

Chords (Four note chords)

7th chords

In the same way that triads are built by taking three alternate notes from a scale, major 7th, minor 7th, half-diminished (minor 7b5) and dominant 7th chords are built by taking four alternate notes from a scale. For example, the Bb major 7th chord (often written Bbmaj7 or Bb^Δ), contains the first, third, fifth and seventh notes of the Bb major scale:

Bb	C	D	Eb	F	G	A
↓		↓		↓		↓
Bb		D		F		A

Major 7th, minor 7th, Half-diminished and dominant 7th chords can be built by taking four alternate notes from the scale.

- The chord that is built on the first and fourth degrees of the major scale, by taking four alternate notes, is always a major seventh chord.
- The chord that is built on the first, fourth and fifth degrees of a natural minor scale, by taking four alternate notes, is always a minor 7th chord.
- The chord that is built on the seventh degree of the major scale, or the second degree of the natural minor, by taking four alternate notes, is always a half-diminished chord.
- The chord that is built on the fifth degree of the major scale, and seventh degree of the natural minor scale, by taking four alternate notes, is always the dominant 7th chord.

For example:

The chord that is built on the fifth degree of the Bb major scale is the F dominant 7th chord: F A C Eb

The chord that is built on the fifth degree of the D major scale is the A dominant 7th chord: A C# E G

Chord Symbols

The symbol for a **major** triad is the capital letter of the chord; so the symbol for the Bb major triad is *Bb*.

Although some musicians add 'maj', or 'ma', after the letter name this is not recommended; it is unnecessary to add any suffix to the major chord symbol.

The symbol for a **minor** triad is the capital letter of the chord, plus a lower case 'm'; so the symbol for the G minor triad is Gm.

Some musicians add 'min' or 'mi' after the letter name for extra clarity – which is acceptable. Other methods of writing the minor chord symbol, such as 'G-', are best avoided.

The symbol for a **diminished** triad is the capital letter of the chord, plus °; so the chord symbol for the B diminished triad is B°.

If preferred, diminished triads can also be written like this: Bdim.

The symbol for an **augmented** triad is the capital letter of the chord, plus +; so the chord symbol for the A augmented triad is A+.

If preferred, augmented triads can also be written like this: Aaug.

The symbol for a **major 7th** chord is the capital letter of the chord, plus 'maj7'; so the symbol for the Bb major 7th chord is Bbmaj7.

Major 7th chords are sometimes also written like this: BbM7, Bbma7, Bb^A or Bb^A7. Although these methods are in current usage, the suffix 'maj7' is preferable, as this is the clearest and most commonly used symbol for a major 7th chord.

The symbol for a **minor 7th** chord is the capital letter plus 'm7'; so the symbol for the G minor 7th chord is Gm7.

Some musicians add 'min7' or 'mi7' after the letter name for extra clarity – which is acceptable. Other methods of writing the minor chord symbol, such as 'G-7', are best avoided.

The symbol for a half-diminished is the capital letter plus m7b5; so the symbol for E minor half-diminished is Em7b5.

Half-diminished chords are sometimes also written like this: E^ø, F-7b5, Cmi7b5, Cmin7b5. Although these methods are in current usage, the suffix 'm7b5' is preferable, as this is the clearest and most commonly used symbol for a minor 7th (with a flattened fifth) chord.

The symbol for a **dominant 7th** chord is the capital letter, plus '7'; so the chord symbol for the G dominant 7th chord is G7.

Some musicians add 'dom7' after the letter name, but this is rare and should be avoided to reduce confusion.

The symbol for an **augmented 7th** chord is the capital letter, plus '+7'; so the chord symbol for the F# augmented 7th chord is F#+7.

Some musicians add 'aug7' after the letter name, which is acceptable.

Scale Degrees

Major 7th Chords are numbered 1 3 5 7

This is because the intervals between the root and third, fifth and seventh notes in a major 7th chord are exactly the same as between the tonic and the third, fifth and seventh notes of the major scale.

All other chord types are numbered in comparison to the major 7th chord (or major scale).

Minor 7th chords are numbered 1 b3 5 b7

*Notice that minor triads (1 b3 5) and minor 7th chords, have a flattened (i.e. **minor**) **third** interval, and a **perfect fifth** interval. Minor 7th chords also have a **flattened** (i.e. **minor**) **seventh** interval.*

Half-diminished chords are numbered 1 b3 b5 b7

*Notice that diminished triads (1 b3 b5) and half-diminished chords, have a flattened (i.e. **minor**) **third** interval, and a flattened (i.e. **diminished**) **fifth***

interval. Half-diminished chords also have a **flattened** (i.e. **minor**) **seventh** interval.

Diminished 7th chords are numbered **1 b3 b5 bb7**

Notice that diminished seventh triads have a **flattened** (i.e. **minor**) **third** interval. Also the interval between the root and the fifth is a semitone smaller than the corresponding interval in a major or minor triad. This type of interval is known as a **diminished fifth** (or **flattened fifth**) interval. It also has a **diminished seventh** (or **double flattened seventh**) interval.

Note that an interval that is one semitone smaller than a major interval is known as a minor or flattened interval, whereas an interval that is one semitone smaller than a perfect interval is known as a diminished (or 'flattened') interval.

There follows a brief explanation as to why the minor triad, minor 7th chord, dominant 7th chord and diminished triad are numbered as they are. If you choose to do the exam, you will only be asked to identify or write out the chord spelling, and give the names of the intervals between the root and the chord tones of the chord types listed.

Any chord which contains a flattened (i.e. minor or diminished) interval, has a flat sign before the number in the chord spelling. This is because the interval is one semitone (half step), smaller than the corresponding interval in a major chord or scale.

For example, between D and F# (root and 3rd in Dmaj7), there are four semitones, whilst between D and F (root and 3rd in Dm7), there are only three half steps. Consequently, the third in a minor, diminished or minor 7th chord is called a minor or *flattened* third (b3). For similar reasons the seventh in a dominant 7th or minor 7th chord is called a minor 7th or *flattened* 7th (b7) and the fifth in a diminished triad is called a diminished 5th or *flattened* 5th (b5).

Dominant 7th chords are numbered **1 3 5 b7**

Notice that the dominant 7th chord has a **major third** interval, a **perfect fifth** interval and a **flattened** (i.e. **minor**) **seventh** interval.

Augmented 7th chords are numbered **1 3 #5 b7**

Notice that the augmented 7th chord has a **major third** interval, an **augmented fifth** interval and a **flattened** (i.e. **minor**) **seventh** interval.

Comparing chords

You can use your knowledge of major chords and chord spellings to work out the notes contained in all other chords. For example, by knowing which notes are contained in the D major triad and Dmaj7 chords it is possible to work out which notes are contained in the D minor triad, D diminished triad and so on:

Major triad: D	1	3	5	
	D	F#	A	
Minor triad: Dm	1	b3	5	
	D	F	A	
Diminished triad: D ^o	1	b3	b5	
	D	F	Ab	
Augmented triad: D+	1	3	#5	
	D	F#	A#	
Major 7 th chord: Dmaj7	1	3	5	7
	D	F#	A	C#
Minor 7 th chord: Dm7	1	b3	5	b7
	D	F	A	C
Minor 7 th flattened fifth chord: Dm7b5	1	b3	b5	b7
	D	F	Ab	C
Diminished 7 th chord: D ^o 7	1	b3	b5	bb7
	D	F	Ab	Cb
Dominant 7 th chord: D7	1	3	5	b7
	D	F#	A	C
Augmented 7 th chord: D+7	1	3	#5	b7
	D	F#	A#	C

Alternatively, chords can also be compared directly with each other (without reference to the major 7th chord). For example:

- A diminished triad only differs from a minor triad in that the fifth is a diminished (flattened), not perfect fifth interval from the root.
- A minor 7th chord only differs from a dominant 7th in that the third is a minor, not a major third interval from the root.
- A dominant 7th chord only differs from a major 7th chord in that the seventh is a minor (flattened), not a major 7th interval from the root.