

## MAJOR KEY SIGNATURES

C major has no sharps or flats in its key signature

G major:	F#	F major:	Bb
D major:	F#, C#	Bb major:	Bb, Eb
A major:	F#, C#, G#	Eb major:	Bb, Eb, Ab
E major:	F#, C#, G#, D#	Ab major:	Bb, Eb, Ab, Db
B major:	F#, C#, G#, D#, A#	Db major:	Bb, Eb, Ab, Db, Gb
F# major:	F#, C#, G#, D#, A#, E#	Gb major:	Bb, Eb, Ab, Db, Gb, Cb
C# major:	F#, C#, G#, D#, A#, E#, B#	Cb major:	Bb, Eb, Ab, Db, Gb, Cb, Fb

## MINOR KEY SIGNATURES

A minor has no sharps or flats in its key signature

E minor:	F#	D minor:	Bb
B minor:	F#, C#	G minor:	Bb, Eb
F# minor:	F#, C#, G#	C minor:	Bb, Eb, Ab
C# minor:	F#, C#, G#, D#	F minor:	Bb, Eb, Ab, Db
G# minor:	F#, C#, G#, D#, A#	Bb minor:	Bb, Eb, Ab, Db, Gb
D# minor:	F#, C#, G#, D#, A#, E#	Eb minor:	Bb, Eb, Ab, Db, Gb, Cb
A# minor:	F#, C#, G#, D#, A#, E#, B#	Ab minor:	Bb, Eb, Ab, Db, Gb, Cb, Fb

## MODES

Mode	Shortcut	Example with C tonic
Ionian:	Major scale	C-D-E-F-G-A-B-C
Dorian:	Minor scale with raised SD 6	C-D-Eb-F-G-A-Bb-C
Phrygian:	Minor scale with lowered SD 2	C-Db-Eb-F-G-Ab-Bb-C
Lydian:	Major scale with raised SD 4	C-D-E-F#-G-A-B-C
Mixolydian:	Major scale with lowered SD 7	C-D-E-F-G-A-Bb-C
Aeolian:	Minor scale	C-D-Eb-F-G-Ab-Bb-C
Locrian:	Minor scale with lowered SD 2 and SD 5	C-Db-Eb-F-Gb-Ab-Bb-C

## TRIADS

White Note Triads	Quality	Nashville Number in C major	Roman Numeral in C major
C-E-G	Major	1	I
D-F-A	Minor	2m	ii
E-G-B	Minor	3m	iii
F-A-C	Major	4	IV
G-B-D	Major	5	V
A-C-E	Minor	6m	vi
B-D-F	Diminished	7 <sup>o</sup>	vii <sup>o</sup>

## INTERVALS

Half Step (HS) = smallest chromatic distance

Whole Step (WS) = two half steps

Interval	Abbr.	Formula	White note examples
Minor 2nd	m2	= HS, next letter	BC – EF
Major 2nd	M2	= WS, next letter	CD – DE – FG – GA
Augmented 2nd	A2	= WS + HS, next letter	none
Minor 3rd	m3	= WS + HS, skip a letter	AC – BD – DF – EG
Major 3rd	M3	= WS + WS, skip a letter	CE – FA – GB
Perfect 4th	P4	= accidentals match, except for FB	AD – BE – CF – DG – EA – GC
Augmented 4th	A4	= P4 + HS (no letter change)	FB
Diminished 5th	d5	= P5 – HS (no letter change)	BF
Perfect 5th	P5	= accidentals match, except for BF	AE – CG – DA – EB – FC – GD
Augmented 5th	A5	= P5 + HS (no letter change)	none
Minor 6th	m6	= P5 + m2	AF – BG – EC
Major 6th	M6	= P5 + M2	CA – DB – FD – GE
Diminished 7th	d7	= P8 – A2	none
Minor 7th	m7	= P8 – M2	AG – BA – DC – ED – GF
Major 7th	M7	= P8 – m2	CB – FE
Perfect 8th	P8	= same note, just octave higher	all
Minor 9th	m9	= P8 + m2	see m2 list
Major 9th	M9	= P8 + M2	see M2 list
Perfect 11th	P11	= P8 + P4	see P4 list
Major 13th	M13	= P8 + M6	see M6 list

## CHORDS

**Major Key:** 1 2m 3m 4 5 6m 7<sup>o</sup>

**Minor Key:** 1m 2<sup>o</sup> b3 4m 5m b6 b7

Chord name	Intervals above root	Example	Notes in example
Power chord	P5	C5	C G
Major	M3, P5	C	C E G
Minor	m3, P5	C–	C E <sup>b</sup> G
Diminished	m3, d5	C <sup>o</sup>	C E <sup>b</sup> G <sup>b</sup>
Augmented	M3, A5	C+	C E G <sup>#</sup>
Suspended fourth	P4, P5	C4	C F G
Major sixth	M3, P5, M6	C6	C E G A
Minor sixth	m3, P5, M6	C–6	C E <sup>b</sup> G A
Major added ninth	M3, P5, M9	C2	C E G D
Major seventh	M3, P5, M7	C <sup>Δ</sup> 7	C E G B
Minor seventh	m3, P5, m7	C–7	C E <sup>b</sup> G B <sup>b</sup>
Dominant seventh	M3, P5, m7	C7	C E G B <sup>b</sup>
Fully diminished seventh	m3, d5, d7	C <sup>o</sup> 7	C E <sup>b</sup> G <sup>b</sup> B <sup>bb</sup>
Half diminished seventh	m3, d5, m7	C <sup>ø</sup> 7	C E <sup>b</sup> G <sup>b</sup> B <sup>b</sup>
Major ninth	M3, P5, M7, M9	C <sup>Δ</sup> 9	C E G B D
Minor ninth	m3, P5, m7, M9	C–9	C E <sup>b</sup> G B <sup>b</sup> D
Dominant ninth	M3, P5, m7, M9	C9	C E G B <sup>b</sup> D