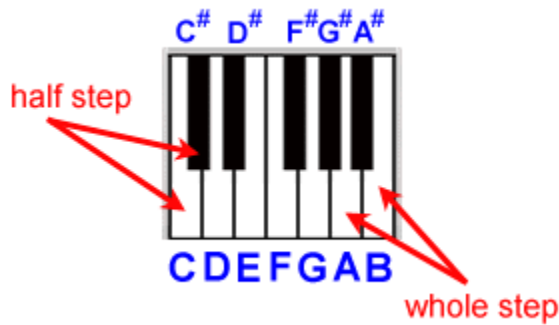


Music Theory

Music consists of melody rhythm and sometimes harmony. This book only really shows you the chords or harmony to the songs. It is assumed that you know the melody and basic rhythm to the songs.

Scales



Scales are a series of different notes that start on a root note and end on the same root note an octave higher or lower. They are built using a series of intervals. To the left you can see that the interval from one key to the next is called a Half Step. On a guitar or ukulele a half step is the interval from one fret to the next.

Major Scale: A major scale is built by half and whole step jumps from the root note. The pattern is: Whole, Whole, Half, Whole, Whole, Whole, Half

W W 1/2 W W W 1/2

Natural Minor or Minor: The natural minor scale pattern is: Whole, Half, Whole, Whole, Half, Whole, Whole

W 1/2 W W 1/2 W W

Harmonic Minor: The harmonic minor scale pattern is: Whole, Half, Whole, Whole, Half, Whole+Half, Half

W 1/2 W W 1/2 W+1/2 1/2

Melodic Minor: The melodic minor scale has a different pattern depending upon whether you are ascending or descending.

Ascending pattern: Whole, Half, Whole, Whole, Whole, Whole, Half

Descending pattern: Whole, Whole, Half, Whole, Whole, Half, Whole

W 1/2 W W W W 1/2

W W 1/2 W W 1/2 W

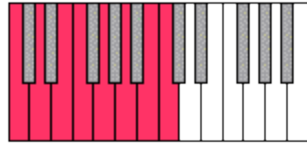
Pentatonic: A pentatonic scale is a five note scale.

W W+1/2 W W

W W W+1/2 W

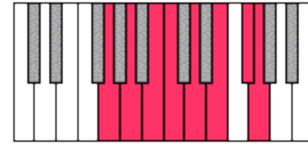
Major Scales On Piano

C



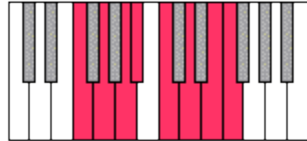
No sharps or flats.

G



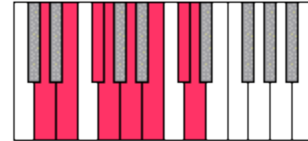
One sharp.

F



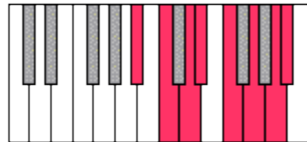
One flat.

D



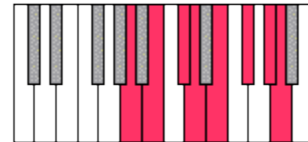
Two sharps.

Bb



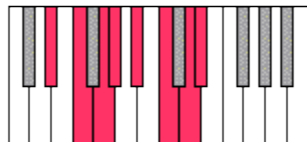
Two flats.

A



Three sharps.

Eb



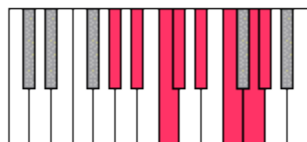
Three flats.

E



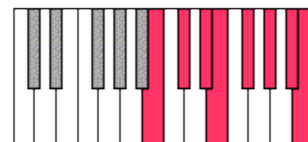
Four sharps.

Ab



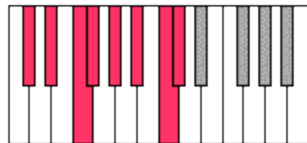
Four flats.

B



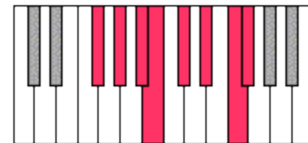
Five sharps - these same notes can be written as Cb, seven flats.

Db



Five flats - these same notes can be written as C#, seven sharps.

Gb



Six flats - these same notes can be written as F#, six sharps.

Keys

A key is the name given to a scale of notes. It is generally named after the root note and the type of scale. Scales starting on the root note of C may be major or minor. There are different scales, but 99.999% of all rock is in either a major or minor key. If a song is written using the scale of C major it is said to be in the key of C. If the scale used is minor then it is said to be written in C minor. Since it would be really cluttered and hard to read all of the sharp and flat modifiers to the notes for each key, musicians place a key signature at the beginning of each staff in sheet music.

Musical notation showing the first eight major keys. Each key is represented by a two-staff system (treble and bass clefs) with a key signature of sharps. The keys are: C Major, G Major, D Major, A Major, E Major, B Major, F# Major, and C# Major.

Musical notation showing the last seven major keys. Each key is represented by a two-staff system (treble and bass clefs) with a key signature of flats. The keys are: F Major, Bb Major, Eb Major, Ab Major, Db Major, Gb Major, and Cb Major.

Equivalent Minor Keys

Musical notation showing the first eight equivalent minor keys. Each key is represented by a two-staff system (treble and bass clefs) with a key signature of sharps. The keys are: a minor, e minor, b minor, f# minor, c# minor, g# minor, d# minor, and a# minor.

Musical notation showing the last seven equivalent minor keys. Each key is represented by a two-staff system (treble and bass clefs) with a key signature of flats. The keys are: d minor, g minor, c minor, f minor, bb minor, eb minor, and ab minor.

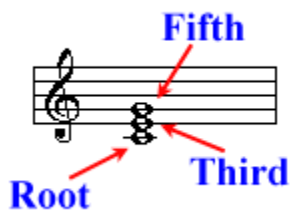
Chords

Chords are built using the notes of a key. A key consists of a scale of notes originating at a root note. For example the key of C major starts at the note C and includes the notes D, E, F, G, A and B coming back again to C. Chords consist of two or more notes played together. There are endless varieties of chords, but we will only be talking about chords with two to five different notes.

Triads: Triads are chords that consist of three notes. The main chords within a key are built upon a series of triads. Here is an example using the notes of the key of C Major or the scale of C Major: C - D - E - F - G - A - B - C - D ...

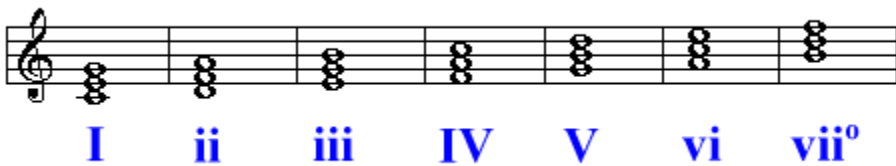
If we build chords in this key by starting with a root note, followed by a note a third above it within the scale, then add another note a fifth above the root note within the scale we will get the following chords:

	Chord	Notes in the Key of C Major that make up the chord
I	C Major	C - E - G
ii	D Minor	D - F - A
iii	E Minor	E - G - B
IV	F Major	F - A - C
V	G Major	G - B - D
vi	A Minor	A - C - E
vii-	B Diminished	B - D - F



To the left is an example of a C major triad. Here it shows the root note: C, then the next note a third above C which is E, then the next note a fifth above C which is G.

Below shows the chords in the key of C. Upper case roman numerals represent major chords, lower case represent minor chords.



A major chord with a flattened third becomes a minor chord.

Suspended Triads: A suspended triad is a triad where the middle note has been raised by a half step or lowered by a whole step. With C major a suspended 2nd is built with C, D and G. A suspended 4th is built with C, F and G.

Sevenths: A seventh is a triad that has an added note that is a seventh above the root. There are two different types of seventh chords, a dominant seventh and a major seventh. A dominant seventh is built by adding a minor seventh to a major triad. In the case of C7 the added note is Bb. So the chord is: C - E - G - Bb
A major seventh is built by adding a major seventh to a major triad. In the case of CM7 the added note is B. So the chord is: C - E - G - B.

Sixths: A sixth is a triad that has an added note that is a sixth above the root. In the case of C6 the added note is A. So the chord is: C - E - G - A

Ninths: A ninth is a triad that has an added note that is a ninth above the root. In the case of C9 the added note is D. You may note that this seems almost the same as a suspended second. The difference is that a ninth is built on a dominant seventh and not a major triad. So the chord is: C - E - G - Bb - D

Diminished: A diminished chord is a minor triad with its fifth note lowered by a half step. At right is an example. The chord consists of the notes: C - Eb - Gb



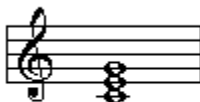
diminished

Augmented: An augmented chord is a major triad with its fifth note raised by a half step. At right is an example. The chord consists of the notes: C - E - G#



augmented

Chord Inversions: A chord inversion is when you change the voicing of the chord. Below are examples of triad inversions. Notice the note names stay the same, but the position changes.



Root



1st Inversion



2nd Inversion

Capo Chart

The following is used when you come across a song written in a key that requires you to use all barre chords to play it. The chart shows the fret that the capo will be applied to on the left. Fret zero represents the open chord to be played with the capo. For example if I capo at fret two and you play an open C chord I will be playing a D. For example when ever I see something written in Eb major or it's relative minor, C minor, I look to see if it would be easier to play with a capo on the third fret. That would change the chord voicing to that of the key of C. Here is an example: The song "How Deep Is Your Love" by the Bee Gees is written in the key of Eb. The progression is as follows:

Eb Gm7 Fm7 C7 Fm7 C7 Ab6...

In this case fret row three looks like a good fit. So now I just convert all chords in fret row three to fret row one. So Eb becomes C, Gm7 becomes Em7, Fm7 becomes Dm7, C7 becomes A7 and Ab6 becomes F6. So the following:

Eb Gm7 Fm7 C7 Fm7 C7 Ab6...

Can be played using the following chords with a capo on the third fret:

C Em7 Dm7 A7 Dm7 A7 F6

Capo Chart							
Fret							
0	C	A	G	E	D	F	B7
1	C# / Db	A# / Bb	G# / Ab	F	D# / Eb	F# / Gb	C7
2	D	B	A	F# / Gb	E	G	C#7 / Db7
3	D# / Eb	C	A# / Bb	G	F	G# / Ab	D7
4	E	C# / Db	B	G# / Ab	F# / Gb	A	D#7 / Eb7
5	F	D	C	A	G	A# / Bb	E
6	F# / Gb	D# / Eb	C# / Db	A# / Bb	G# / Ab	B	E7
7	G	E	D	B	A	C	F7
8	G# / Ab	F	D# / Eb	C	A# / Bb	C# / Db	F#7 / Gb7
9	A	F# / Gb	E	C# / Db	B	D	G7

Transposing

Transposing is when you change the key of a song to another key. This is usually done to make it easier to sing. To transpose a song first find the key of the song, then find a key to transpose to. For example if I have a song written in the key of D and I want to change it to C and the chord progression is:

D - G - D - G - A - Bm....

I look up the chords in the D row and follow them up to the C row so that D becomes C, G becomes F, A becomes G, and Bm becomes Am.

D - G - D - G - A - Bm.... Becomes: C - F - C - F - G - Am....

Transposition Chart									
Key	I	ii	iii	IV	V	vi	vii-	Key Signature	
A	A	Bm	C#m	D	E	F#m	G#dim	2	#
Bb	Bb	Cm	Dm	Eb	F	Gm	Adim	2	b
B	B	C#m	D#m	E	F#	G#m	A#dim	5	#
C	C	Dm	Em	F	G	Am	Bdim	0	# or b
Db	Db	Ebm	Fm	Gb	Ab	Bbm	Cdim	5	b
D	D	Em	F#m	G	A	Bm	C#dim	2	#
Eb	Eb	Fm	Gm	Ab	Bb	Cm	Ddim	3	b
E	E	F#m	G#m	A	B	C#m	D#dim	4	#
F	F	Gm	Am	Bb	C	Dm	Edim	1	b
F#	F#	G#m	A#m	B	C#	D#m	E#dim	6	# or b
Gb	Gb	Abm	Bbm	Cb	Db	Ebm	Fdim		
G	G	Am	Bm	C	D	Em	F#dim	1	#
Ab	Ab	Bbm	Cm	Db	Eb	Fm	Gdim	4	b

If you transpose the chords to the roman numerals then you can easily try different keys to see what worked best. Using the previous chord progression in the key of D

D - G - D - G - A - Bm.... Becomes: I - IV - I - IV - V - vi....

Now I can easily transpose to any other key

I - IV - I - IV - V - vi....

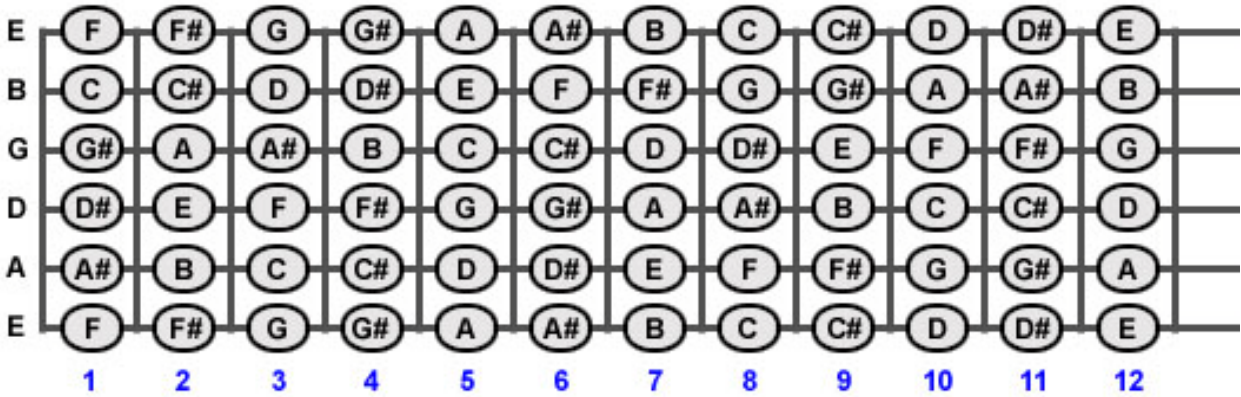
A - D - A - D - E - F#m....

C - F - C - F - G - Am....

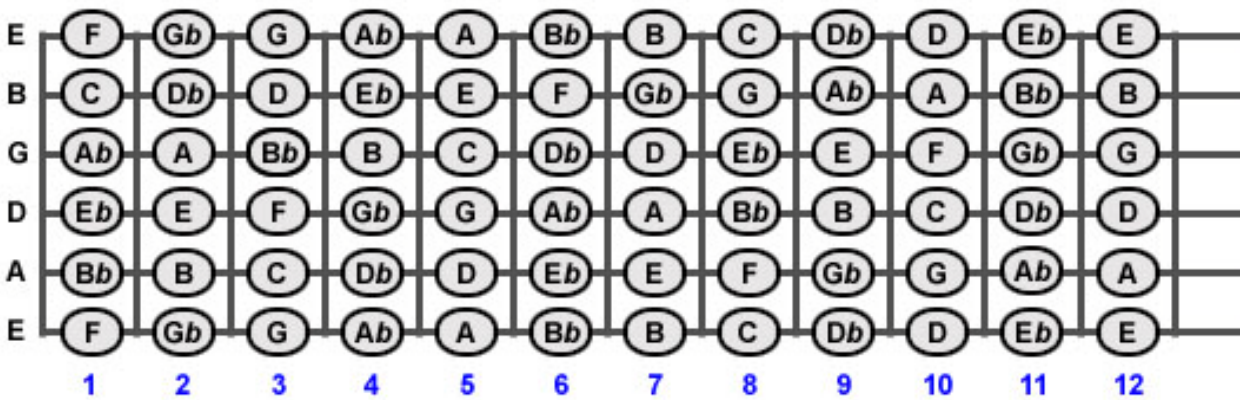
E - A - E - A - B - C#m....

G - C - G - C - D - Em....

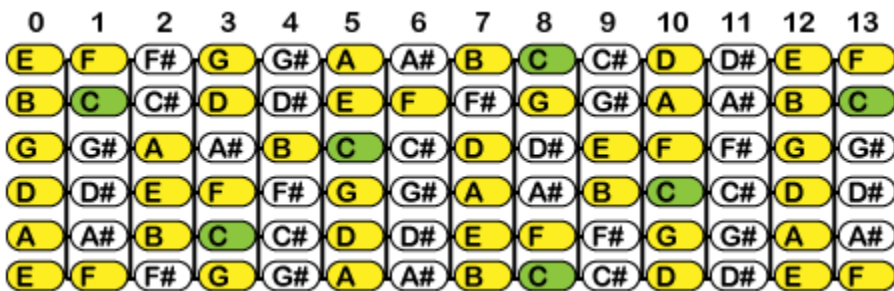
Guitar Fretboard Notes with sharps:



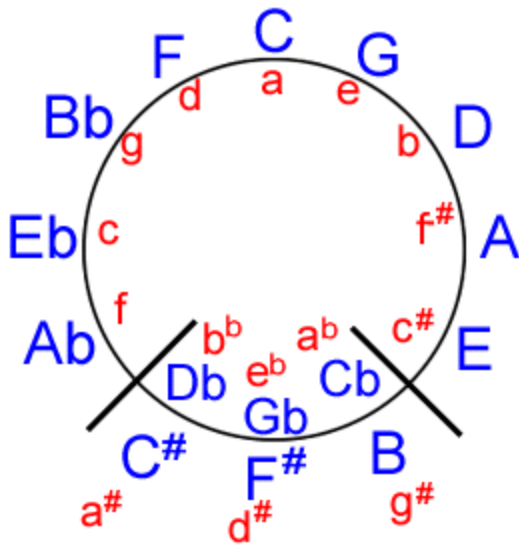
Guitar Fretboard Notes with flats:



Sample fretboard with C Major notes highlighted:



Circle of 5^{ths}



The Circle Of 5ths is a relationship between all of the keys. There are some interesting things to note. C is at the top and has no sharps or flats, G to the right has one sharp and F to the left has one flat. This continues on so that Eb has three flats and E has four sharps. As you approach the bottom you run into equivalent keys like C# and Db.

There is another relationship involving dominant 7ths. If I play a D7 the next chord it pulls to is the chord to the left on the wheel which is G. Play a G7 and it wants to go to C, C7 wants to go to F, F7 to Bb, and on and on.

Ukulele Fretboard:

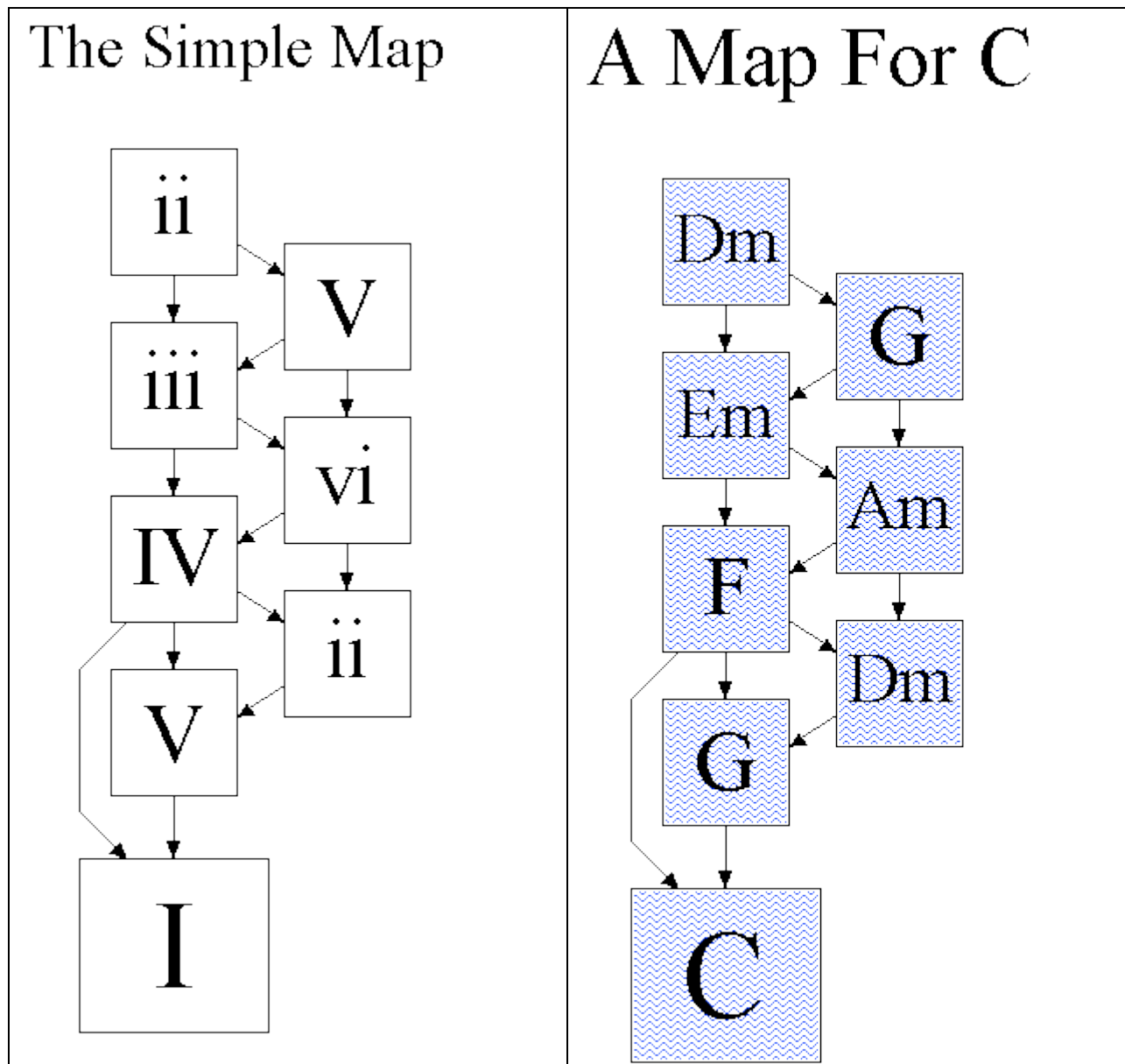
	0	1	2	3	4	5	6	7	8	9	10	11	12	13
A	A	A#	B	C	C#	D	D#	E	F	F#	G	G#	A	A#
E	E	F	F#	G	G#	A	A#	B	C	C#	D	D#	E	F
C	C	C#	D	D#	E	F	F#	G	G#	A	A#	B	C	C#
G	G	G#	A	A#	B	C	C#	D	D#	E	F	F#	G	G#

Sample fretboard with C Major notes highlighted:

	0	1	2	3	4	5	6	7	8	9	10	11	12	13
A	A	A#	B	C	C#	D	D#	E	F	F#	G	G#	A	A#
E	E	F	F#	G	G#	A	A#	B	C	C#	D	D#	E	F
C	C	C#	D	D#	E	F	F#	G	G#	A	A#	B	C	C#
G	G	G#	A	A#	B	C	C#	D	D#	E	F	F#	G	G#

Chord Progressions: The following charts represent a general guideline for song chord progression. The way it works is you start out at the root from which you can jump anywhere, then follow a path back to the root. The following shows a general solution and a specific map for the key of C. These are not rules, just guidelines to progressions that tend to sound good. An example would be: C - Em - F - G - C

The purpose of this is to give you a guide to play around with.



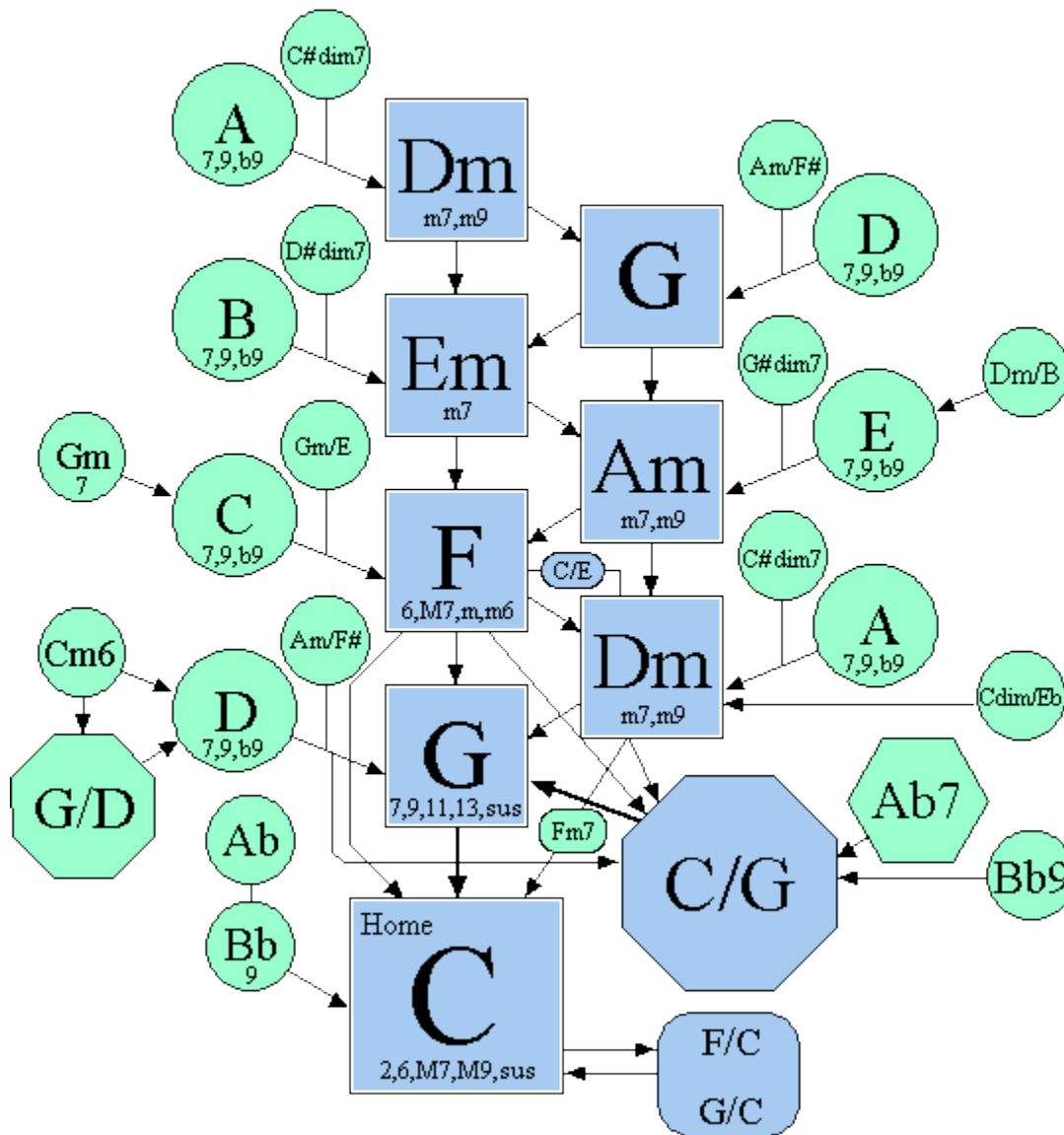
Another might be: C - Em - Am - Dm - G - C

As I said these are not rules just guidelines to play with. Using the roman numeral chart and the transposition chart you can recreate a chart for any key.

The following is a much more detailed map with lots of new options for interesting transitions. Use the green balloons as transitional chords to go to before going to a main key chord. For example: **C - C#dim7 - Dm**

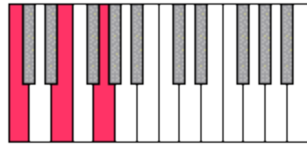
A Progression Map For C

(The expression X/Y means play chord X with bass note Y)



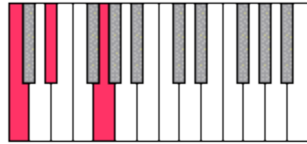
Chords For Piano In Key Of C:

C



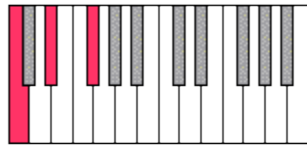
Major chord from which the others are derived.

Cm



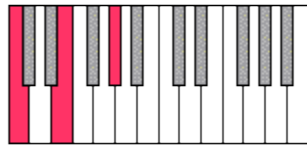
Minor - note 3 is flat.

Cdim



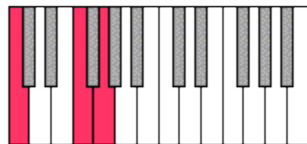
Diminished - notes 3 and 5 are flat.

Caug



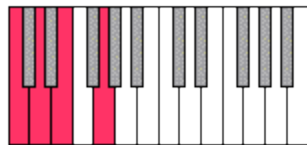
Augmented - note 5 is sharp.

Csus



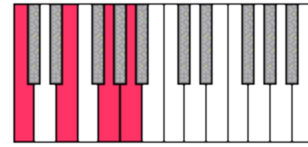
Suspended - note 3 is replaced by note 4.

C2



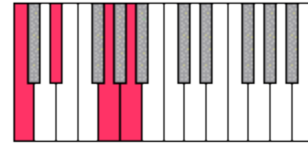
Add 2.

C6



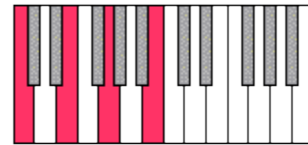
Major 6 - adds note 6.

Cm6



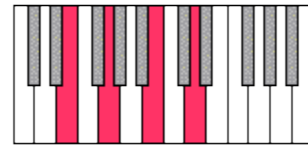
Minor 6 - note 3 flat, add 6.

CM7



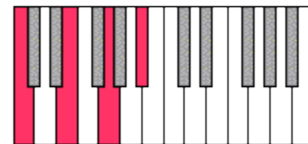
Major 7 - add note 7.

CM9



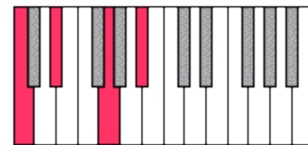
Major 9 - Note 1 is omitted. Left hand plays it in the bass.

C7



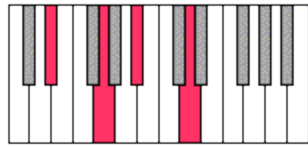
Dominant 7 - called 7 for short. The 7th note of the scale is flat.

Cm7



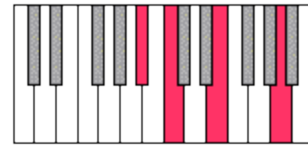
Minor 7 - minor chord with flat 7 added.

Cm9



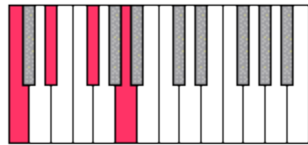
Minor 9 - play note 1 in bass.

C13



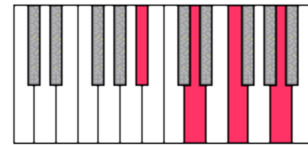
Thirteen - when a flat 7 is in the chord, note 6 is called 13.

Cdim7



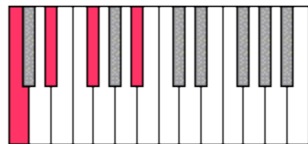
Diminished 7 - the note that looks like 6 is actually a double flatted 7.

C13



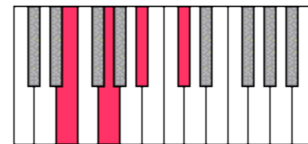
Thirteen - this variation has a flat 7, a 9, and an 11.

Cm7b5



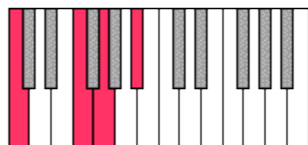
Minor 7 Flat 5 - this has also been called half-diminished 7.

C7b9



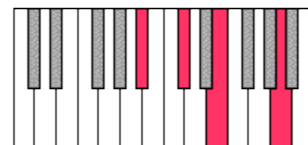
Flat 9 - interesting chord - adds tension and color.

C7sus



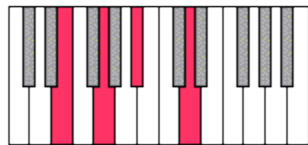
7 Suspended - flat 7, with note 3 replaced by note 4.

C13b9



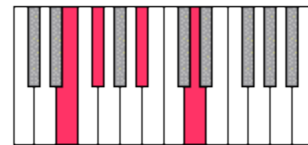
Thirteen Flat 9 - adds the flat nine.

C9



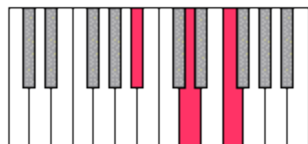
Nine - has a flat 7 in it. Note 1 is in the bass.

C9b5



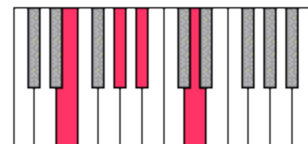
Nine Flat 5 - seventh chord with a 9 and a flat 5.

C11



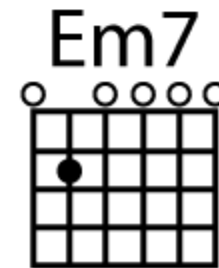
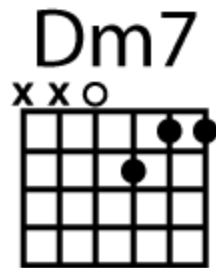
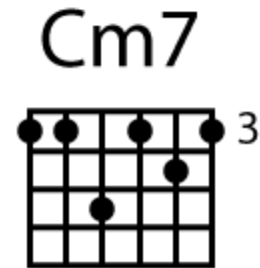
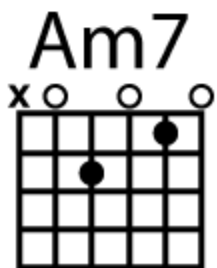
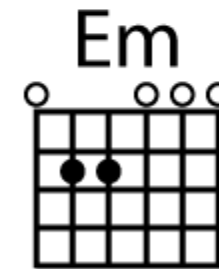
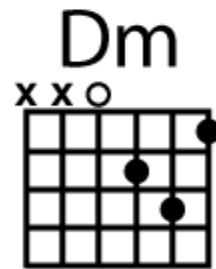
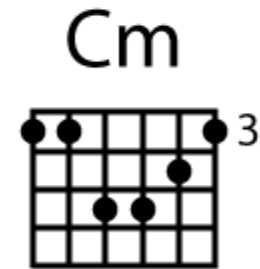
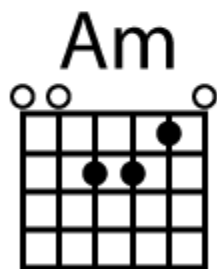
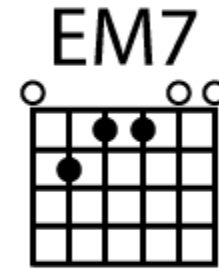
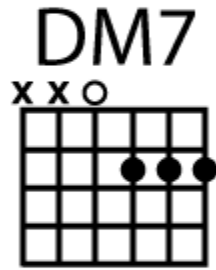
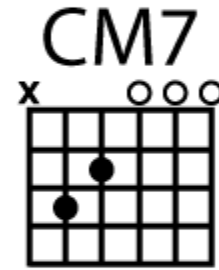
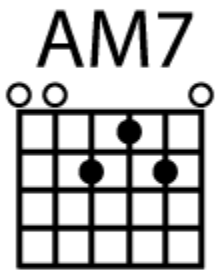
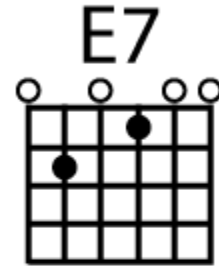
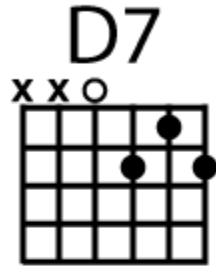
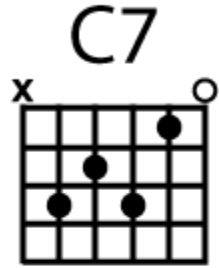
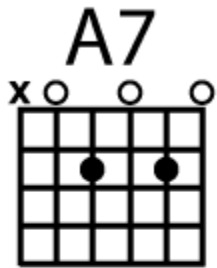
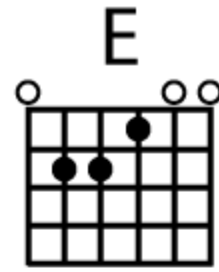
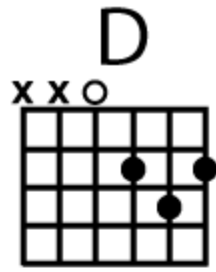
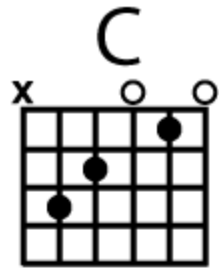
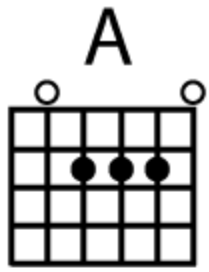
Eleven - note 1 in bass.

C9#5

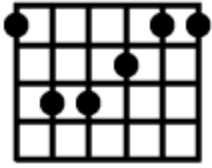


Nine Sharp 5 - seventh chord with a 9 and a sharp 5.

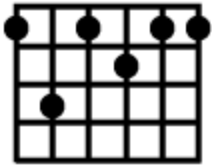
Guitar Chords



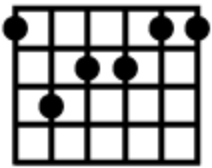
F



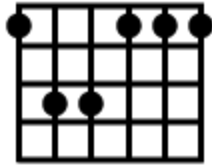
F7



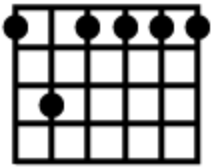
Fm7



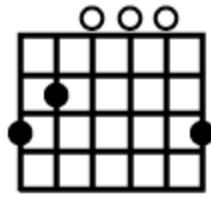
Fm



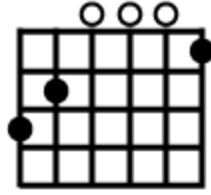
Fm7



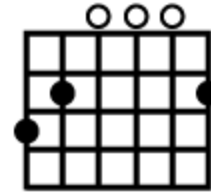
G



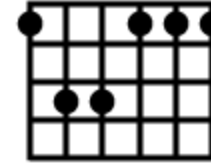
G7



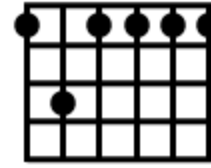
Gm7



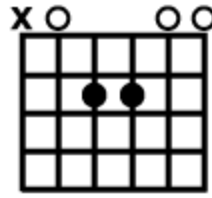
Gm



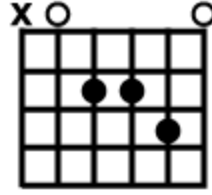
Gm7



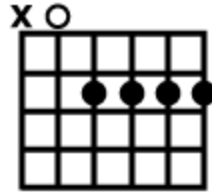
Asus2



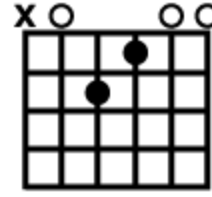
Asus4



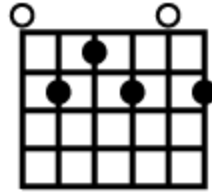
A6



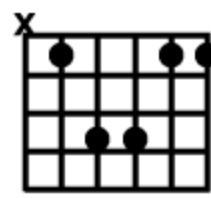
A9



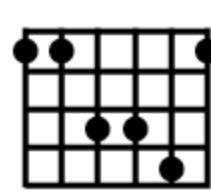
B7



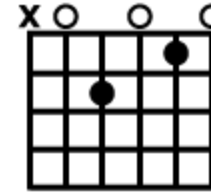
Csus2



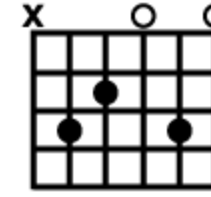
Csus4



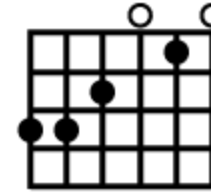
C6



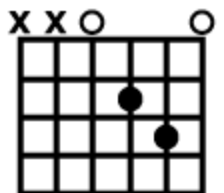
Cadd9



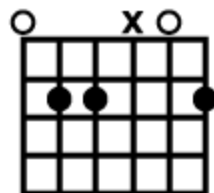
C/G



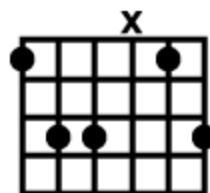
Dsus2



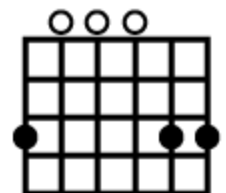
Esus2



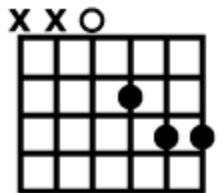
Fsus2



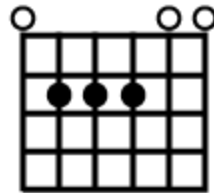
Gsus2



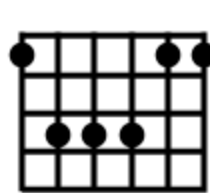
Dsus4



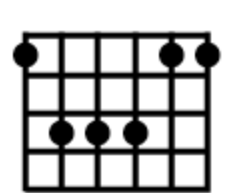
Esus4



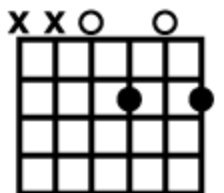
Fsus4



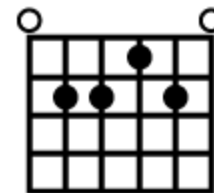
Gsus4



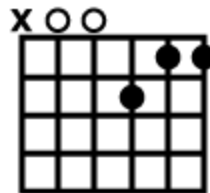
D6



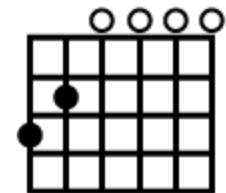
E6



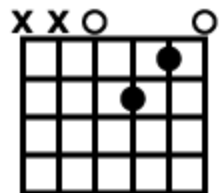
F6



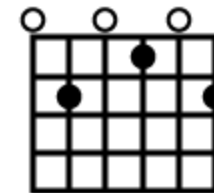
G6



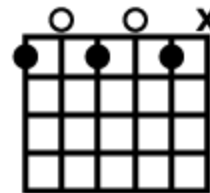
D9



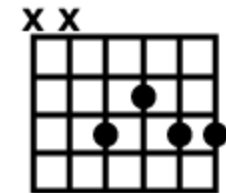
E9



F9



G9



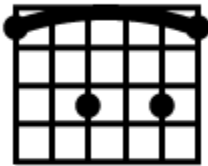
Barre Chords

Barre chords are variations of open chords where you use your index finger as a barre to act as the nut. To the left are the forms, to the right is the barre fret number and the chord it forms. For example to play a C Major, barre the 3rd fret and three frets in the 5th position.

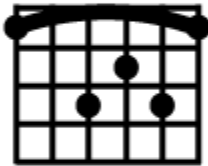
A Major Form



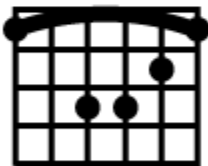
A7 Form



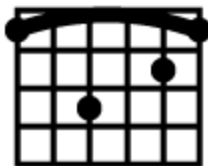
A Major 7 Form



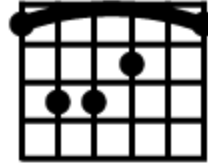
A Minor Form



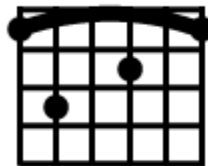
A Minor 7 Form



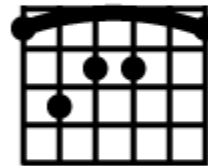
E Major Form



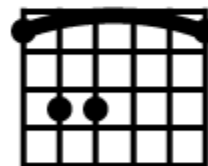
E7 Form



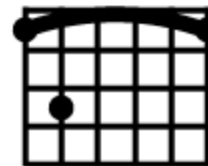
E Major 7 Form



E Minor Form



E Minor 7 Form



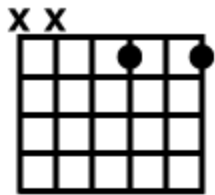
- 1 A#/Bb
- 2 B
- 3 C
- 4 C#/Db
- 5 D
- 6 D#/Eb
- 7 E
- 8 F
- 9 F#/Gb
- 10 G
- 11 G#/Ab
- 12 A

- 1 F
- 2 F#/Gb
- 3 G
- 4 G#/Ab
- 5 A
- 6 A#/Bb
- 7 B
- 8 C
- 9 C#/Db
- 10 D
- 11 D#/Eb
- 12 E

Diminished Sevenths

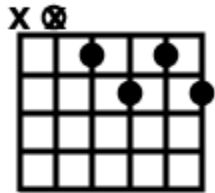
Diminished 7th chords are unique in that every note is equidistant from the other. So every chord can be an inversion of any note in the chord. Listed are diminished sevenths in the root position. To the left are inversions. Also shown are numbers of the forms from 5-10. Also shown is a triad progression with a diminished chord.

D^o7



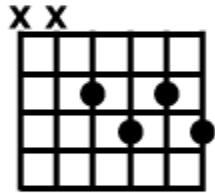
D
G#/Ab
B
F

D#^o7



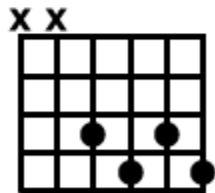
D#/Eb
A
C
F#/Gb

E^o7



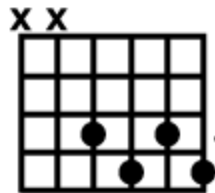
E
A#/Bb
C#/Db
G

F^o7



F
B
D
G#/Ab

F#^o7



F#/Gb
C
D#/Eb
A

5. G
C#/Db
E
A#/Bb

6. G#/Ab
D
F
B

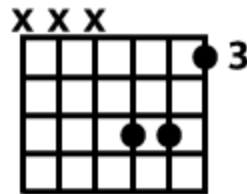
7. A
D#/Eb
F#/Gb
C

8. A#
E
G
C#/Db

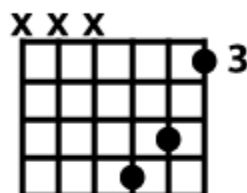
9. B
F
G#/Ab
D

10. C
F#/Gb
A
D#/Eb

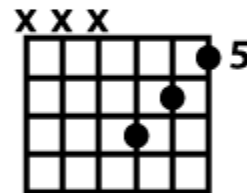
C



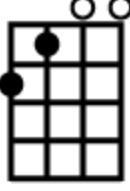
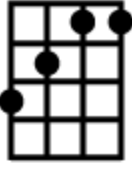
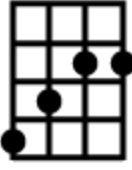
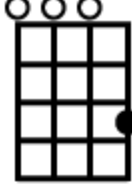
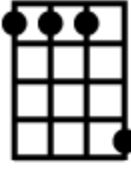
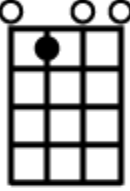
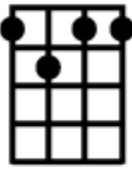
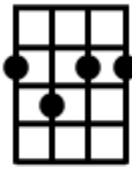
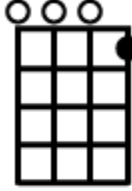
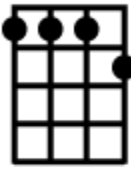
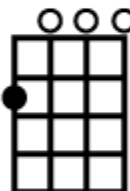
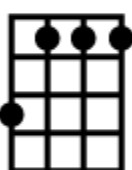
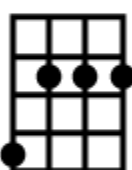
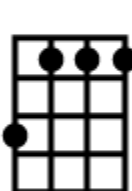
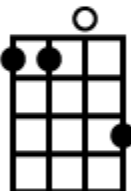
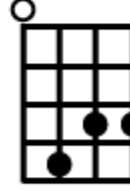
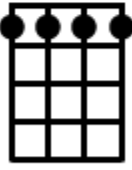
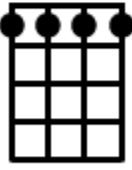
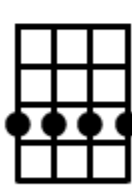
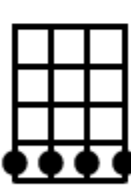
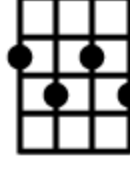
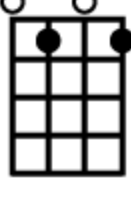
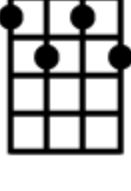
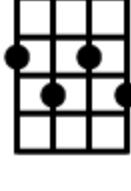
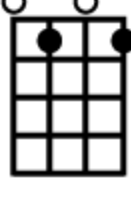
C#^o



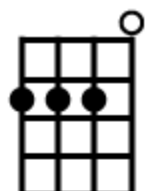
Dm



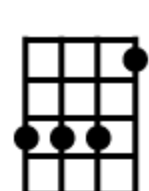
Ukulele Chords

A	A#	B	C	C#
				
A7	A#7	B7	C7	C#7
				
Am	A#m	Bm	Cm	C#m
				
Am7	A#m7	Bm7	Cm7	C#m7
				
A°	A#°	B°	C°	C#°
				

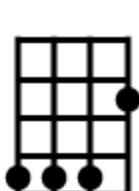
D



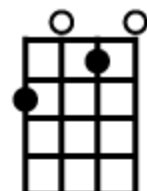
D#



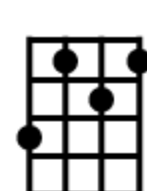
E



F



F#



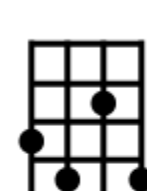
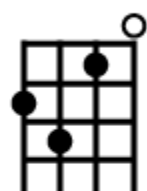
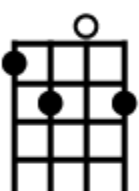
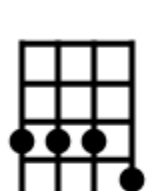
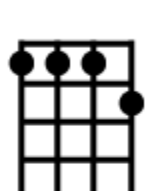
D7

D#7

E7

F7

F#7



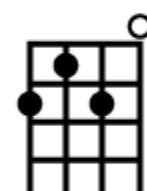
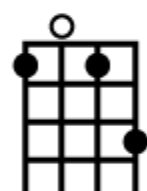
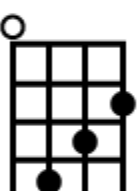
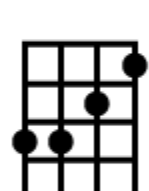
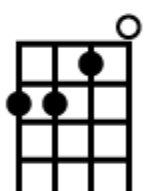
Dm

D#m

Em

Fm

F#m



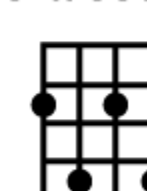
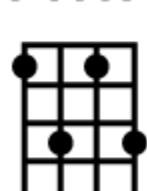
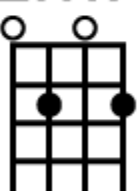
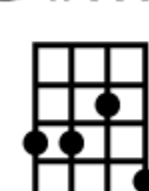
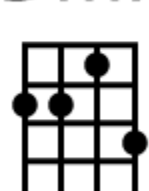
Dm7

D#m7

Em7

Fm7

F#m7



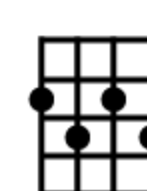
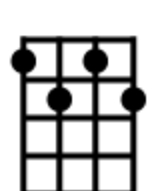
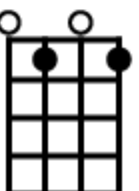
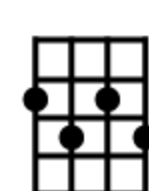
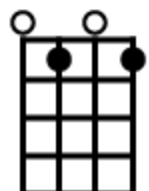
D°

D#°

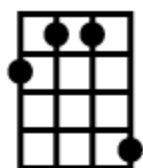
E°

F°

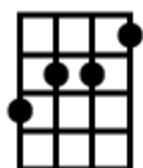
F#°



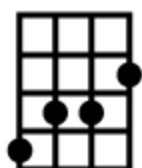
A⁺



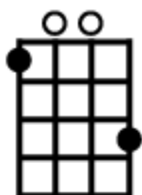
A#⁺



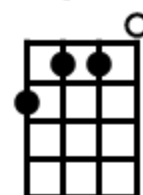
B⁺



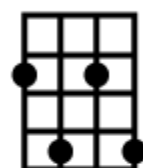
C⁺



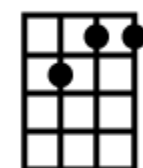
C#⁺



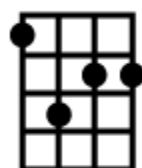
A6



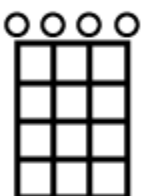
A#6



B6



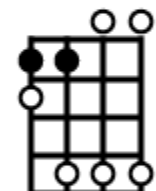
C6



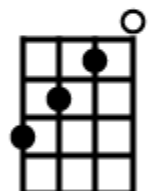
C#6



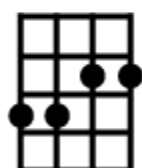
A^M7



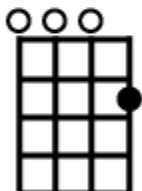
A#^M7



B^M7



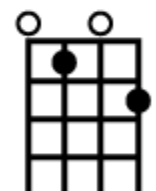
C^M7



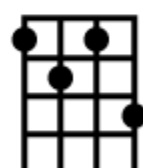
C#^M7



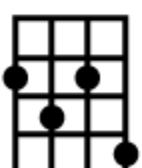
A9



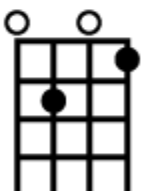
A#9



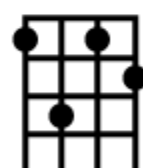
B9



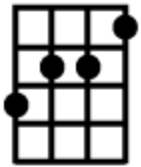
C9



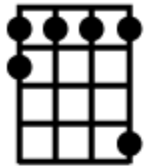
C#9



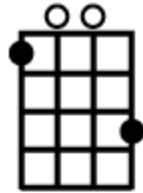
D⁺



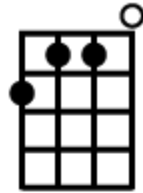
D^{#+}



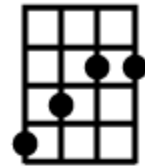
E⁺



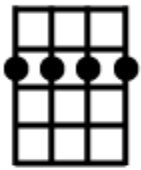
F⁺



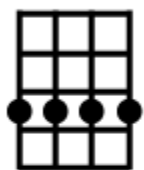
F^{#+}



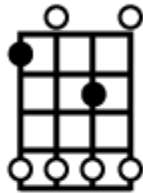
D6



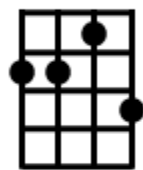
D[#]6



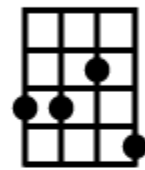
E6



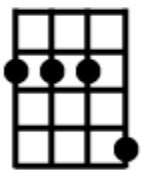
F6



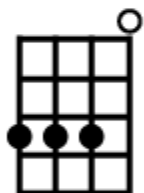
F[#]6



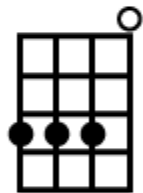
DM7



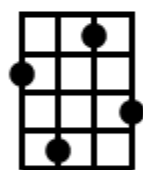
D[#]M7



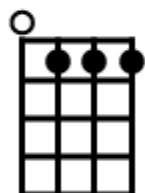
EM7



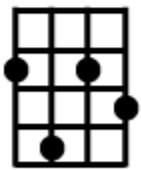
FM7



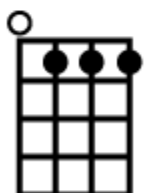
F[#]M7



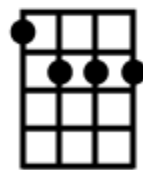
D9



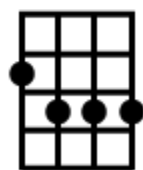
D[#]9



E9



F9



F[#]9

