A Simple Guide to Learning Jazz Harmony

by Adib Young

Forward

Understanding jazz theory is a must for any developing improviser. Without it, the player simply regurgitates what they are told without understanding the why and how, aspects of playing which are vital for analyzing others' playing and furthering one's own creativity. Jazz theory is the connective tissue that reinforces the learning process for all instrumentalists and is the magic ingredient that leads to quick and thorough growth for the developing musician.

This guide is the culmination of many hours of work and experiments in lessons. It is not meant to be an extensive resource of jazz harmony but simply an introduction. The format laid out in the guide is meant to introduce concepts and examples in a gradual, building block like manner – the previous section should be **mastered** first before moving on to the next section as the former helps contextualizes the latter. My definition of **mastery** is being able to **know, play, feel, and hear** the answer instantly if questioned.

It is important to understand the process by which we efficiently learn. Many of us are different and certainly have unique ways of processing information, but I truly believe the learning process is very similar for each of us. It requires tactile movement, slow speed, repetitive learning sessions over many days/weeks, and connecting new information to previous understandings. While a subject may first be learned through a link to previous information (i.e. FC Barcelona won the Champions League the same year my brother was born – 2011), it is important the student begins to learn the new information as a new primary source (i.e. FC Barcelona won the Champions League in 2011). Until this process occurs, it will be impossible to progress through the other sections as every new piece of information will be processed through five or six different links instead of just one. **Learn** and **master** one topic at a time and then develop from there.

I hope this guide will be beneficial to you in your musical journey! Cheers!

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The Major Scale

The first and most crucial step to learning jazz harmony is learning your major scales. As the first building block, it is really the only step that requires in depth memorization and learning without using any previous links.

Learning the Scales

Below you will find all 12 major scales in one octave. Play each of these slowly, feel the horn vibrate, hear the pitch, and know the note's placement in the scale. Please feel free to extend the range of these scales throughout the full range of the instrument – the better know your instrument and hear the notes, the less limited you will be in executing your ideas when improvising.

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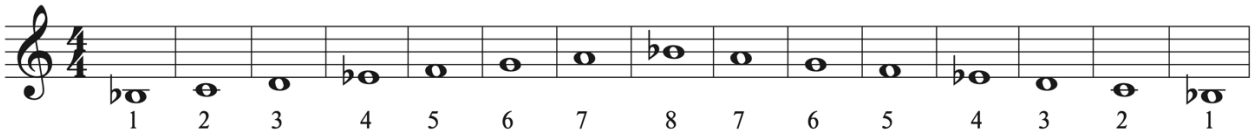

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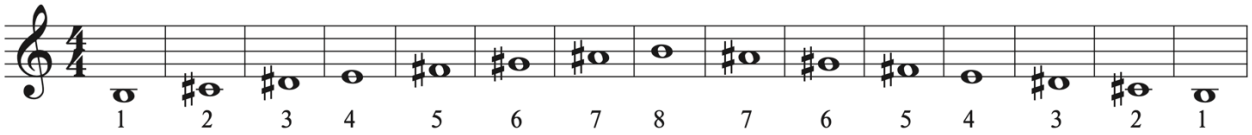

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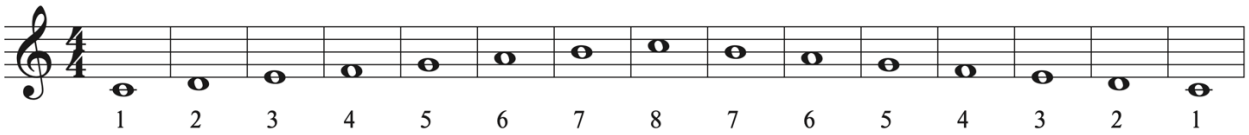

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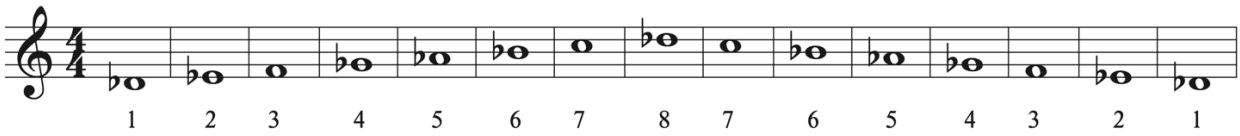

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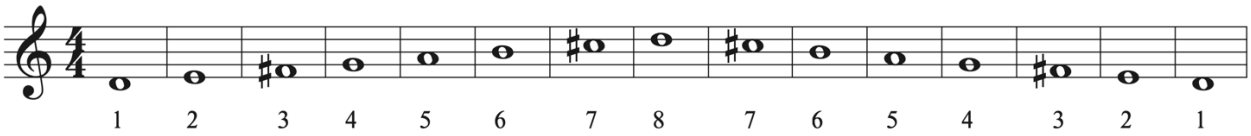

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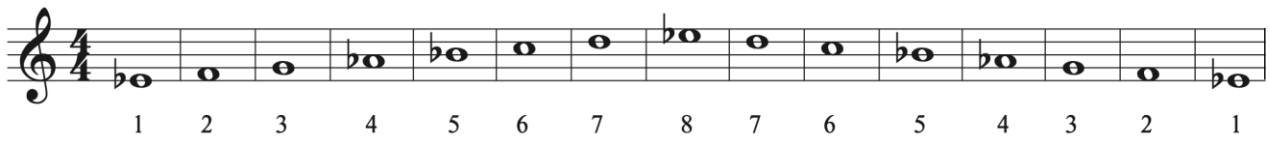

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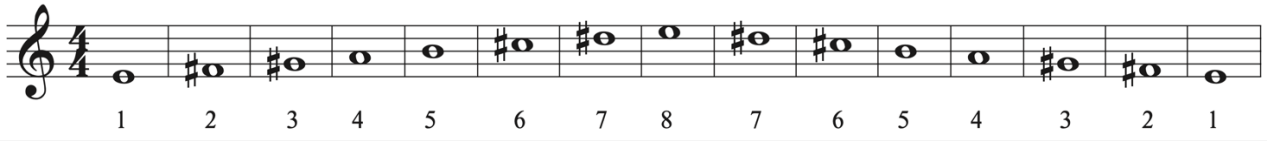

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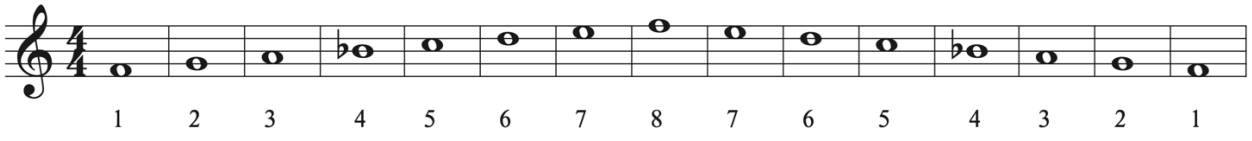

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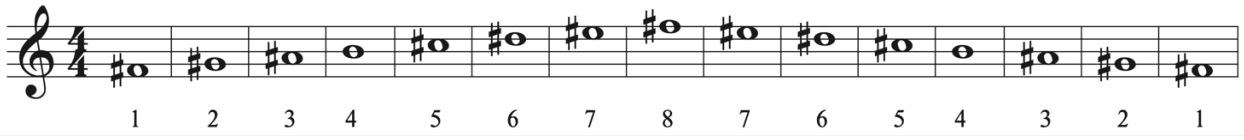

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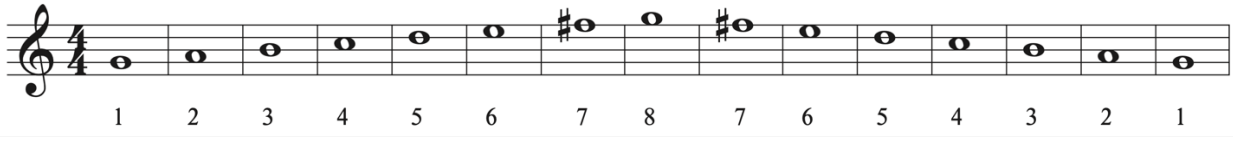

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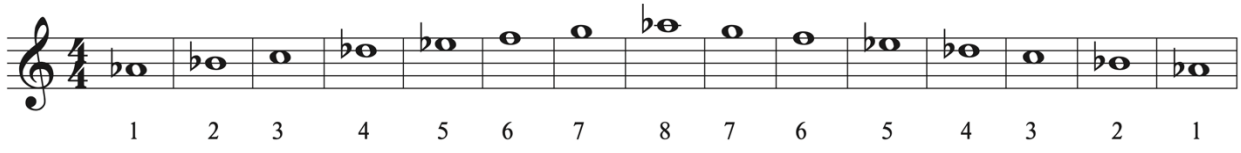

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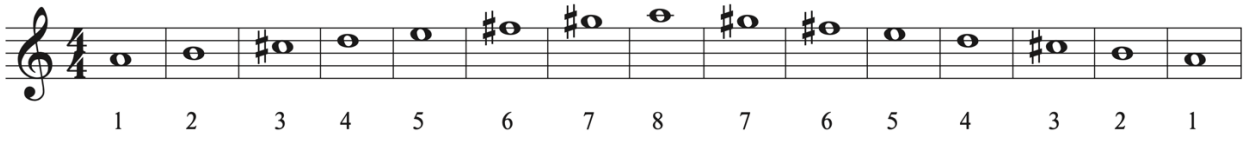


Intervals

Scales are the essential building block for all of jazz theory, but they are horizontal shapes. Intervals are the distances between notes and are the foundation of vertical shapes.

It is important to note that there are five descriptors used to describe intervals: minor, major, perfect, augmented, and diminished. There are two camps that intervals fall into: the minor/major and the perfect. Minor and major intervals are reserved only for 2nds , 3rds, 6ths, and 7ths. Perfect intervals are reserved for 4ths, 5ths, and 8ths/octaves.

A minor interval that is raised a semitone (or half step) becomes a major interval, and a major interval that is flattened a semitone becomes a minor interval. It is only when a major interval is **raised** a semitone that it becomes an augmented interval and when a minor interval is **flattened** a semitone it becomes a diminished interval. Alternatively, if a perfect interval is raised a half step, it is labeled as augmented; if lowered a half step, it is labeled diminished. See the tables below:

Minor/Major Interval Camp

Diminished	Minor	Major	Augmented
Raising half steps → → →→→			
		←←←←← Lowering half steps	

Perfect Interval Camp

Diminished	Perfect	Augmented
Raising half steps → → →→→		
	←←←←← Lowering half steps	

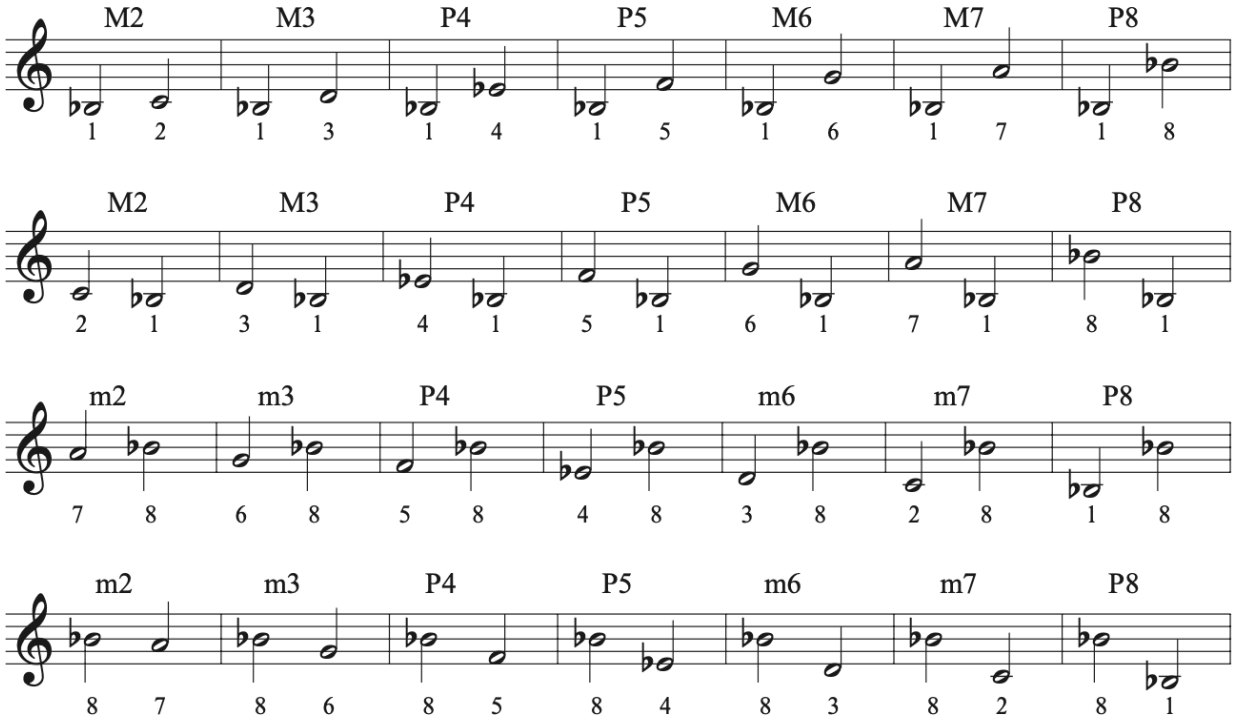
Once you understand this process, it is important to then know and identify what the minor, major, and perfect intervals are as they are the starting point for identifying diminished and augmented intervals. The good thing is, once you know your major scales, it is easy to find and learn these intervals.

Simple Intervals

Below you will find a major scale exercise in all 12 keys that starts on the tonic or root of the scale and gradually leaps up through the different scale degrees. This process will help you see, identify, hear, and learn how simple intervals sound and work. A **simple interval** is an interval that is within an octave (or P8). Please note that "m" signifies minor, "M" signifies major, and "P" signifies perfect.

Notice that when ascending the major scale (first and second stave), all 2nds, 3rds, 6ths, and 7ths are major intervals and when descending they are all minor (third and fourth stave). All 4ths, 5ths, and 8ths are perfect intervals.

Bb Major:



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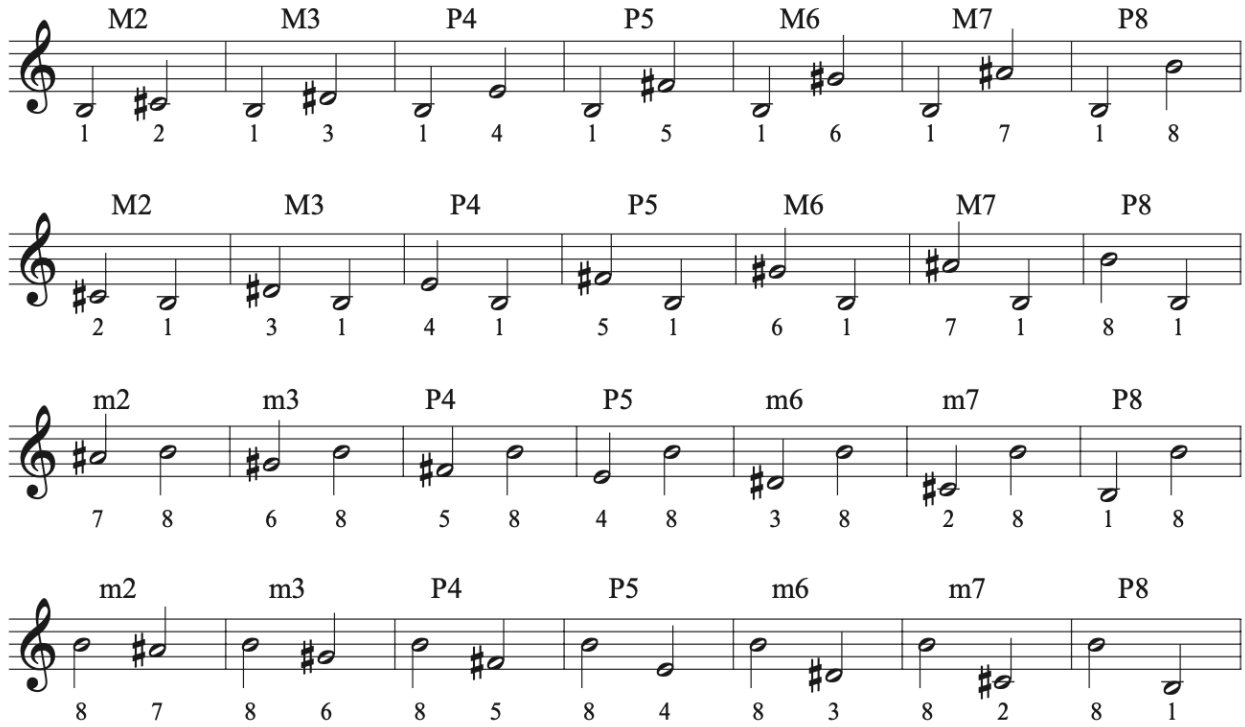

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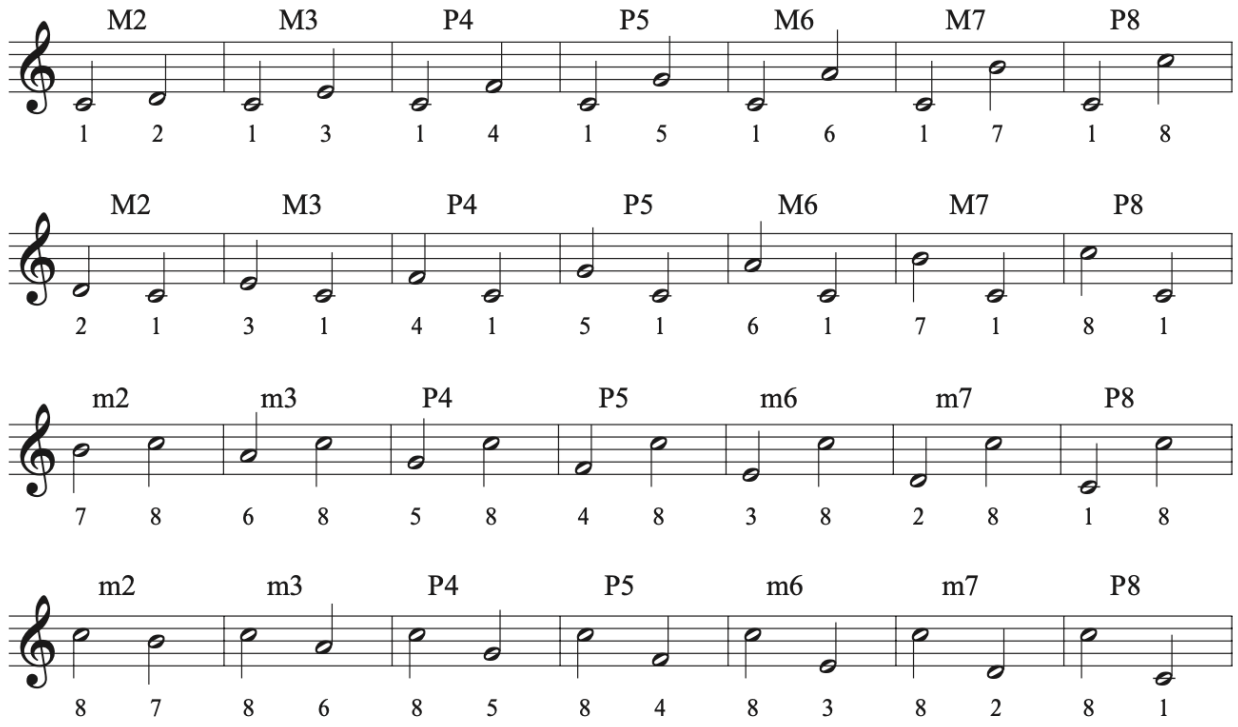

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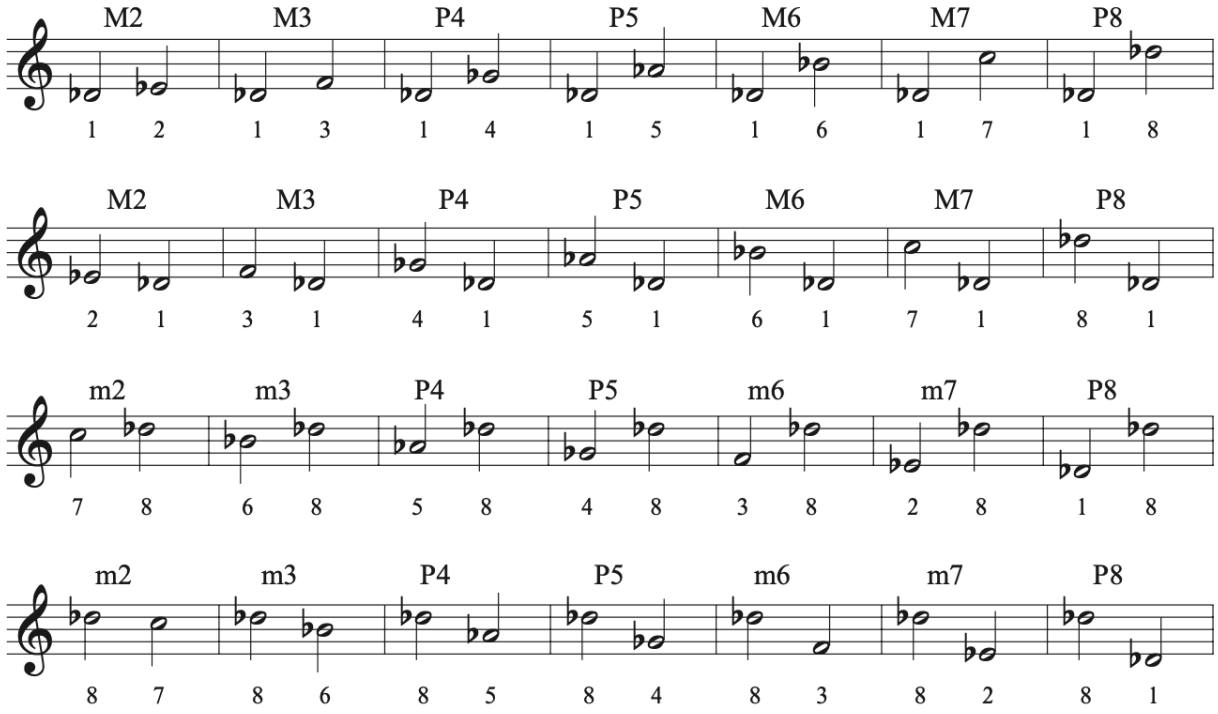

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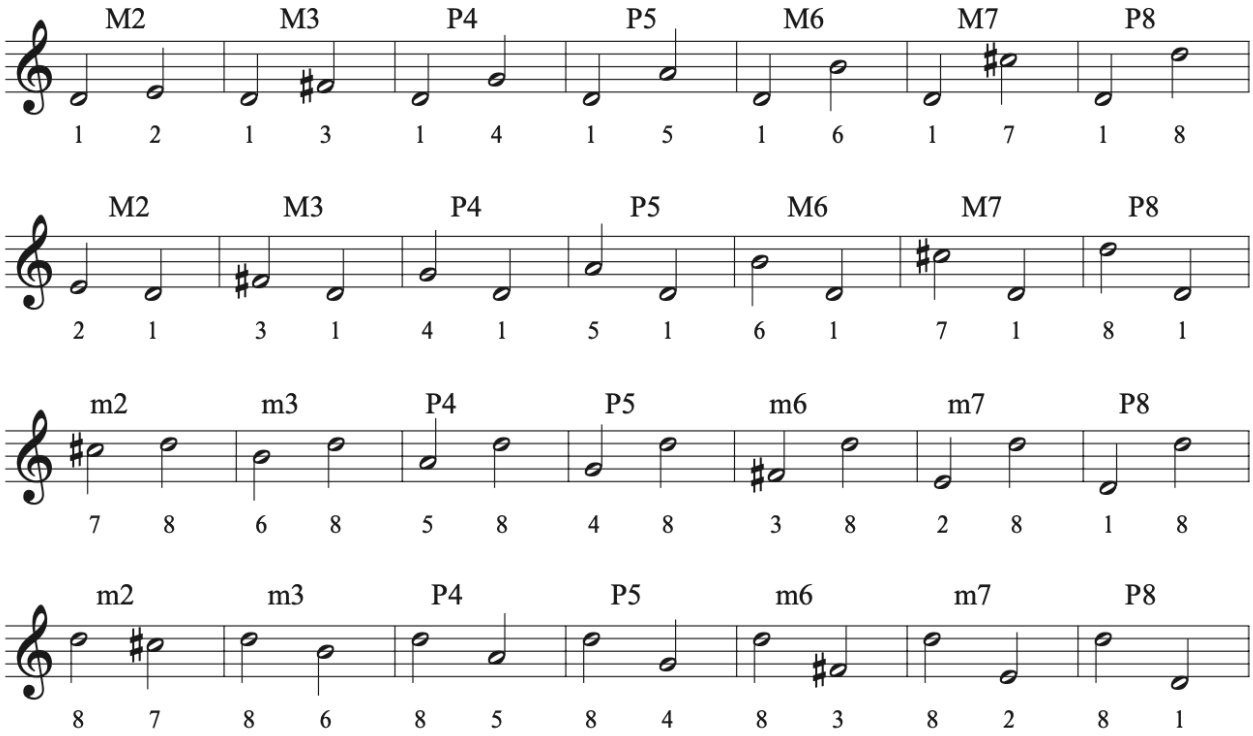

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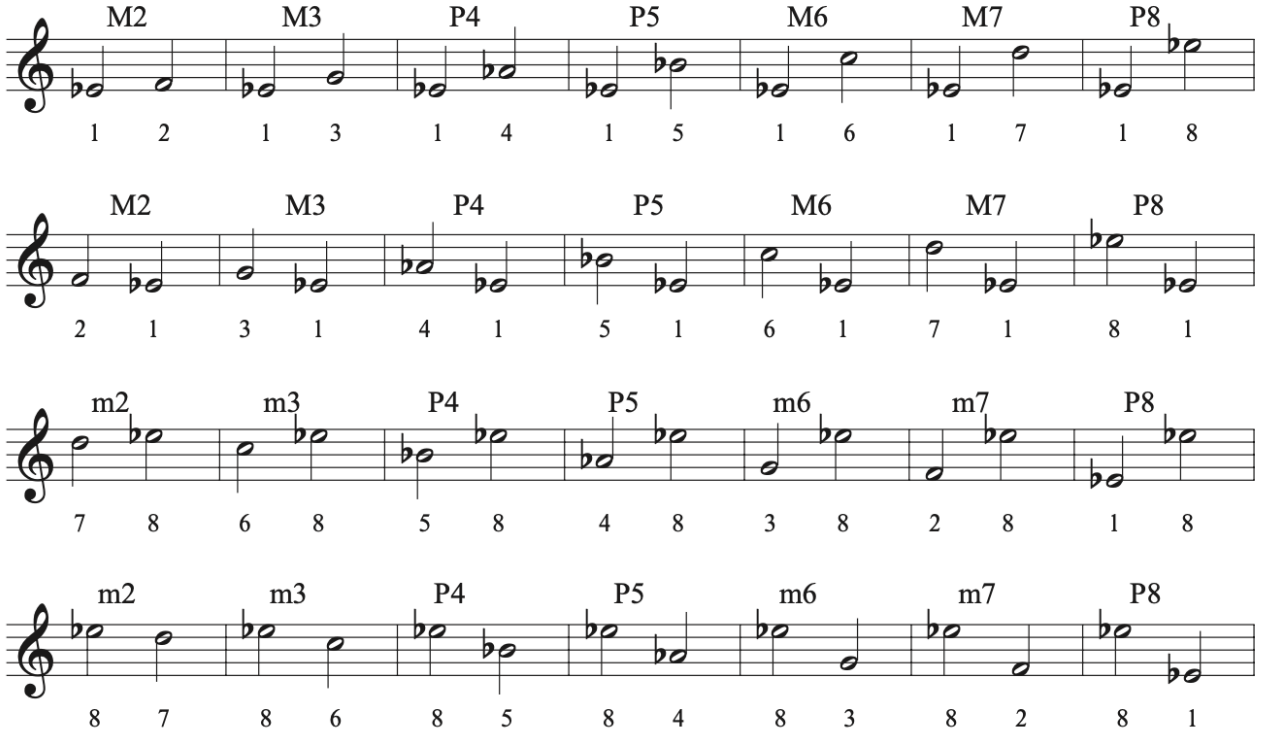

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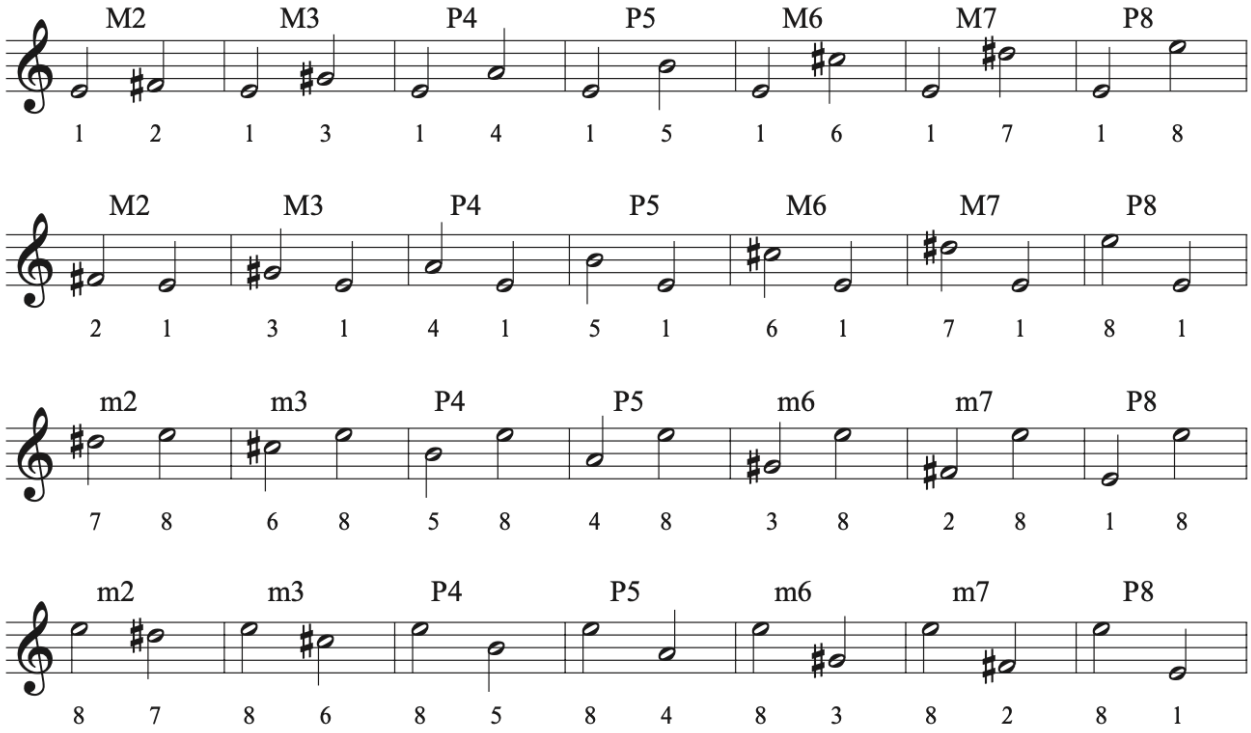

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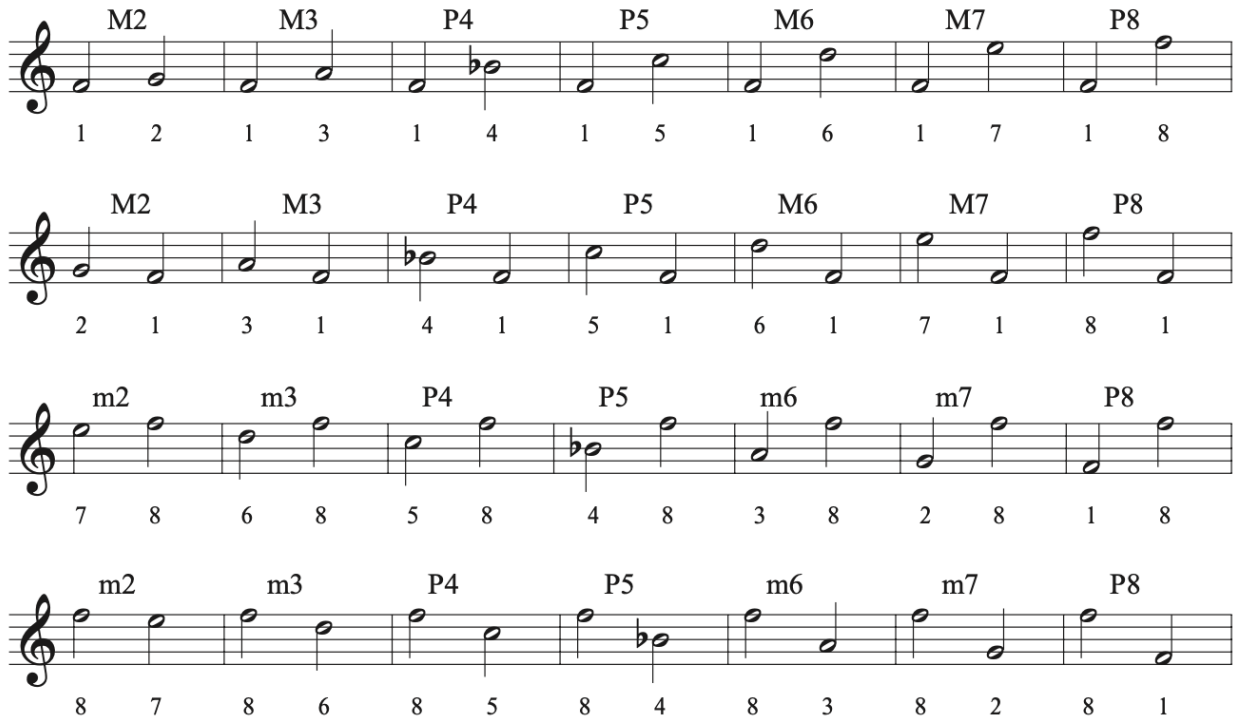

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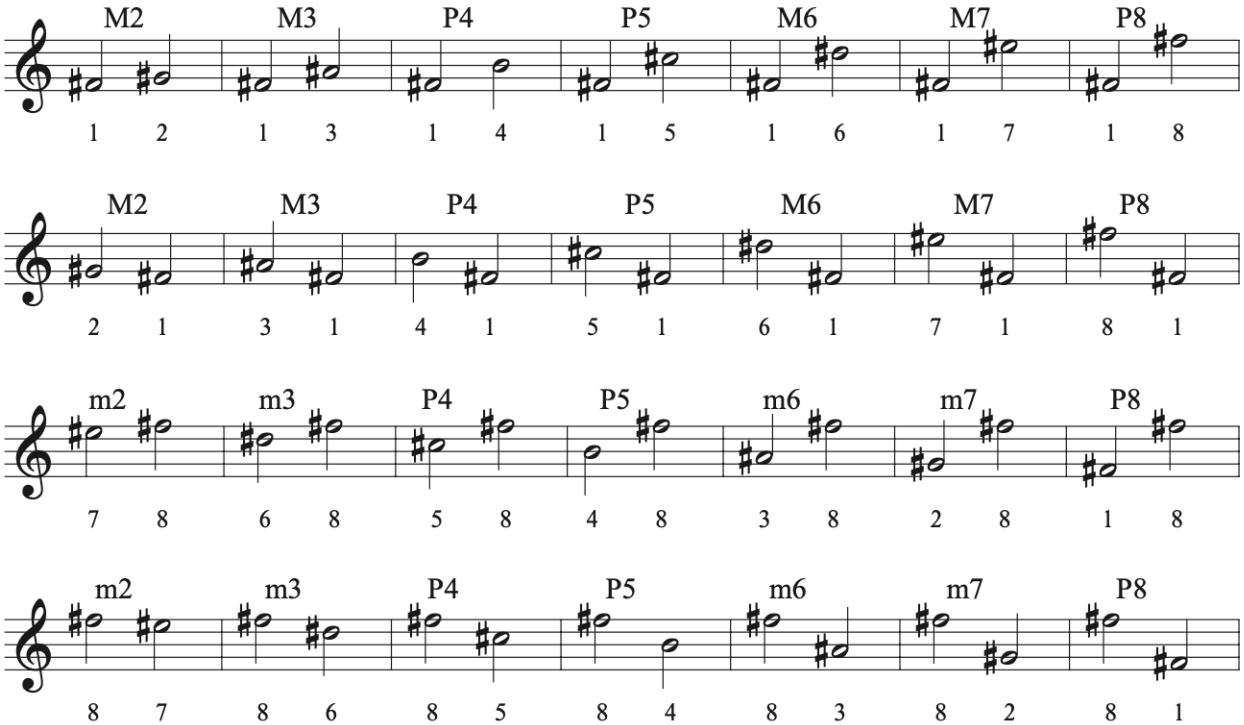

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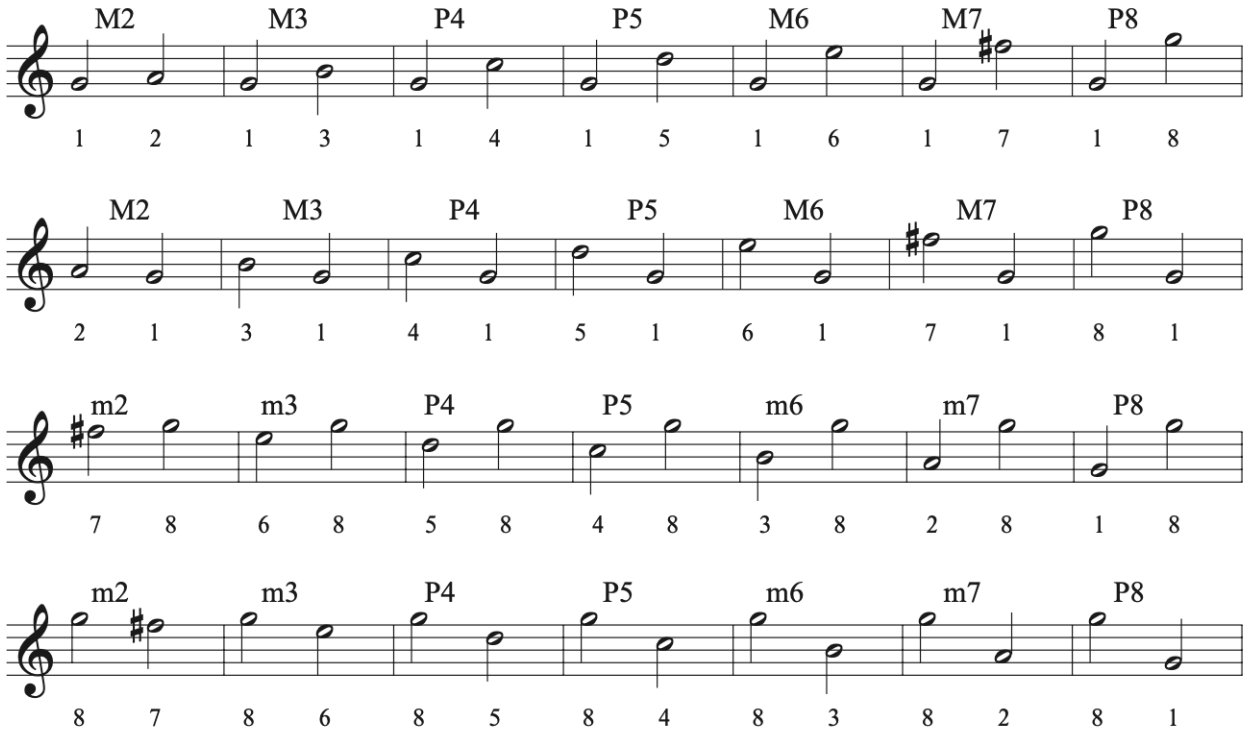

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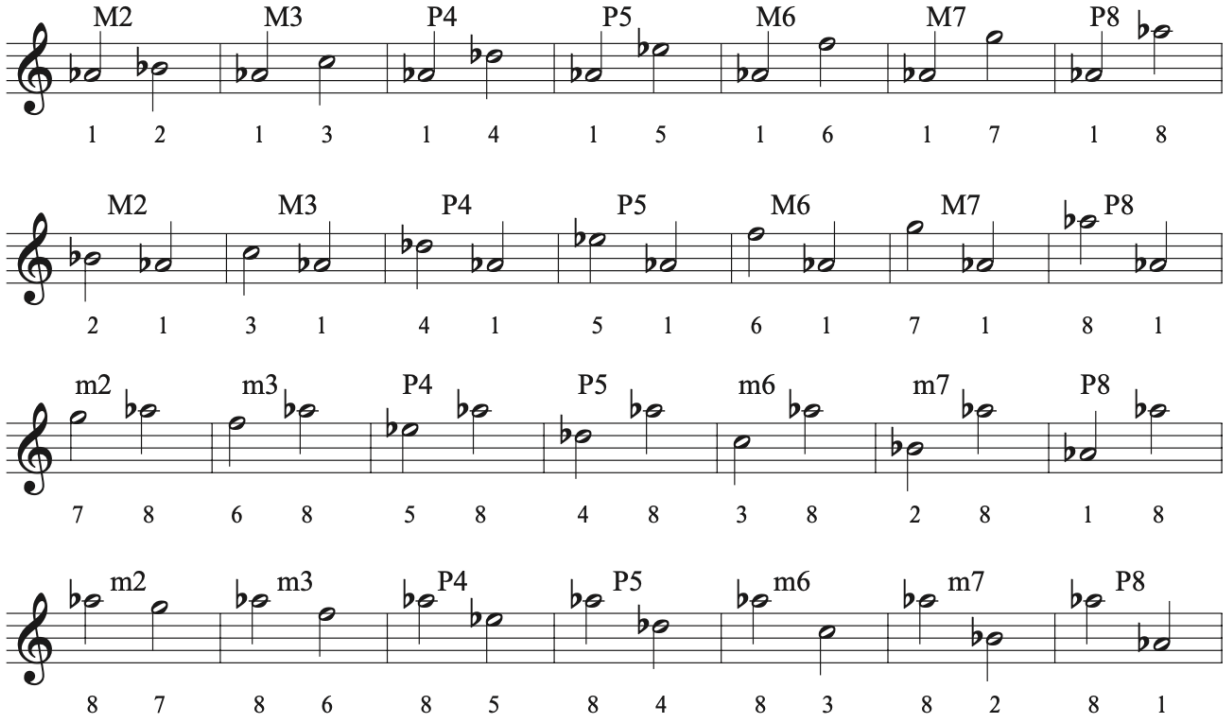
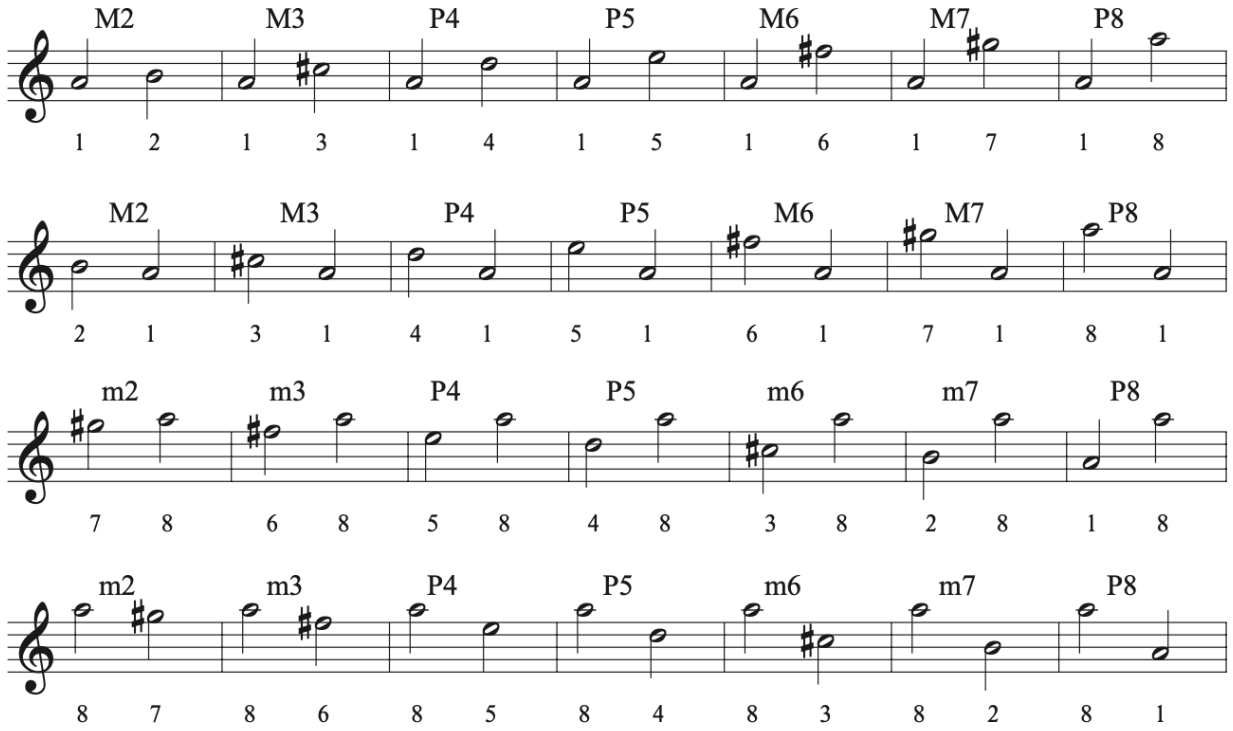


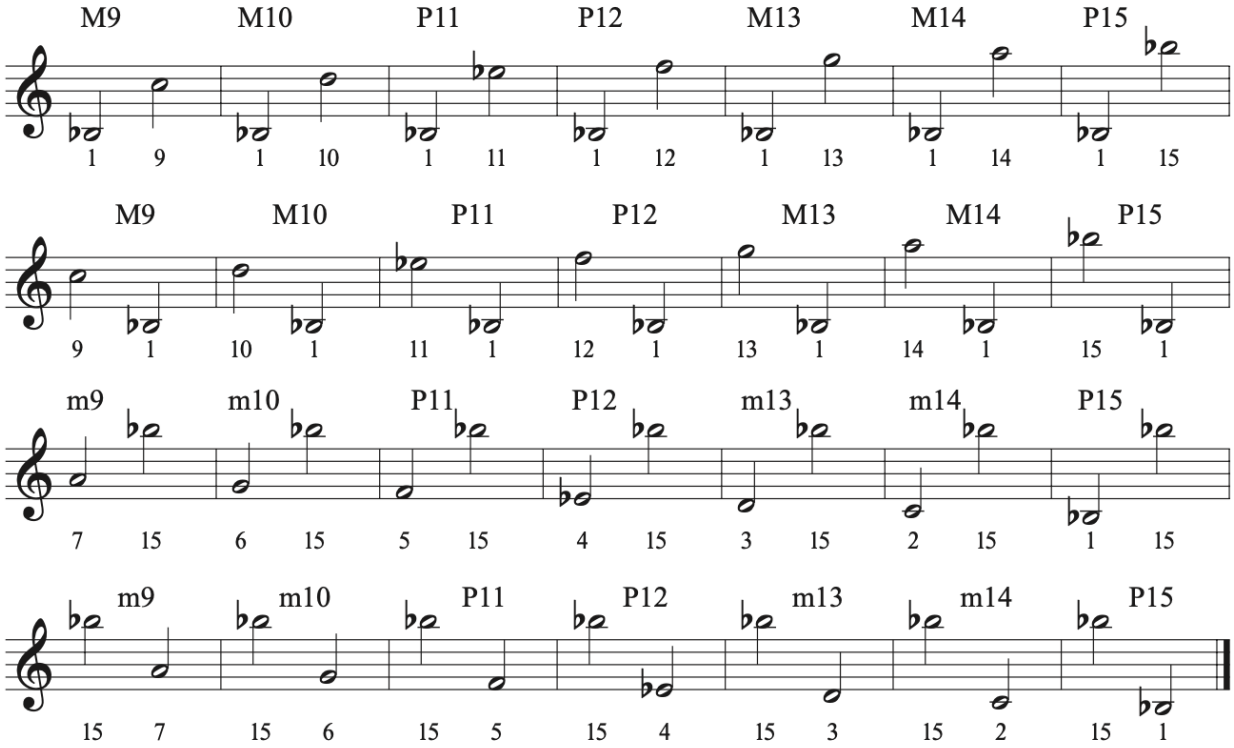
A Major:


M2 M3 P4 P5 M6 M7 P8
1 2 1 3 1 4 1 5 1 6 1 7 1 8
M2 M3 P4 P5 M6 M7 P8
2 1 3 1 4 1 5 1 6 1 7 1 8 1
m2 m3 P4 P5 m6 m7 P8
7 8 6 8 5 8 4 8 3 8 2 8 1 8
m2 m3 P4 P5 m6 m7 P8
8 7 8 6 8 5 8 4 8 3 8 2 8 1

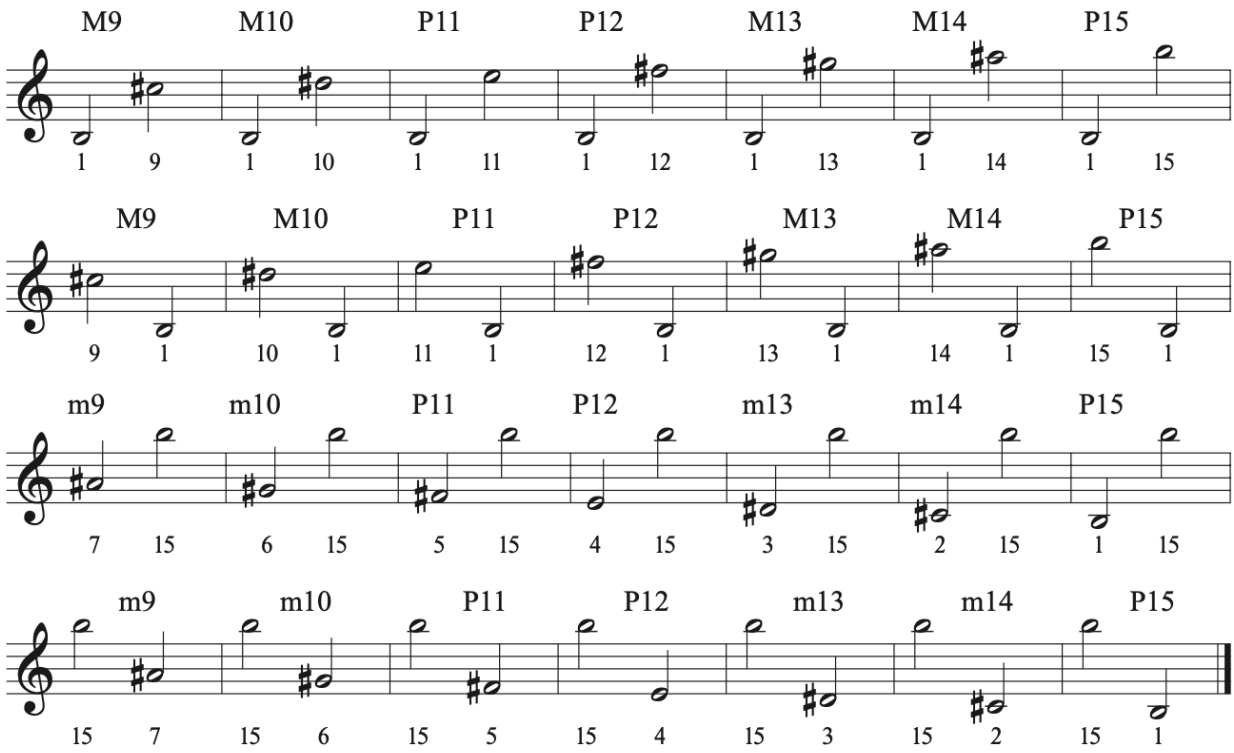
Compound intervals are taking the simple intervals listed above and adding an octave between both notes. Because a major scale has **seven diatonic** notes in an octave, arithmetically a compound interval is the same as adding seven to a simple interval. Note that compound intervals **do not** change the quality of the simple interval from which they are derived (i.e. minor, major, diminished, etc.). For example, a simple interval of a perfect fourth (P4) displaced by an octave is a perfect eleventh (P4 + 7 = P11).

This idea begins to introduce an idea of extensions, a concept we will learn more about later. It is extremely important to remember the compound intervals of 9ths, 11ths, and 13ths as this will be critical in forming chords in the future. Some of these notes may extend beyond your range and that is fine – do your best and play as high/low as possible.

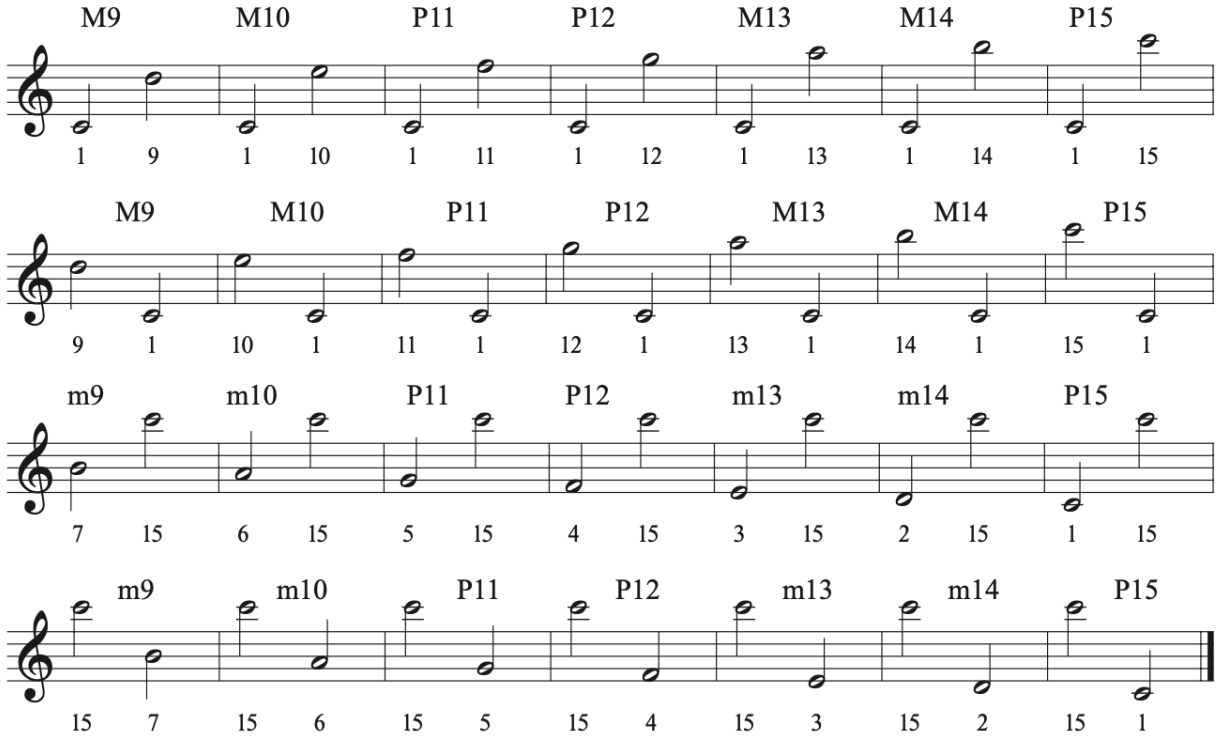
Bb Major:



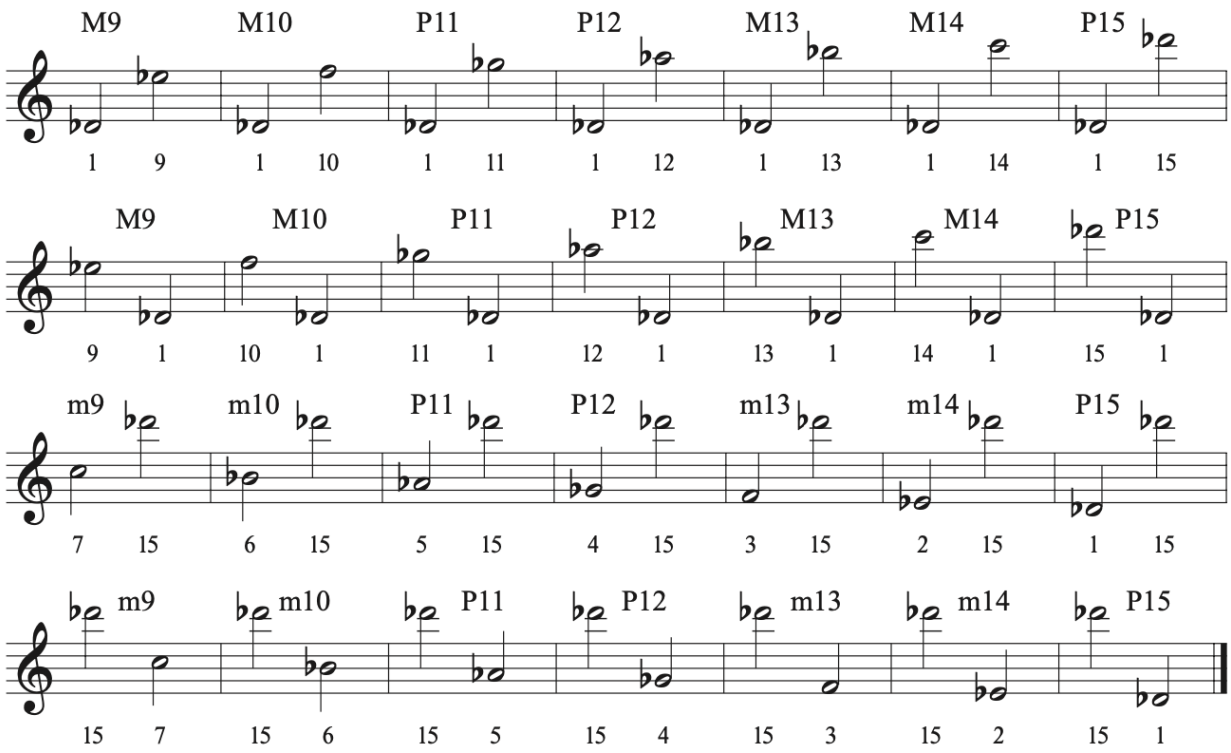
B Major:



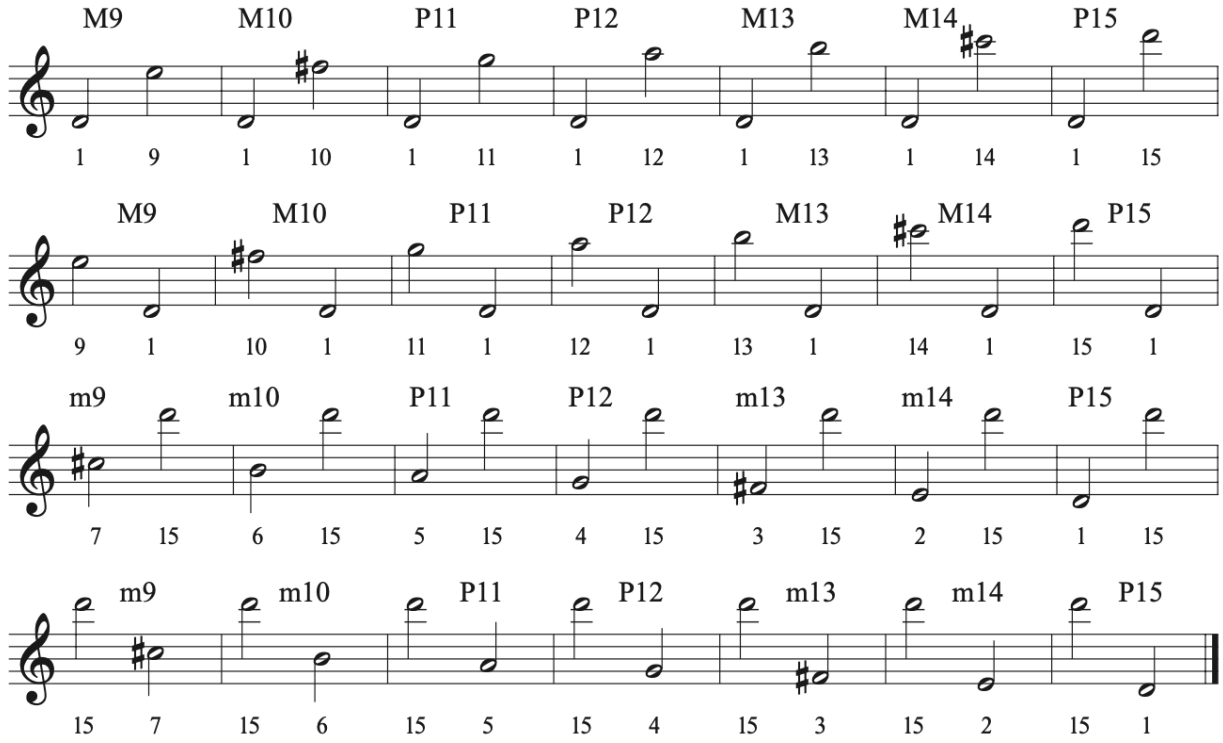
C Major:



Db Major:



D Major:



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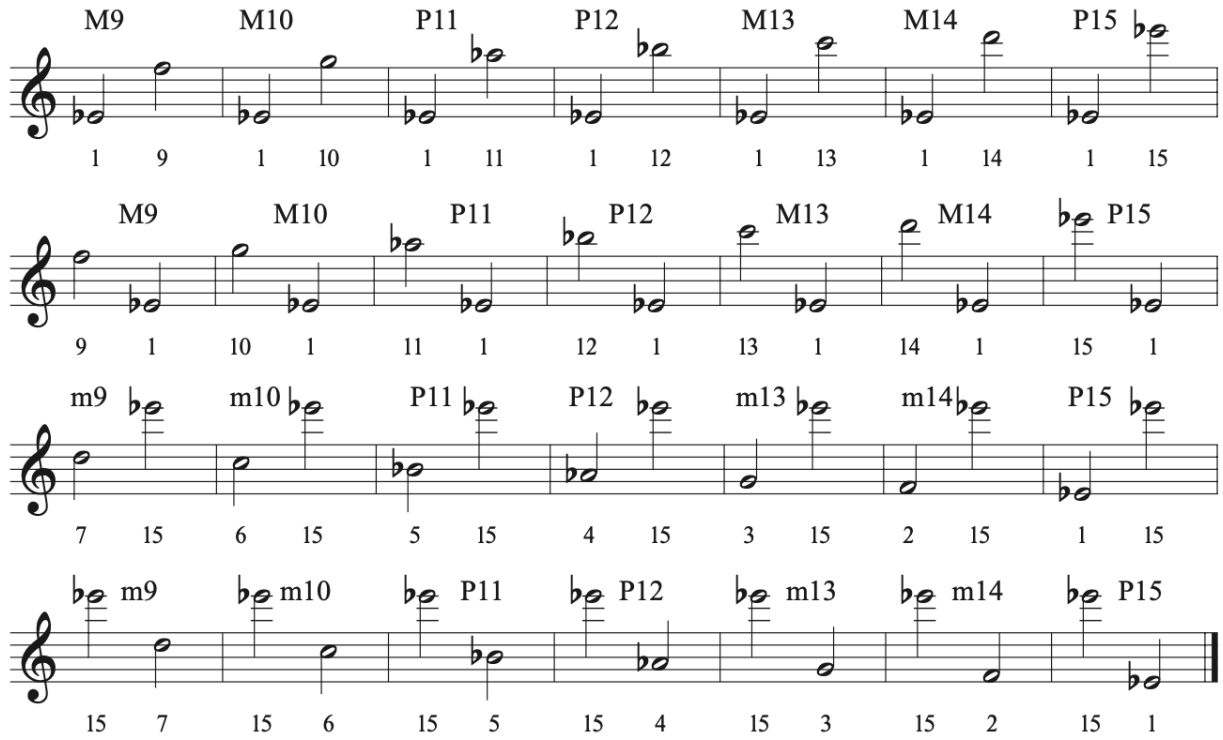

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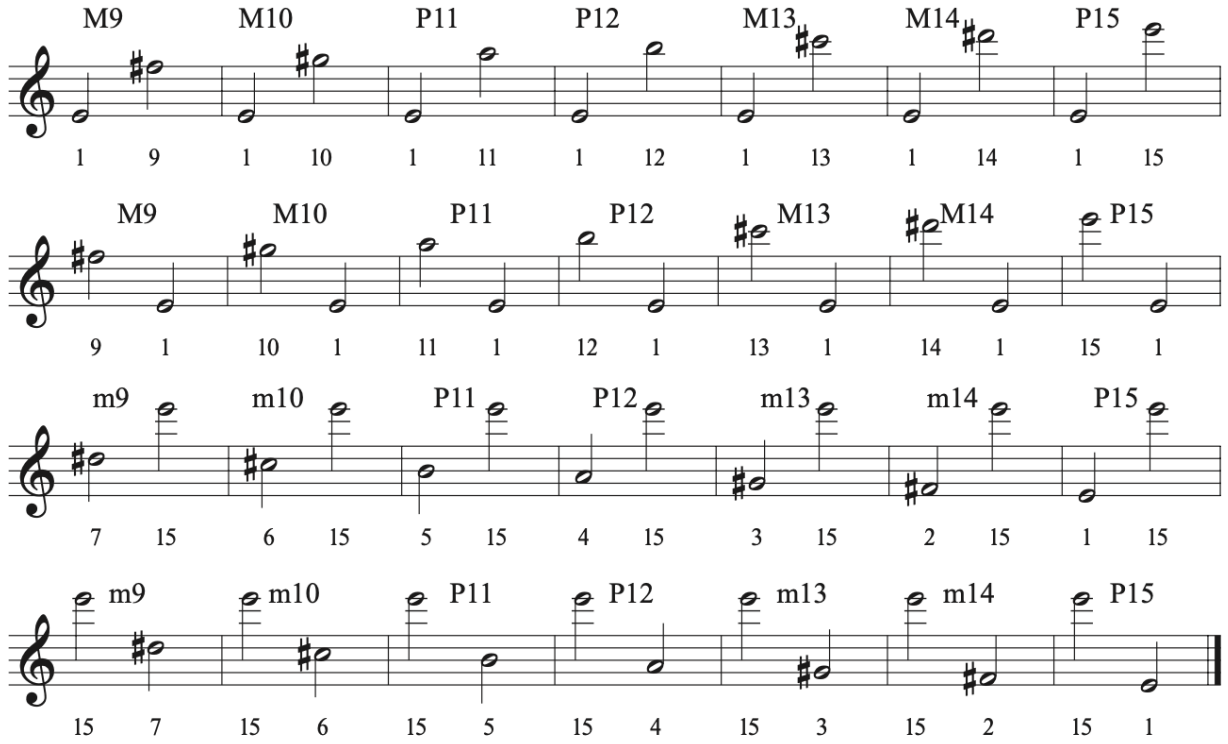

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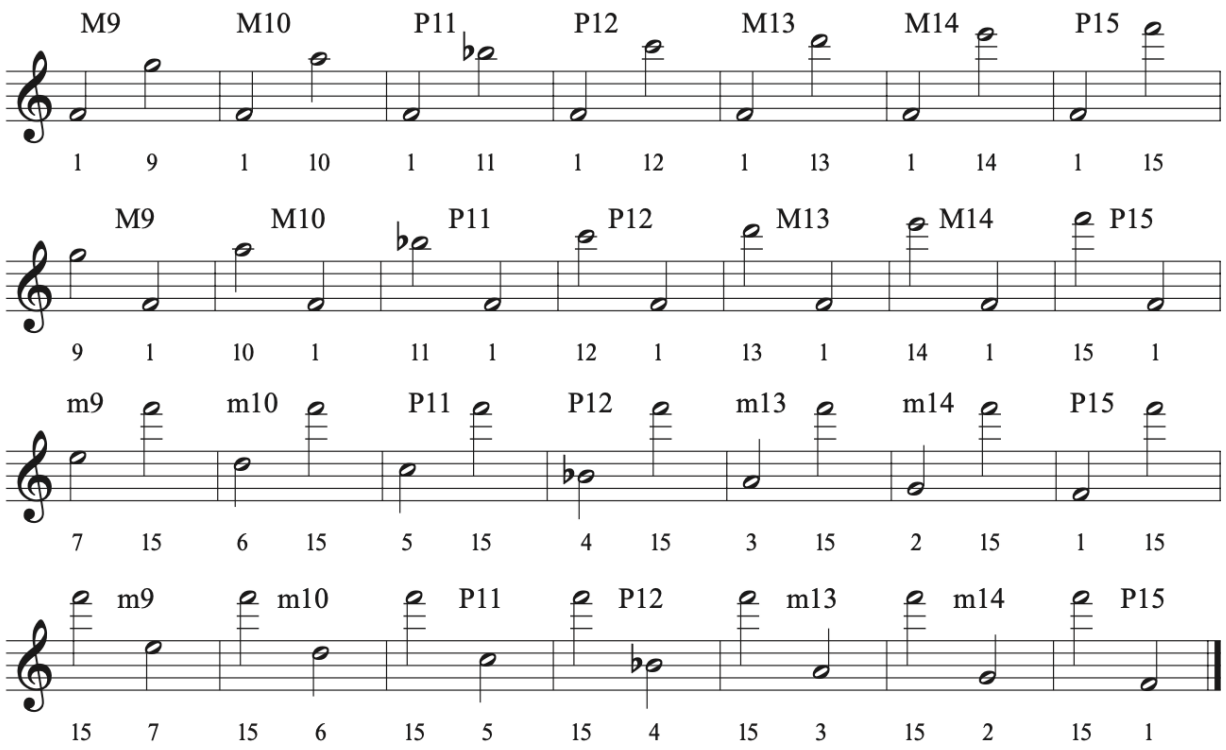

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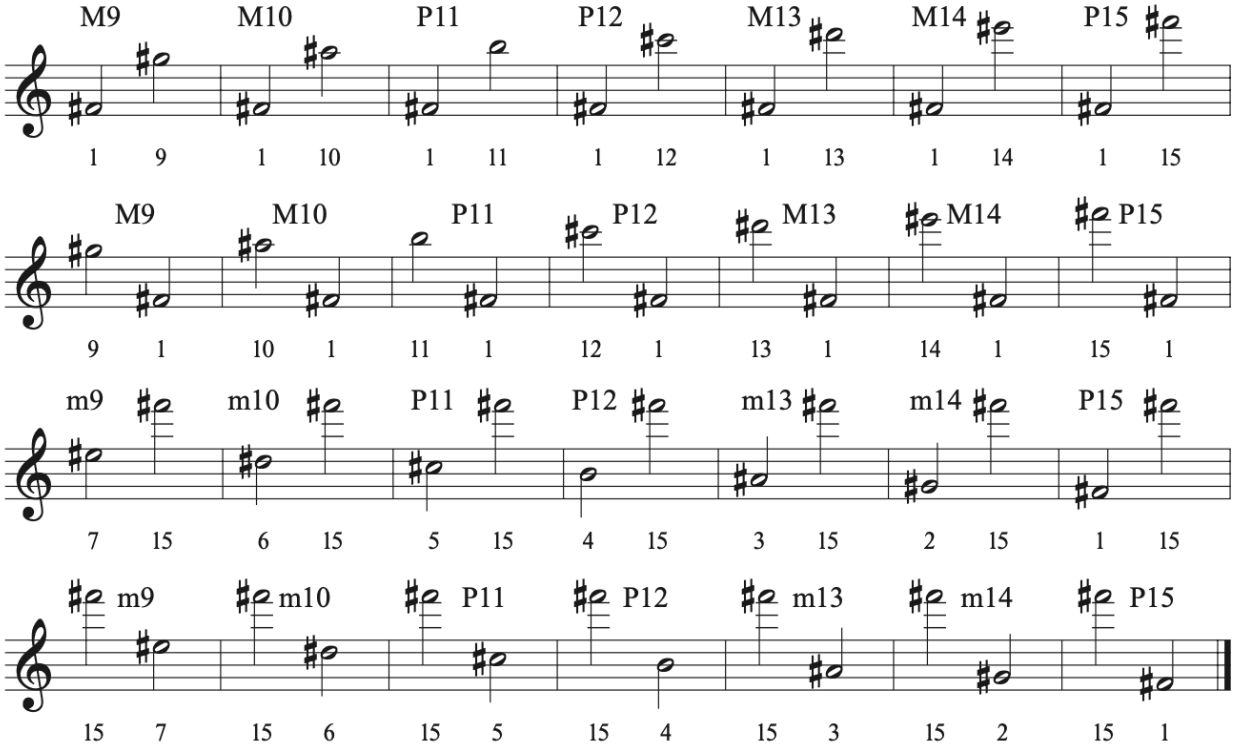

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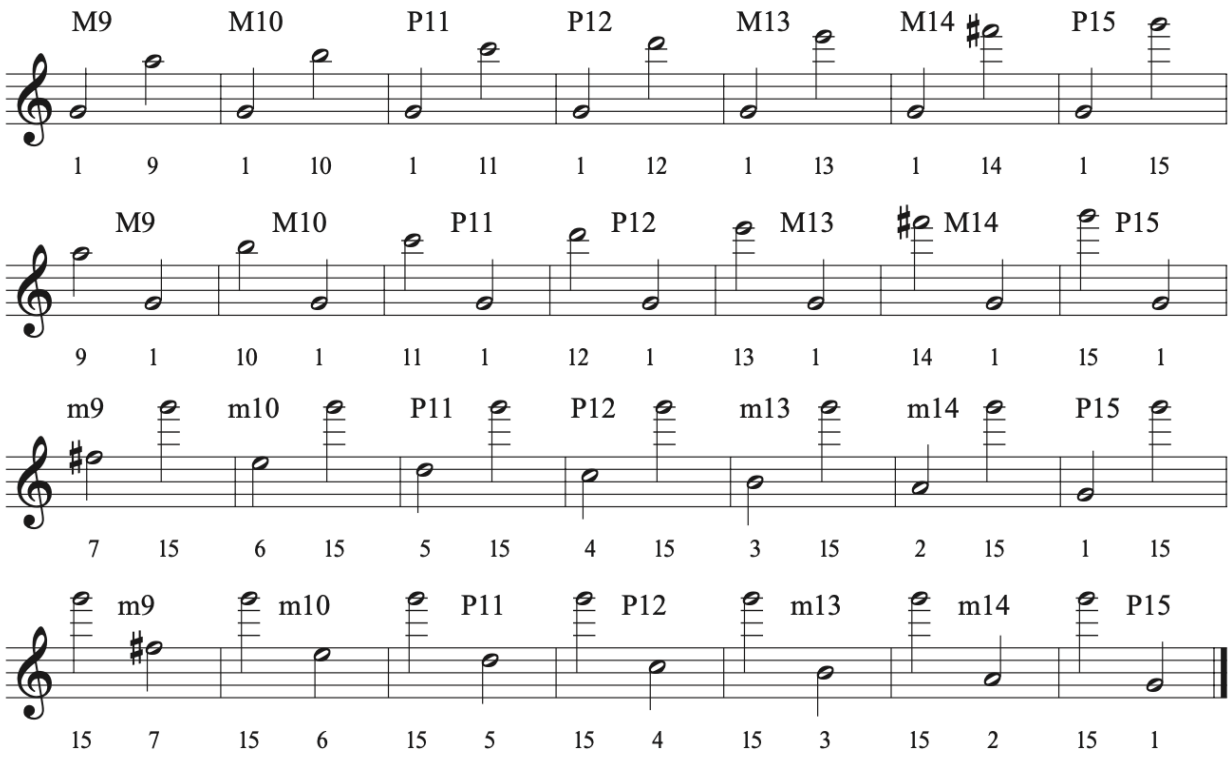

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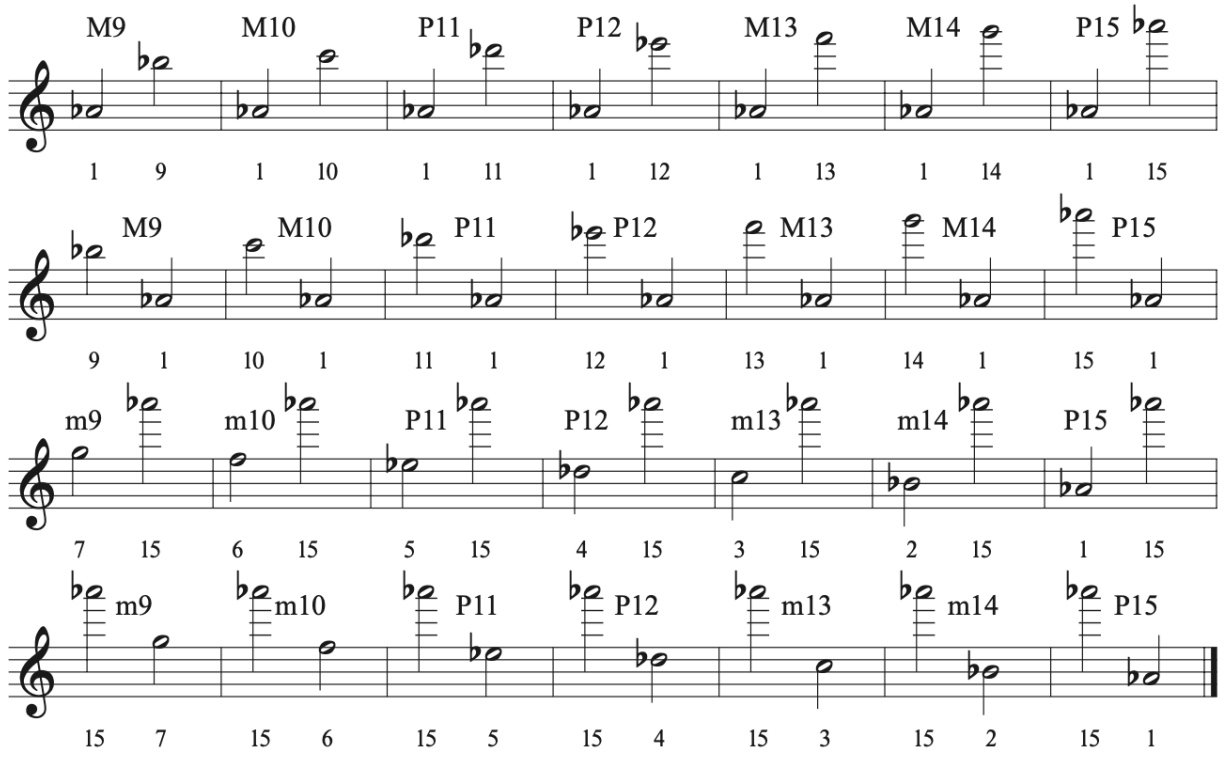
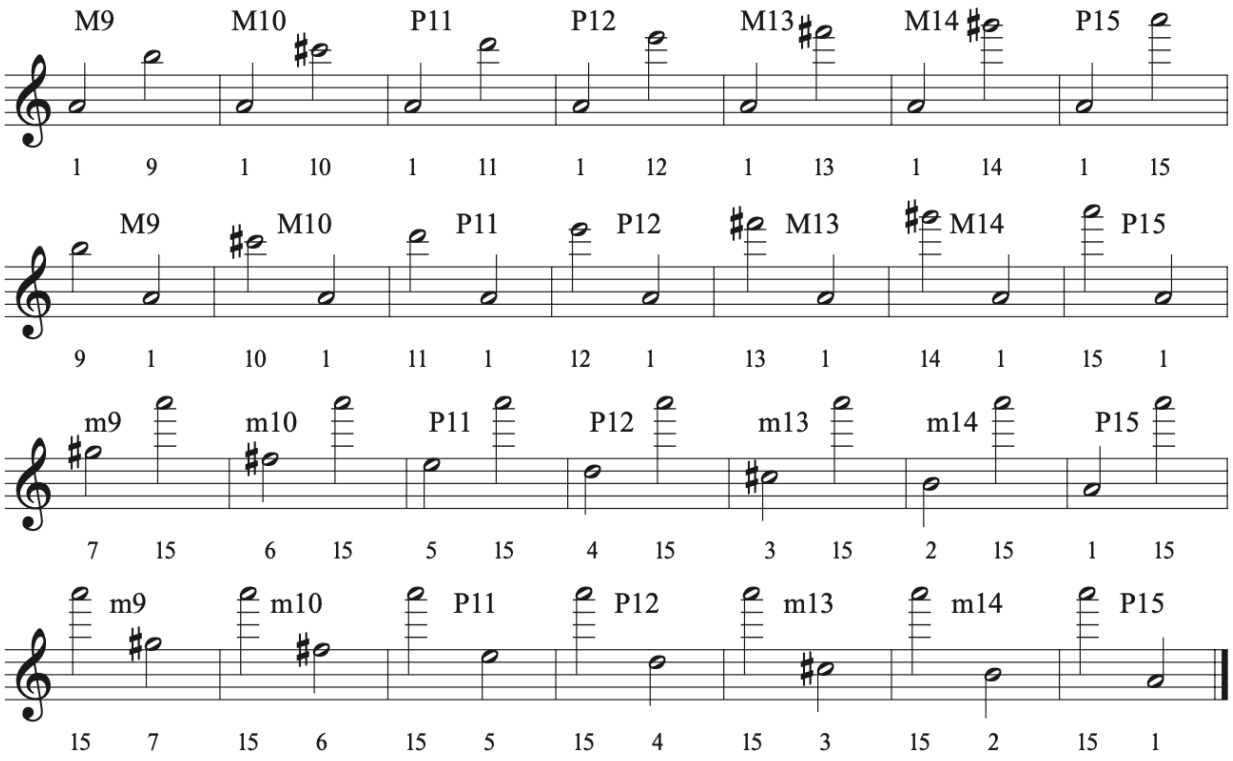
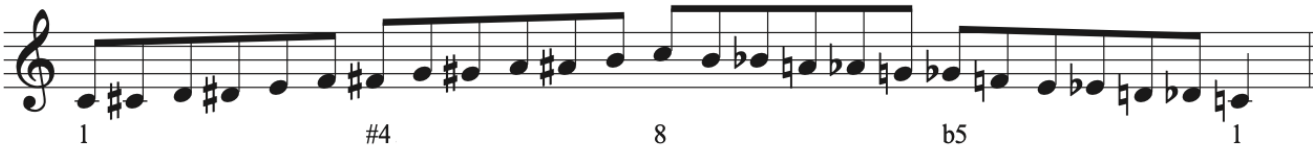


A Major:

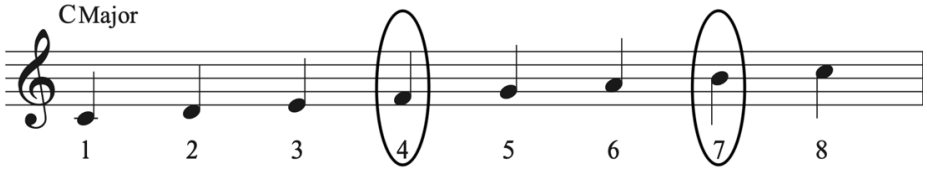

M9 M10 P11 P12 M13 M14 P15
1 9 1 10 1 11 1 12 1 13 1 14 1 15
M9 M10 P11 P12 M13 M14 P15
9 1 10 1 11 1 12 1 13 1 14 1 15 1
m9 m10 P11 P12 m13 m14 P15
7 15 6 15 5 15 4 15 3 15 2 15 1 15
m9 m10 P11 P12 m13 m14 P15
15 7 15 6 15 5 15 4 15 3 15 2 15 1

Arguably the most essential interval to learn is the tritone, also known as an augmented fourth (A4) or diminished fifth (D5). The tritone symmetrically splits the octave into two sets of **six half steps** and is the primary interval used to determine modes of the major scale (see p. ——).

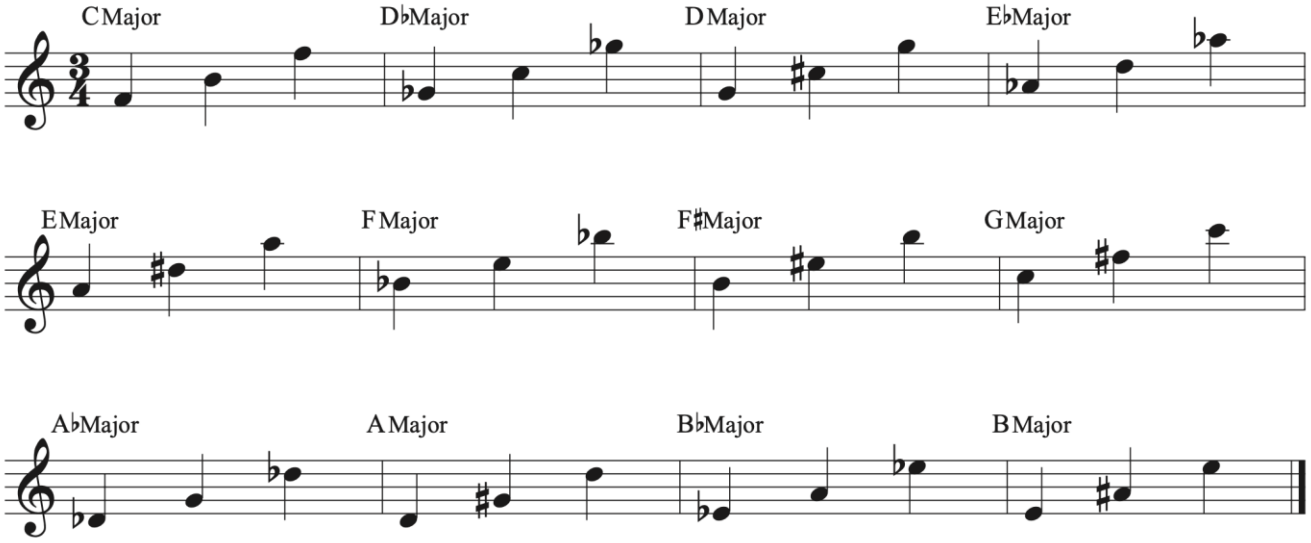
Below you will see how the tritone perfectly splits the octave into two equal halves:



The tritone interval is found in the major scale between the 4th and 7th scale degree.



Now that you know the scale degrees of major scales, only the 4th and 7th scale degrees are presented below. If you have difficulty identifying and recognizing the scale degrees, you should go back and review the major scales on p. 4-5).



Modes of the Major Scale

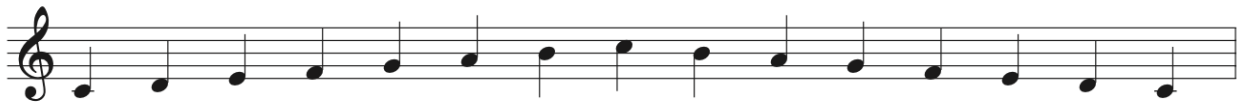
Modes can be presented in two ways, both of which have their advantages and disadvantages.

The first way to present modes and the easiest way to understand them is through the **moveable bass method**.

Moveable Bass Method

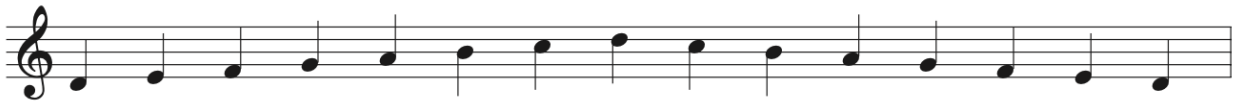
The **first mode** of the major scale is called **Ionian**. This mode starts on the first scale degree (aka the major scale). Below is C Ionian:

C Ionian (C Major Scale)



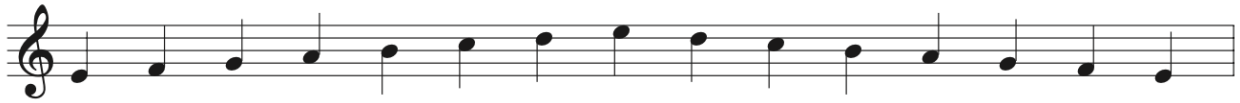
The **second mode** of the major scale is **Dorian.** This mode starts on the second scale degree.

D Dorian (D Major Scale w/ b3, b7)



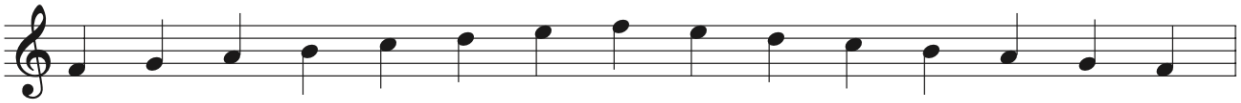
The **third mode** of the major scale is **Phrygian**. This mode starts on the third scale degree.

E Phrygian (E Major Scale w/ b2, b3, b6, b7)



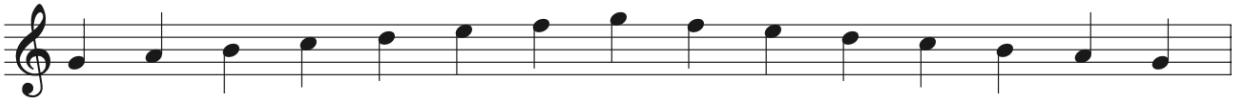
The **fourth mode** of the major scale is **Lydian**. This mode starts on the fourth scale degree.

F Lydian (F Major Scale w/ #4)



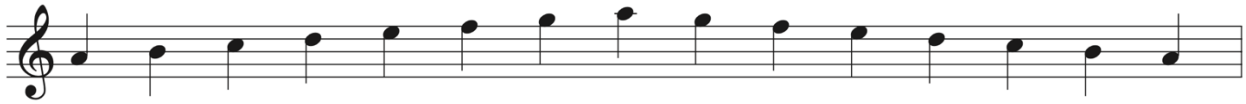
The **fifth mode** of the major scale is **Mixolydian**. This mode starts on the fifth scale degree.

G Mixolydian (G major w/ b7)



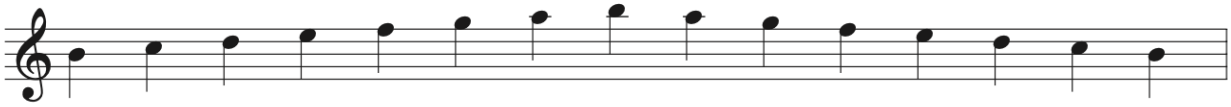
The **sixth mode** of the major scale is **Aeolian**. This mode starts on the sixth scale degree and produces the natural minor scale. Since C Major and A Natural Minor share the same key, they have a relative relationship with one another, meaning C Major is the relative major of A Minor and A Minor is the relative minor of C Major.

A Aeolian (A Natural Minor Scale; A Major Scale w/ b3, b6, b7)



The **seventh mode** of the major scale is **Locrian**. This mode starts on the seventh scale degree.

B Locrian (B Major Scale w/ b2, b3, b5, b6, b7)

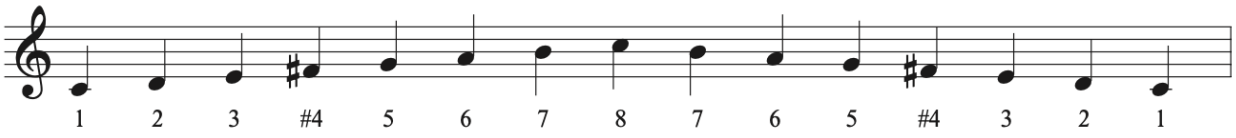


Scale Alteration Method

The second way to learn the modes of the major scale is the **scale alteration method** which alters the major scale. This way is a bit more complicated to understand at first, but it actually helps understand the naming of modes for the other asymmetrical scales which we will discuss later.

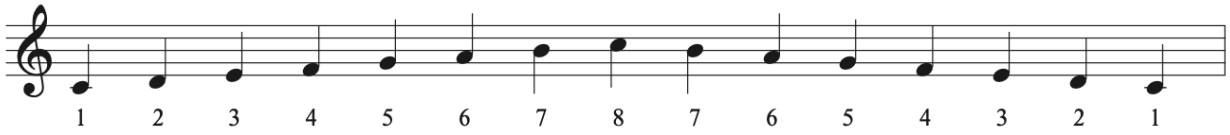
The brightest mode of the major scale is the **Lydian mode** as it has the most raised notes. To get the Lydian mode from the major scale, you raise the fourth scale degree.

C Lydian (G Major Scale starting on the fourth scale degree)



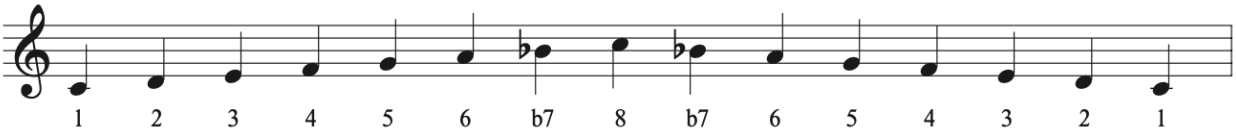
As mentioned earlier, the **Ionian mode** is just the major scale so there is no need for alterations.

C Ionian (C Major Scale starting on the first scale degree)



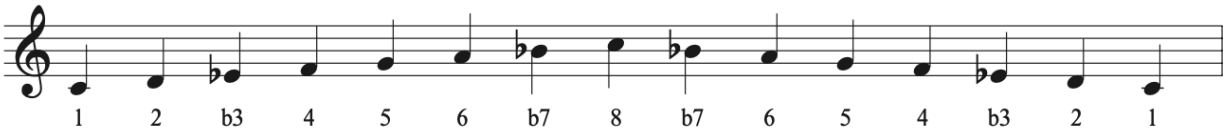
The Mixolydian mode, the most popular scale in the major blues progression, is just the major scale with a flattened seventh.

C Mixolydian (F Major Scale starting on the fifth scale degree)



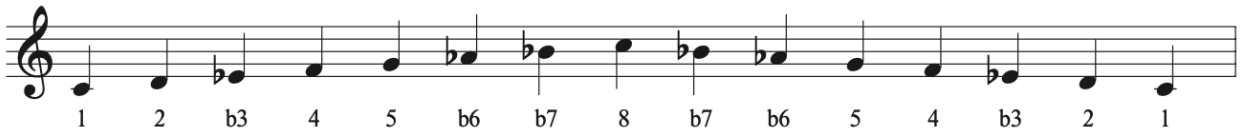
The Dorian mode, also known as the most neutral of the modes, is the major scale with a flattened third and seventh.

C Dorian (The Bb Major starting on the second scale degree)



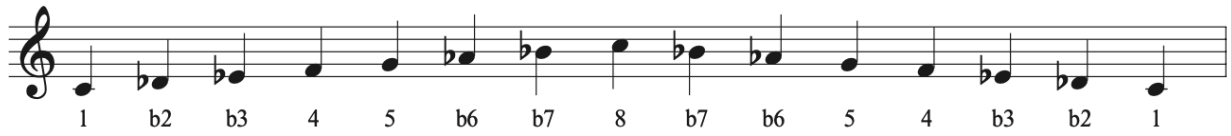
The Aeolian mode is the major scale with a flattened third, sixth, and seventh. As discussed previously, the Aeolian mode produces the natural minor scale. However, since the root is kept the same, the C Natural Minor and C Major scales have a parallel relationship, meaning that C Minor is the parallel minor of C Major and C Major is parallel major of C Minor.

C Aeolian (C Natural Minor; Eb Major Scale starting on the sixth scale degree)



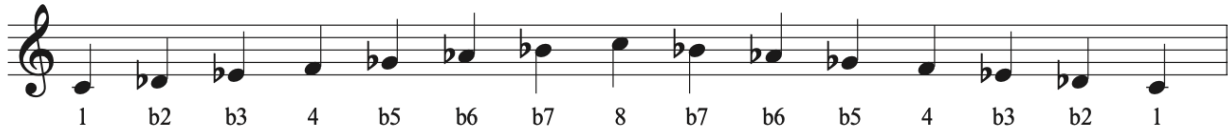
The Phrygian mode is the major scale with a flattened second, third, sixth, and seventh.

C Phrygian (Ab Major Scale starting on the third scale degree)



The Locrian mode is the major scale with a flattened second, third, fifth, sixth, and seventh. It is the mode with the most flats and is the darkest of all the major scale modes.

C Locrian (Db Major Scale starting on the seventh scale degree)



As a review, the chart below summarizes all the information we covered in this section.

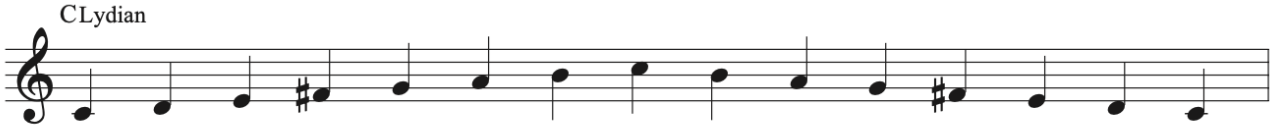
Modes of the Major Scale Brightest → → → → → → → Darkest						
Lydian	Ionian	Mixolydian	Dorian	Aeolian	Phrygian	Locrian
4th mode of the major scale OR major scale w/ #4 (or #11)	1st mode of the major scale OR major scale w/ No Alt.	5th mode of the major scale OR major scale w/ b7	2nd mode of the major scale OR major scale w/ b3, b7	6th mode of the major scale OR major scale w/ b3, b6, b7	3rd mode of the major scale OR major scale w/ b2, b3, b6, b7	7th mode of the major scale OR major scale w/ b2, b3, b5, b6, b7

Modes of Major in All 12 Keys

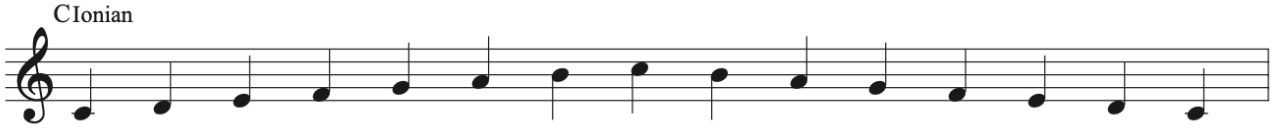
Below you will find all the modes of major transposed. Please first think about the process of how to reach each mode using the two methods above; then look to see if you were correct using the guide below as a reference.

Modes of C

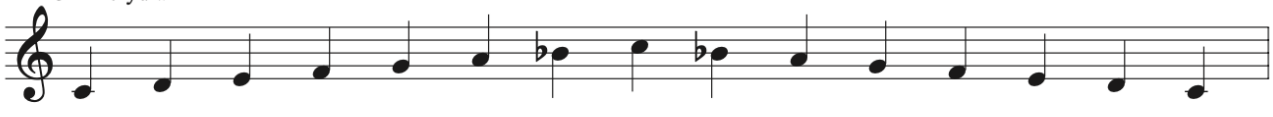
C Lydian



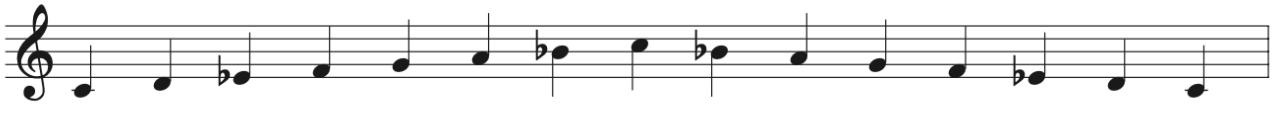
C Ionian



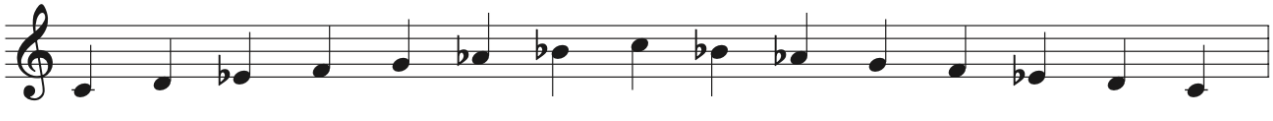
C Mixolydian



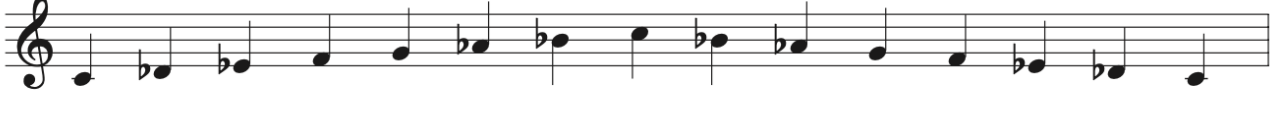
C Dorian



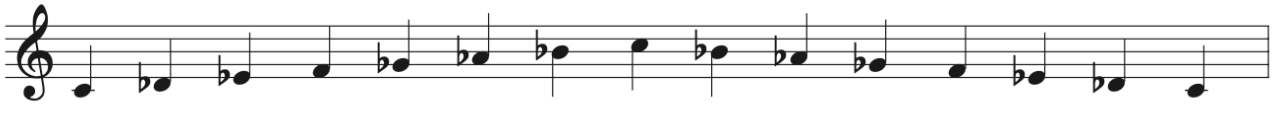
C Aeolian



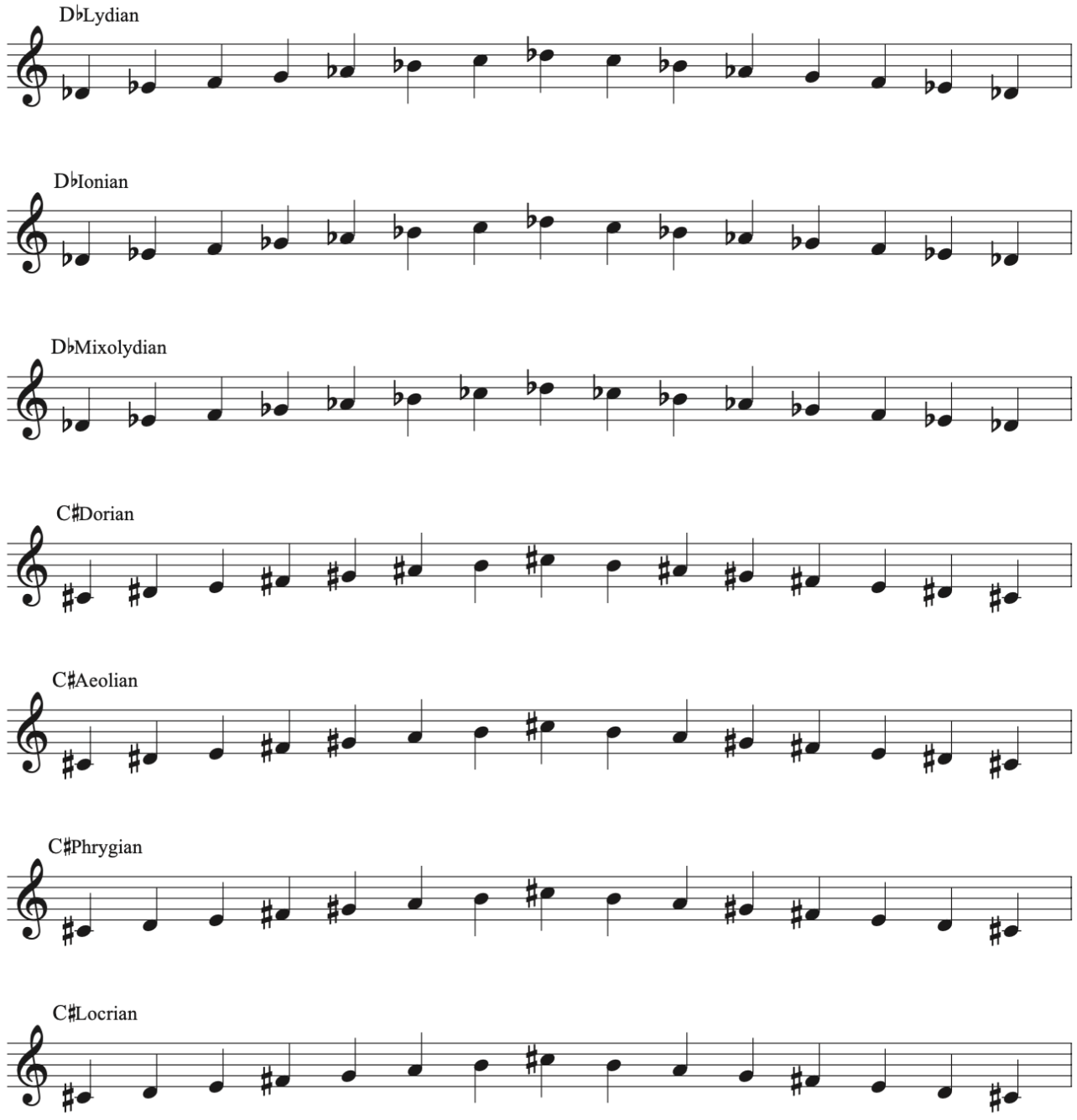
C Phrygian



C Locrian

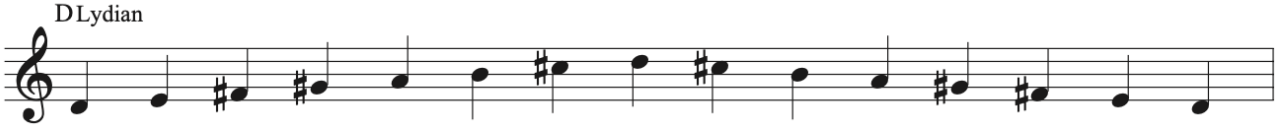


Modes of Db

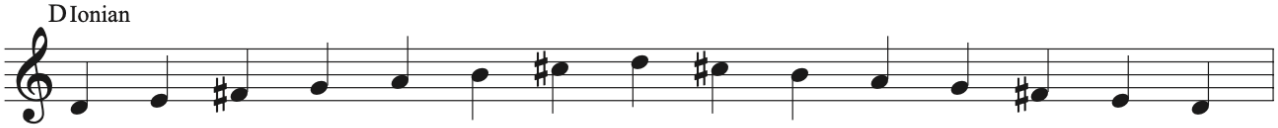

D♭Lydian
D♭Ionian
D♭Mixolydian
C♯Dorian
C♯Aeolian
C♯Phrygian
C♯Locrian

Modes of D

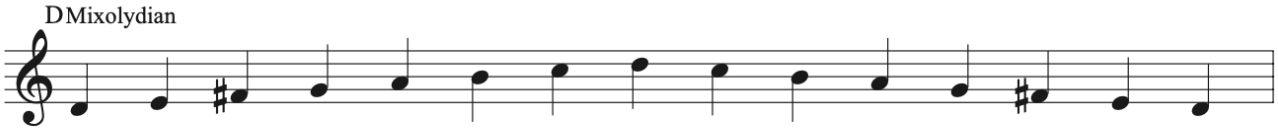
D Lydian



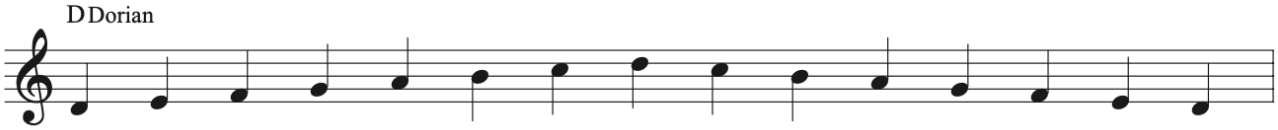
D Ionian



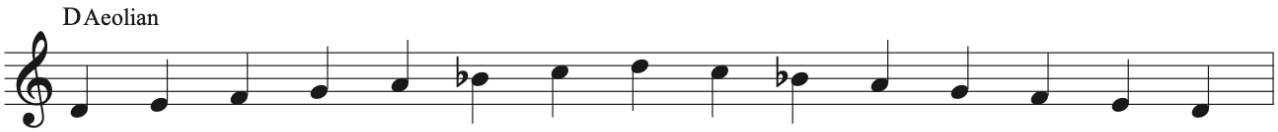
D Mixolydian



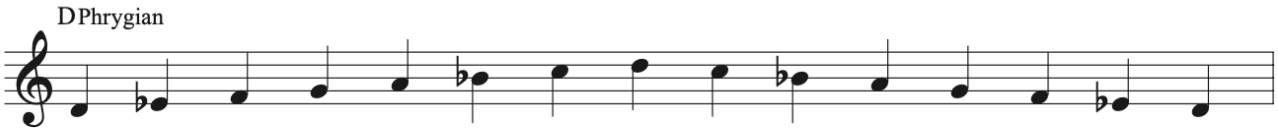
D Dorian



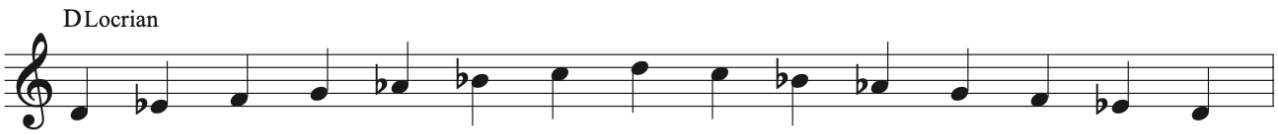
D Aeolian



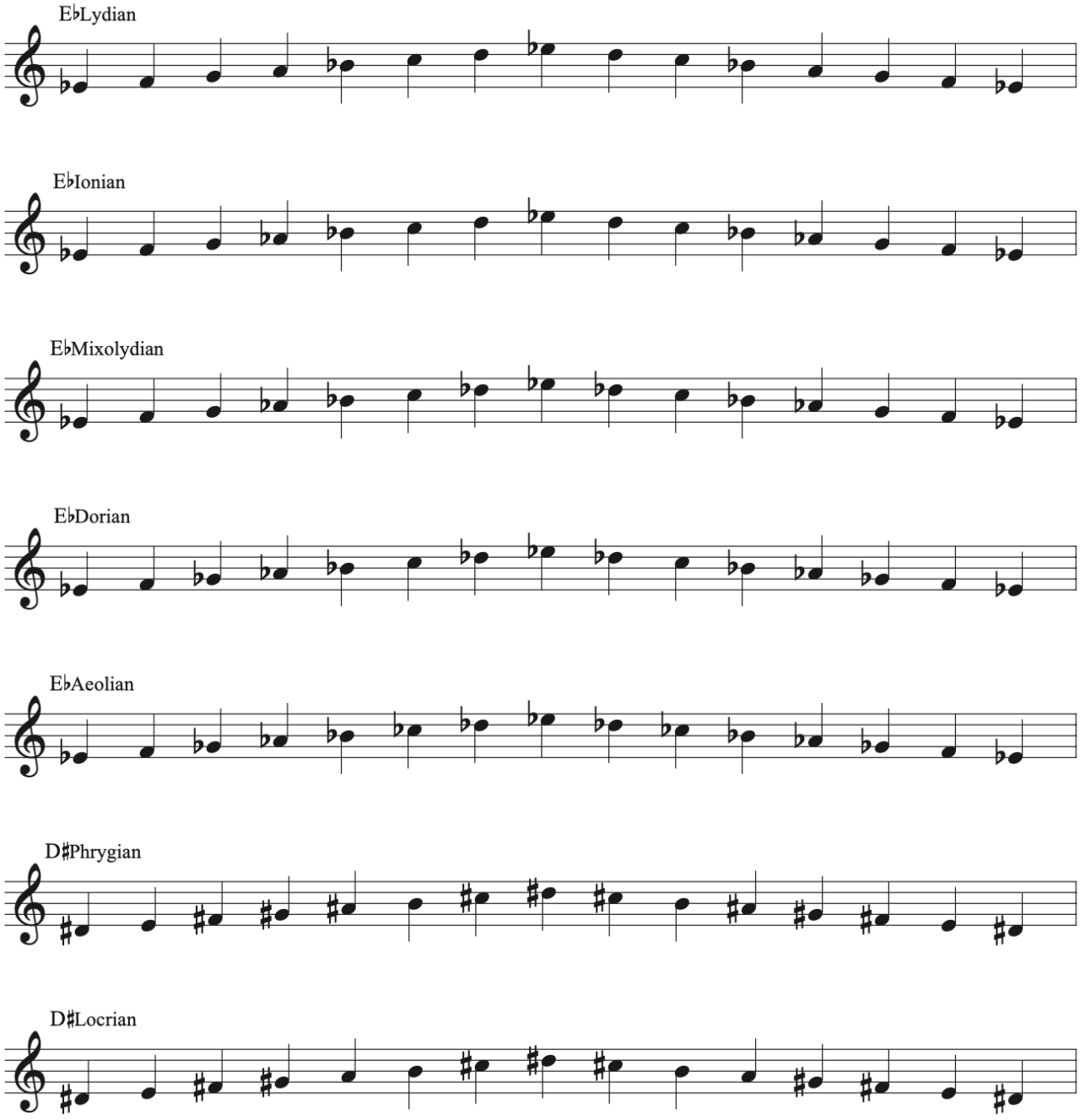
D Phrygian



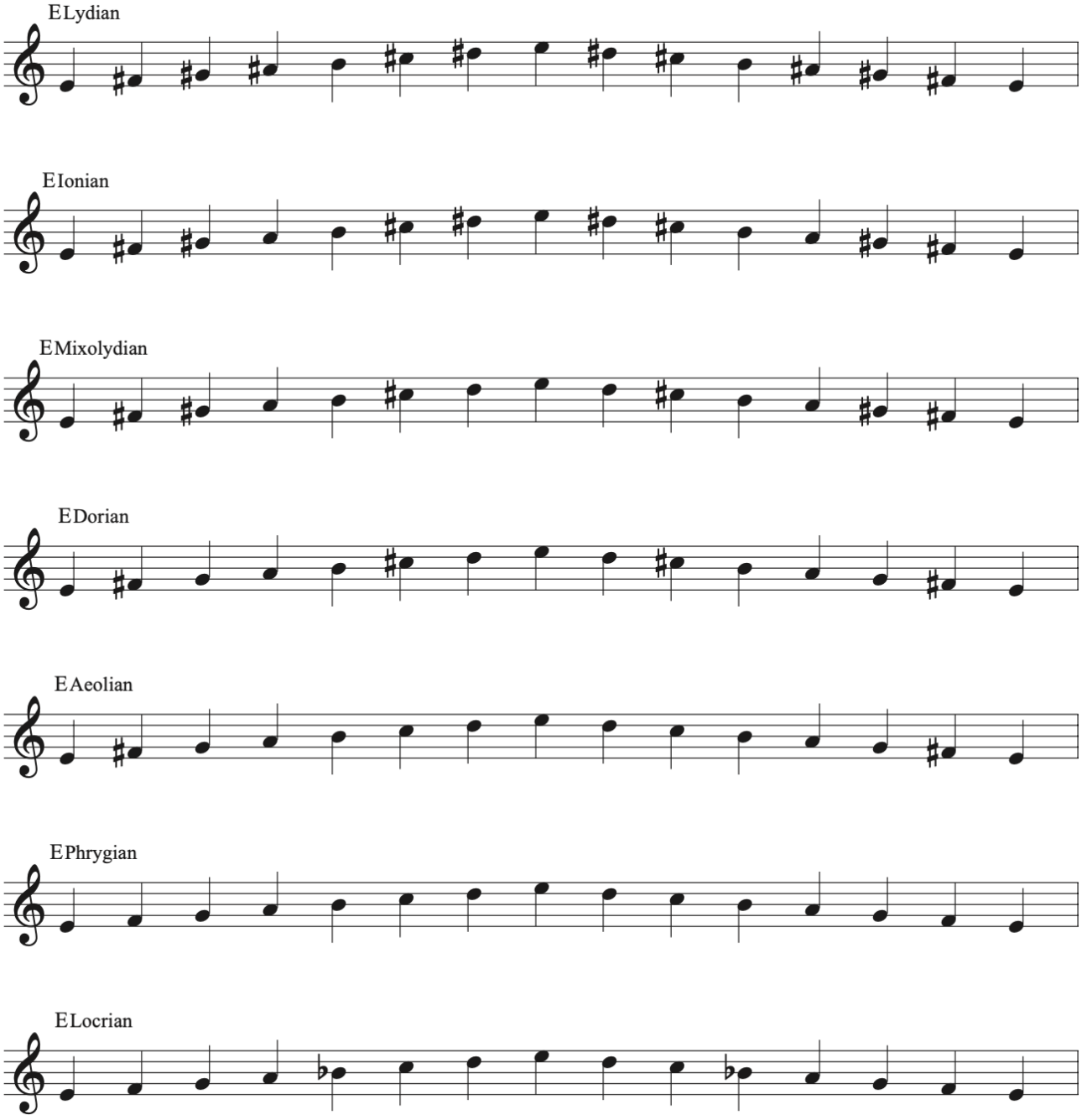
D Locrian



Modes of Eb

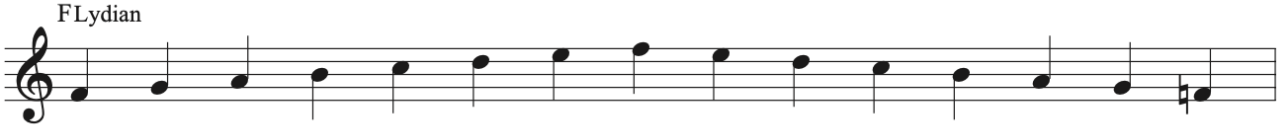

E♭Lydian
E♭Ionian
E♭Mixolydian
E♭Dorian
E♭Aeolian
D♯Phrygian
D♯Locrian

Modes of E

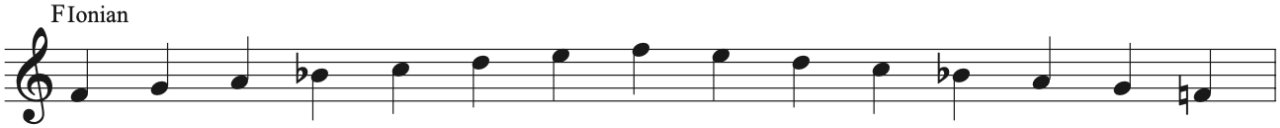

ELydian
EIonian
EMixolydian
EDorian
EAeolian
EPhrygian
ELocrian

Modes of F

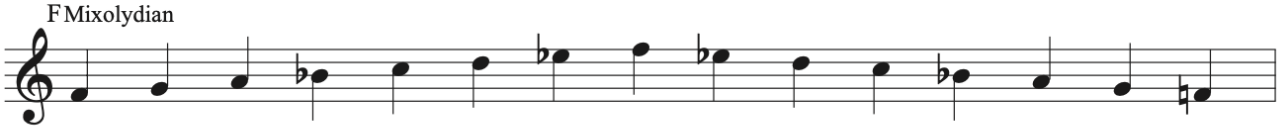
F Lydian



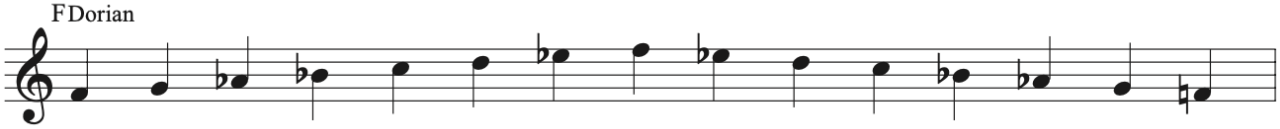
F Ionian



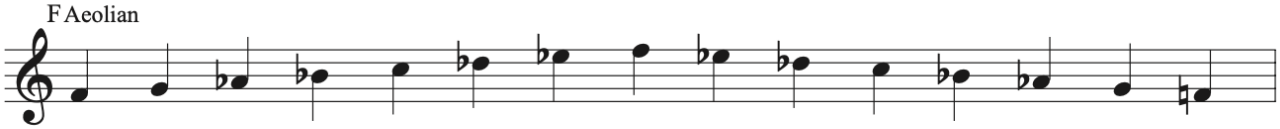
F Mixolydian



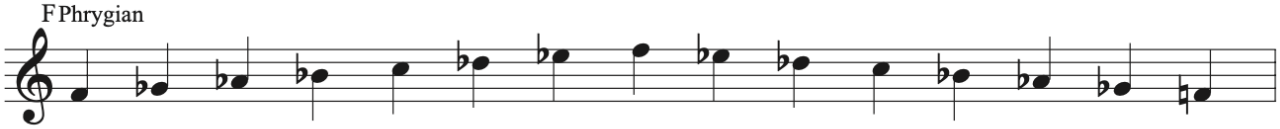
F Dorian



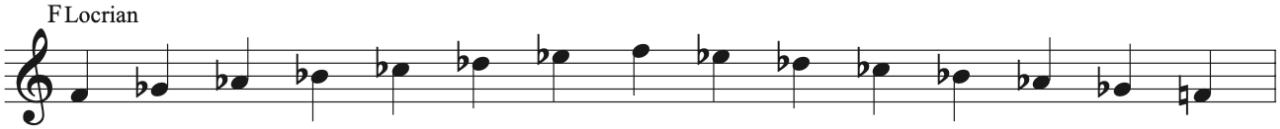
F Aeolian



F Phrygian

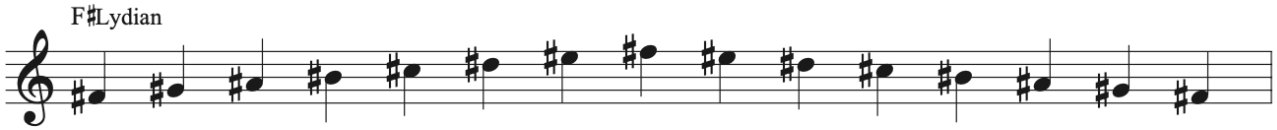


F Locrian

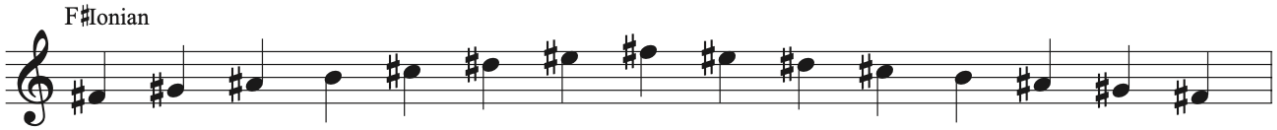


Modes of F#

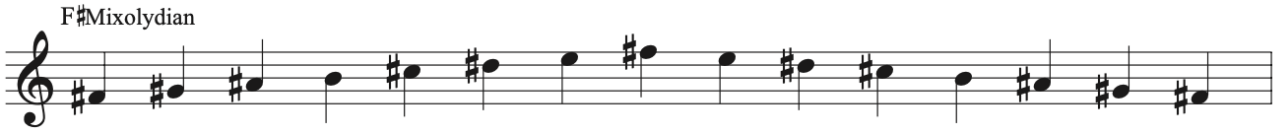
F♯Lydian



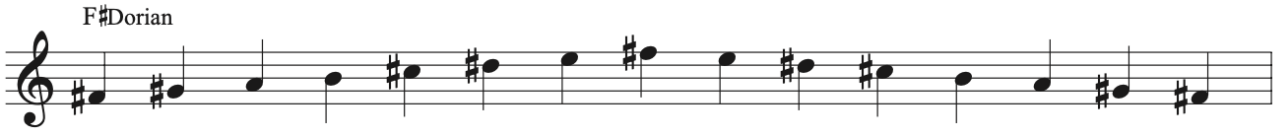
F♯Ionian



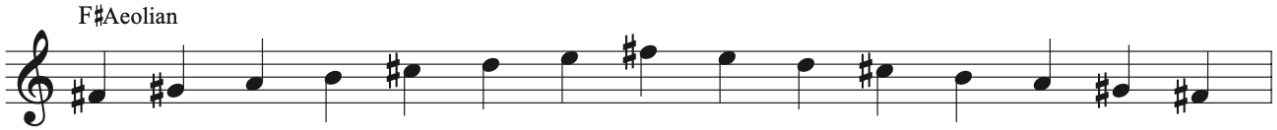
F♯Mixolydian



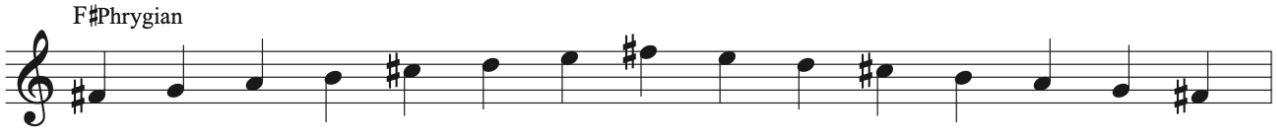
F♯Dorian



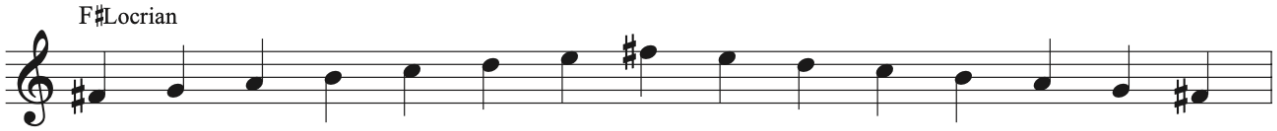
F♯Aeolian



F♯Phrygian

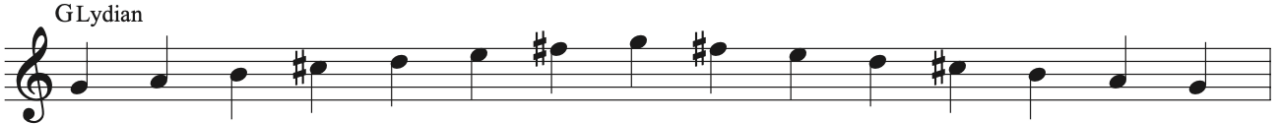


F♯Locrian

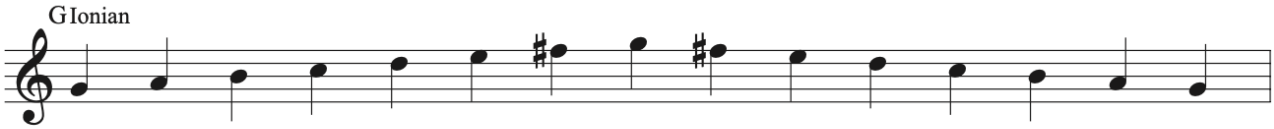


Modes of G

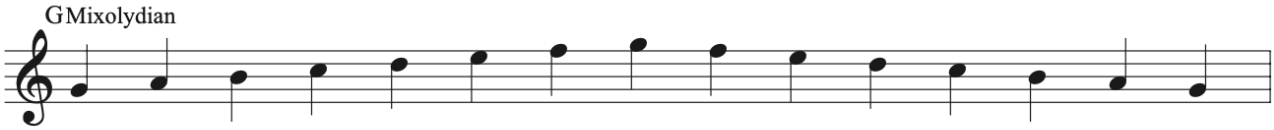
G Lydian



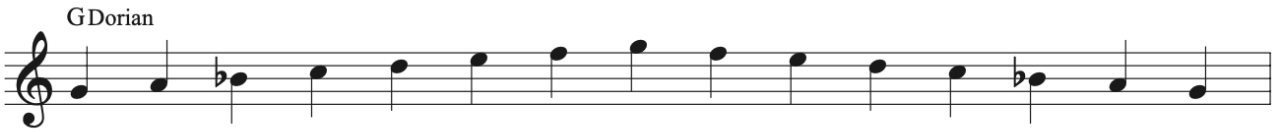
G Ionian



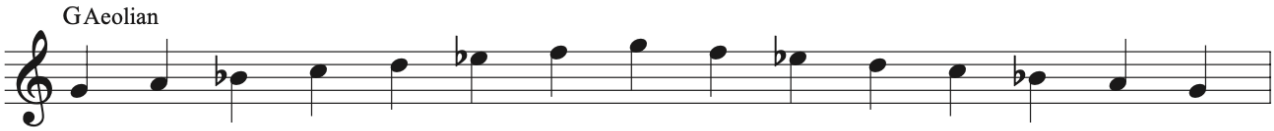
G Mixolydian



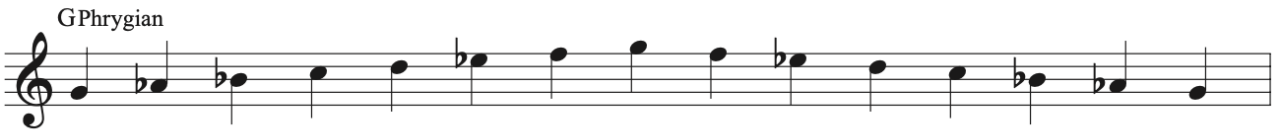
G Dorian



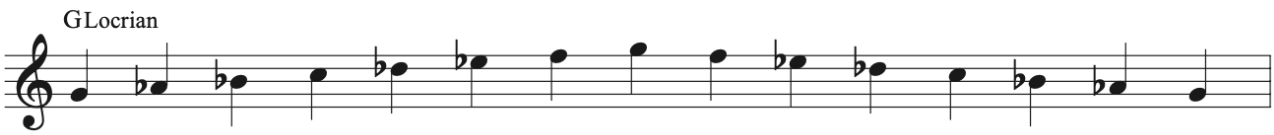
G Aeolian



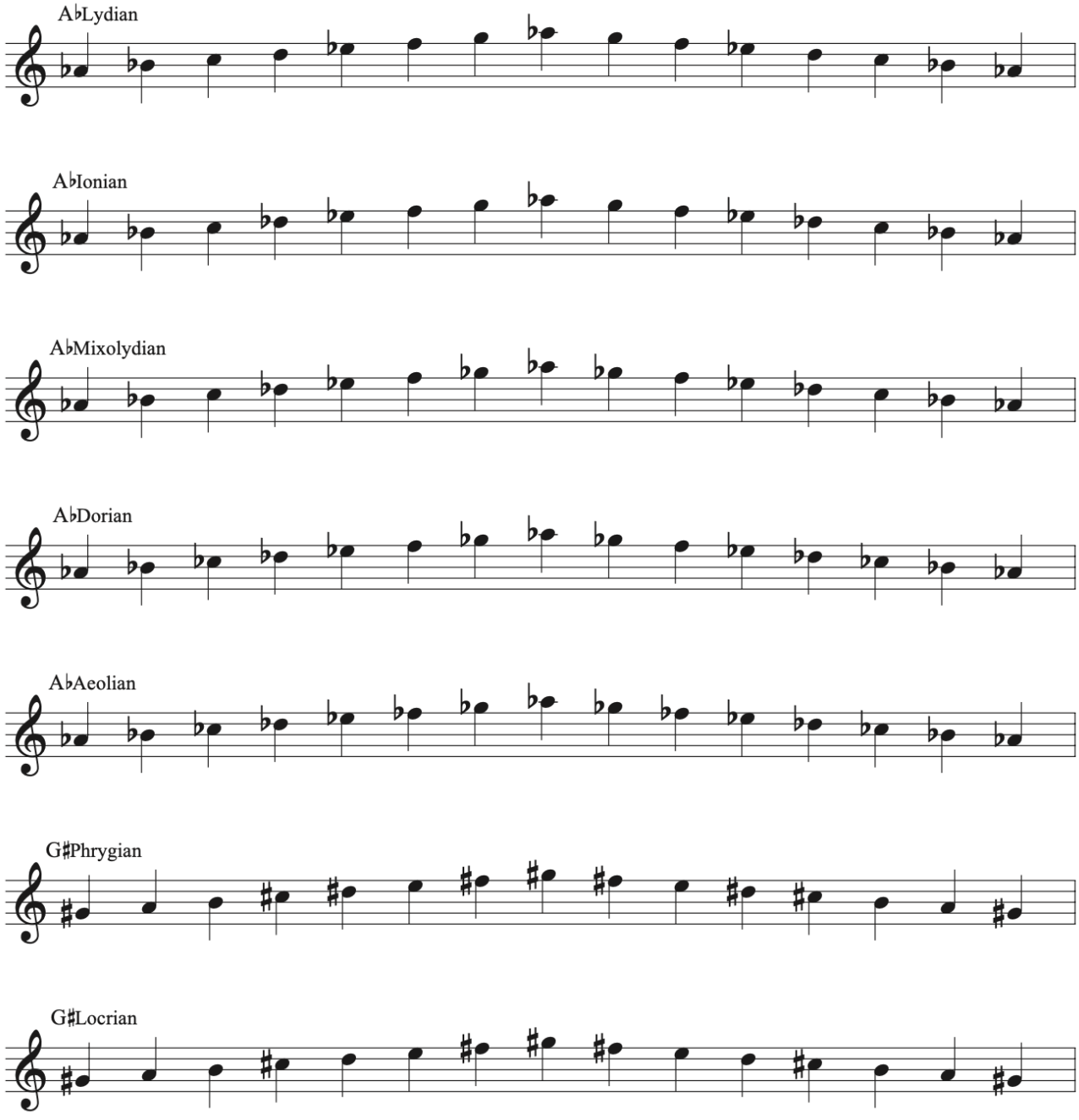
G Phrygian



G Locrian

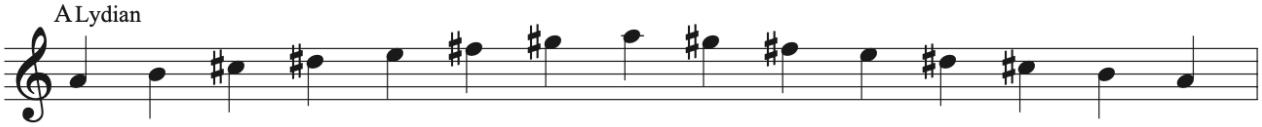


Modes of Ab

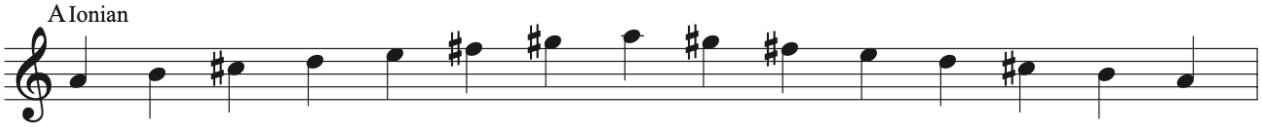

A♭Lydian
A♭Ionian
A♭Mixolydian
A♭Dorian
A♭Aeolian
G♯Phrygian
G♯Locrian

Modes of A

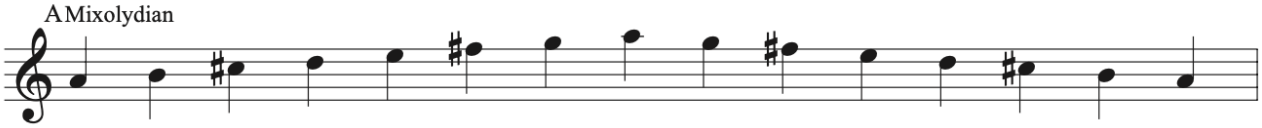
A Lydian



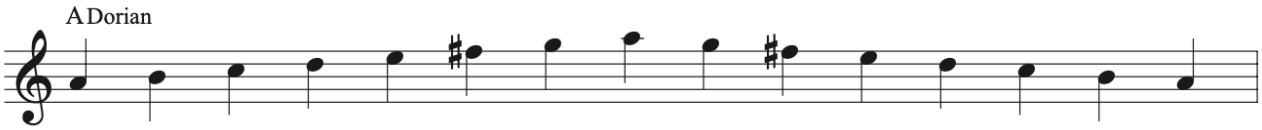
A Ionian



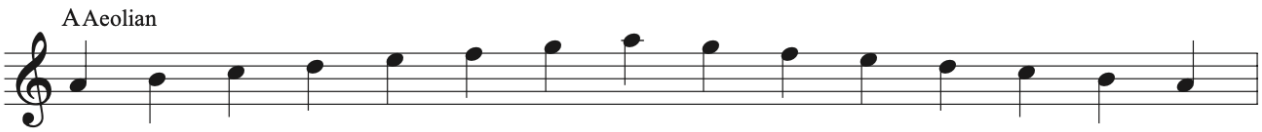
A Mixolydian



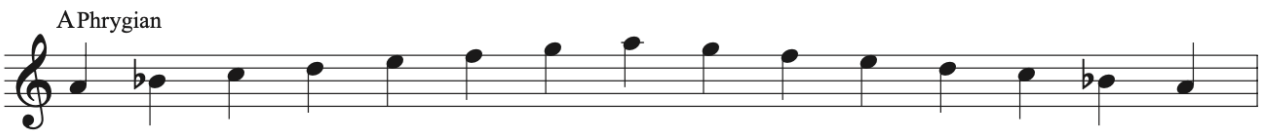
A Dorian



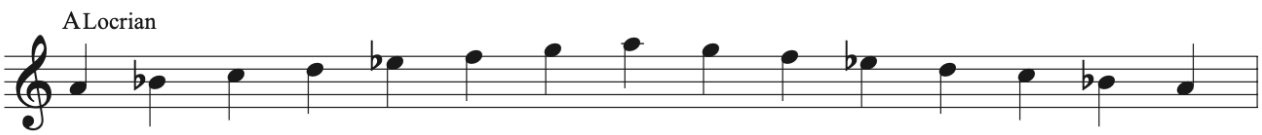
A Aeolian



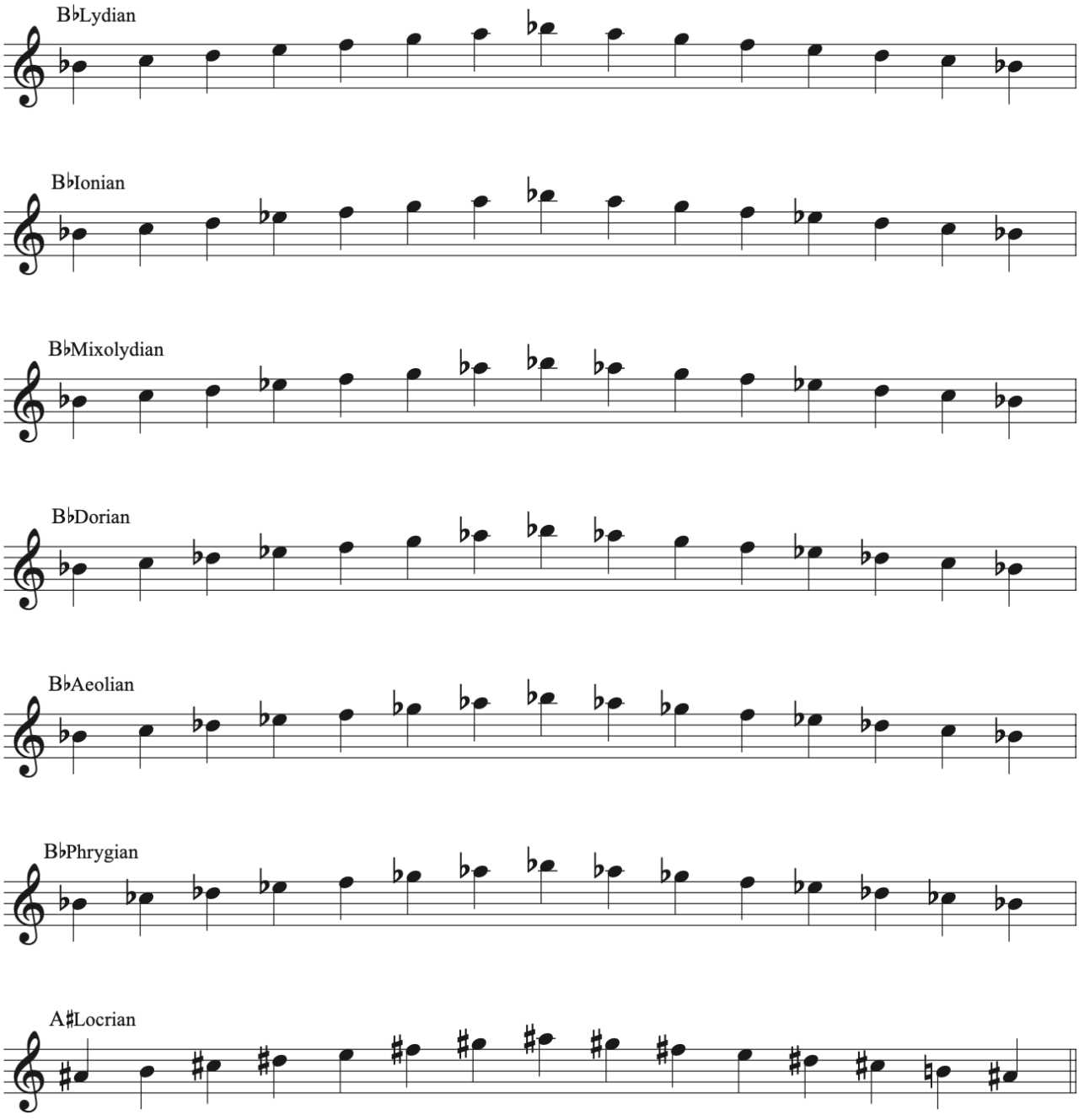
A Phrygian



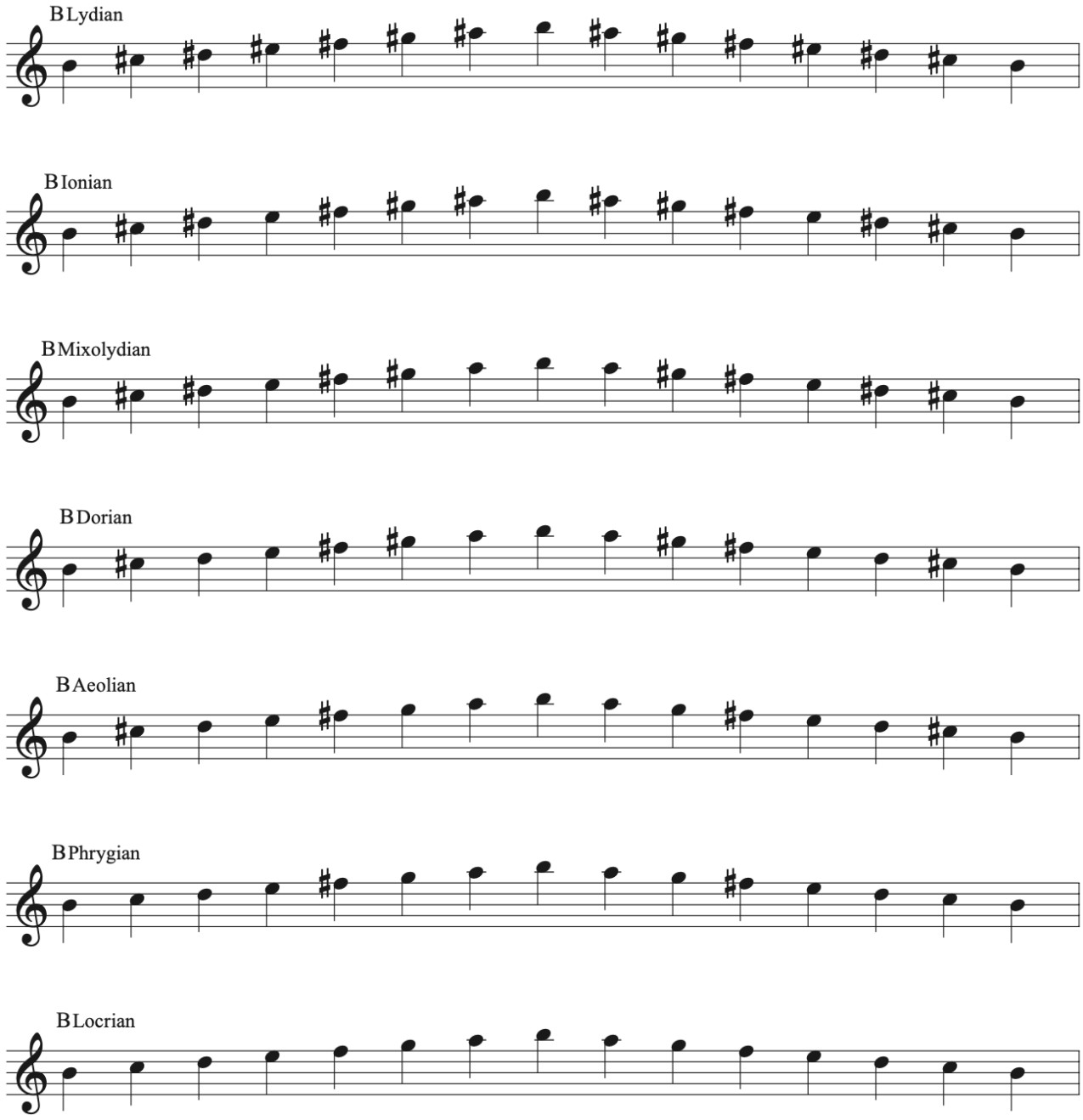
A Locrian



Modes of Bb


B♭Lydian
B♭Ionian
B♭Mixolydian
B♭Dorian
B♭Aeolian
B♭Phrygian
A♯Locrian

Modes of B


B Lydian
B Ionian
B Mixolydian
B Dorian
B Aeolian
B Phrygian
B Locrian

Vertical Shapes and Chord Notation

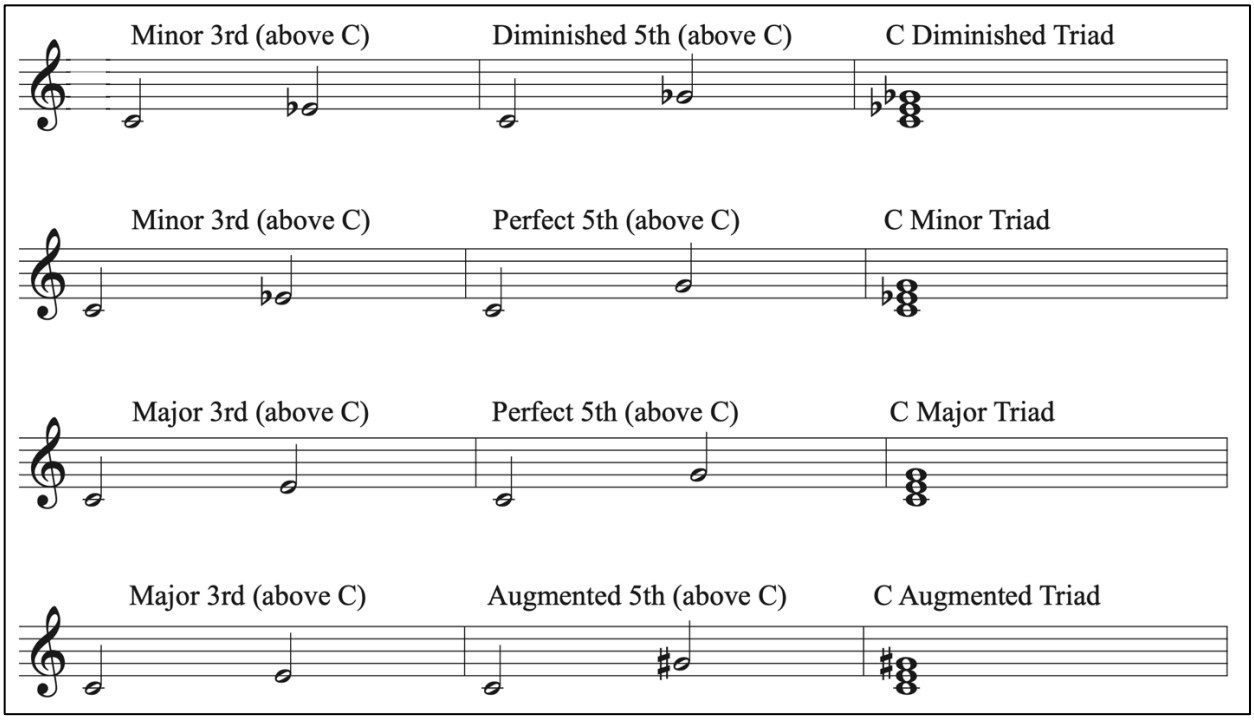
Vertical shapes and chord notation both go together and reenforce each other. As such, these concepts will be presented in tandem with one another. Vertical structures are not disjunct from previous concepts and are derived from horizontal structures as we will see in the next section "Additional Scales and Chord Scale Relationships." This section will explore learning how to form vertical structures using the intervals discussed previously as a foundation.

Triads

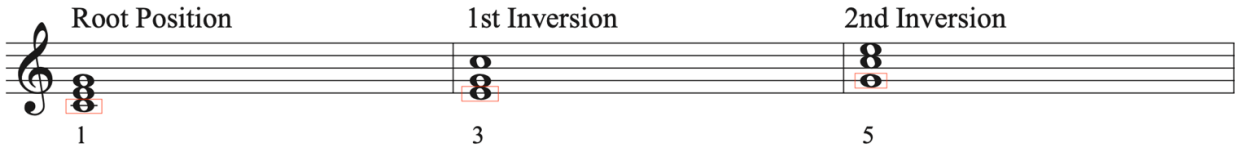
Triads are the fundamental building block for all tertian (separated by thirds) harmony and is where this section will begin. Triads are formed by stacking three notes on top of each other, each separated by third. Those three note are the "root" which is point from which the other two notes are derived; the "third" which is a third above the root; and the "fifth" which is a fifth above the "root" and a third above the "third."

There are four triads that exist in music: *diminished*, *minor*, *major*, and *augmented*. Each triad has a different quality of combination for the third and fifth. As discussed previously, the third can have a minor or major quality and the fifth can have diminished, perfect, or augmented quality. Below is a table and stave with each triad listed:

Diminished	Minor	Major	Augmented
Minor 3rd & Diminished 5th	Minor 3rd & Perfect 5th	Major 3rd & Perfect 5th	Major 3rd & Augmented 5th

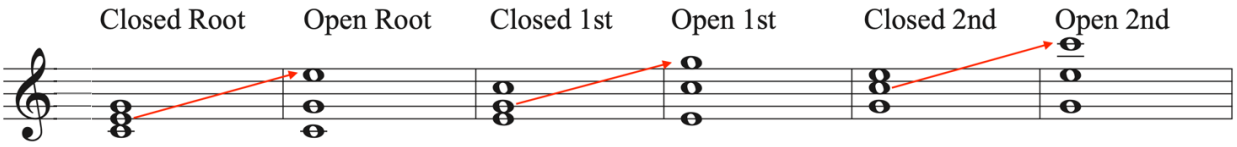


Each triad has three sets of positions which is determined by what note of the triad is in the bass or lowest voice. If the root of the triad is in the bass it is in *root position*; if the third is in the bass, it is in *first inversion*; and if the fifth is in the bass, it is in *second inversion*. Below is the set of positions for a C Major Triad:

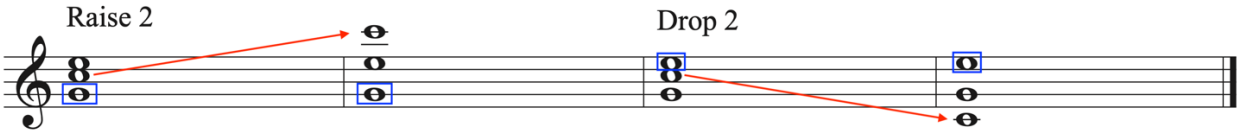


Lastly, for each triadic position there an open and closed voicing. *Closed voicings* are compact by having the least amount of space between each voice in the position; *open voicings* are more spread by creating more space between each voice in the position. Above is an example of closed voicing. To create an open voicing in the same position, simply raise the next voice above the bass up an octave – a method known as "Raise 2" as you are raising the second voice above the bass.

Below you will find each triad position in closed and open voicing using the "Raise 2" and "Drop 2 Method."



It is worth noting that another method commonly used to achieve an open voicing is the "Drop 2" method which takes the second note below the melody note (highest note) and moves it down an octave. It is basically the complete reverse of the "Raise 2" method with one vital difference – "Drop 2" is done in relation to the melody note, preserving the melody at the top of the voicing and changing the bass; "Raise 2" is in relation to the bass note, preserving the bass at the bottom of the voicing and changing the melody note. See below:

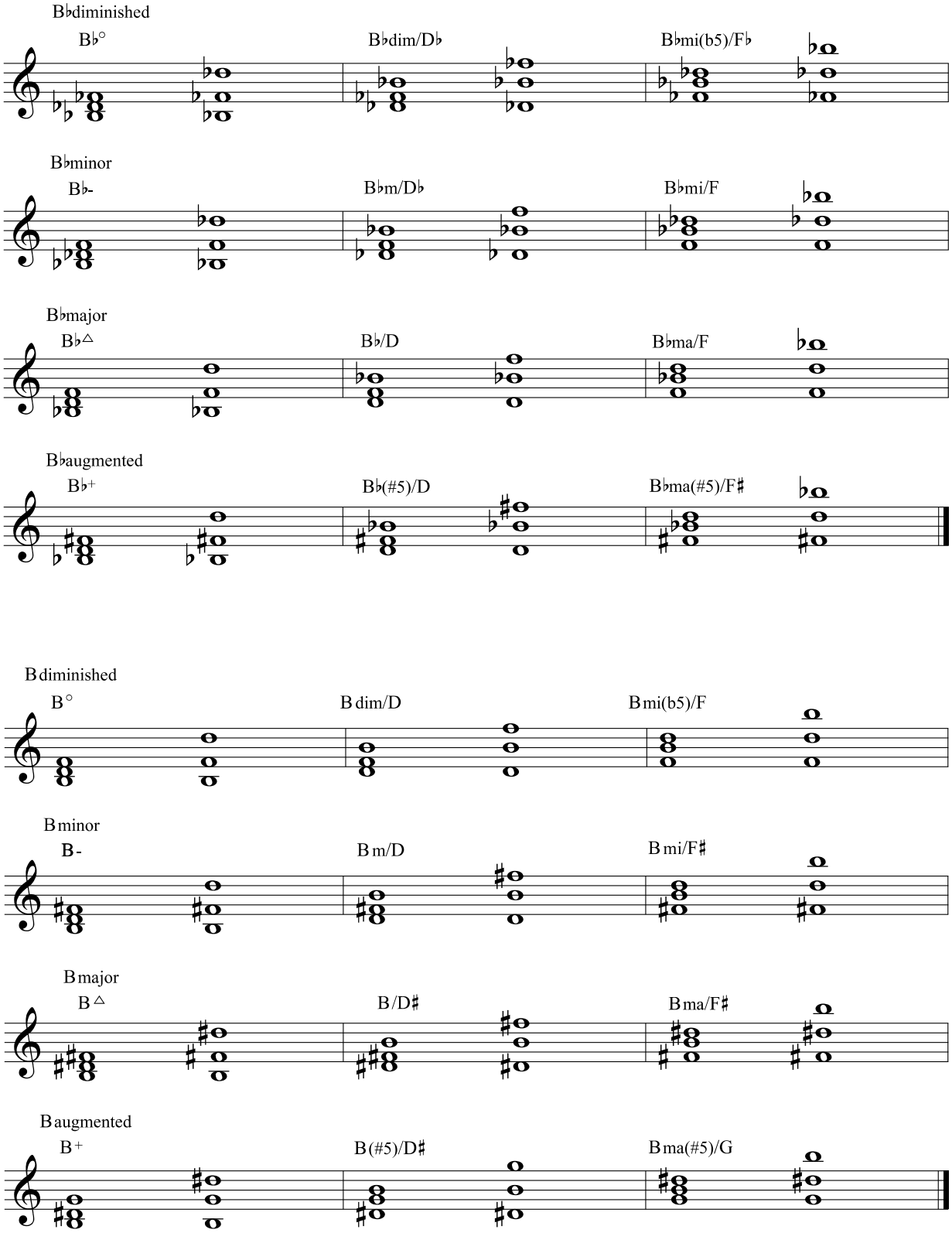


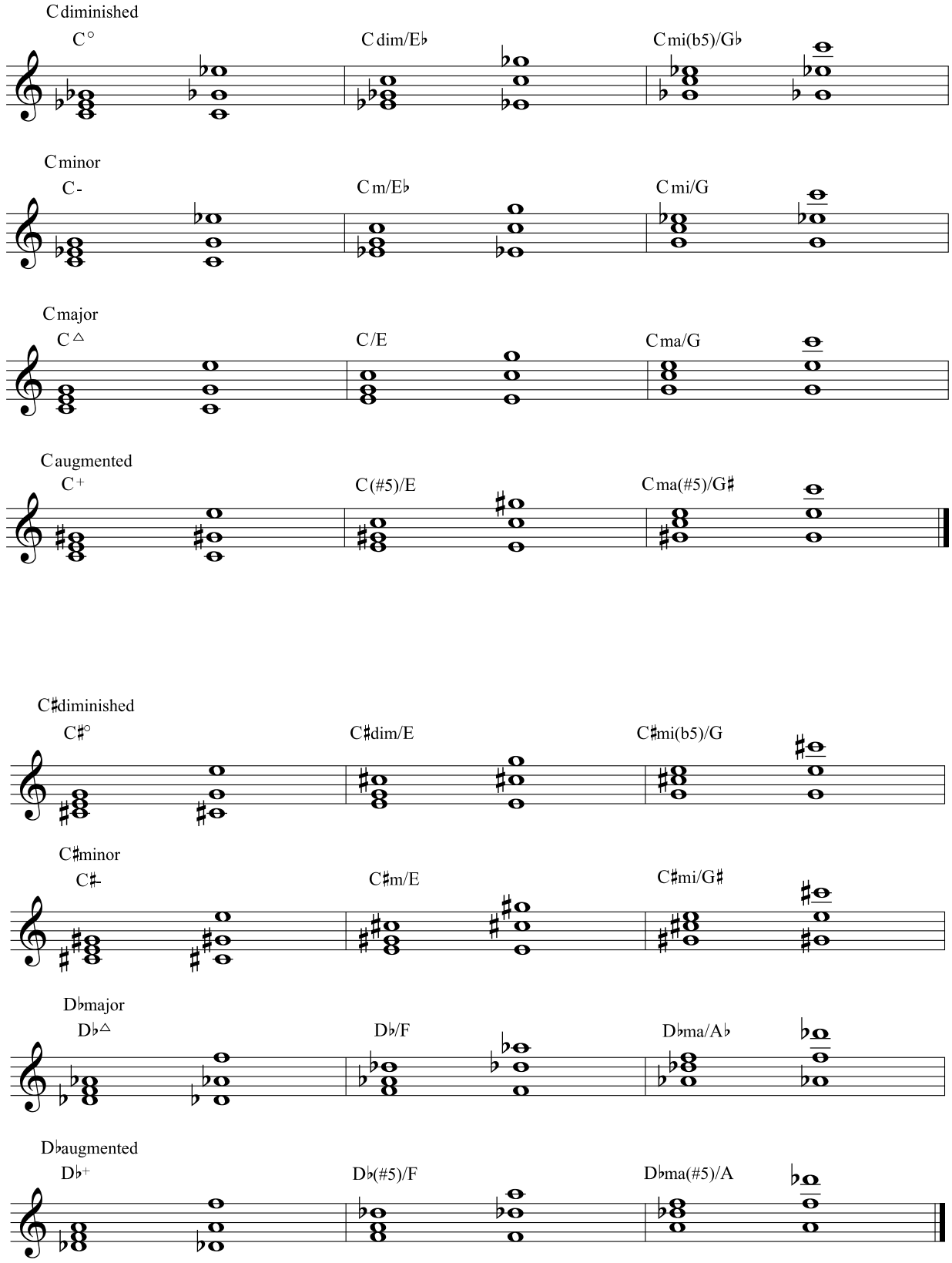
Each quality of triad is accompanied by a chord symbol that communicates quickly to the musician what the harmony is and what note is in the bass. Below is a table with symbols referring to the four qualities of triads in **root position** in C:

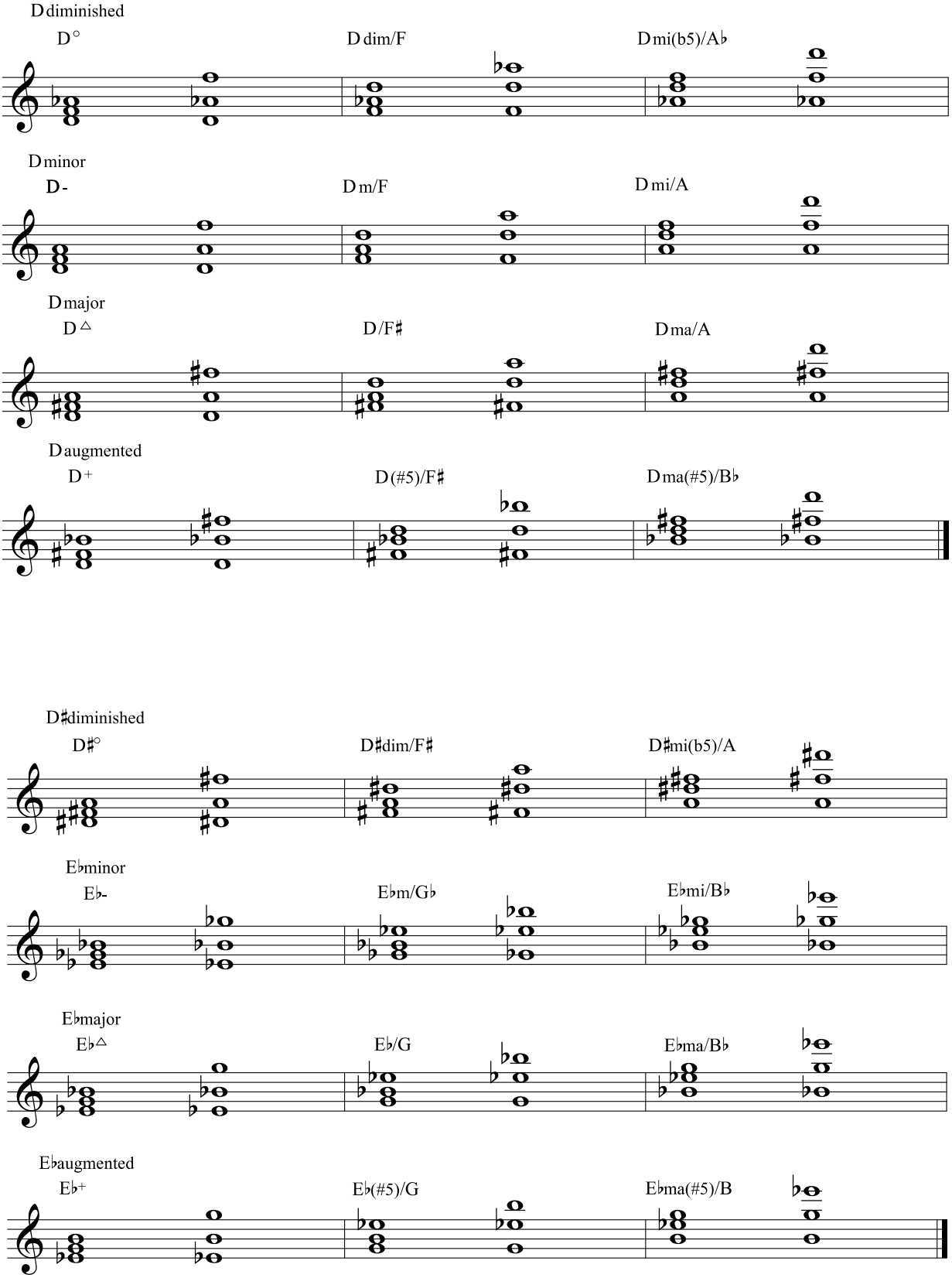
Diminished	**Minor**	**Major**	**Augmented**
Cdim, C° Cm$^{(b5)}$, Cmi$^{(b5)}$ C min$^{(b5)}$, C-$^{(b5)}$	Cm, Cmi, Cmin, C-	C, CM, Cma Cmaj, CΔ	C$^{(\#5)}$, CM$^{(\#5)}$ Cma $^{(\#5)}$, Cmaj$^{(\#5)}$ C+

If a triad is not in root position, simply state the quality with a chord symbol above followed by a slash and the note in the bass (i.e. a C major triad in second inversion could be written C/G).

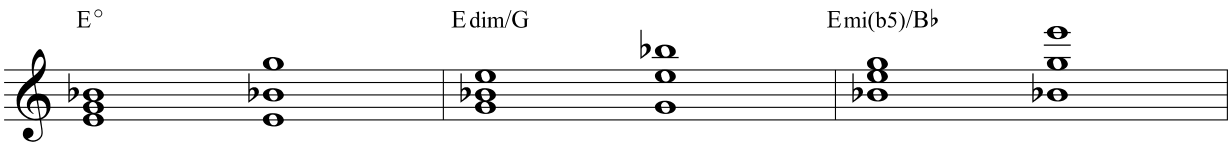
Now that you understand triads and the types of qualities, positions, voicings, and chord symbols associated with them, below you will find every triad with it many permutations in all 12 keys.



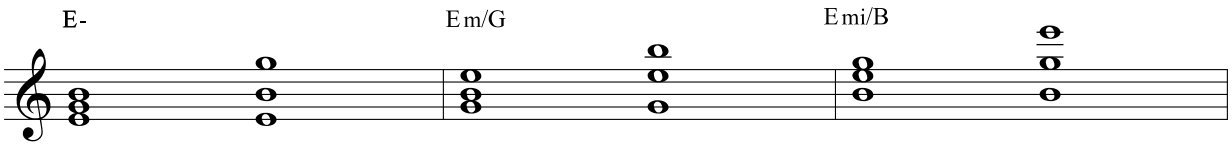

Cdiminished
C°
C dim/E♭
C mi(b5)/G♭
Cminor
C-
C m/E♭
C mi/G
Cmajor
C△
C/E
C ma/G
Caugmented
C+
C(#5)/E
C ma(#5)/G♯
C♯diminished
C♯°
C♯dim/E
C♯mi(b5)/G
C♯minor
C♯-
C♯m/E
C♯mi/G♯
D♭major
D♭△
D♭/F
D♭ma/A♭
D♭augmented
D♭+
D♭(#5)/F
D♭ma(#5)/A


Ddiminished
D°
D dim/F
D mi(b5)/A♭
Dminor
D-
D m/F
D mi/A
Dmajor
D△
D/F♯
Dma/A
Daugmented
D+
D(#5)/F♯
Dma(#5)/B♭
D♯diminished
D♯°
D♯dim/F♯
D♯mi(b5)/A
E♭minor
E♭-
E♭m/G♭
E♭mi/B♭
E♭major
E♭△
E♭/G
E♭ma/B♭
E♭augmented
E♭+
E♭(#5)/G
E♭ma(#5)/B

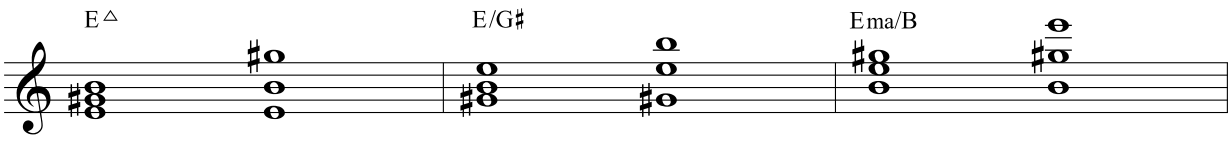
Ediminished



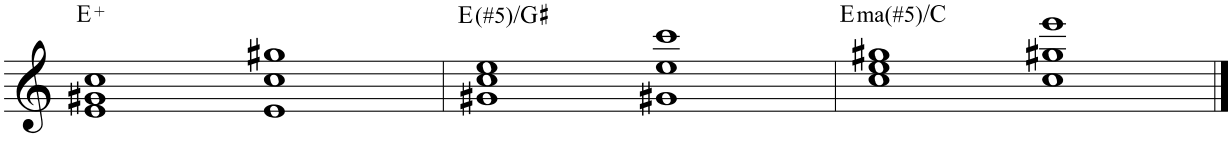
Eminor



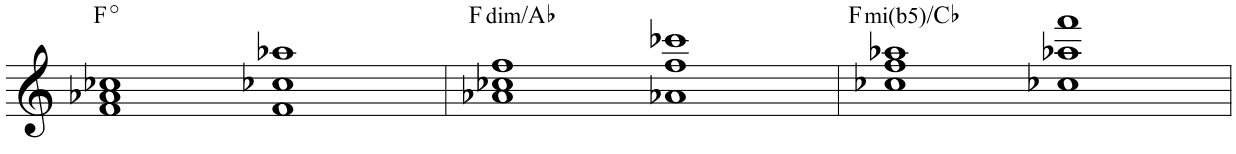
Emajor



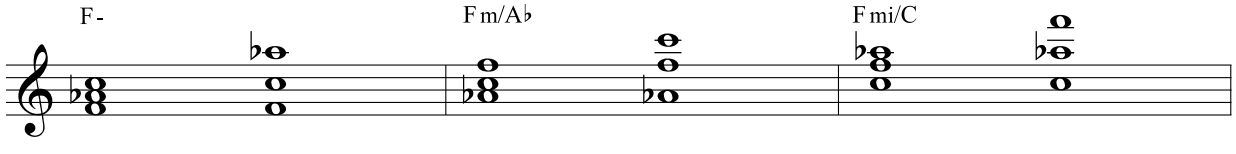
Eaugmented



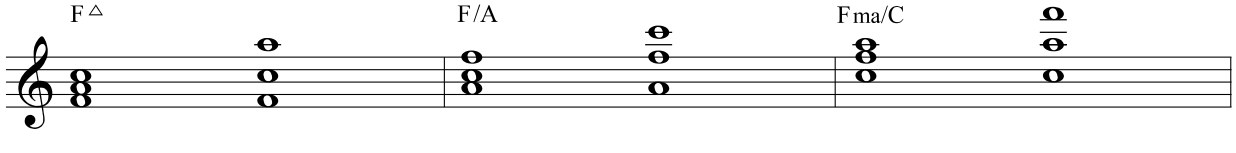
Fdiminished



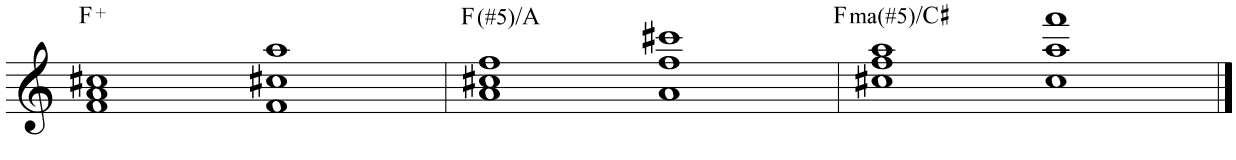
Fminor



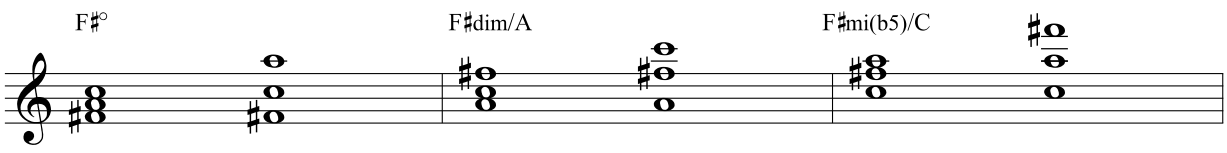
Fmajor



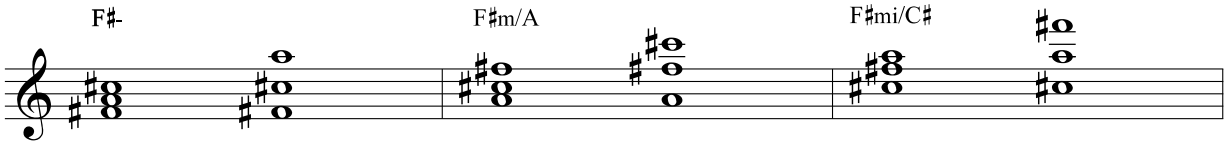
Faugmented



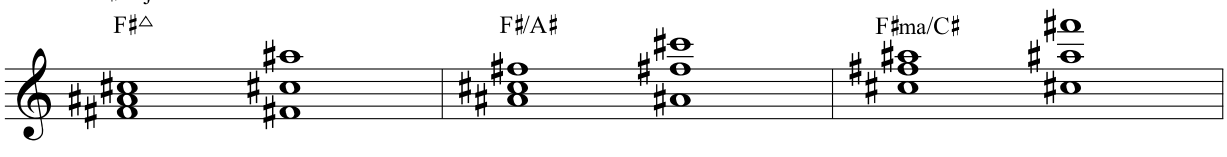
F♯diminished



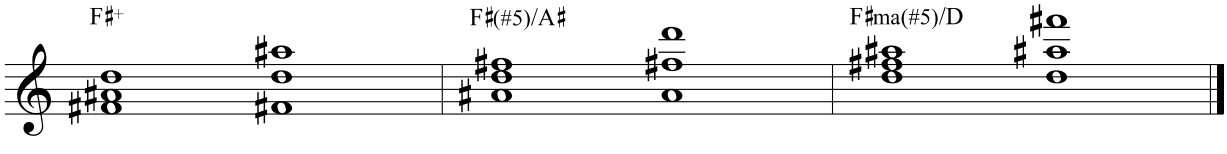
F♯minor



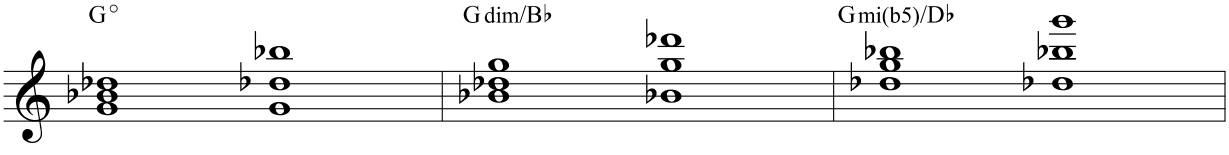
F♯major



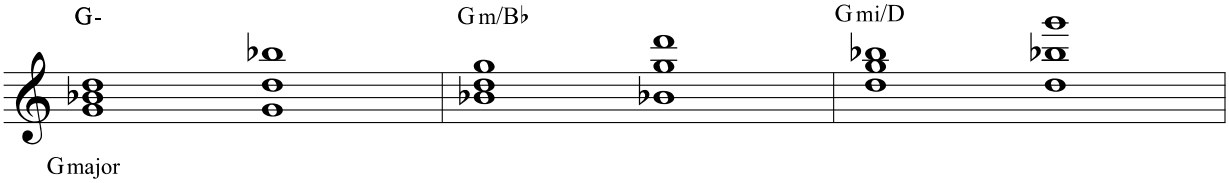
F♯augmented



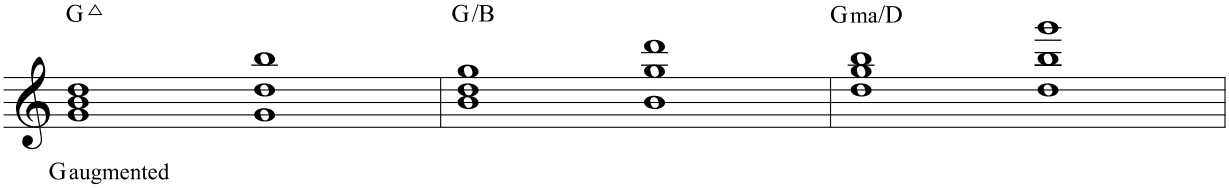
G diminished



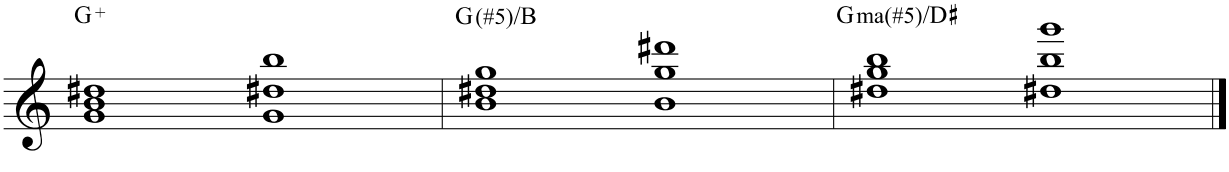
G minor



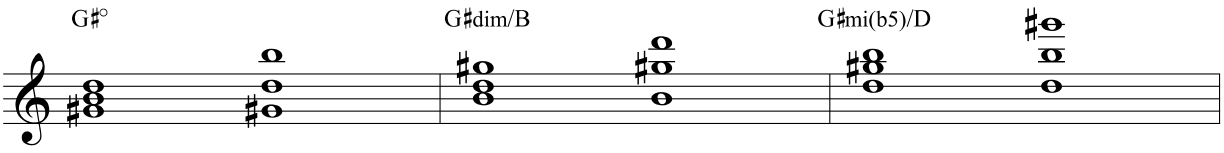
G major



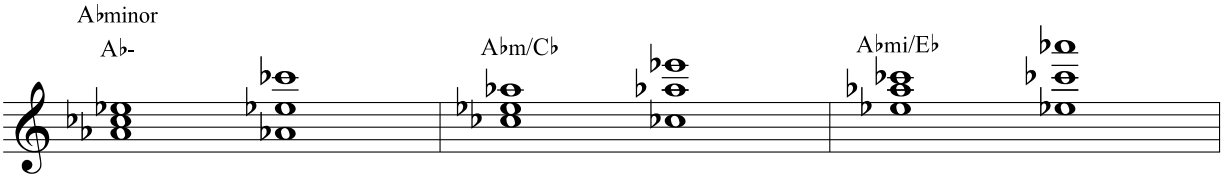
G augmented



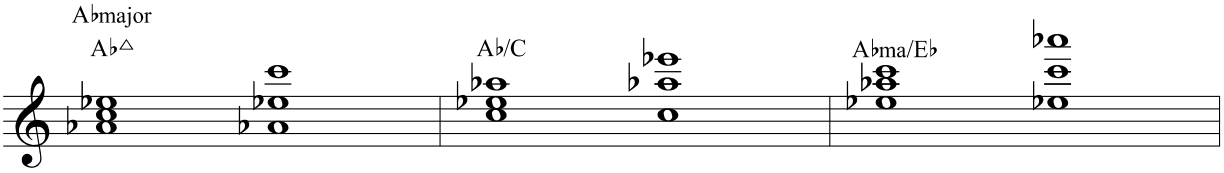
G♯diminished



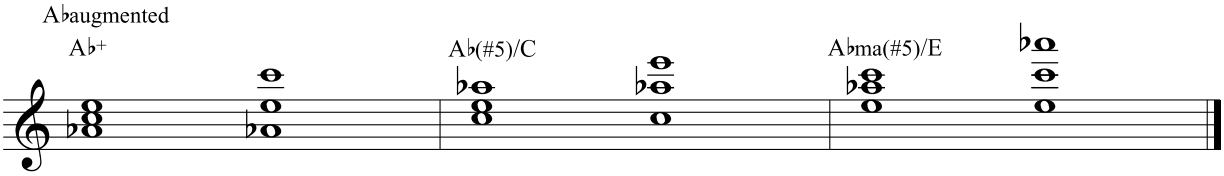
A♭minor



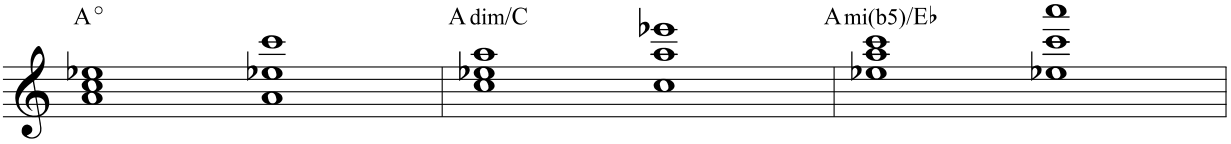
A♭major



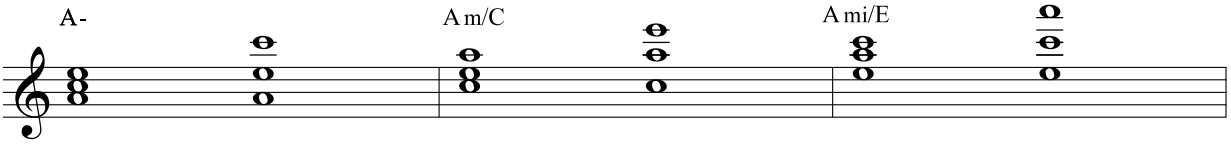
A♭augmented



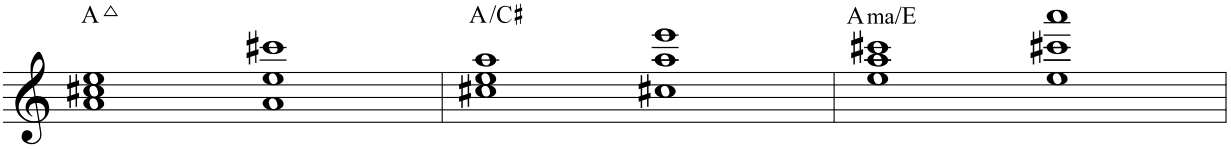
A diminished



A minor



A major



A augmented