



# Music Theory

## Level 3 Supplement (2019)

This supplement provides the new sections added to the 2019 MMTA Theory Level 3 Workbook.

*Please note these general changes:*

- Rounded binary form has been removed from this level.
- Authentic cadences are now referred to as "authentic or full cadences."
- The V chord is always referred to as the V7 chord.

Note: This supplement is meant to be used with the 2015 edition of the MMTA Music Theory Level 3 Workbook. This supplement may only be reproduced for use with such a workbook.

## 5-2: Triads

A **triad** is a chord with three notes and is stacked in thirds.

- The **root** is the lowest note and is the name of the triad.
- The **3rd** is the interval of a 3<sup>rd</sup> above the lowest note.
- The **5th** is the interval of a 5<sup>th</sup> above the lowest note.

The two most common triads are:

**Major triads:** They come from  $\overset{\wedge}{1} - \overset{\wedge}{3} - \overset{\wedge}{5}$  in the major pentascale (the first, third, and fifth notes of the scale).

**Minor triads:** They come from  $\overset{\wedge}{1} - \overset{\wedge}{3} - \overset{\wedge}{5}$  in the minor pentascale (the first, third, and fifth notes of the scale).

Example of triads:



F major

C is the 5th.

A is the 3rd.

F is the root.

C# minor

G# is the 5th.

E is the 3rd.

C# is the root.

B<sup>b</sup> major

F is the 5th.

D is the 3rd.

B<sup>b</sup> is the root.

D minor

A is the 5th.

F is the 3rd.

D is the root.

For each triad below:

- Indicate which note is the root, the 3rd, and the 5th.
- Then name each chord by letter and quality.

*(The first one is done for you.)*



1. Root = G      3rd = B      5th = D      Chord = G major

2. Root = \_\_\_\_\_      3rd = \_\_\_\_\_      5th = \_\_\_\_\_      Chord = \_\_\_\_\_

3. Root = \_\_\_\_\_      3rd = \_\_\_\_\_      5th = \_\_\_\_\_      Chord = \_\_\_\_\_

4. Root = \_\_\_\_\_      3rd = \_\_\_\_\_      5th = \_\_\_\_\_      Chord = \_\_\_\_\_

5. Root = \_\_\_\_\_      3rd = \_\_\_\_\_      5th = \_\_\_\_\_      Chord = \_\_\_\_\_

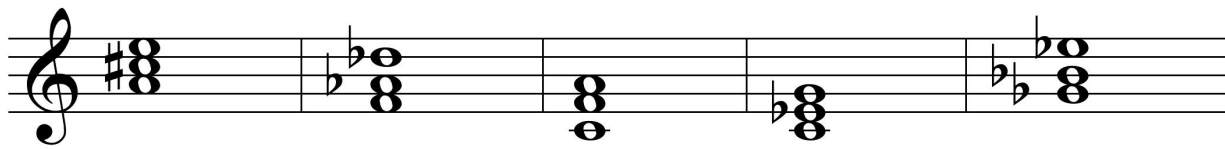
### 5-3: Triads and Inversions

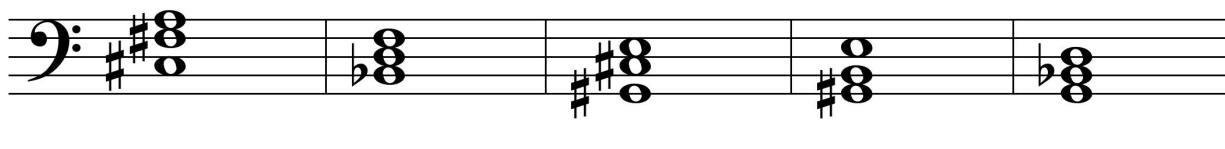
To make music more interesting and harmonies flow more smoothly, composers can rearrange the notes of the chord. When the 3<sup>rd</sup> or the 5<sup>th</sup> is the lowest note, the triad is **inverted**. To find the root note of an inverted triad, look for the upper note of the fourth in the chord.

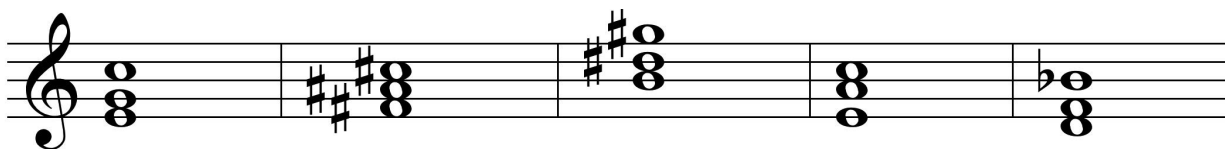
1. Root = A<sup>b</sup>      Chord = A<sup>b</sup> major
2. Root = \_\_\_\_\_      Chord = \_\_\_\_\_
3. Root = \_\_\_\_\_      Chord = \_\_\_\_\_
4. Root = \_\_\_\_\_      Chord = \_\_\_\_\_
5. Root = \_\_\_\_\_      Chord = \_\_\_\_\_
6. Root = \_\_\_\_\_      Chord = \_\_\_\_\_
7. Root = \_\_\_\_\_      Chord = \_\_\_\_\_
8. Root = \_\_\_\_\_      Chord = \_\_\_\_\_
9. Root = \_\_\_\_\_      Chord = \_\_\_\_\_
10. Root = \_\_\_\_\_      Chord = \_\_\_\_\_

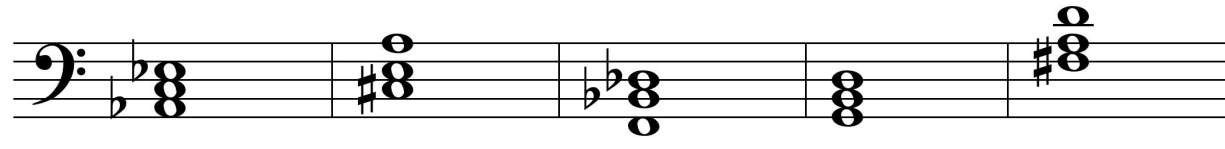
# Written Practice: Triads and Inversions

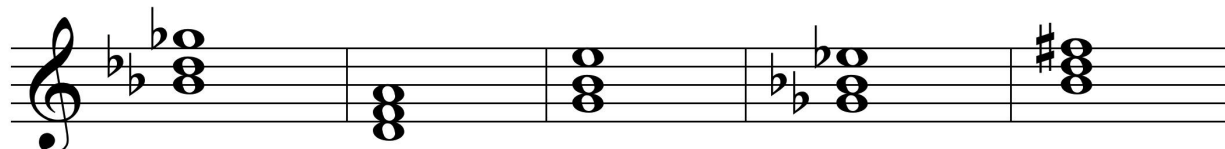
Identify the root note for each triad below. (You do not need to identify the quality of the triad or the inversion.)

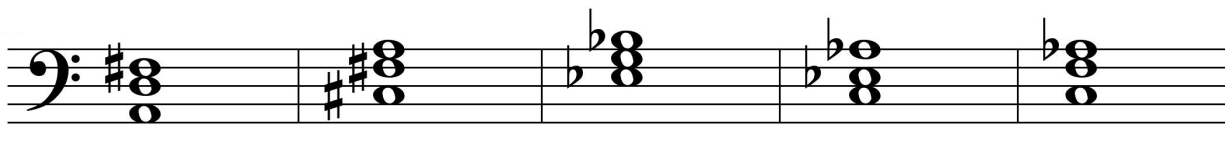
1.   
 \_\_\_\_\_

2.   
 \_\_\_\_\_

3.   
 \_\_\_\_\_

4.   
 \_\_\_\_\_

5.   
 \_\_\_\_\_

6.   
 \_\_\_\_\_

## 5-4: Seventh Chords


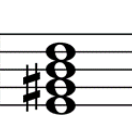
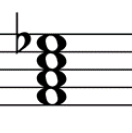
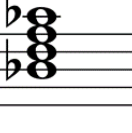
A **seventh chord** is a chord with four notes and is stacked in thirds.

- The **root** is the lowest note. The name of the chord is the root note + Arabic numeral 7, e.g. C7.
- The **3rd** is the interval of a 3<sup>rd</sup> above the lowest note.
- The **5th** is the interval of a 5<sup>th</sup> above the lowest note.
- The **7th** is the interval of a 7<sup>th</sup> above the lowest note.

For each chord below,

- Indicate which note is the root, the 3<sup>rd</sup>, the 5<sup>th</sup>, and the 7<sup>th</sup>.
- Then name each chord by letter and quality.

(The first one is done for you.)

1.	2.	3.	4.
			

1. Root =   G      3<sup>rd</sup> =   B      5<sup>th</sup> =   D      7<sup>th</sup> =   F      Chord =   G7  

2. Root =               3<sup>rd</sup> =               5<sup>th</sup> =               7<sup>th</sup> =               Chord =           

3. Root =               3<sup>rd</sup> =               5<sup>th</sup> =               7<sup>th</sup> =               Chord =           

4. Root =               3<sup>rd</sup> =               5<sup>th</sup> =               7<sup>th</sup> =               Chord =

### 5-5: Tonic (I), Dominant (V), and Dominant Seventh (V<sup>7</sup>) Chords in Major Keys

A chord can be built on any step of the scale using pitches from the scale. The most important and most used chords are the I, V, and V<sup>7</sup> chords. These chords have a certain purpose, or function, in music. Chords that "do" things are called **functional harmony**.

The **tonic triad** (I)

- Is a three-note chord (a triad) built on  $\hat{1}$  (  $\hat{1}$ ,  $\hat{3}$ ,  $\hat{5}$  ).
- The tonic triad is labeled I.
- The function of the tonic triad is to sound stable because it is the "home" chord.

The **dominant triad** (V)

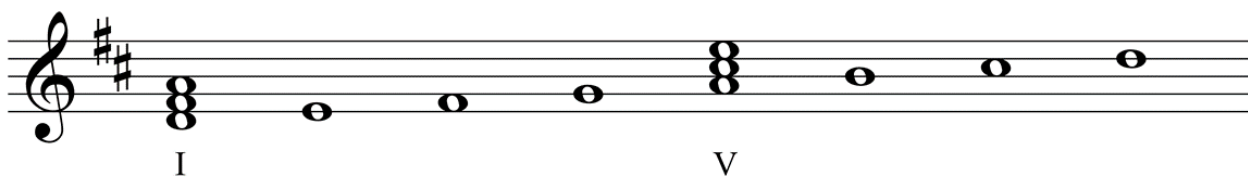
- Is a three-note chord (a triad) built on  $\hat{5}$  (  $\hat{5}$ ,  $\hat{7}$ ,  $\hat{2}$  ).
- The dominant triad is labeled V.
- The function of the dominant triad is to lead to the tonic. It wants to "go" or to "resolve" to the tonic.

The **dominant seventh** chord (V<sup>7</sup>)

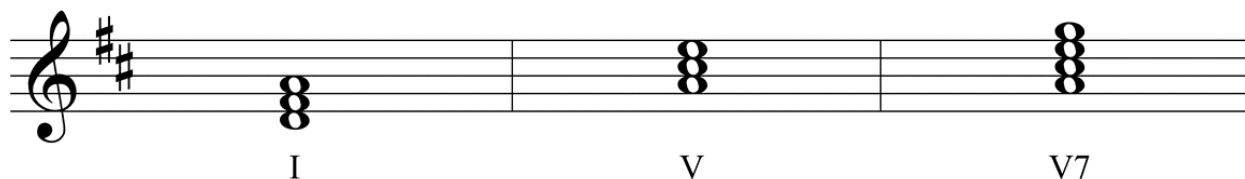
- Is a four-note chord (seventh chord) built on  $\hat{5}$  (  $\hat{5}$ ,  $\hat{7}$ ,  $\hat{2}$ ,  $\hat{4}$  ).
- The dominant seventh chord is labeled V<sup>7</sup>.
- The function of the dominant seventh chord is also to lead to the tonic. It wants to "go" or to "resolve" to the tonic.
- V<sup>7</sup> sounds more unstable than V.

Example: Tonic and dominant triads on the D major scale

- The first triad is labeled I because it is built on the first note of the scale. This triad is the tonic triad.
- The fifth triad is labeled V because it is built on the fifth note of the scale. This triad is the dominant triad.



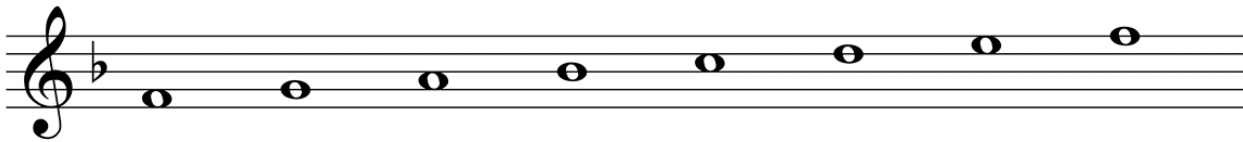
In the example below, the scale has been removed and only the chords remain. Notice the last chord adds another note (the seventh) and it becomes the V<sup>7</sup>.



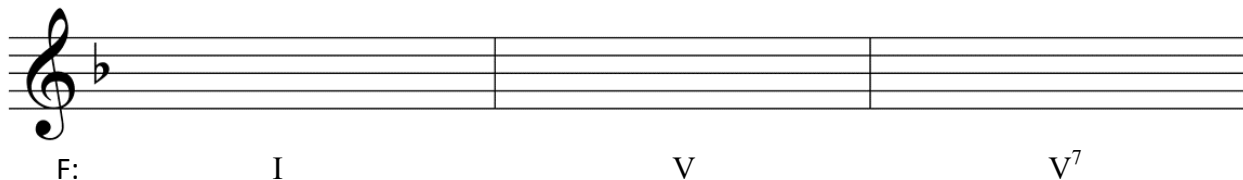
*Tonic (I), Dominant (V), and Dominant Seventh (V<sup>7</sup>) Chords in Major Keys, continued*

On the F major scale below,

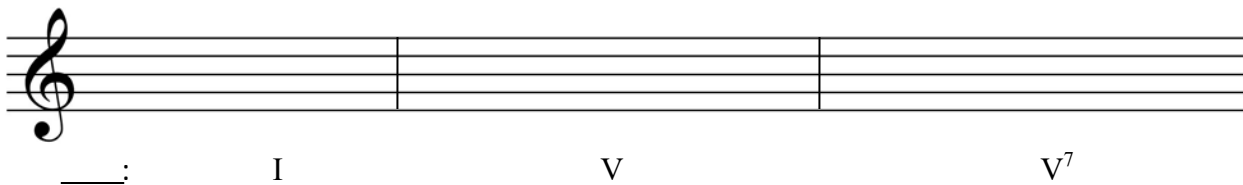
- Write the tonic triad on  $\hat{1}$  and label it with I.
- Write the dominant triad on  $\hat{5}$  and label it with V.



Now, write the chords alone on this staff.



Then, write the chords in a different major key. (Teacher: Please select a key for the student.)



## 5-6: Tonic (i), Dominant (V), and Dominant Seventh (V<sup>7</sup>) Chords in Minor Keys

In minor keys:

The **tonic** triad (i)

- Is a three-note chord (a triad) built on  $\hat{1}$  ( $\hat{1}, \hat{3}, \hat{5}$ ).
- The tonic triad is labeled as i. Lowercase Roman numerals are used to indicate minor, and uppercase letters to indicate major.
- The function of the tonic triad is to sound stable because it is the “home” chord.

The **dominant** triad (V)

- Is a three-note chord (a triad) built on  $\hat{5}$  ( $\hat{5}, \hat{\sharp 7}, \hat{2}$ ).
- When a chord is built on the dominant pitch using only notes of the natural minor scale, it is weak because it has no leading tone. Composers usually add the leading tone ( $\hat{\sharp 7}$ ) to the dominant chord so that it has a stronger pull to the tonic. In other words, the 7<sup>th</sup> of the scale, which is the 3<sup>rd</sup> of the chord, is raised so the chord will function as a dominant. This always involves an accidental.
- The dominant triad is labeled as V or V $\sharp$ . In this curriculum, the sharp after the V is optional.
- The function of the dominant triad is to lead to the tonic. It wants to “go” or to “resolve” to the tonic.
- The V triad is always major.

The **dominant seventh** chord (V<sup>7</sup>)

- Is a four-note chord (seventh chord) built on the fifth step of the scale.
- The 3<sup>rd</sup> of the chord must be raised a half step to make the chord function as a dominant. This will always involve an accidental.
- The dominant seventh chord is labeled as V<sup>7</sup> or V $\sharp^7$ . In this curriculum, the sharp after the V is optional.
- The function of the dominant seventh chord is also to lead to the tonic. It wants to “go” or to “resolve” to the tonic.
- V<sup>7</sup> sounds more unstable than V.

Example: Tonic and dominant triads on the B minor scale

- The tonic triad is a three-note chord built on  $\hat{1}$ . It is labeled i. This triad is the tonic triad.
- The dominant triad is a three-note chord built on  $\hat{5}$ . Notice the third is raised with a sharp. It is labeled V. This triad is the dominant triad.

A musical staff in bass clef with a key signature of two sharps (F# and C#). The notes of the B minor scale are written from left to right: B2, C3, D3, E3, F#3, G3, A3, B3. The tonic triad (i) is highlighted with a bracket underneath the first three notes (B2, C3, D3) and labeled 'i' below. The dominant triad (V) is highlighted with a bracket underneath the last three notes (F#3, G3, A3) and labeled 'V (V#)' below.

In the example below, the scale has been removed and only the chords remain. Notice the last chord adds another

A musical staff in bass clef with a key signature of two sharps (F# and C#). Three chords are shown in separate measures. The first measure contains the tonic triad (i) on B2, C3, D3, labeled 'i' below. The second measure contains the dominant triad (V) on F#3, G3, A3, labeled 'V (V#)' below. The third measure contains the dominant seventh chord (V<sup>7</sup>) on F#3, G3, A3, B3, labeled 'V<sup>7</sup> (V $\sharp^7$ )' below.



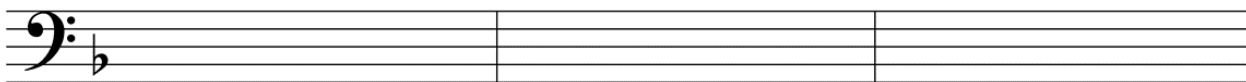
*Tonic (i), Dominant (V), and Dominant Seventh (V<sup>7</sup>) Chords in Minor Keys, continued*

On the D minor scale below:

- Write the tonic triad on the first pitch and label it with i.
- Write the dominant triad on the fifth pitch and label it with V. Remember to raise the third of the V chord.



Now, write the chords alone on this staff.

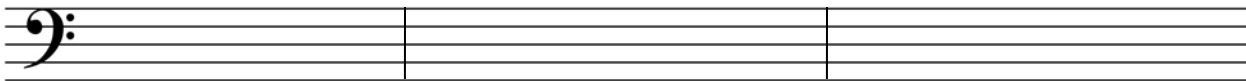


d:

**i**

$$V(V\#)$$
$$V^7 \quad (V^7_{\#})$$

Then, write the chords in a different minor key. (Teacher: Please select a key for the student.)



---

**i**

$$V(V\#)$$
$$V^7 \quad (V^7_{\#})$$

### More Practice Writing Tonic and Dominant-Seventh Chords

For each example,

- Write the key signature at the start of the staff.
- Write the tonic (I, i) and dominant seventh ( $V^7$ ) chords in root position and in whole notes.
- In minor keys, remember to raise the third on the  $V^7$  chord.

Example: F major



F:      I                       $V^7$

1. C major



C:              I                       $V^7$                       I                       $V^7$

2. G major



G:              I                       $V^7$                       I                       $V^7$

3. D major



D:              I                       $V^7$                       I                       $V^7$

4. A minor



a:              i                       $V^7_{\#}$                       i                       $V^7_{\#}$

*More Practice Writing Tonic and Dominant-Seventh Chords, cont'd.*

5. B $\flat$  major

B $\flat$ :                    I                    V<sup>7</sup>                    I                    V<sup>7</sup>

## 6. B minor

b:            i                          V<sup>7</sup><sub>#</sub>                          i                          V<sup>7</sup><sub>#</sub>

## 7. F major

F: I V<sup>7</sup> I V<sup>7</sup>

### 8. D minor

A musical staff with a bass clef on the left and a treble clef on the right. Below the staff, Roman numerals are placed: 'd:' under the first measure, 'i' under the second measure, 'V<sup>7</sup><sub>#</sub>' under the third measure, 'i' under the fourth measure, and 'V<sup>7</sup><sub>#</sub>' under the fifth measure.

## 9. G minor

[illegible]

## 10. E minor

A musical staff with a bass clef on the left and a treble clef on the right. Below the staff, the following Roman numerals are written: e: i V<sup>7</sup><sub>#</sub> i V<sup>7</sup><sub>#</sub>.

**Analysis 1: Leopold Mozart, *Menuet***

Answers on p. 85

1. To determine the key, follow these steps:

- First, look at the key signature. How many sharps or flats do you see? \_\_\_\_\_
- Then ask, what major key has two sharps? \_\_\_\_\_
- What minor key has two sharps? \_\_\_\_\_
- What is the last, lowest note of the piece? \_\_\_\_\_
- Using the key signature *and* the last note, what key is this piece in? \_\_\_\_\_

2. To determine harmonies, follow these steps:

Look at the lowest (lower staff, left hand) note. This pitch is often the root, or name, of the chord.

But check! Are the other pitches of the chord in the other parts or hands?

What pitches are on the first beat? \_\_\_\_\_ and \_\_\_\_\_

Do these pitches mostly make the I, V, or V<sup>7</sup> chord? \_\_\_\_\_

Which note is missing from the chord? \_\_\_\_\_

3. Provide a harmonic (Roman numeral) analysis. Write I, V, or V<sup>7</sup> on each blank.

\_\_\_\_\_

\_\_\_\_\_

A = measures \_\_\_\_\_

B = measures \_\_\_\_\_

3. Provide a harmonic (Roman numeral) analysis for each blank.

4. A cadence is the harmony at the end of a phrase.

What are the last two harmonies (chords) in this piece? \_\_\_\_\_ and \_\_\_\_\_

A half cadence ends on a V chord. An authentic/full cadence ends V<sup>7</sup>-I.

Does this piece end with a half or authentic/full cadence? (Circle one.)      Half      Authentic/full

[illegible]

**Analysis 3: W.A. Mozart, *Minuet*, K.6**

Answers on p. 85

1. In what key is this piece written? \_\_\_\_\_
2. What is the form? \_\_\_\_\_
3. Give measure numbers and letters for each section. \_\_\_\_\_
4. Provide a harmonic (Roman numeral) analysis for each blank.
5. What kind of cadence ends the piece? (Circle one.)    Half                  Authentic/full



\_\_\_\_\_



\_\_\_\_\_



\_\_\_\_\_

**Analysis 4: C. Gurlitt, *The Little Flower*, Op. 205 no. 11**

Answers on p. 85

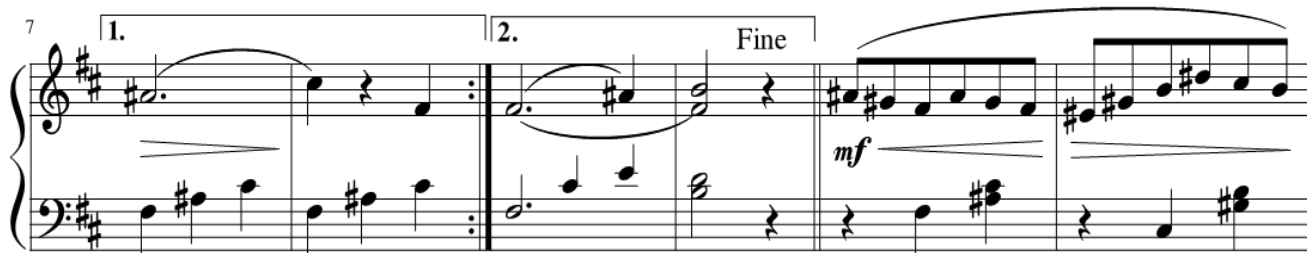
1. Notice this piece has a D.C. al Fine, which means the piece *does not* end in measure 18! In which measure does this piece end? (Hint: Look for the "Fine".) \_\_\_\_\_
2. In what key is this piece written? \_\_\_\_\_
3. What is the form? (Hint: Remember D.C. al Fine.) \_\_\_\_\_
4. Give measure numbers and letters for each section. \_\_\_\_\_
5. Provide a harmonic (Roman numeral) analysis for each blank. \_\_\_\_\_
6. Identify each cadence as half or as authentic/full. \_\_\_\_\_

Measures 7-8: \_\_\_\_\_ Measures 9-10: \_\_\_\_\_ Measure 15-18: \_\_\_\_\_

*Allegretto grazioso*



\_\_\_\_\_



\_\_\_\_\_



\_\_\_\_\_

- 
- 11
- 5
- 1 2 3 5 1
- 3 2 4 3 5
- 4 1 5
- 5 4 2 1



**Analysis 6: R. Schumann, *Soldier's March*, Op. 68 no. 2**

Answers on p. 85

1. In what key is this piece written? \_\_\_\_\_

2. Provide measure numbers for each section:

A section = \_\_\_\_\_

B section = \_\_\_\_\_

You may notice the A section theme returns. Where does it return?

3. Provide a harmonic (Roman numeral) analysis for each blank.

4. Identify each cadence as half or authentic/full:

Measure 16: \_\_\_\_\_

Measures 23-24: \_\_\_\_\_



\_\_\_\_\_

\_\_\_\_\_



\_\_\_\_\_

\_\_\_\_\_



\_\_\_\_\_

\_\_\_\_\_

## **Written Section 5: Tonic and Dominant Triads**

Exercises on p. 19

### **5-2: Triads**

1. G/B/D, G major
2. C/E<sup>b</sup>/G, C minor
3. E<sup>b</sup>/G/B<sup>b</sup>, E<sup>b</sup> major
4. D<sup>#</sup>/F<sup>#</sup>/A<sup>#</sup>, D<sup>#</sup> minor
5. A/C<sup>#</sup>/E, A major

### **5-3: Triads and Inversions**

- |  |  |
|--|--|
| 1. A <sup>b</sup> , A <sup>b</sup> major | 6. C <sup>#</sup> , C <sup>#</sup> minor |
| 2. E <sup>#</sup> , E major              | 7. B <sup>b</sup> , B <sup>b</sup> major |
| 3. D <sup>#</sup> , D minor              | 8. F <sup>#</sup> , F minor              |
| 4. E, E minor                            | 9. G <sup>b</sup> , G <sup>b</sup> minor |

### **Written Practice: Triads and Inversions**

1. A, D<sup>b</sup>, F, C<sup>b</sup>, E
2. F<sup>#</sup>, B<sup>b</sup>, C<sup>#</sup>, E<sup>b</sup>, G
3. C<sup>b</sup>, F<sup>#</sup>, G<sup>#</sup>, A, B
4. A<sup>b</sup>, A, B<sup>b</sup>, G, D
5. G<sup>#</sup>, D<sup>b</sup>, E, E<sup>b</sup>, B

### **5-4: Seventh Chords**

1. G/B/D/F, G<sup>7</sup>
2. E/G<sup>#</sup>/B/D, E<sup>7</sup>
3. F/A/C/E<sup>b</sup>, F<sup>7</sup><sub>b</sub>
4. B/D/F/A, B<sup>7</sup>

### 5-5: Tonic (I), Dominant (V), and Dominant Seventh (V<sup>7</sup>) Chords in Major Keys

F: I V

F: I V V<sup>7</sup>

### 5-6: Tonic (i), Dominant (V), and Dominant Seventh (V<sup>7</sup>) Chords in Minor Keys

d: i V (V<sup>#</sup>)

d: i V (V<sup>#</sup>) V<sup>7</sup> (V<sup>#7</sup>)

### More Practice Writing Tonic and Dominant-Seventh Chords

1. C major

C: I V<sup>7</sup> I V<sup>7</sup>

6. B minor

b: i V<sup>7</sup> i V<sup>7</sup>

2. G major

G: I V<sup>7</sup> I V<sup>7</sup>

7. F major

F: I V<sup>7</sup> I V<sup>7</sup>

3. D major

D: I V<sup>7</sup> I V<sup>7</sup>

8. D minor

d: i V<sup>7</sup> i V<sup>7</sup>

4. A minor

a: i V<sup>7</sup> i V<sup>7</sup>

9. G minor

g: i V<sup>7</sup> i V<sup>7</sup>

5. B<sup>b</sup> major

B<sup>b</sup>: I V<sup>7</sup> I V<sup>7</sup>

10. E minor

e: i V<sup>7</sup> i V<sup>7</sup>

**Chapter 2. Analysis**

Exercises on p. 36

**Analysis 1: Leopold Mozart, *Menuet***

1. a. 2 sharps  
b. D major  
c. B minor  
d. D  $\sharp$   
e. D major
2. a. D and F

**Analysis 2: A. Diabelli, Op. 125 no. 4**

1. C major
2. A = 1-8,  
B = 9-16
3. I, I, I, I, I, I

**Analysis 3: W.A. Mozart, *Minuet*, K. 6**

1. C major
2. Binary
3. A = 1-8,  
B = 9-16
4. I, V, V<sup>7</sup>, I

**Analysis 4: C. Gurlitt, *The Little Flower*, Op. 205 no. 11**

1. Measure 10
2. B minor
3. Ternary
4. A = 1-10  
B = 11-18  
A' = 1-10 (D.C.)

**Analysis 5: M. Clementi, *Sonatina*, Op. 36 no. 1 (I., excerpt)**

1. a. C major  
b. G major
2. I, I, V, I  
I, V, I, I  
V, I

**Analysis 6: R. Schumann, *Soldier's March*, Op. 68 no. 2**

1. G major
2. A = 1-8  
B = 9-24  
A returns in m. 17
3. I, I, V<sup>7</sup>, I  
I, V  
V, I, V  
I, V, I, I, I  
V<sup>7</sup>, I, V, V, I