

Written Section 5: Harmony

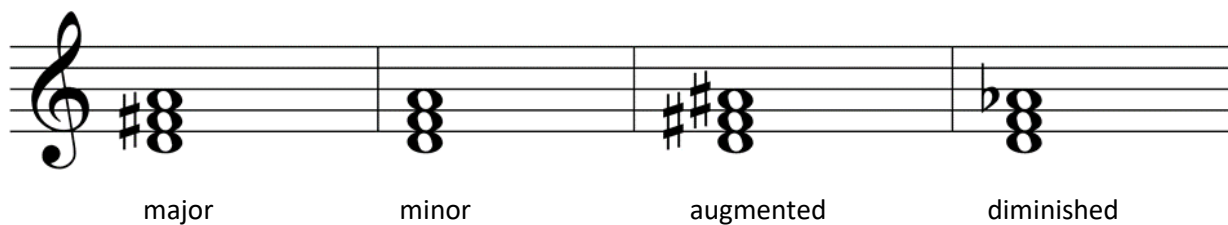
5-1: Chord Qualities

A **triad** is a three-note chord.

- The **root** is the lowest note.
- The **third** is the interval of a third above the root.
- The **fifth** is the interval of a fifth above the root.

If a triad has a root, third, and fifth, there are different kinds of triads, called **quality**. There are four triad qualities: major, minor, diminished, and augmented.

- A **major triad** has a major third (M3) and perfect fifth (P5).
- A **minor triad** has a minor third (m3) and perfect fifth (P5).
- An **augmented triad** has a major third (M3) and an augmented fifth (A5, eight half steps)
- A **diminished triad** has a minor third (m3) and a diminished fifth (d5, six half steps, also called a tritone).



Write the following chords.



5-2: Inverted Triads


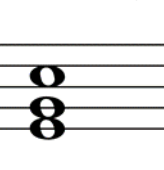
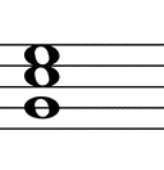
A triad can appear in three ways:

- **Root position:** The root of the triad is the lowest note.
- **First inversion:** The third of the triad is the lowest note. The intervals above this lowest note are a 6th and a 3rd. Analysts show first inversion triads by adding the Arabic numeral 6 to the chord symbol. (e.g., C^6)
- **Second inversion:** The fifth of the triad is the lowest note. The intervals above this lowest note are a 6th and a 4th. Analysts show second inversion triads by adding the Arabic numerals 6 and 4 to the chord symbol. (e.g., C^6_4)


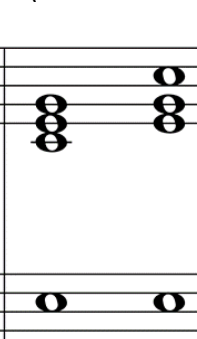
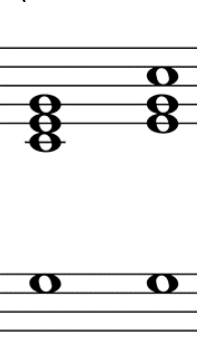
In addition, chords can be in:

- **Close position:** When all the pitches of the chord are as close together as possible. In close position, the chord will fit within an octave range.
- **Open position:** All other spacings of the chord.

Example 1: C major triads in close position—root position, first inversion, and second inversion.

(Root position)	(First inversion)	(Second inversion)
		
C	C^6	C^6_4

Example 2: C major triads in open position—root position, first inversion, and second inversion.

(Root position)	(First inversion)	(Second Inversion)
		
C C C	C^6 C^6 C^6	C^6_4 C^6_4 C^6_4

Inverted Triads, continued

1. Write the following triads in close position.

Two musical staves are provided for writing triads in close position. The first staff has labels: D, D⁶, D⁶₄, f, f⁶, and f⁶₄. The second staff has labels: A^b, G⁶, F[#]₄⁶, e, c[#]⁶, and g⁶₄.

2. Identify each triad by letter, quality (upper case indicates major, lower case indicates minor), and inversion.

A musical staff with six measures, each containing a triad. The triads are: 1. D major (D, F#, A), 2. B^b minor (B^b, D, F), 3. B^b major (B^b, D, F), 4. B^b major (B^b, D, F), 5. D major (D, F#, A), 6. D major (D, F#, A). Below the staff are six horizontal lines for identification.

5-3: I in First Inversion

Review: Composers often use the I and V⁷ chords. These two chords come from scale steps $\hat{1}$ and $\hat{5}$. Below is an example of the I and V⁷ chords built on the C major scale and the A minor scale. We often use an upper case Roman numeral to show major chords and a lower case Roman numeral to show minor chords.

The image shows two musical staves. The top staff is for the C major scale, showing the I chord (C major) and the V⁷ chord (F⁷ major). The bottom staff is for the A minor scale, showing the i chord (A minor) and the V⁷ chord (F⁷ major with a sharp on the F).

C: I V⁷

a: i V⁷

When composers write music, they often rearrange the notes of the I chord. Remember the lowest sounding note determines the inversion. When the third of the chord is in the bass, the chord is in first inversion.

Example 1: Some close-position chords in C major:

The image shows a musical staff with five chords in C major: I (C major), I⁶ (C major first inversion), V (F major), V⁷ (F⁷ major), and I (C major).

C: I I⁶ V V⁷ I

Example 2: Some chords in C major:

The image shows three examples of chords in C major, labeled (A), (B), and (C). Each example consists of a musical staff with two systems of chords. The first system has three chords, and the second system has two chords. The chords are: (A) I, V⁷, I; (B) I, I, V⁷, I; (C) I, I⁶, V⁷, I.

C: I V⁷ I I I V⁷ I I I⁶ V⁷ I

I in First Inversion, continued

- On the staff below,
 - Write the F major key signature.
 - Write each close-position chord using whole notes.

F: I I⁶ V V⁷

- Identify each chord in the key of D minor as i, i⁶, V, or V⁷.

d: _____ _____ _____ _____ _____ _____

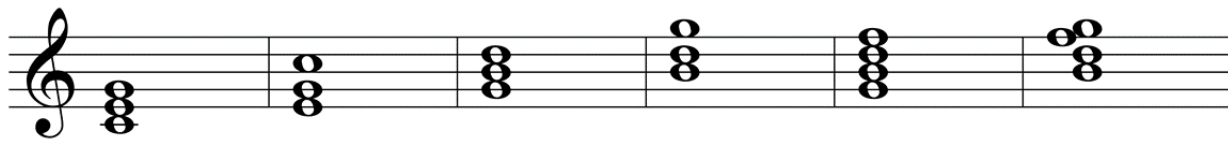
5-4: V and V⁷ in First Inversion

Composers can also use the first inversion of the V (dominant) or V⁷ (dominant seventh) chords to make music more interesting.

To show first inversion for triads (three-note chords), write an Arabic number 6 after the Roman numeral.

To show first inversion for four-note chords (e.g., V⁷), write the Arabic numbers 6 and 5 after the Roman numeral.


Example 1: Some close-position chords in C major:



C: I I⁶ V V⁶ V⁷ V₅⁶

Example 2: Some open-position chords in C major:

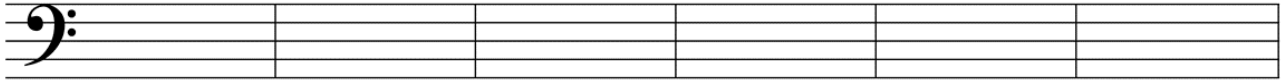
(A) (B) (C) (D)



C: I V I I V⁶ I I V⁷ I I V₅⁶ I

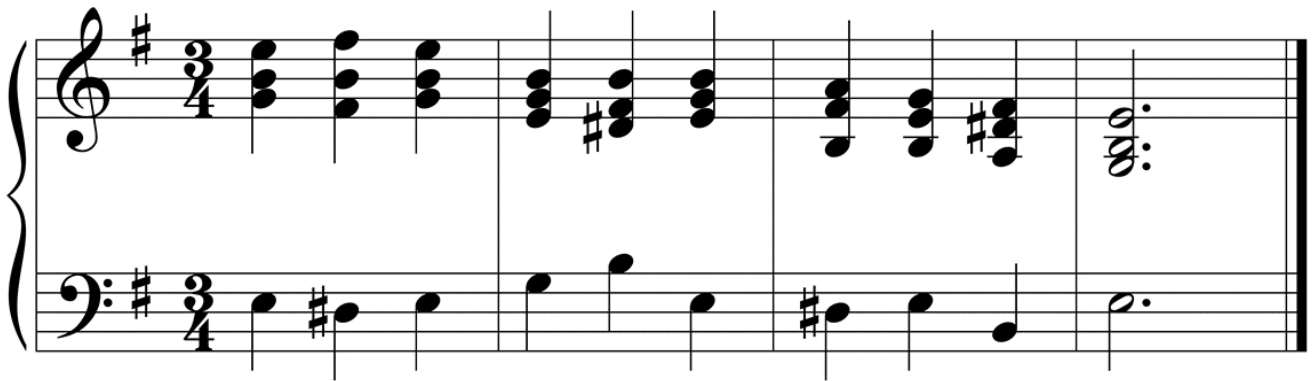
V and V⁷ in First Inversion, continued

- On the staff below,
 - Write the G major key signature.
 - Write each chord using whole notes.



G: I I⁶ V V⁶ V⁷ V⁶₅

- Identify each chord in the key of E minor as i, i⁶, V, V⁶, V⁷, or V.

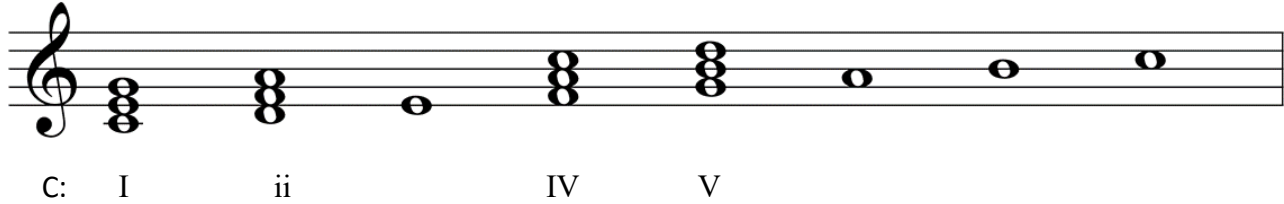


e: _____

5-5: Pre-Dominant Chords II and IV

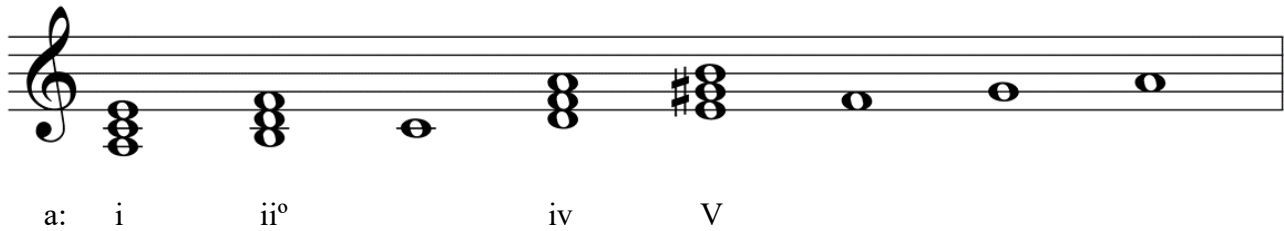
Composers often build chords on scale steps $\hat{1}$ and $\hat{5}$. They also can build chords on $\hat{2}$ and $\hat{4}$. The examples below show how these chords are labeled with Roman numerals. Upper case Roman numerals show major chords, lower case show minor chords, and lower case Roman numerals with $^{\circ}$ show diminished chords.

Example 1: I, ii, IV and V chords in C major



C: I ii IV V

Example 2: i, ii $^{\circ}$, iv and V chords in A minor



a: i ii $^{\circ}$ iv V

In tonal music, each chord has a certain function. When chords “do” certain things, we say the chords use **functional harmony**. Below are some functions of chords (what each chord “does”):

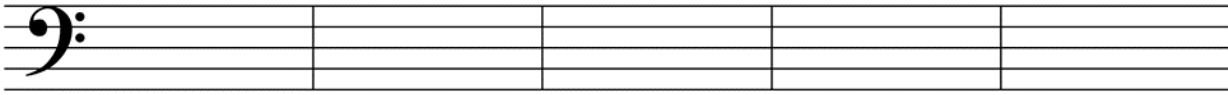
- The I chord is the tonic. The I chord sounds restful. It is the “home chord.”
- The II chord is a pre-dominant. II leads to the dominant (V or V 7).
- The IV chord is also a pre-dominant. IV leads to the dominant (V or V 7).
- The V 7 chord the dominant (or dominant seventh). The V 7 chord sounds active. It leads to the tonic. (I)

Tonal music follows this **phrase model**: Tonic → Pre-Dominant → Dominant → Tonic. In other words, most tonal music follows one of these chord progressions:

$$\begin{aligned} &I \rightarrow II \rightarrow V^7 \rightarrow I \\ &I \rightarrow IV \rightarrow V^7 \rightarrow I \end{aligned}$$

Pre-Dominant Chords II and IV, continued

1. On the staff below,
 - Write the B \flat major key signature.
 - Write each chord using whole notes.



B \flat :

I

ii

IV

V

V⁷

2. Identify each chord in the key of D major as I, ii, IV, V, or V⁷.

D:

5-6: II and IV in First Inversion

Like with the I, V, and V⁷ chords, composers often rearrange the notes of II and IV to make music more interesting.

Example 1: Some close-position chords in C major:

C: I I⁶ ii ii⁶ IV IV⁶ V V⁶ V⁷ V⁶₅

Example 2: I-IV-V⁷-I: This is a common chord progression in tonal music. Composers can use it in major keys (example A) or in minor keys (example B).

(A) (B)

C: I IV V⁷ I a: i iv V⁷ i

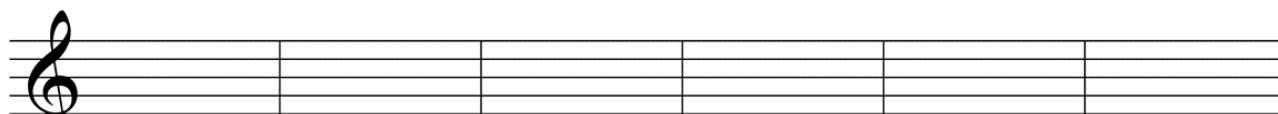
Example 3: I-II-V⁷-I: Composers can use I-II-V-I in major keys (example C). However, composers will often use first inversion II (II⁶) because it sounds better (example D). Composers use II⁶ in minor keys because the root to the fifth in the II chord is a diminished fifth (tritone).

(C) (D) (E)

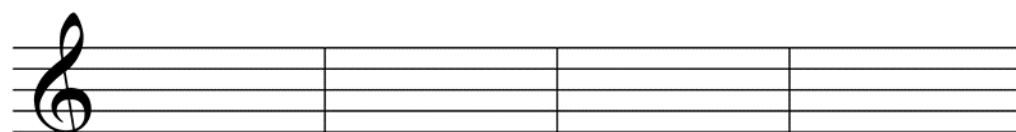
C: I ii V⁷ I C: I ii⁶ V⁷ I a: i ii⁶ V⁷ i

II and IV in First Inversion, continued

- On each staff below,
 - Write the E \flat major key signature.
 - Write each chord using whole notes.



I I⁶ ii ii⁶ IV IV⁶



V V⁶ V⁷ V⁶₅

- Identify each chord in the key of G minor using a Roman numeral for function (e.g., i), and an Arabic numeral to show any first inversion chords (e.g., i⁶).



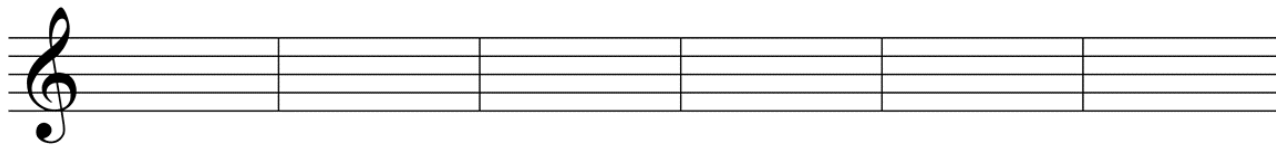
g: — — — — — — — — — — — — — — — —

More Practice Writing Chords

For each staff below,

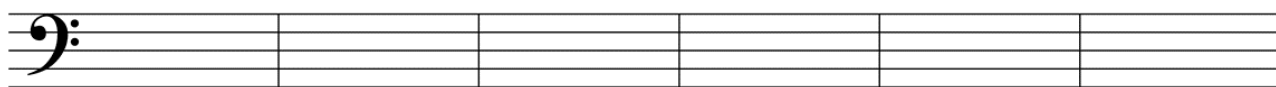
- Write the requested key signature at the start of the staff
- Write each chord in whole notes.

1. A \flat major




A musical staff with a treble clef, divided into six measures. Below the staff, the key signature and chords are listed: A \flat : I V ii⁶ V⁷ I⁶ ii

2. E major




A musical staff with a bass clef, divided into six measures. Below the staff, the key signature and chords are listed: E: V⁶ V₅⁶ I⁶ IV I ii

3. F \sharp minor




A musical staff with a treble clef, divided into six measures. Below the staff, the key signature and chords are listed: f \sharp : ii^{o6} V⁷ iv⁶ V⁶ i⁶ ii^o

4. C minor



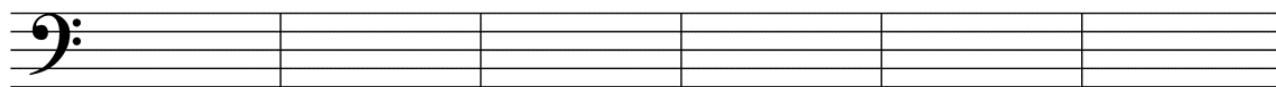
A musical staff with a bass clef, divided into six measures. Below the staff, the key signature and chords are listed: c: iv i V₅⁶ ii^{o6} iv⁶ V⁷

5. D major



A musical staff with a treble clef, divided into six measures. Below the staff, the key signature and chords are listed: D: IV ii V V₅⁶ I⁶ ii⁶

6. G minor



A musical staff with a bass clef, divided into six measures. Below the staff, the key signature and chords are listed: g: iv⁶ i V⁶ iv ii^{o6} V⁷

Chapter 2: Analysis

Definition of Terms

Answers on p. 97

Forms

Form is how a piece is organized. Composers can organize a piece using chords, phrases, or entire sections.

Binary Form has two sections, A and B. Often one or both of these sections repeat A :||: B:|. The B section is often longer than the A section.

Ternary Form has three sections: ABA.

Rounded Binary form is a unique form that is like a combination of binary and ternary forms. The first section *always* repeats: A:||:BA||

Cadences

A **cadence** is the ending of a phrase. We typically identify a cadence by the harmony it ends with.

Half cadence is a phrase that ends on V or V⁷. The phrase feels incomplete.

Authentic or **full cadence** is a phrase that ends V-I or V⁷-I. The phrase feels complete.

Non-Chord Tones

Melodies can be created using only chord-tones. That is when every melody note is part of the chord that harmonizes it. Music becomes more expressive when the melody occasionally uses notes that are not in the accompanying chord. These expressive notes that are not in the chord are called **non-chord tones**.

Exercise: "Polonaise" from *Notebook for Wolfgang*, by Leopold Mozart.

Below each measure is the harmony. Circle all the melody notes that do not belong to the chords (non-chord tones).

D: I V I⁶ I V

I V I⁶ I V I

Analysis 1: *Opus 125, No. 3 (excerpt)* by Anton Diabelli

1. In what key is this piece written? _____
2. What is the form of this piece? _____
(Provide measure numbers and letters for each section.)
3. Provide a harmonic (Roman numeral) analysis for each blank.
4. Identify the cadence that ends each section. (*The last two harmonies before the repeat.*)
 Cadence 1 (circle) = half authentic/full
 Cadence 2 (circle) = half authentic/full
5. Circle all the non-chord tones.

Allegretto

Key of ____ : ____

Analysis 2: *Op. 101, No. 1* by Cornelius Gurlitt

1. In what key is this piece written? _____
2. Does this excerpt repeat? _____
3. Provide a harmonic analysis by labeling each harmony with the appropriate Roman and Arabic numerals.
4. Identify each the following cadences as half or authentic/full.
 - a. Measure 4: _____
 - b. Measure 7-8: _____

Key of ____ : _____

Analysis 3: "Menuet" from Notebook for Wolfgang by Leopold Mozart

1. In what key is this piece written? _____
2. Does this excerpt repeat? _____
3. Provide a harmonic analysis by labeling each harmony with the appropriate Roman and Arabic numerals.
4. Identify each of the following cadences as half or authentic/full.
 - a. Measure 4: _____
 - b. Measure 7-8: _____
5. Circle all of the non-chord tones.



Key of ____: ____



Analysis 4: Opus 125, No. 7 by Anton Diabelli

1. In what key is this piece written? _____
2. What is the form? _____
3. Provide a harmonic analysis by labeling each harmony with the appropriate Roman and Arabic numerals.
4. Identify each of the following cadences as half or authentic/full.
 - a. Measure 7-8: _____
 - b. Measure 23-24: _____
5. Circle all of the non-chord tones.

Vivace

Key of ____: ____

Analysis 5: *German Dance, WoO 8, No. 1* by Ludwig Beethoven

1. In what key is this piece written? _____
2. What is the form? _____
3. Provide a harmonic analysis by labeling each harmony with the appropriate Roman and Arabic numerals.
4. Identify each of the following cadences as half or authentic/full.
 - a. Measure 7-8: _____
 - b. Measure 15-16: _____
5. Circle all of the non-chord tones.



Key of ____: _____



Analysis 6: Op. 823, No. 46 by Carl Czerny

1. In what key is this piece written? _____
2. What is the meter? (Circle) Simple Compound
3. The form is rounded binary, but the return of the A section is elaborated. Provide measure numbers and letters for each section.

4. Provide a harmonic (Roman numeral) analysis for each blank.
5. Identify the following cadences as authentic/full or half.
 - a. Measures 7-8: _____
 - b. Measure 16: _____
 - c. Measures 23-24: _____

Allegro moderato. 4

6.

Key of ____: _____

8 12

16

20 24

Aural Section 2: Chord Quality Identification

Identify the quality of each chord as major, minor or V^7 .

Set 1: 1. _____ 2. _____ 3. _____ 4. _____ 5. _____

Set 2: 1. _____ 2. _____ 3. _____ 4. _____ 5. _____

Set 3: 1. _____ 2. _____ 3. _____ 4. _____ 5. _____

Set 4: 1. _____ 2. _____ 3. _____ 4. _____ 5. _____

Set 5: 1. _____ 2. _____ 3. _____ 4. _____ 5. _____

Set 6: 1. _____ 2. _____ 3. _____ 4. _____ 5. _____

Set 7: 1. _____ 2. _____ 3. _____ 4. _____ 5. _____

Set 8: 1. _____ 2. _____ 3. _____ 4. _____ 5. _____

Set 9: 1. _____ 2. _____ 3. _____ 4. _____ 5. _____

Set 10: 1. _____ 2. _____ 3. _____ 4. _____ 5. _____

Set 11: 1. _____ 2. _____ 3. _____ 4. _____ 5. _____

Set 12: 1. _____ 2. _____ 3. _____ 4. _____ 5. _____

Aural Section 3: Harmonic Dictation

Listen to a chord progression that has five chords. Identify each chord in the progression.

- Sets 1-6 use only I and V⁷.
- Sets 4-12 use I, IV, and V⁷.
- Sets 13-18 use I, II⁶, and V⁷.
- Sets 19-24 use I, II⁶, IV, and V⁷.

Set 1: _____

Set 13: _____

Set 2: _____

Set 14: _____

Set 3: _____

Set 15: _____

Set 4: _____

Set 16: _____

Set 5: _____

Set 17: _____

Set 6: _____

Set 18: _____

Set 7: _____

Set 19: _____

Set 8: _____

Set 20: _____

Set 9: _____

Set 21: _____

Set 10: _____

Set 22: _____

Set 11: _____

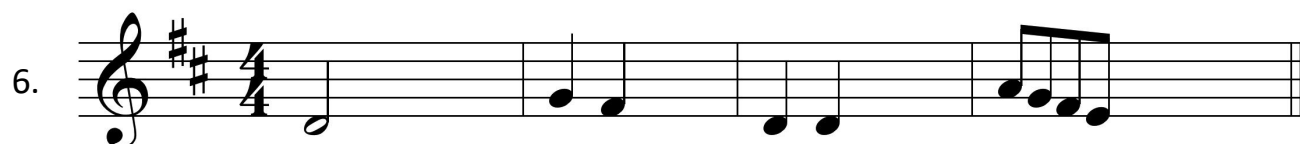
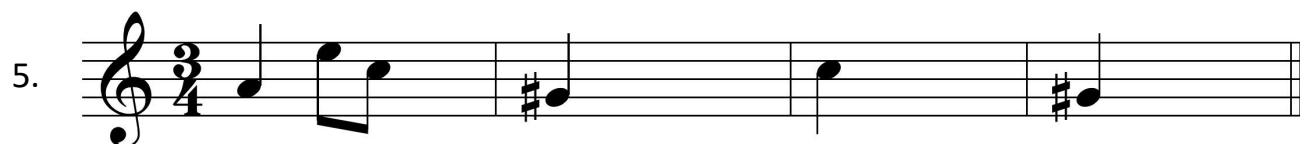
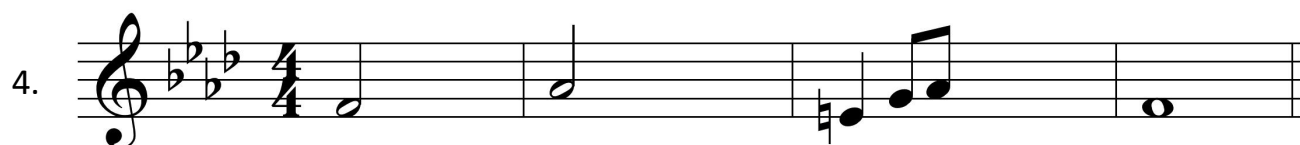
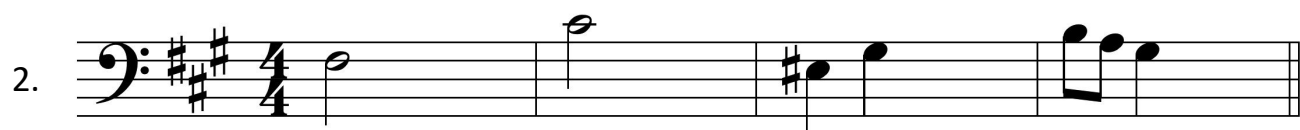
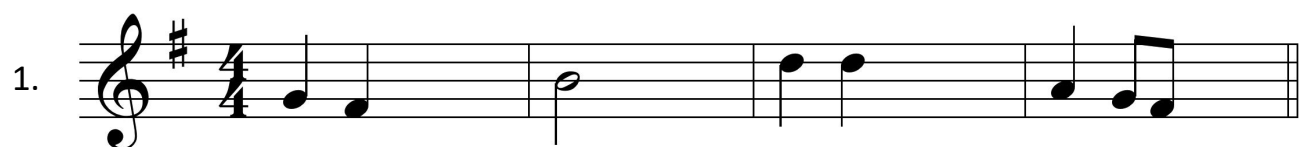
Set 23: _____

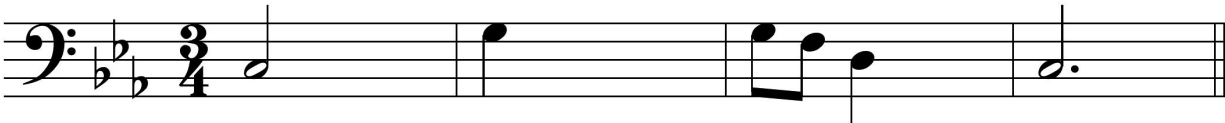
Set 12: _____

Set 24: _____

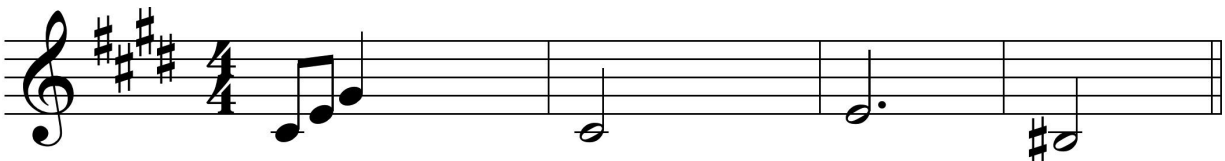
Aural Section 6: Melodic Dictation

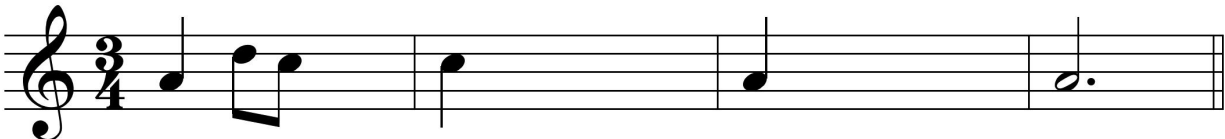
Listen to a melody. Write the melody you hear. The first one or two beats of each measure is given. The final measures may not need any more notes. If the example is in a minor key, remember that the leading tone is usually raised.



7. 

8. 

9. 

10. 

11. 

12. 

Practical Keyboard Section 3: Chord Progressions

Play the chord progressions, I-IV-V⁷-I and I-II⁶-V⁷-I in keyboard style (three notes in the right hand and one note in the left hand). Then, be able to transpose each progression to keys up to four sharps and four flats. Use the check boxes to track your progress. Students may begin the right hand tonic chord in *any* position. Below is one possibility.

Chord Progression 1: I-IV-V⁷-I

Example: C major

Example: A minor

☐ C major

☐ F major

☐ A minor

☐ E minor

☐ G major

☐ B \flat major

☐ D minor

☐ B minor

☐ D major

☐ E \flat major

☐ G minor

☐ F \sharp minor

☐ A major

☐ A \flat major

☐ C minor

☐ C \sharp minor

☐ E major

☐ F minor

Chord Progression 2: I-II⁶-V⁷-I

Example: C major

Example: A minor

☐ C major

☐ F major

☐ A minor

☐ E minor

☐ G major

☐ B \flat major

☐ D minor

☐ B minor

☐ D major

☐ E \flat major

☐ G minor

☐ F \sharp minor

☐ A major

☐ A \flat major

☐ C minor

☐ C \sharp minor

☐ E major

☐ F minor

Chapter 5: Sample Test

Sample Test Section 1: Written Test

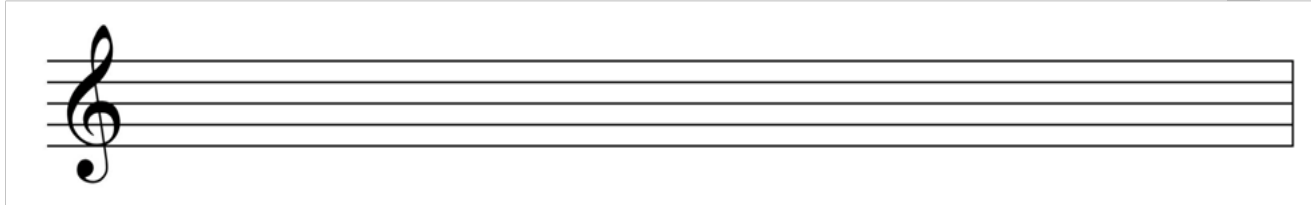
Answers on p. 116

Written Score ____/36

1. Scale ____ /4

On the staff below:

- Write the **F# minor** key signature at the start of the staff.
- Write the **F# melodic minor** scale in whole notes ascending and descending. Use accidentals only if necessary.



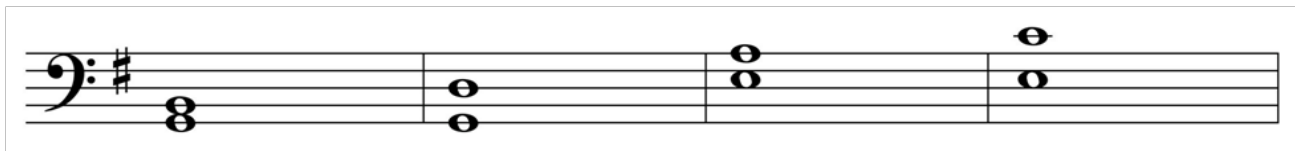
2. Rhythm ____ /2

Add bar lines to the rhythm below.



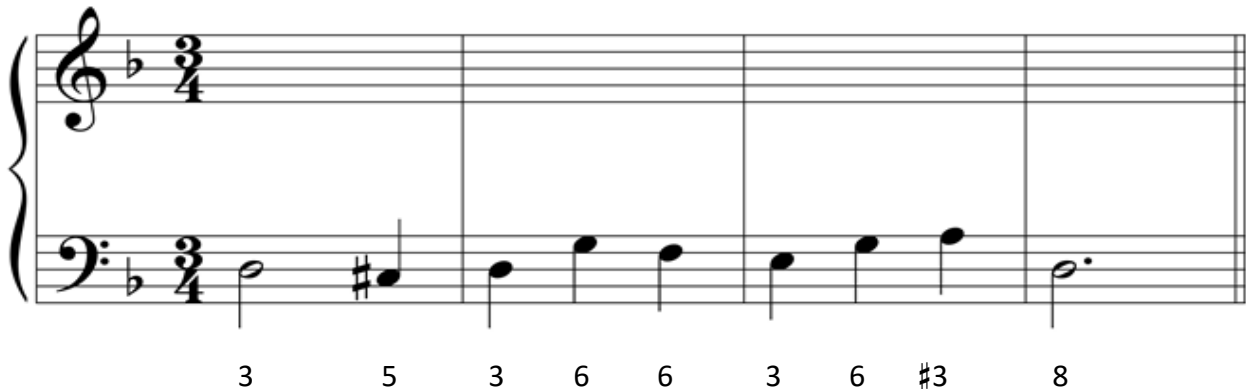
3. Intervals ____ /4

Identify each interval below by size and quality (e.g., M3). The lowest note of each interval is the tonic pitch of the given key.



4. Figured Bass ____ /5

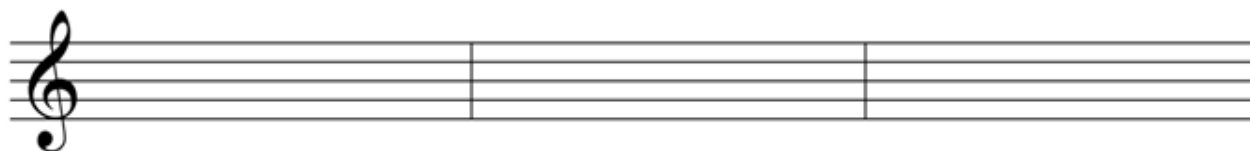
In the excerpt below, the bass voice and figures are given. Complete the soprano voice.



5. Chords ____/4

On the staff below:

- Write the B \flat major Key signature at the start of the staff.
- Write each root position triad in whole notes.
- Use accidentals only if necessary.



B \flat :

I⁶

V⁷

IV

6. Melodic Harmonization ____/5

- Identify the key of this excerpt.
- Harmonize each measure with I (i), IV, or V⁷.



Key ____: ____ ____ ____ ____

7. Analysis _____/12

Refer to the piece below, *German Dance*, to answer these questions.

1. In what key is this piece written? _____
2. What is the best time signature for this piece? _____
3. What is the form? (*Circle*) Binary Rounded Binary
4. Provide letters and measure numbers for each section.

5. Provide a harmonic analysis of the chords above each blank. Identify the harmonies by Roman numeral and inversion, e.g. I^6 (10 blanks total.)
6. What type of cadence is in measure 4? _____
7. What kind of cadence is in measures 15-16? _____
8. Circle a non-chord tone in measure 10. _____

Beethoven, German Dance WoO 8, No. 2



8. Scales and Intervals _____ /6

Aural Score _____/30

- Listen to a scale played two times. Circle the type of scale you hear.
- Then, listen to two intervals played three times each. Identify each interval by quality and size (e.g., M3).

Set 1:

Scale (circle one): major natural minor harmonic minor

Interval 1: _____

Interval 2: _____

Set 2:

Scale (circle one): major natural minor harmonic minor

Interval 1: _____

Interval 2: _____

9. Chord Identification _____ /4

Listen to four chords played three times each. Circle the chord you hear.

Chord 1: major minor V⁷Chord 2: major minor V⁷Chord 3: major minor V⁷Chord 4: major minor V⁷**10. Harmonic Dictation _____ /5**Listen to a chord progression played three times. Identify each chord by Roman numeral and, if necessary, Arabic numeral. Chords include: I (i), ii⁶ (ii^{o6}), IV (iv), and V⁷.

11. Rhythmic Dictation _____ /4

Listen to two rhythms played three times each. Write the rhythm you hear.

<div style="font-size: 2em; font-weight: bold;">4</div>	<div style="font-size: 2em; font-weight: bold;"> </div>
---	--

<div style="font-size: 2em; font-weight: bold;">6</div>	<div style="font-size: 2em; font-weight: bold;"> </div>
---	--

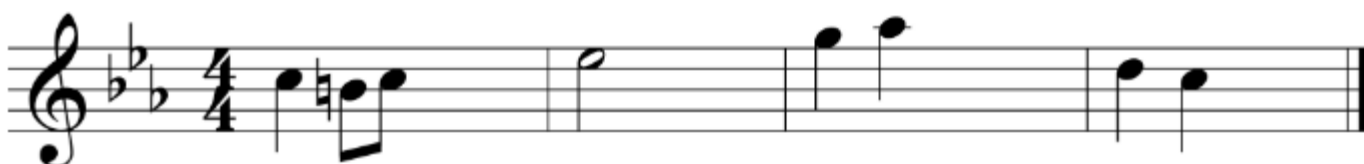
12. Form and Cadence Dictation _____ /7

Listen to a short piece that has four phrases. Answer the following questions about the piece. The piece will be played three times.

- | | | | | |
|--|----------|----------------|-------|-------|
| a. Use the letters A and B to describe the form: | _____ | _____ | _____ | _____ |
| b. Phrases 1 and 2 form what kind of period? (<i>Circle</i>) | Parallel | Contrasting | | |
| c. Phrases 3 and 4 form what kind of period? (<i>Circle</i>) | Parallel | Contrasting | | |
| d. Cadence at the end of phrase 1 is: (<i>Circle</i>) | Half | Authentic/full | | |
| e. Cadence at the end of phrase 2 is: (<i>Circle</i>) | Half | Authentic/full | | |
| f. Cadence at the end of phrase 3 is: (<i>Circle</i>) | Half | Authentic/full | | |
| g. Cadence at the end of phrase 4 is: (<i>Circle</i>) | Half | Authentic/full | | |

13. Melodic Dictation _____ /4

Listen to a melody played four times. The first two beats of each measure are given. Complete each measure with the correct rhythm and pitches.



1. Scales and Cadence ____ /6

Keyboard Score ____ /41

Play the following scales, one hand (student's choice), one octave, ascending and descending. End with an authentic/full cadence.

- E natural minor
- A \flat major

2. Triads ____ /4

Play the following chords in root position:

- F augmented
- E minor
- A \flat major
- C Diminished

3. Chord Progression ____ /6

First, play the **A major** scale for no points.

Play the left-hand bass line.

Play the chord progression in the key of **A major** in keyboard style.

A : I ii⁶ V⁷ I

4. Sight Playing ____ /13

Look at the example below.

- In what key is this piece written?
- Play the scale for no points.
- Play the piece.
- Play the **B minor** scale for no points.
- Transpose the piece to **B minor**.

5. Melody and Harmony ____/12

- This piece is written in **A^b major**. Play an **A^b major** scale for no points.
- Play the melody alone with the right hand.
- Play the chords alone with the left hand.
- Play both hands together.



I

IV

V⁷

V⁷