GreatHearts®

10th Grade
Music – Choir I: Diatonic Chords in Major and Minor Keys

May 4 – May 8

Time Allotment: 20 minutes per day

Student Name: _____

Teacher Name: _____

Academic Honesty

I certify that I completed this assignment independently in accordance with the GHNO Academy Honor Code.

Student signature:

_____

I certify that my student completed this assignment independently in accordance with the GHNO Academy Honor Code.

Parent signature:

_____

Packet Overview

Date	Objective(s)	Page Number
Monday, May 4	1. Review Roman numeral identification of triads 2. Identify diatonic seventh chords in major	2
Tuesday, May 5	1. Identify diatonic seventh chords in minor	4
Wednesday, May 6	1. Decode inversion symbols for diatonic triads	5
Thursday, May 7	1. Decode inversion symbols for diatonic seventh chords	7
Friday, May 8	1. Demonstrate understanding of diatonic chord identification and Roman numeral analysis by taking a written assessment.	9

Additional Notes: In order to complete the tasks within the following packet, it would be helpful for students to have a piece of manuscript paper to write out triads; I have included a blank sheet of manuscript paper to be printed off as needed, though in the event that this is not feasible students are free to use lined paper to hand draw a music staff.

I have also included answer keys to the exercises at the end of the packet. Parents, please facilitate the proper use of these answer documents (i.e. have students work through the exercises for each day before supplying the answers so that they can self-check for comprehension.)

As always, will be available to provide support via email, and I will be checking my inbox regularly. Please do not hesitate to reach out with questions or concerns during this time. For your reference my email is kevin.austin@greatheartsnorthernoaks.org

I will also be holding guided instruction hours from now on via Zoom according to the following schedule:

2nd Period	Monday, Wednesday; 11:00 – 11:50am
5th Period	Tuesday, Thursday; 11:00 – 11:50am

These Zoom meetings are optional and will allow for much needed conversations to discuss theory problems and ask questions.

To join the Zoom Meeting:

https://zoom.us/j/209631093?pwd=Z0MvSU9BNXl0QjRDc1U3U0o5VkJkUT09

Meeting ID: 209 631 093

Password: 004074

Monday, May 4

Music Theory Unit: Diatonic Chords in Major and Minor Keys
Lesson 1: Review of Diatonic Triads/ Diatonic Seventh Chords in Major

Lesson 1 Socratic Guiding Questions: Keep these questions in mind as you study!
How might the presence of a fourth note in a seventh chord complicate the process we have been discussing?

Objective: Be able to do this by the end of this lesson.
1. Review Roman numeral identification of triads
2. Identify diatonic seventh chords in major

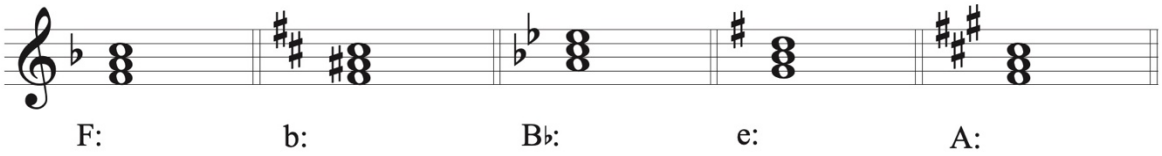
Introduction to Lesson 1: Review of Diatonic Triads
As we have observed, triads can not only be understood in isolation (i.e. as identified with a root note and quality) but also in the greater context of a key signature. When we encounter triads in a key that have no further alteration – that is outside of the expected set of notes for the given key – we call the chord a diatonic chord and we can expect to see certain commonalities arise. The expected chord types are given in the following correspondence tables.

Diatonic Triads in Major Keys	
Major	I, IV, and V
Minor	ii, iii, and vi
Diminished	vii^{o}
Augmented	none

Common Diatonic Triads in Minor Keys	
Major	III, V, and VI
Minor	i and iv
Diminished	ii^{o} and vii^{o}
Augmented	none

Recall further that in major keys, the seven chords listed are the expected chord types but that in minor there are more diatonic possibilities, such as #vi^{o} or III^{+}, but that these chords are less common; we will come to find that these chords often have a very specific function which makes them easier to identify in the context of the music – more on that later.

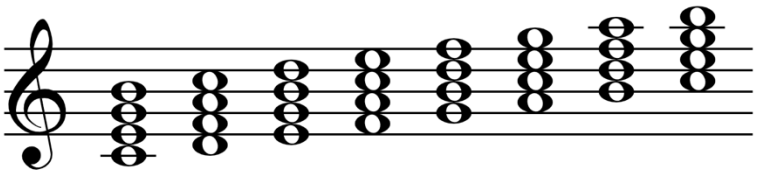
Let's refresh our memories of Roman numeral identification with the following triads. For each triad give the proper Roman numeral according to the given key.



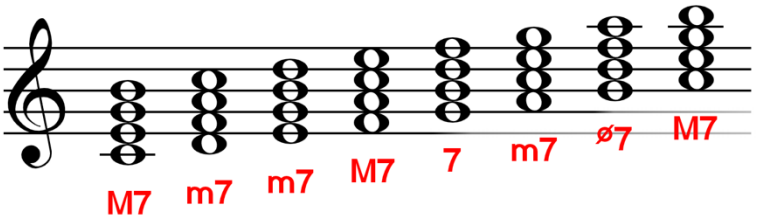
The identification of diatonic triads is largely going to inform our analysis of harmony going forward, and triadic harmonies are by and large the more common chord structures that we will encounter. However, there is the potential for diatonic seventh chords to arise and these sonorities are used selectively by composers to both color and strengthen harmonic motion; we will discuss harmonic motion in our next unit in greater detail but for now it is best to familiarize ourselves with what we may encounter.

Diatonic Seventh Chords in Major

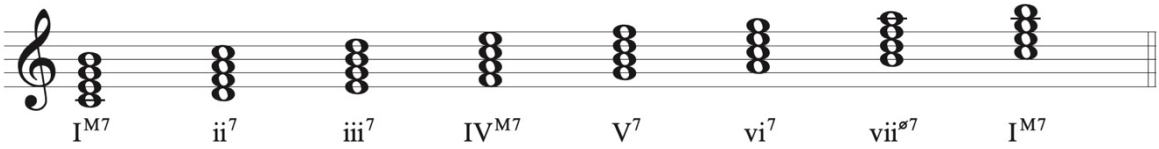
Similar to the way that we derived diatonic triads in major keys, for seventh chords we will begin by constructing root position seventh chords on each scale degree.



From here we can see that all of these chords are diatonic to the key of C major because they contain no sharps or flats. This means that when we analyze their qualities, we can assume that these are the expected qualities for seventh chords built on that scale degree in any major key. The analysis of the chords yields the following…

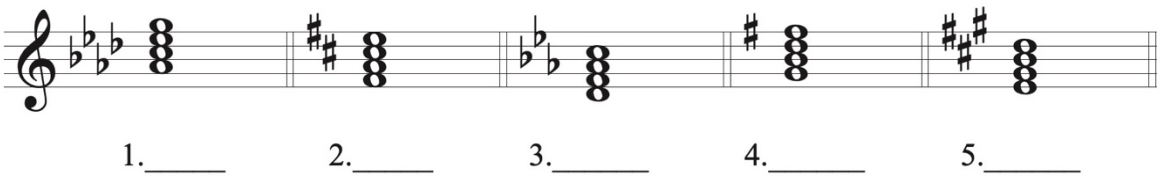


Because, as we have already observed, seventh chords are just extensions of triadic harmonies, we can, in a similar way, add on to the existing Roman numeral to denote a seventh chord extension.



Notice that for minor seventh chords the roman numeral is already lowercase, which denotes minor, so we don't include the "m" in the extension. However, for major sevenths and dominant sevenths we do make the distinction because both of these qualities are extension on a major triad. Additionally, the chord that arises in major keys on the seventh scale degree is now a half-diminished seventh chord. As a result, four of the five seventh chord qualities appear diatonically in major keys.

Closing: Check your understanding of the lesson by labeling the following diatonic seventh chords with the proper roman numerals according to the given major key signature.



Tuesday, May 5

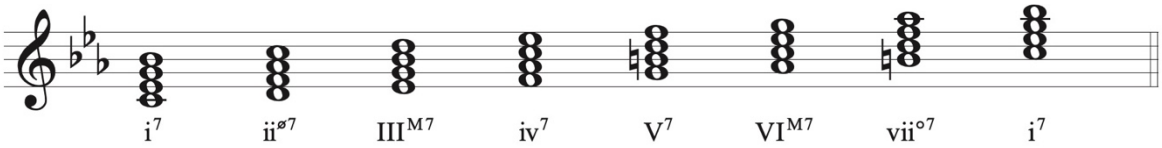
Music Theory Unit: Diatonic Chords in Major and Minor Keys
Lesson 2: Diatonic Seventh Chords in Minor

Lesson 2 Socratic Guiding Questions: Keep these questions in mind as you study!
How might the problem of composite minor contribute to challenges with diatonic seventh chords in minor keys?

Objective: Be able to do this by the end of this lesson.

1. Decode diatonic seventh chords in minor

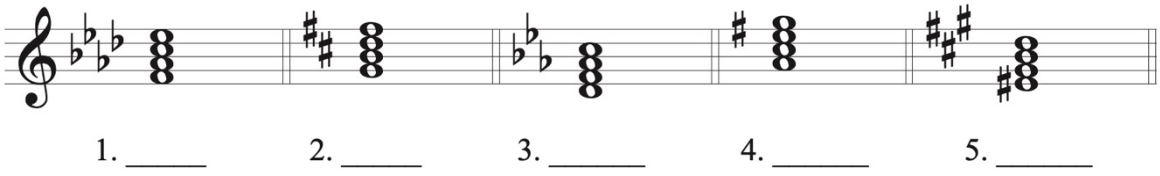
Introduction to Lesson 2: Diatonic Seventh Chords in Minor
Yesterday we observed that in major keys there are seven diatonic possibilities for seventh chords – one for each scale degree – and of those possible there arise four of the five common seventh chord types. When we look at seventh chords in minor, the problem of minor reemerges. Because of the variability of scale degrees 6 and 7, there are sixteen possible diatonic seventh chords in minor. This however, we will again restrict to only those that commonly appear; as some of the other unusual ones are very rare or have very isolated uses. The following are the most common diatonic seventh chords found in minor keys.



Notice again that those chords which are minor do not carry the "m" in the extension by virtue of the lowercase Roman numeral. Additionally, notice now the presence of all five seventh chord types in minor keys.

It is also helpful to observe that the roots of each of these chords follow the harmonic minor scale and that, much like with the common triads in minor, all of the notes in these chords (with the exception of Bb in the i^7 chord and the III^{M7}) belong to the harmonic minor scale.

Closing: Check your understanding of the lesson by labeling the following diatonic seventh chords with the proper roman numerals according to the given minor key signature.



Wednesday, May 6

Music Theory Unit: Diatonic Chords in Major and Minor Keys
Lesson 3: Diatonic Triads in Inversion

Lesson 3 Socratic Guiding Questions: Keep these questions in mind as you study!
Taking what we know of chord inversion, how might the inversion of a triad alter the process for Roman numeral analysis? How will we represent the inversion in our analysis?

Objective: Be able to do this by the end of this lesson.

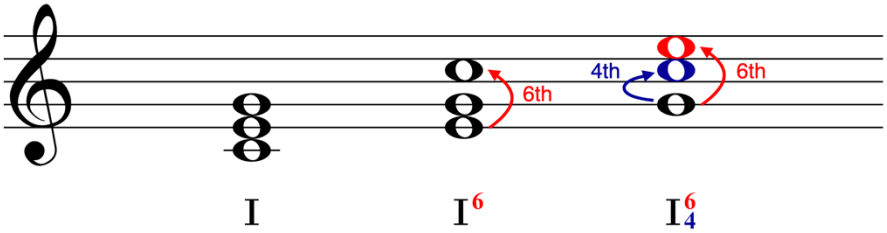
1. Decode inversion symbols for diatonic triads.

Introduction to Lesson 3: Diatonic Triads in Minor

When we encounter chords in the context of music, we have already discussed that not every chord will be in root position and that sometimes the chord will rearrange the order of its notes such that a different part of the chord is in the bass position. This is what we called *inversion*. When we considered triads in inversion, we saw that, beyond the root position, there were two inverted possibilities – *first inversion* and *second inversion*, respectively.

Now that we are identifying chords in relation to key signatures using Roman numerals the root of each chord is somewhat removed from the forefront of our analysis. That is, instead of saying "G Major," where we know clearly that G is the root and that the chord includes the notes B and D, we now say "V in the key of C Major." The chord and quality have not changed but the way that we identify it has. Consequently, if that V chord were in inversion the root is again obscured in a sense because it is no longer the in the bass position. As a result, we need a way to identify the inversion in tandem with the Roman numeral so that we can understand the part of each chord that is in the bass position and illuminate the path toward the root of the chord more clearly.

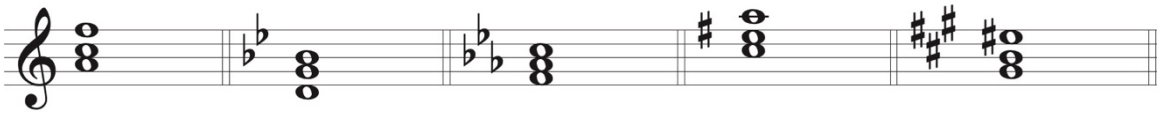
To note inversions of triads, music theorists often abbreviate by analyzing the intervals that arise above the bass note. Take for instance the inversions of C Major (in the key of C Major)…



- Root position triads remain unaltered in their Roman numeral
- First inversion does not change the quality but results in an interval of a 6^{th} above the bass note, so we add a superscript "^{6}" to the numeral; this is because in a root position chord, a 3^{rd} and a 5^{th} above the bass note are expected, but now in first inversion a 6^{th} is unexpected so we notate it.
- Second inversion likewise does not affect the quality of the chord but now we see both a 4^{th} and a 6^{th} above the bass note so we notate both intervals with a superscript "^{6}" and a subscript "$_{4}$" stacked on top of each other.

When we identify chords in inversion, it is important to remember where the root is in the chord as well as the part of the chord that is in the bass position as this will help us to properly label it with a Roman numeral and inversion symbol.

Closing: Check your understanding of the lesson by identifying the given triads with the appropriate Roman numeral and inversion symbol. Analyze the chord according to the given major minor key; remember that inversion does not alter the quality of the chord.



C: _____ g :_____ E♭: _____ e: _____ f♯: _____

Thursday, May 7

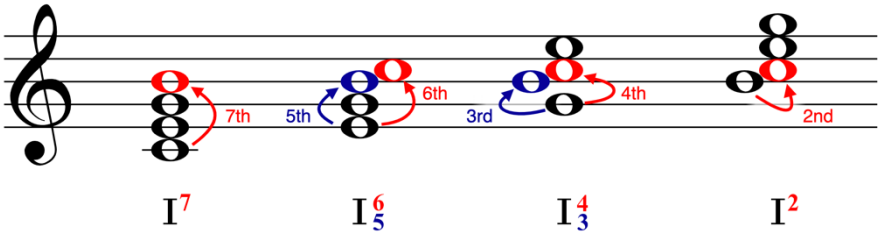
Music Theory Unit: Diatonic Chords in Major and Minor Keys
Lesson 4: Diatonic Seventh Chords in Inversion

Lesson 4 Socratic Guiding Questions: Keep these questions in mind as you study!
How will inversion symbols change with the addition of another note in the chord (i.e. in a seventh chord)?

Objective: Be able to do this by the end of this lesson.

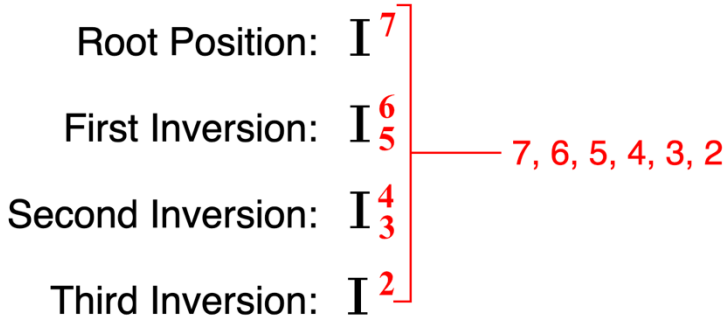
1. Decode inversion symbols for diatonic seventh chords

Introduction to Lesson 4: Diatonic Seventh Chords in Inversion
Much like with triads, seventh chords will also appear in inversion. And similarly, we will amend the extension to fit the inversion, though there are some notable differences. With triads, our inversion symbols were informed by the unexpected intervals above the bass note. With seventh chords this will largely still apply though we are going to be selective about the intervals that we notate so that we can differentiate from inversions of triads.



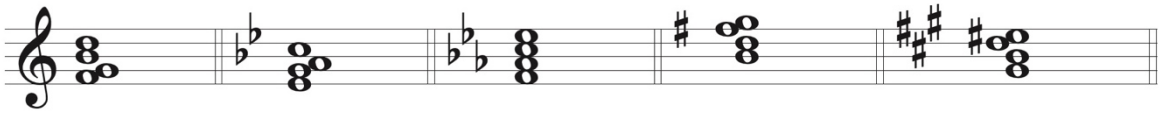
- Root position seventh chords carry the "7" extension as we have already seen.
- First inversion has a 6th above the bass note but in order to distinguish from a first inversion triad we will also notate the 5th
- Second inversion has both a 6th and a 4th but again this is too similar to the inversion for the triad. To differentiate we will take the 4th and the 3rd as our unique interval markers.
- Third inversion has a 2nd above the bass note which is unique enough that we will use it for our shorthand of this inversion.

Alternately we can remember the inversion symbols for seventh chords in the following way:



Notice that the numeric extensions are arranged in descending numeric order as we increase in inversion.

Closing: Check your understanding of the lesson by identifying the given seventh chords with the appropriate Roman numeral and inversion symbol. Analyze the chord according to the given major minor key; remember that inversion does not alter the quality of the chord.



C: _____ g :_____ E♭: _____ e: _____ f♯: _____

Friday, May 8

Music Theory Unit: Diatonic Chords in Major and Minor Keys
Quiz: Diatonic Chords and their Inversions in Major and Minor Keys

Objective: Be able to do this by the end of this lesson.

1. Demonstrate understanding of diatonic chords by taking a written assessment.

Quiz: Diatonic Chords in Major and Minor Keys

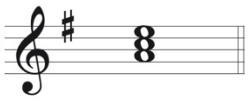
To assess your understanding of this week's lessons you will complete the following quiz on Diatonic Chords. Please allot yourself 20 minutes to take the quiz. You may use the theory reference sheet (which includes a piano keyboard and the circle of fifths), as well as the interval calculator during the quiz for your reference.

Name_____ Date_____

Quiz: Roman Numeral Analysis

Diatonic Triads and Seventh Chords - 𝄞 𝄢

Indicate the Roman numeral of each triad in relation to the given key signature. Make sure that the Roman numeral form matches the chord quality and tha the numeral itself aligns with the scale degree of the root of the chord. Be sure also to unclude the correct inversion symbol.

Example 

G: ii

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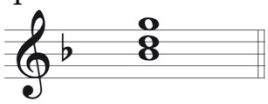
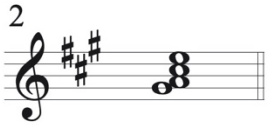
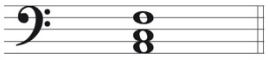
1 

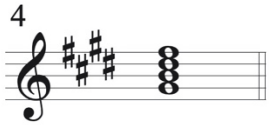
F: ___

2 

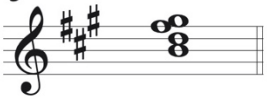
f♯: ___

3 

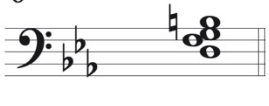
a: ___

4 

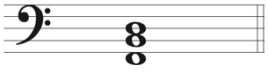
E: ___

5 

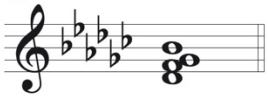
A: ___

6 

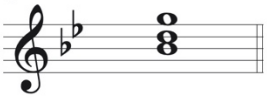
c: ___

7 

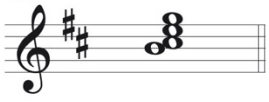
C: ___

8 

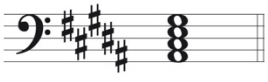
e♭: ___

9 

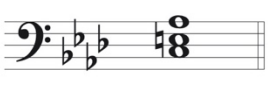
B♭: ___

10 

b: ___

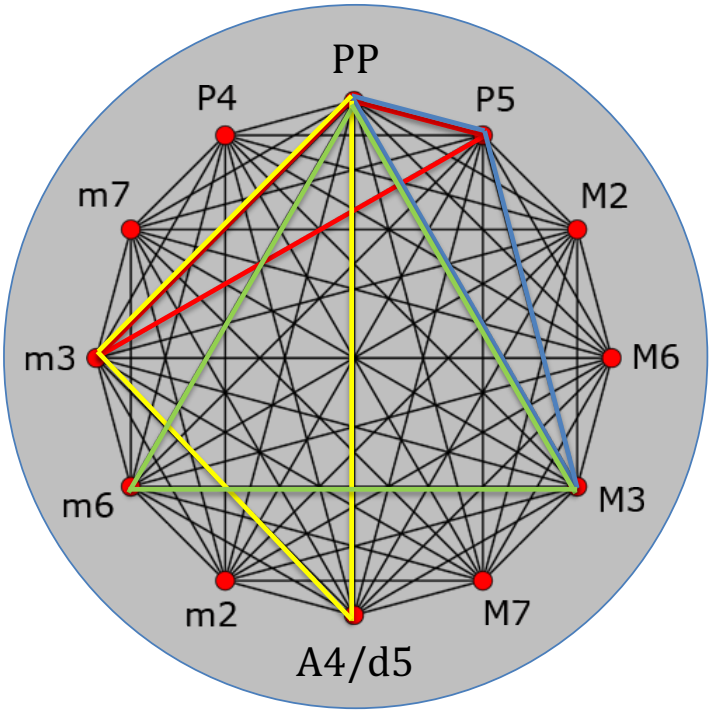
11 

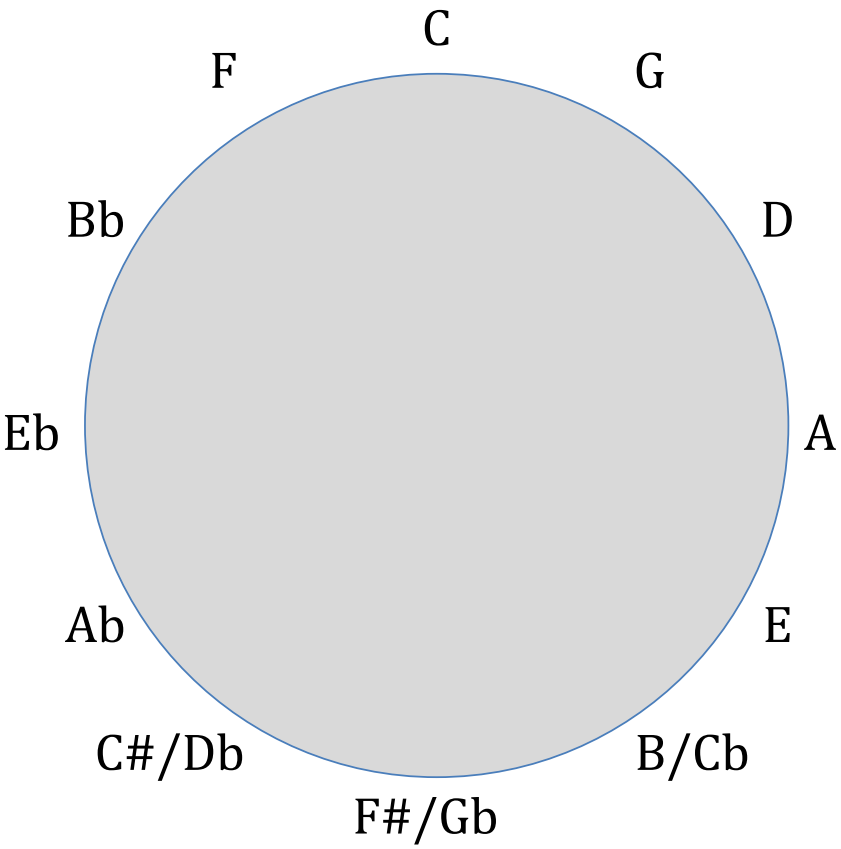
B: ___

12 

f: ___

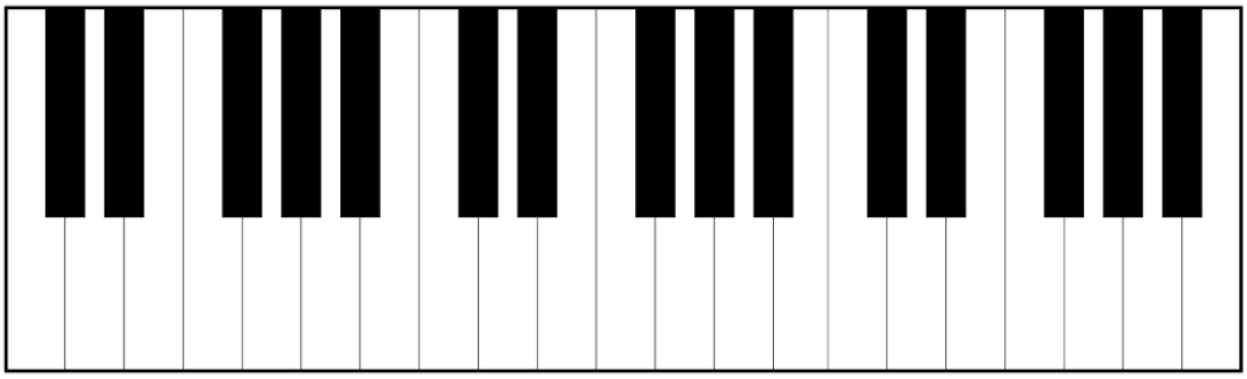
- Cut along the circumference of the circle to the right, and along the dotted line below.
- Lay the interval structure on top of the circle of 5^{ths} at the bottom of the page to form the interval calculator.
- When calculating intervals make sure to align prime (PP) with the lower note in the interval.

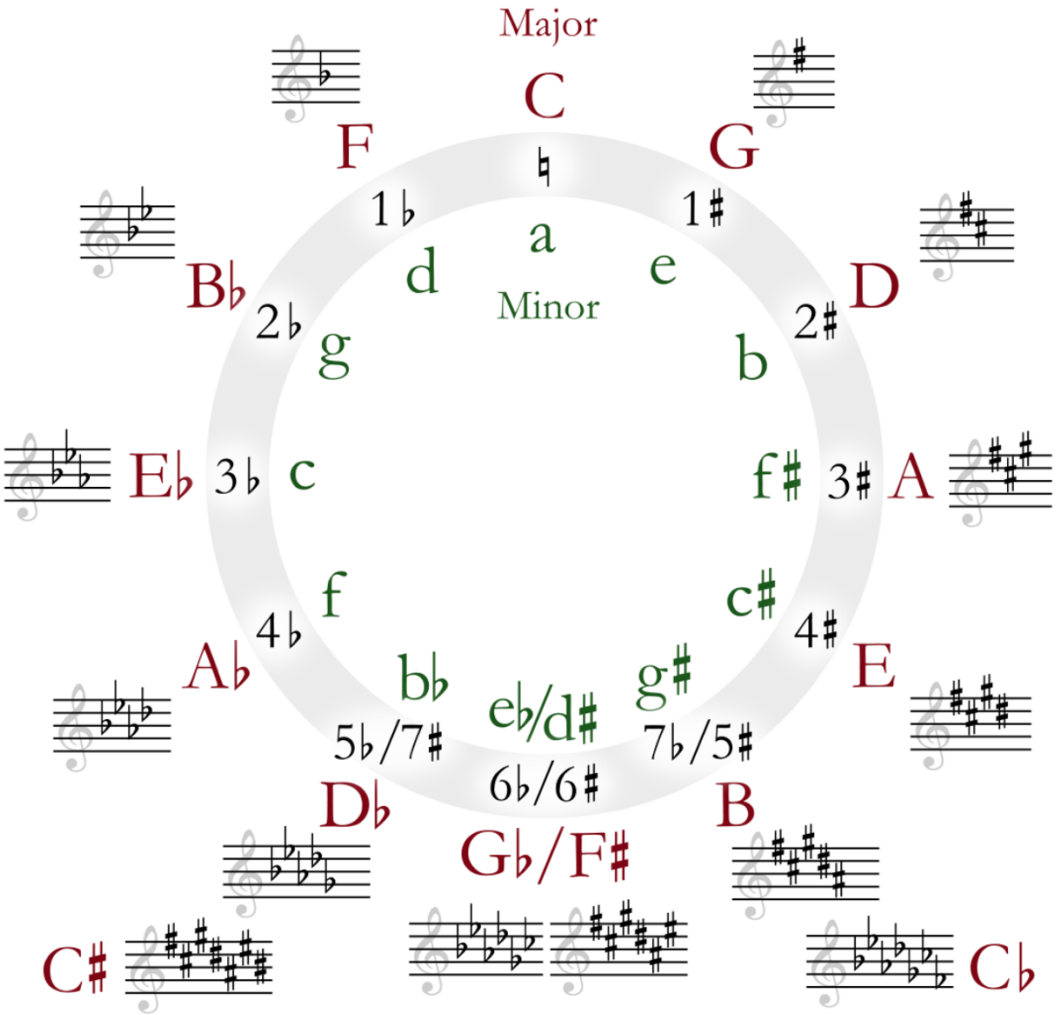




Music Theory Reference Sheet

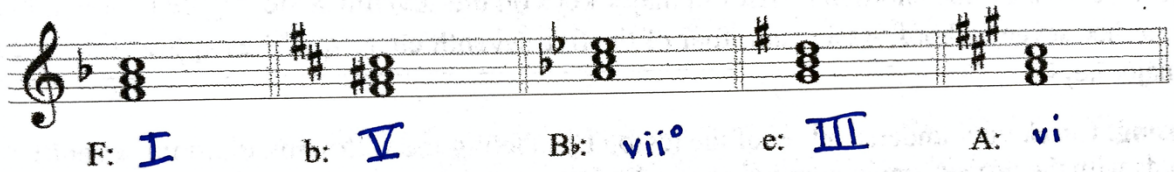
This sheet may be used as a study aid during the week's lessons

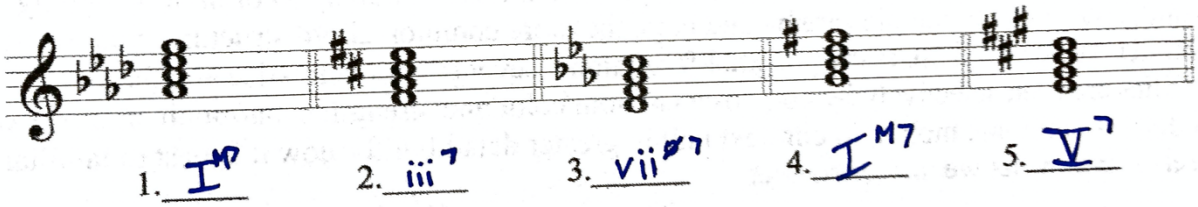




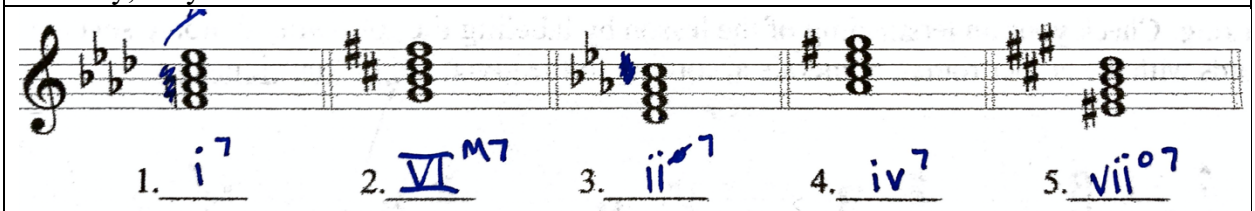
Answer Key

Monday, May 4

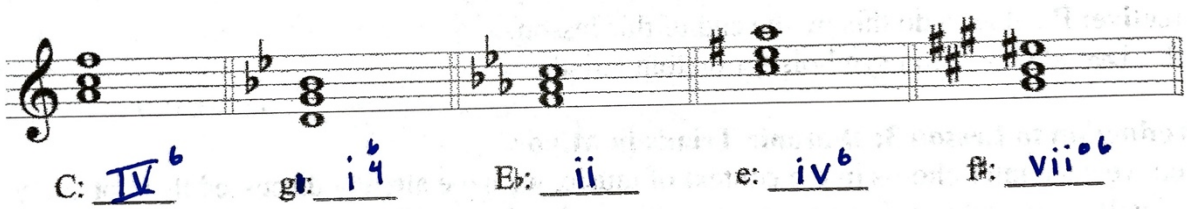




Tuesday, May 5



Wednesday, May 6



Thursday, May 7