

AP Music Theory: Unit 3

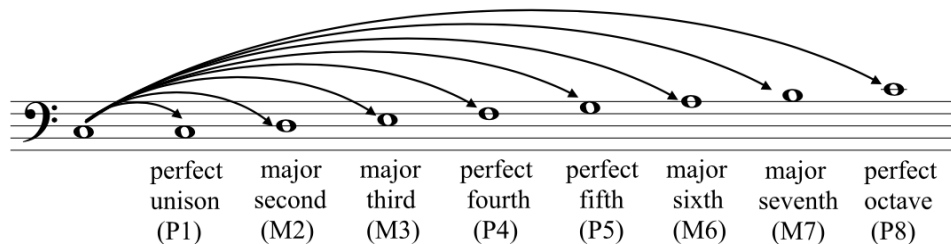
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Music Fundamentals III: Triads and Seventh Chords

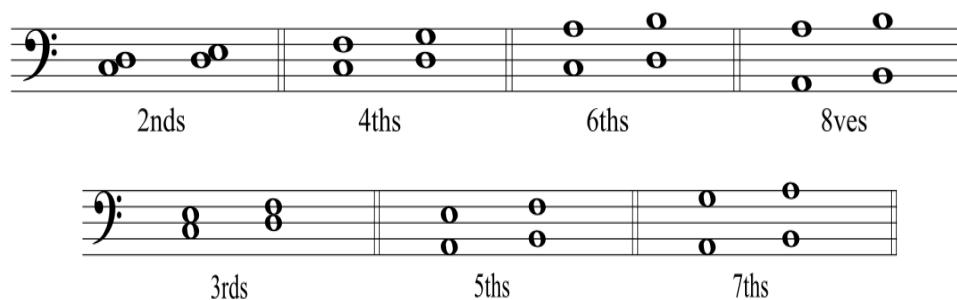
Triads

Before discussing the different types of triads, it is important to know **intervals**.

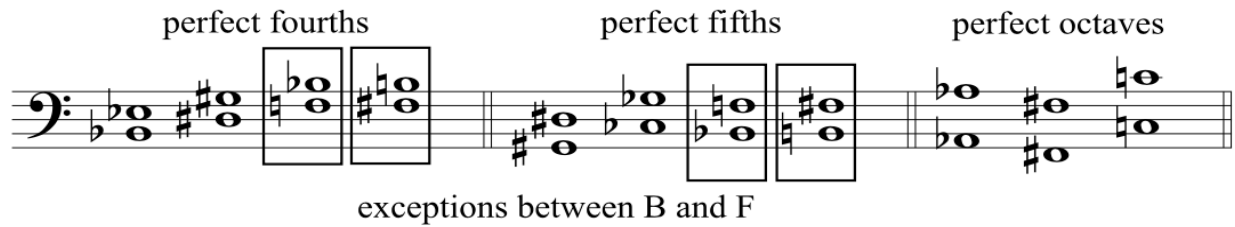
- **Interval:** measurement/distance between 2 different pitches on a musical staff
 - For example, when you go from the tonic note to another note in a C major scale, these are the intervals. There are two elements to naming intervals: quality and number.



- Even number intervals are placed space to line or line to space.
- Odd number intervals are placed line to line or space to space.



- Perfect intervals are always natural to natural, flat to flat, and sharp to sharp, except between notes B and F.



A **chord**, which is the basic unit of harmonies, is the combination of 3 or more different notes.

- **Triads** are chords that have 3 pitches stacked in intervals of thirds
- **Seventh chords** have 4 pitches stacked in intervals of thirds.

From the diatonic thirds, there are four types of triads:

- **Major (M)** and **minor (m)** are consonant triads because they have a perfect fifth (have 7 half steps in total)
- **Augmented (A)** and **diminished (d)** are dissonant triads because of their dissonant fifth

Major triad: major 3rd + minor 3rd
M3 + m3



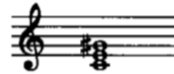
Minor triad: minor 3rd + major 3rd
m3 + M3



Diminished triad: minor 3rd + minor 3rd
m3 + m3



Augmented triad: major 3rd + major 3rd
M3 + M3



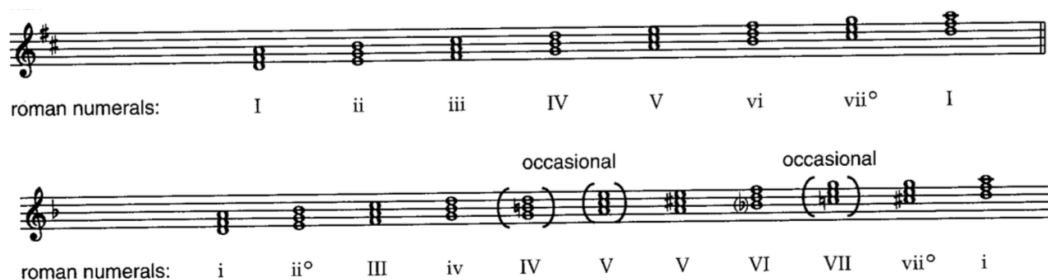
Number of half steps	Name of interval	Number of half steps	Name of interval
1	m2	7	P5
2	M2	8	m6
3	m3	9	M6
4	M3	10	m7
5	P4	11	M7
6	Tritone*	12	P8

- The picture above displays the relation between the # of half steps and the name of the interval. (Tritone is another term for augmented 4th/diminished 5th)

Roman Numerals

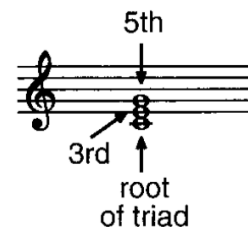
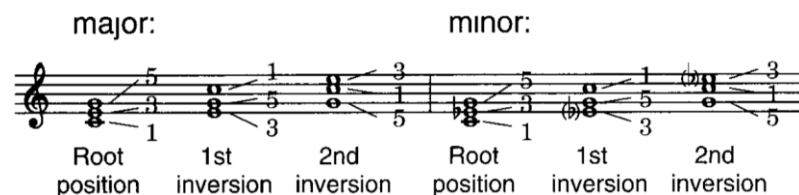
From Unit 1, scale degree numbers represent individual pitches on a given scale. Roman numerals represent triads on which they are built.

- Example: A B flat major triad is written as IV for an F major key, since it is built on the fourth scale degree (subdominant) of that scale.
 - Major triads = uppercase numerals, minor triads = lowercase numerals, diminished triads = lowercase with degree sign, augmented triads = uppercase with + sign
 - Example: In D major and d minor, the corresponding roman numerals are listed with each scale degree chord.



Triad/Chord Inversion

On this triad of C major, it is stacked on the lowest pitch. So, the chord is in the root position. First inversion occurs when the 3rd appears in the bass. Second inversion occurs when the 5th is in the bass.



Figured Bass

- Shorthand notation writing used from 1600-1800 for intervals above bass notes
 - When writing the figure bass of chords, the bass note (root) doesn't count and the intervals between the root to the notes are counted.

- Example: For a root-position triad, the positions are 1, 3, and 5. The figured bass would be written as $\begin{smallmatrix} 5 \\ 3 \end{smallmatrix}$. A first inversion chord is $\begin{smallmatrix} 6 \\ 3 \end{smallmatrix}$, and a second inversion chord is $\begin{smallmatrix} 6 \\ 4 \end{smallmatrix}$.

Seventh Chords

Seventh chords have an extra note above the triad (higher than the 5th scale), and there are 5 different types:

- Major seventh chord (Maj 7th)
- Major-minor seventh chord (aka dominant seventh chord, Mm 7th)
- Minor seventh chord (mm 7th)
- Half-diminished seventh chord (dm 7th)
- Fully-diminished seventh chord (aka diminished seventh chord, dd 7th)
 - The “7th” means that the fourth note is on the 7th degree scale (subtonic/leading-tone).

Full name:	major seventh	major-minor seventh	minor seventh	half-diminished seventh	fully-diminished seventh
Primary abbrev:	maj7	7	m7	ø7	ø7
Other labels:	Maj7, Δ7, MM7	Mm7, Dom7	-7, mm7	m7(♭5), -7(-5), dm7	dim7, dd7

Inverted Seventh Chords

- There can be several inversion chords. For example, the image below shows the first, second, and third inversions of a chord with the root note as F. Remember for inversion chords, the root is moved to the top, then the following note for the inversion levels.

	A	B	C	D
	Root position (Root in bass)	First inversion (3rd in bass)	Second inversion (5th in bass)	Third inversion (7th in bass)
full version	7 5 3	6 5 3	6 4 3	6 4 2
short version	7	6 5	4 3	4 2 or simply 2

major keys; scale degree:	$\hat{1}$	$\hat{2}$	$\hat{3}$	$\hat{4}$	$\hat{5}$	$\hat{6}$	$\hat{7}$
type of seventh chord:	MM	mm	mm	MM	Mm	mm	dm
roman numeral:	I^7	ii^7	iii^7	IV^7	V^7	vi^7	$vii^{\circ 7}$

minor keys; scale degree:	$\hat{1}$	$\hat{2}$	$\hat{3}$	$\hat{4}$	$\hat{5}$	$\hat{6}$	$\flat\hat{7}$	$\hat{7}$
type of seventh chord:	mm	dm	MM	mm	Mm	MM	Mm	dd
roman numeral:	i^7	$ii^{\circ 7}$	III^7	iv^7	V^7	VI^7	VII^7	$vii^{\circ 7}$

Remember...

All 5 seventh chords have the corresponding scale degrees.

- The slash through the degree sign indicates half diminished.

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