

Chapter 5: Supplementary Lesson

In this lesson you will learn about qualities of seventh chords, natural seventh chords, inversions of seventh chords, and seventh chords in major and minor keys.

The previous lesson focused on the major-minor (dominant) seventh chord. This supplementary lesson gives a full account of seventh chords.

There are five kinds of seventh chords in common use (illustrated here with D as their root).

Full name:	Major-major	Major-minor	Minor-minor	Diminished-minor	Diminished-diminished
Common name:	Major	Dominant	Minor	Half-diminished	Fully diminished
Chord symbol:	D ^{maj7}	D ⁷	Dm ⁷	D ^{ø7}	D ^{°7}

Five kinds of seventh chords

Triad quality:	M	M	m	d	d
Seventh quality:	M	m	m	m	d

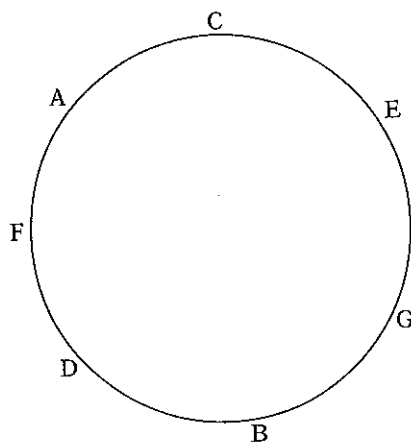
It is possible to write seven different seventh chords without any accidentals—these are the *natural seventh chords*.

Natural seventh chords

C^{maj7} Dm⁷ Em⁷ F^{maj7} G⁷ Am⁷ B⁷

All seventh chords involve these seven stacks of letter names: C-E-G-B, D-F-A-C, E-G-B-D, F-A-C-E, G-B-D-F, A-C-E-G, and B-D-F-A. Adding accidentals will change the quality of these natural seventh chords.

The natural seventh chords can also be visualized around a circle of thirds: each natural seventh chord consists of four consecutive notes of the circle.



When talking about seventh chords within a key, Roman numerals with figured bass can be used either instead of or along with the system of alphabetic chord symbols. Just as with triads, the dominant and leading-tone seventh chords in minor are normally made by raising scale-degree $\hat{7}$.

Naming seventh chords in C major

Tonic	Supertonic	Mediant	Subdominant	Dominant	Submediant	Leading tone
I ⁷ C ^{major} 7 MM	ii ⁷ Dm ⁷ mm	iii ⁷ Em ⁷ mm	IV ⁷ F ^{major} 7 MM	V ⁷ G ⁷ Mm	vi ⁷ Am ⁷ mm	vii ^o 7 B ^{dim} 7 dm

Naming seventh chords in A minor

Tonic	Supertonic	Mediant	Subdominant	Dominant	Submediant	Leading tone
i ⁷ Am ⁷ mm	ii ^o 7 B ^{dim} 7 dm	III ⁷ C ^{major} 7 MM	iv ⁷ Dm ⁷ mm	V ⁷ E ⁷ Mm	VI ⁷ F ^{major} 7 MM	vii ^o 7 G# ^{dim} 7 dd

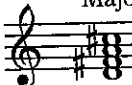
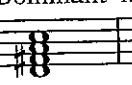

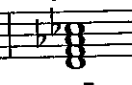


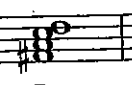
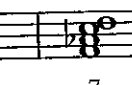
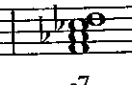


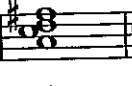
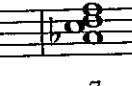
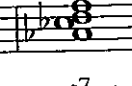



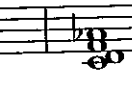
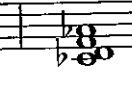
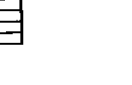
Any seventh chord can appear in inversion as well as root position. The figured bass works as follows: 7 for root position, $\frac{6}{5}$ for first inversion, $\frac{4}{3}$ for second inversion, and $\frac{2}{2}$ for third inversion. Here are the five kinds of seventh chords in all four positions with D as the root.

Figured bass

	Major	Dominant	Minor	Half-diminished	Fully-diminished
Root position					
First inversion					
Second inversion					
Third inversion					

Chord symbols are also useful for indicating inversion: the actual bass note is shown after a slash.

Chord symbols

	Major	Dominant	Minor	Half-diminished	Fully-diminished
Root position					
First inversion					
Second inversion					
Third inversion					

Chord symbols

Root position	D ^{maj7}	D ⁷	Dm ⁷	D ^{ø7}	D ^{°7}
First inversion	D ^{maj7} /F#	D ⁷ /F#	Dm ⁷ /F	D ^{ø7} /F	D ^{°7} /F
Second inversion	D ^{maj7} /A	D ⁷ /A	Dm ⁷ /A	D ^{ø7} /Ab	D ^{°7} /Ab
Third inversion	D ^{maj7} /C#	D ⁷ /C	Dm ⁷ /C	D ^{ø7} /C	D ^{°7} /Cb

All of these seventh chords and all of these inversions are not equally common in musical practice, although it is hard to generalize. For examples of seventh chords of different kinds in music, return to Exercises 27-6d and 28-4a. Both contain seventh chords that you were previously asked to disregard. Try to identify those seventh chords with the appropriate chord symbol.