SEVENTH CHORDS

Every triad can be extended by adding another third above the fifth of the chord. The resulting chord is known as a **seventh chord** since it contains the interval of a seventh above the bass.

QUALITIES:
Seventh chords will be of various qualities.

The quality of the seventh chord is designated by the quality of the triad and the quality of the seventh:

<table>
<thead>
<tr>
<th>SEVENTH CHORD</th>
<th>TRIAD</th>
<th>SEVENTH</th>
<th>EXAMPLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>major (M)</td>
<td>major</td>
<td>major</td>
<td><img src="image1" alt="Example" /></td>
</tr>
<tr>
<td>minor (m)</td>
<td>minor</td>
<td>minor</td>
<td><img src="image2" alt="Example" /></td>
</tr>
<tr>
<td>dominant (Mm)</td>
<td>major</td>
<td>minor</td>
<td><img src="image3" alt="Example" /></td>
</tr>
<tr>
<td>[fully] diminished (o)</td>
<td>diminished</td>
<td>diminished</td>
<td><img src="image4" alt="Example" /></td>
</tr>
</tbody>
</table>
The dominant seventh chord (the Mm seventh chord) is by far the most common seventh chord. The fully and half diminished seventh chords are the next most common chords.

\[
\begin{array}{|c|c|c|}
\hline
\text{half-diminished (O)} & \text{diminished} & \text{minor} \\
\hline
\text{augmented (A)} & \text{augmented} & \text{major} \\
\hline
\text{minor - major (mM)} & \text{minor} & \text{Major} \\
\hline
\end{array}
\]

INVERSIONS

Seventh chords can be inverted. A seventh chord is inverted if the bottom-most note, the bass, is not the root of the chord.

Since there are four notes (instead of 3 in a triad), there is a root position and first, second and third inversion of a seventh chord.

\[\text{Dominant 7} \quad \text{Major-minor} \]
\[\text{fully diminished} \quad \text{dim-dim} \]
\[\text{half diminished} \quad \text{dim-minor} \]

**ROOT POSITION:**

A seventh chord is said to be in root position when all the intervals are types of thirds.
Root position is designated simple by a 7, meaning there is a third, fifth and seventh above the bass. (The third and the fifth above the bass are understood in the Arabic numeral designation.)

**First Inversion:**
A seventh chord is said to be in first inversion if the third of the chord is in the bass (the bottom-most voice).

In first inversion, all seventh chords contain the intervals of a 3rd, 5th, and 6th. The shortened Arabic designation is \(6\ 5\ \frac{3}{5}\). The note a third above the bass is assumed to be present.

**Second Inversion:**
A seventh chord is said to be in second inversion if the fifth of the chord is in the bass (the bottom-most voice).

In second inversion, all seventh chords contain the intervals of a 3rd, 4th, and 6th. The shortened Arabic designation is \(4\ \frac{4}{3}\). The note a sixth above the bass is assumed to be present.
**THIRD INVERSION:**

A seventh chord is said to be in third inversion if the seventh of the chord is in the bass (the bottom-most voice).

In third inversion, all seventh chords contain the intervals of a 2nd, 4th, and 6th. The shortened Arabic designation is \(4\,2\). The note a sixth above the bass is assumed to be present.