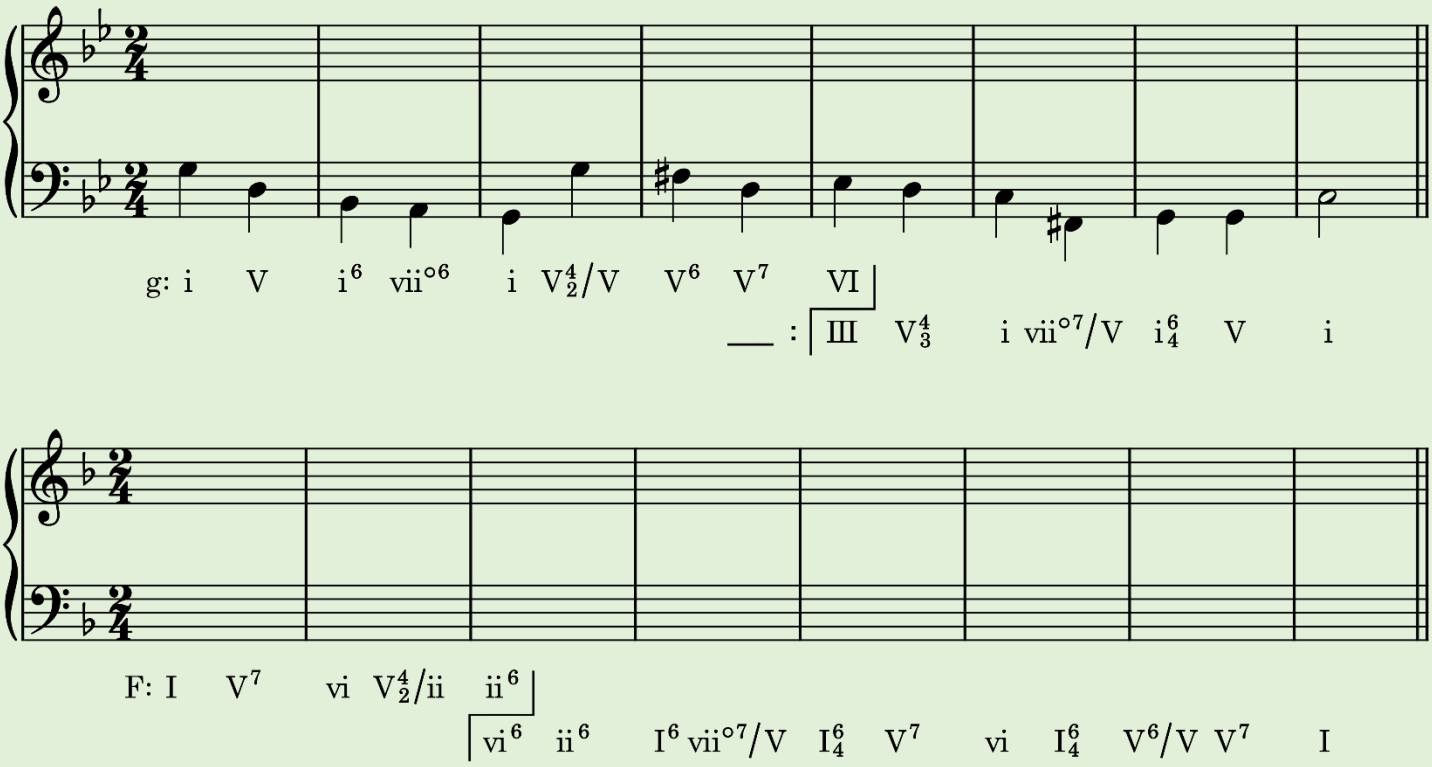
So instead, the **A^7** is itself the **common chord**, functioning as V^7/V in the key of G major. Observe the modulation in the following excerpt.



Exercise: Follow the instructions above to analyze the excerpt using Roman numerals. Keep in mind that a chromatic chord, such as a secondary dominant, may serve as the common pivot chord during modulation.



Exercise: Each of the following chorales includes a modulation. Analyze the harmony using Roman numerals and identify the chromatic chord that functions as the common chord between the original key and the new key.



Exercise: Realize the following modulating progressions in four-part harmony. Show the new key in each example. Add nonharmonic tones with discretion, including some suspensions.