

Understanding Jazz Chords on Guitar



Dennis C Merritt



*Nancy and Dennis made videos
using the chords in this book.
Take Five, above, and
The Girl from Ipanema below.*



youtube.com/c/denniscmerritt

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Acknowledgements

As this is a follow on to *Jazz Chords for Baritone Ukulele*, the acknowledgements are the same and as follows.

I'd like to thank my girlfriend Nancy for encouraging me to learn the jazz chords to accompany her singing those wonderful old songs. And for listening to me go on and on about chords and fretboards, when, really, as a single-note-at-a-time flutist, she could care less. And (despite getting a bit grouchy sometimes) for simply being there through the process that all authors acknowledge as getting a bit tedious near the end.

I'd like to acknowledge two excellent software tools I used. Sketch for making it easy to create all the diagrams in the book, and Scrivener for providing beginning-to-end tools for organizing, editing and compiling the manuscript. (However, for working out early ideas and organization, no software tool can compete with 1/4 sized sheets of colored paper and Mirado Black Warrior pencils.)

From my past, I'd like to acknowledge the influence James Martin (one of the all-time best-selling text book authors) had on me with his idea that, in a text book, the figures are not to illustrate the text but rather that the text is the glue that explains and ties the figures together.

And from the distant past, I'd like to thank Pythagoras for applying his analytical mind to figuring out the hows and whys of the musical harmonies that move the planets and our souls. (Well not the planets it turns out.)

Dennis Merritt

Shelburne Falls, Massachusetts 2021

Preface

I played some guitar and wanted to accompany my girlfriend, Nancy, on the jazz songs she liked to sing. Like Rodgers and Hart's *Bewitched Bothered and Bewildered*.

But I quickly ran into chords I'd never seen before, like these:

Dm7	G9	Em7	A13	
. . .	But	a	fool	can have his charms . . .
Dm7		G13	G7	G7+5
. . .	Put	me	on the	blink. I'm . . .

Bewildering chords

I was OK with the 7th chords, but G9? A13? G7+5?

Well, that was exactly how I started the introduction to *Jazz Chords for Baritone Ukulele*. In that book I lamented about the complexity and number of chord shapes and came to the conclusion that it would be a lot easier to understand those four note, movable jazz chords on a four string instrument.

The baritone ukulele was perfect because it's tuned the same as the treble strings on a guitar. Everything played on it can be played directly on a guitar, so it's not necessary to own a baritone ukulele to use the book.

Everything you need to know about scales, intervals, chord construction, chord scales, Pythagoras, the Circle of Fifths, essential seventh chords, and altered and augmented chords is covered in that book.

This book is the follow on to *Jazz Chords for Baritone Ukulele*. It's really more of a reference book than the uke book. It shows how the chords and ideas of that book can expand from the treble strings to the full guitar fretboard, giving rise to all the numerous shapes and voices that led to my dismay when I started out. Except now, understanding their origins, they all make sense.

Dennis C Merritt
Shelburne Falls, 2021

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Introduction

This book builds on the ideas explained in *Jazz Chords for Baritone Ukulele*. The hows and whys of movable jazz chords are easier to understand considering just four strings. Here are the first two chapters of that book to explain the basic approach. After that we'll bring the full guitar fretboard to life.

Jazz Chords for Baritone Ukulele

Introduction

"Everything should be made as simple as possible, but not simpler." — Albert Einstein

Here's how a guitar, baritone ukulele and soprano ukulele compare in size. The baritone has the simplicity of four strings, but with a larger body than the soprano. That makes it sound more like a small guitar than a big ukulele.



Guitar, Baritone Ukulele, Soprano Ukulele

But it doesn't matter which you use with these ideas. That's because it's all about movable chord shapes and the jazz voices they play.

The four strings of the baritone ukulele are tuned the same as the four strings of the guitar, so everything in this section can be played on a guitar using the four treble strings.

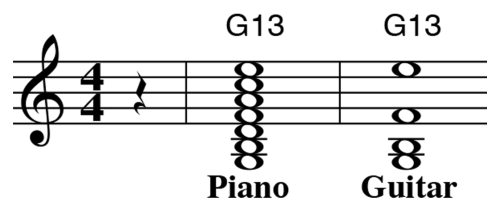
Four Note Chords

Almost all jazz chords for guitar are defined by four notes. You might say there are lots of five

and six string guitar chords. Yes, but they usually only have three or four unique notes. The rest are duplicates. For example, the classic six string E chord has three Es in it.

For many jazz chords, and in particular all the seventh chords, which are the foundation of jazz, there are only four notes in the chord. Three for the base chord and one for the seventh note.

The higher, more complex chords have additional notes. The biggest is the thirteenth chord with seven notes in it. It can be played on a piano, but for guitar only the notes that give it its distinctive sound are used.

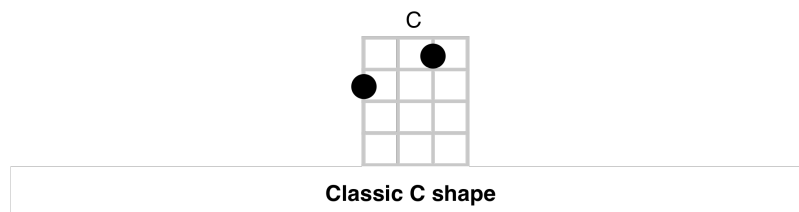


So for whatever chord, four notes covers it.

Hidden Voices Beneath the Dots

There are two factors that go into understanding any chord diagram: shape and voice.

Shape tells you where to place your fingers to make a chord. Here's the chord diagram for the classic C chord, illustrating its shape.



The **how** of playing a chord.

Voice tells you the notes that go into a chord and the order in which they're played. That classic C chord has, starting from the low fourth string, these notes in this order.

E G C E

The **why** of the chord.

The voices are hidden in the classic shape diagrams!

For the basic chords, this isn't a problem. It's just fine to memorize the few shapes needed to

accompany most regular songs. When the music says strum a C, well then, strum a C. It's not necessary to understand the why of a particular voicing of a chord, just how to play it.

But for jazz, it's all about the voices.

- ◆ You can learn to play a G13, but what makes it a 13th chord? What gives it its special flavor? And how does it relate to a 7th chord?
- ◆ You can learn to play a G7 and a G7+5, but what is it that creates that anticipation? How do they work together?
- ◆ And does one have to start all over for an A13? Or is there some overlap, and if so where?

The answers to all these questions are in the hidden voices.

The How and Why of Chords

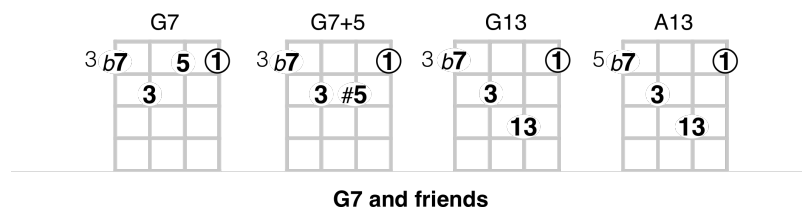
This book is all about understanding both the how and why of chords. The more you understand the why, the less you'll need to refer to chord charts for the how.

To this end, normal chord diagrams are used, except the dots are replaced with numbers. Each number indicates the relative note number being played on each string, a (1) for the root, 3 for the 3rd, etc.

This still tells you where to put your fingers, but also shows you the music, the harmonies, you hear when you play.

(Spoiler alert — the following example comes from near the end of the book, so it might not make perfect sense now but should give you a flavor of where the book is going.)

Here's one shape for a G7 along with three other chords that are closely related. They all have the root on the first string.



The voicing for each shows exactly what the relationships are. In these four shapes we can see:

- ◆ The sense of anticipation you hear playing G7 to G7+5? It's caused by moving the 5 up one fret, making it sharp. And it's on the second string, so it's easy to play by dropping a pinky on it after playing the G7.
- ◆ A G13? It turns out to be nothing more than a variation on a G7 with the 13 (that's jazz talk for a 6) replacing the 5. Know one and you know the other.
- ◆ The A13? It's included for free. Move the G13 shape so the root on the first string is over the A on the fifth fret.

And so on, each chord has a shape that shows how to play it and a voice that tells its story. Knowing the stories let's you understand the multitude of shapes available for jazz, and how best to link them together for that smooth jazz sound.

So let's begin at the beginning with scales, the fretboard, and major chords.

*Jazz Chords for Baritone Ukulele***Scales and Chords**

Chords are made up of notes from a scale that sound good together, or more accurately, create a certain feeling or mood. For example, a major chord creates an upbeat sort of feeling and a minor one a more mellow feeling.

The beauty of jazz chords is that they have a rich texture of harmonies that go beyond the basic major and minor chords. But before we get to them, we'll look at the hows and whys of the basic chord shapes.

Chromatic Scales

A chromatic scale is made up of 12 notes spanning an octave. It can be played on any string by moving up the string one fret at a time.

Starting at the first fret on the second string, a C, these are the notes played up til the 13th fret, which is another C an octave higher.

C C# D D# E F F# G G# A A# B C

(Each sharp could also be a flat of the note after, so C# and Db are the same note. Just the sharps are shown here.)

We could also play the chromatic scale starting at D. Starting with the open D string, these are the notes played by moving up that fourth string one fret at a time, until the 12th fret, another D an octave higher.

D D# E F F# G G# A A# B C C# D

Each fret represents a **half step**. A two fret jump is called a **whole step**, and is the key to defining scales.

Major Scales

A **major scale** is a sequence of notes following a particular pattern of whole steps and half steps.

Whole Whole Half Whole Whole Whole Half

In the key of C, these are the notes, with the _ indicating the notes skipped over.

C _ D _ E F _ G _ A _ B C

This scale can be played starting at the C on the second string and finishing on the C at the 13th fret, making whole and half steps as appropriate.

Playing the sequence of full and half steps starting with the open D string plays these notes of the D scale, or the notes in the key of D.

D _ E _ F# G _ A _ B _ C# D

Major Chords

A **major chord**, is made up of the 1st, 3rd, and 5th notes of a scale. The starting note is called the **root**. So, a C major chord (written simply as C) contains the notes:

C E G

Likewise, a D major chord (written simply as D) contains the notes:

D F# A

The trick to finding these chords, then, is to find places where these notes can be played using the ukulele fretboard. Now, of course, these basic chords are well known, but it's useful to see how they were derived.



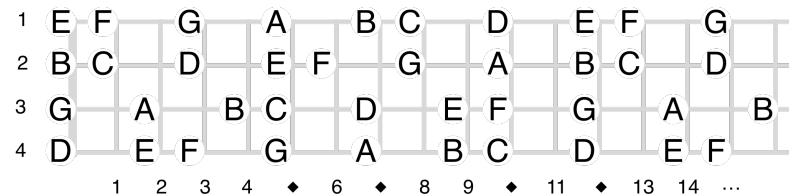
Baritone ukulele fretboard

Chord Search

Welcome to chord search! You know those word search puzzles where there is a grid of random letters with words hidden here and there? Well here are the letters for the notes in the key of C as they occur on the fretboard. Hidden in them are the chords.

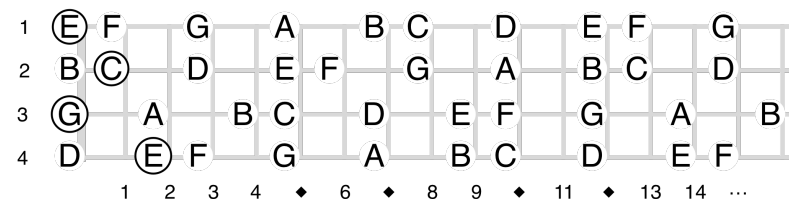
(These full fretboard diagrams are arranged left to right, with the nut on the left.)

The idea is to find a C, E, and G within close reach of each other, with one note being duplicated to give a four note chord.



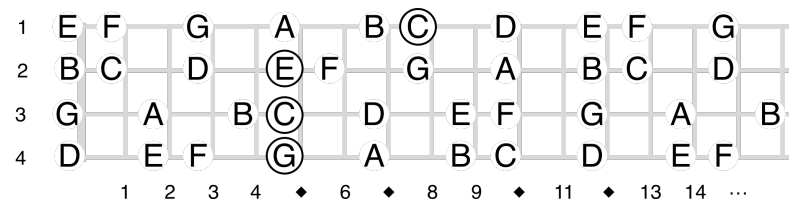
Notes in key of C

Here's one solution, the classic pattern for a C chord.



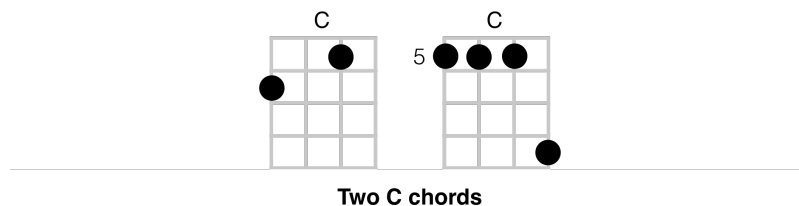
One C chord shape

Here's another that would be played with a bar on the 5th fret.



Another C chord shape

These two discoveries yield two standard chord diagrams. The small 5 on the second one means it is played at the 5th fret. (The chord diagrams are arranged top to bottom, with the nut towards the top.)

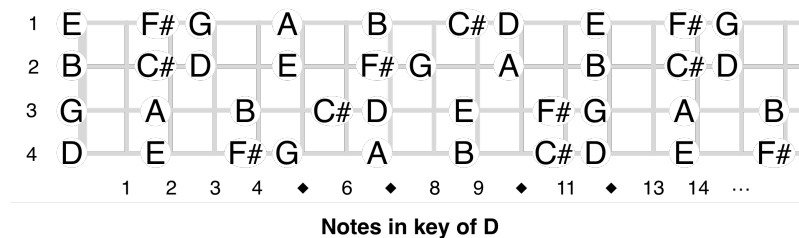


There are a number of other solutions for our C chord hidden in the fret board, and it's a useful exercise to look for them. But for now, these two will suffice.

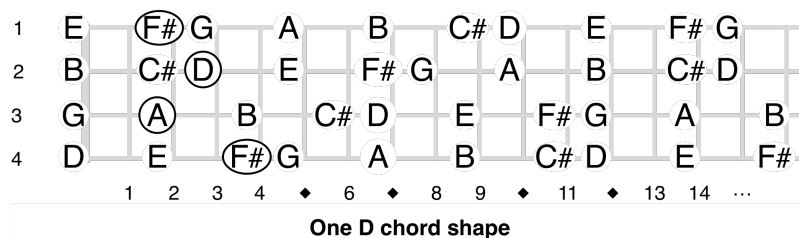
We can repeat the same process for a different key, say D major. As mentioned above, a D major chord (D), made from the 1st, 3rd and 5th notes of the D major scale. It has the notes:

D F# A

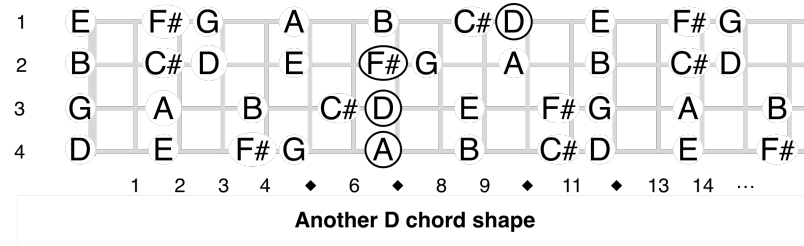
Here are how the notes in the key of D are laid out on the fretboard. Again, the chord-search puzzle is to find places where the notes of the D chord could be played together.



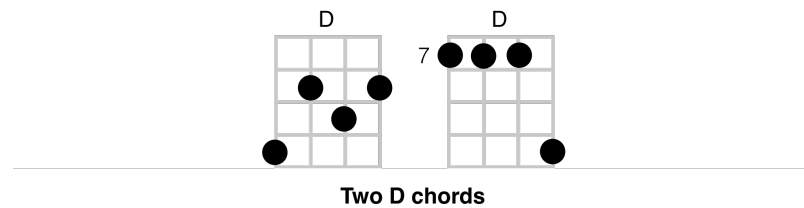
Here's one solution.



And here's another.



These two patterns yield these two chord diagrams:



Note that these are the same patterns as for C (with a bar replacing the two open strings in the left one) but at different positions on the fret board.

In fact, for any key these two patterns will pop up as possible, but at different frets.

Generic Scale

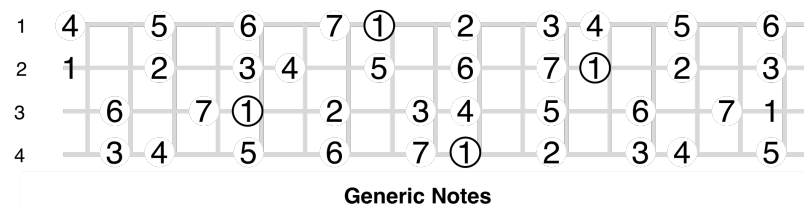
Rather than look for patterns for each key, it makes sense to generalize a scale based on the intervals, and number the notes rather than use letters particular to a given scale.

1 _ 2 _ 3 4 _ 5 _ 6 _ 7 1

Given this, a major chord is:

1 3 5

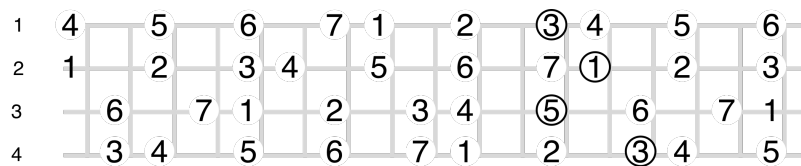
These generic intervals can then be mapped onto a floating map of the frets. They represent the relative spacings of the notes on the fretboard, but not the specific notes.



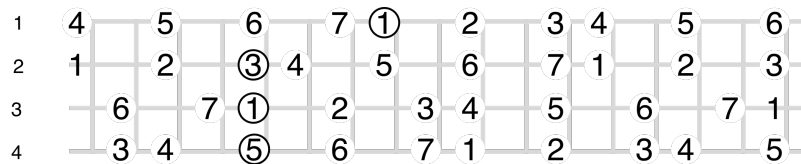
The circled (1)s are the root note of a scale. If you overlay this diagram on the actual fretboard, whatever note is under the (1) is the scale being shown. If the (1)s are over the Cs, then it shows the notes of a C scale. If the (1)s are over the Ds, then the notes are of a D scale.

This generic fretboard can then be used to find general patterns for chords. Looking for ways

to play a major chord, 1 3 5, we can find these two possible patterns.



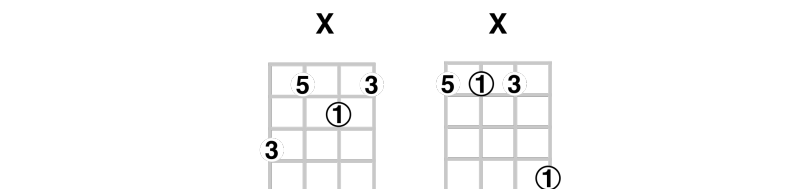
One way to play a major chord



Another way to play a major chord

You'll notice that those are the same two patterns found above. If either pattern is played with a C under the (1), then it will be a C chord. If a D is under the (1), then it's a D chord. And if it's an *E_b*, well, then an *E_b* chord.

Here's how these chord diagrams will be displayed in this book. The X indicates any chord. For these major chords, the label is simply X, but for say a minor chord the label will be Xm and for a seventh chord X7.



Two shapes for movable major chords

Instead of dots in the chord diagrams, the relative position of the notes is displayed. The circled (1) is the root and in text, like this, will be represented by (1). The note under the root determines the chord. For example, playing the pattern on the left with a bar on the second fret will be a D chord since the (1) will be over a D.

The other relative tones are indicated as well, which will make it easier to analyze chords and their sounds. For example, the diagram on the left emphasizes the 3 more, and the one on the right has two root tones.

From here, *Jazz Chords for Baritone Ukulele* analyzed and derived major and minor chords and then sevenths and on. For this book we'll take those shapes as starting points and expand them across the full guitar fretboard.

Shape Shifting

The idea in both the ukulele book and this book is to look at how the notes for a given chord lay out on the fretboard and then find shapes for playing that chord. Consider, for example, 7th chords, such as:

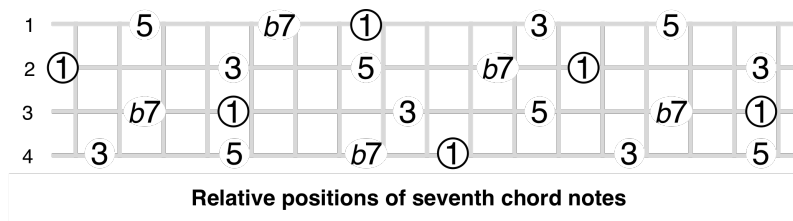
C7 — C E G Bb

D7 — D F# A C

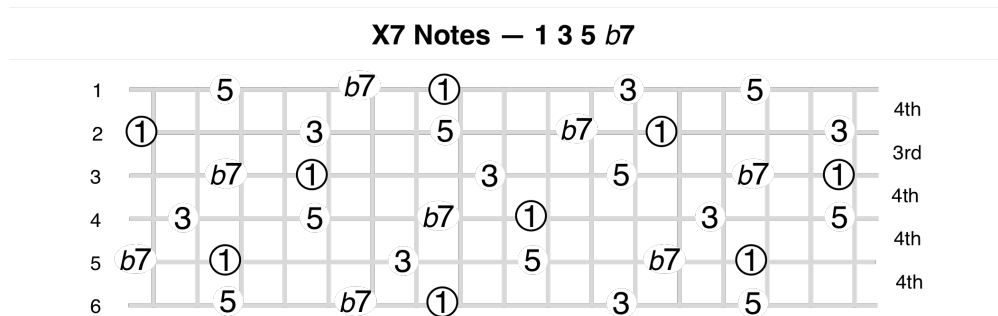
the generic notes are:

X7 — 1 3 5 b7

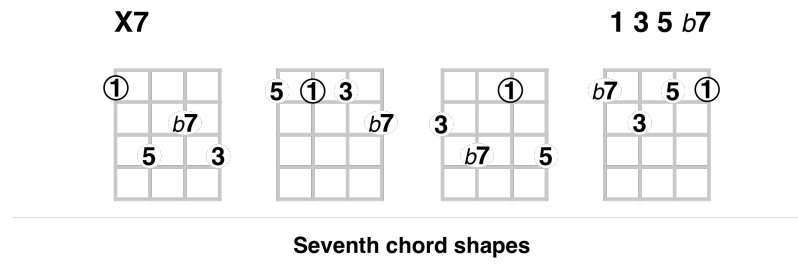
Here is how those notes lay out on a ukulele fretboard. The nut is on the left.



And here is how they lay out on a full guitar fretboard.



From the ukulele fretboard, the following four shapes for playing an X7 (an X is used indicating the shape can be moved to play any chord) chord were derived. Each has the root on a different string, meaning one can play an X7 anywhere on the fretboard, anywhere there is a root for the chord.



At this point we should clarify some terms regarding these chords.

Chord — A chord is defined by the notes in it. For example a 7th chord has a 1 3 5 b7. A Maj7th has a 1 3 5 7, and a minor 7th a 1 b3 5 b7.

Voice — The order of the notes in the chord as it is played. The first example above has a 1 5 b7 3 voice and the second a 5 1 3 b7 voice.

Shape — The actual positions on the fretboard to play a particular voice. Note that for the ukulele there is only one shape for each voice, but for the guitar there are always at least three shapes for each, depending on which four strings are used.

For this guitar book, we could take the same approach as in the uke book, and use the fretboard diagrams to find practical voices and shapes for a chord. Except, here's where the problem lies. On the uke there are four nicely symmetric voices for each chord, and each of those voices has a single shape. But on the guitar there are at least 20 different ways to finger, say, a 7th chord.

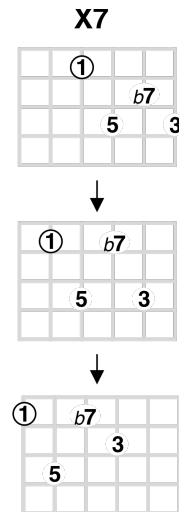
There's an easier way to make sense of this, and that is to take the four shapes for the ukulele and slide them across the neck of the guitar.

Shifting Chords

Any chord shape can be shifted sideways across the fret board. The relative intervals between the notes, which define the voice of a chord, stay the same, just the pitch changes, either up or down a fourth depending on which way it's shifted.

Shifting would be real easy if all the strings were tuned a fourth apart. But that fourth-third-fourth tuning of the treble strings, which seems so brilliant for the ukulele, kind of muddies the water for the guitar.

Because the tuning between the second and third strings is a third, as a shape shifts towards the bass notes, the finger position on the second string has to move a fret towards the neck. This preserves the interval.



Shifting a 7th Chord Shape

The chord diagrams in this book start with four voice/shapes discovered for the treble strings, and then shift them to the middle four, and then bass four strings.

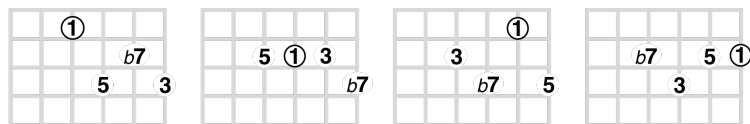
The top of each diagram has those treble shapes, and each line below has them shifted. Below that are options for playing the chords separating the thumb from the fingers, easy for a finger picking style of play.

Here, for example, is the diagram with 20 different ways to play 7th chords. If you look at the fretboard diagram of 7th chord notes shown earlier, you will see all these shapes in it.

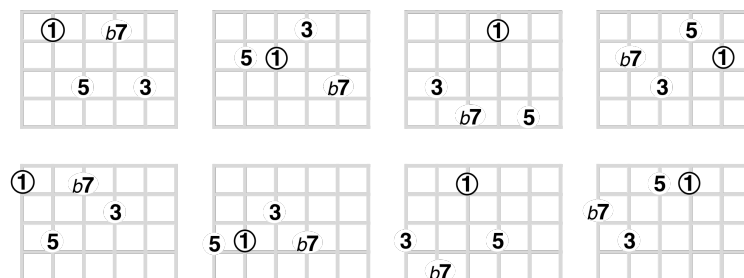
X7

1 3 5 b7

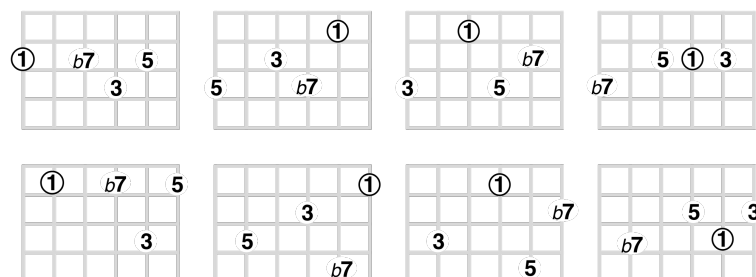
The Treble (Baritone Ukulele) Shapes



Shape Shifting



Other Options



The “Shape Library,” at the end of the book, has a complete, well maybe no such collection can ever be complete, set of chord diagrams. They include the fretboard map for the notes of each chord as well, which, in addition to letting you discover other shapes for a chord, can be used for soloing over chords.

Chord Scale Theory

There are four essential 7th chords. These are XMaj7, X7, Xm7 and Xm7(b5). The notes of each are:

XMaj7	-	1	3	5	7
X7	-	1	3	5	b7
Xm7	-	1	b3	5	b7
Xm7(b5)	-	1	b3	b5	b7

Essential 7ths Chords

Why are these considered the essential 7th chords? It's all about chord scales.

Chord scales are composed of chords where the root of each chord is a note in the scale. So, in the key of C, the chord roots would be C, D, E, F, G, A, B. In other words, a C chord, a D chord, an E chord, etc. These are generically referred to with Roman numerals. (Sometimes lower case is used for minor chords but that shorthand really only makes sense when talking about simple major and minor chords, not 7th chords.)

I II III IV V VI VII

Generic Chord Scale Names

In the key of C, for example, the I is a C chord, the IV is an F chord and the V a G chord.

In the key of D, the I is a D chord, the IV a G chord and the V an A chord.

The question is, which essential 7th chord to use for each of them? Which, for example, G chord to use for the V in the key of C?

GMaj7? G7? Gm7? or Gm7(b5)?

The answer is, a chord for which all of the notes in the chord are in the key.

Harmonies

Why? It's all about the harmonies. A song in a particular key has a melody in which the notes are all, mostly, in the key. The melody moves horizontally through written music. As the melody moves, chords are chosen to work with it, providing harmony.

The harmony notes in music are written vertically. Just as the notes in the melody like to be within the key, so too do the notes of the harmony. And these are the notes which make up the accompanying chords.

In the following snippet of piano music you can see the melody line and the chord harmonies. The idea is that the notes of the melody are all in the key of C and the chord harmonies are all made of notes in the key of C as well (no sharps or flats).

Melody and Harmony

Looking at the Notes

Consider the I chord in the key of C. It is, of course, a C chord. But which one has all of its notes in the key of C?

CMaj7	1 3 5 7	C E G B
C7	1 3 5 b7	C E G Bb
Cm7	1 b3 5 b7	C Eb G Bb
Cm7(b5)	1 b3 b5 b7	C Eb Gb Bb

C Essential 7ths

Only the CMaj7 works. Thus, the I chord of a chord scale is a major 7th.

What about the II chord in the key of C? It is a D chord. Which one has its notes in the key of C?

DMaj7	1 3 5 7	D F# A C#
D7	1 3 5 b7	D F# A C
Dm7	1 b3 5 b7	D F A C
Dm7(b5)	1 b3 b5 b7	D F Ab C

D Essential 7ths

Only the Dm7 works. So the II chord of a chord scale is a minor 7th.

Skipping to the VII in the key of C, which B chord has its notes in the key of C?

BMaj7	1	3	5	7	B	D#	F#	A#
B7	1	3	5	b7	B	D#	F#	A
Bm7	1	b3	5	b7	B	D	F#	A
Bm7(b5)	1	b3	b5	b7	B	D	F	A

B Essential 7ths

So for the VII, only a minor 7th with a flatted 5 will do.

Continuing that analysis reveals the chords of a chord scale are thus:

- I – Maj7
- II – m7
- III – m7
- IV – Maj7
- V – 7
- VI – m7
- VII – m7(b5)

Chord Scale Chords

These are the essential seventh chords you'll often see accompanying a jazz song.

Looking at the Intervals

Another way to understand chord scales is by looking at the intervals that make up a chord. A chord is made up of stacked major (M3) and minor third (m3) intervals. Looking at these intervals lets you see why some chords are in the scale, and others are not.

Here are the intervals of a Maj 7th chord laid over a scale, with the root in the first note. Note how each note in the chord lines up with a note in the scale.

1	—	M3	—	3	—	m3	—	5	—	M3	—	7
1	—	2	—	3	—	4	—	5	—	6	—	7
1	—	2	—	3	—	4	—	5	—	6	—	7

I Maj7

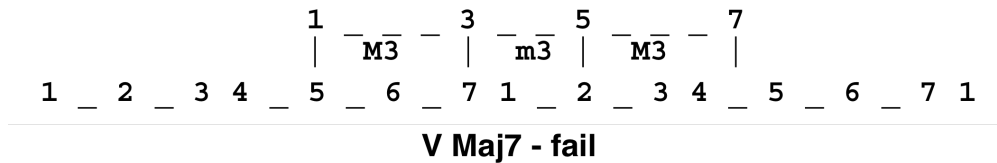
We can slide that pattern up so the root is on the 4 note of the scale making the IV chord.

			1	—	M3	—	3	—	m3	—	5	—	M3	—	7
1	—	2	—	3	—	4	—	5	—	6	—	7	—	1	—
1	—	2	—	3	—	4	—	5	—	6	—	7	—	1	—

IV Maj7

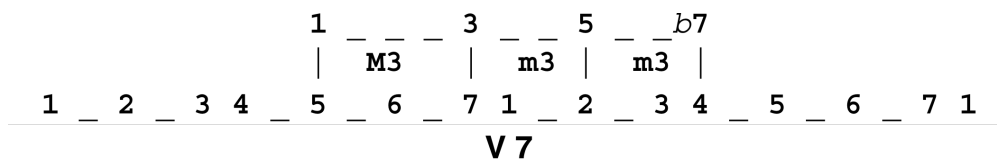
The notes still line up.

We can then try the pattern over the 5 note of the scale, making a V chord.



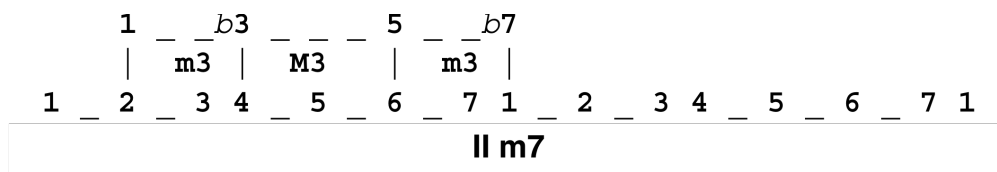
Note that the notes do NOT line up, which means a Maj 7th chord is not in the scale for the V chord. If we try to use the Maj 7th shape for the V chord, it will sound dissonant because the 7 of the chord lines up between the 4 and 5 of the scale, not on a note.

But, if it were a b7, as in a 7th chord...

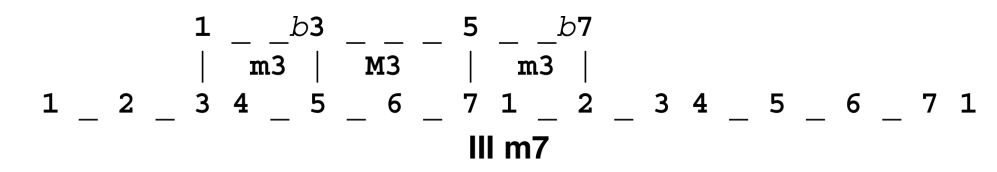


That would work! So a 7th chord is in the scale with the 5 as the root. In other words, V 7 is in a chord scale. Curiously, in a genre so reliant on 7th chords, the actual 7th chord only works as a V.

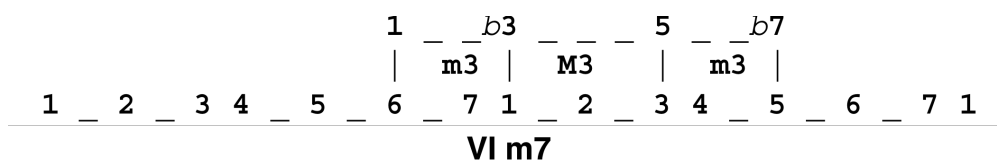
The chords that start with a major 3rd (M3) won't work for any other chord because the rest all need to start with a minor 3rd (m3) interval. The minor 7th shape works well though. Here it is on the II.



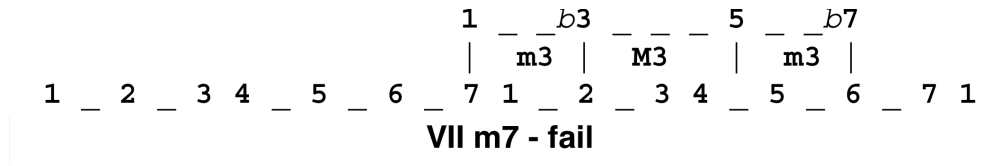
And on the III.



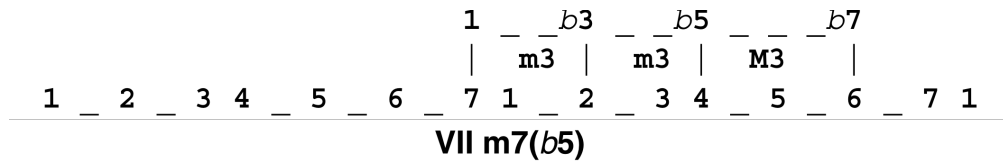
And on the VI.



And on the VII.



Oops, the m7 doesn't work for VII! The 5 of the chord fails to line up with a note in the scale.



But if we just flat that 5... And this is why the m7(*b*5) is so important. It's all about chord scales and making sure all the notes in the chords are harmonious with the key of the song.

That's chord scales!

Bass Voice Families

Clearly there are many ways to play the essential 7th chords on the guitar. To simplify, the examples in this book will draw from just three voice families. Those with the root note on one of the two bass strings of the voice.

A voice family includes the essential 7th voices that have the same order of notes. So the 1-5-7-3 family includes the voices 1 5 7 3, 1 5 *b*7 3, 1 5 *b*7 *b*3, and 1 *b*5 *b*7 *b*3.

Here are the voice families with the root (1) on one of the two bass notes.

1 5 7 3

5 1 3 7

1 7 3 5

The third voice above has the bass note separated from the three treble notes and is easy to play with a finger picking style.

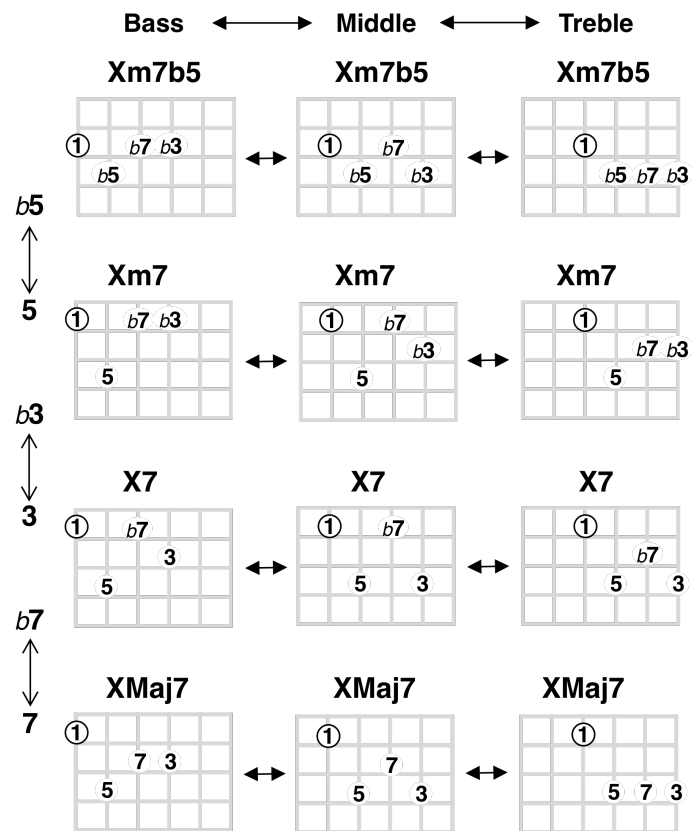
These three voices are good for providing both a bass line and treble harmonies. When playing with a bass player, other voices might be more useful. Working out examples for them is left as an exercise for the reader, and shouldn't be too difficult following the same ideas used for these three.

Each shape for an essential 7th chord can be changed to another with just a one fret change. For example a 1 5 7 3 can be changed to a 1 5 *b*7 3 by simply flattening the 7.

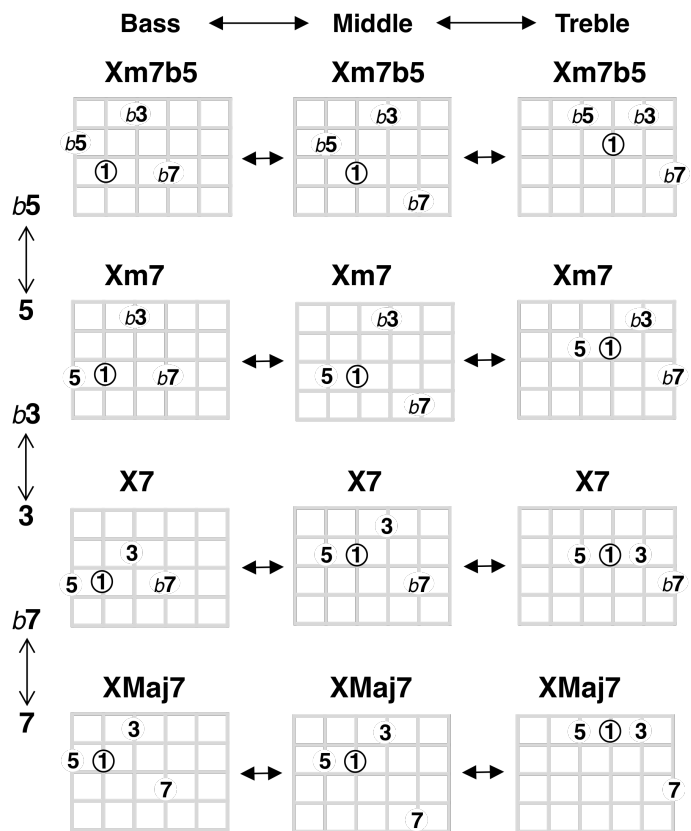
Likewise, each can be shifted across the fretboard by changing just the finger that was on the second or third string, depending on which way the shape is shifting.

Armed with this knowledge, if you know just one essential 7th shape in a voice family, you can figure out any of the other eleven shapes.

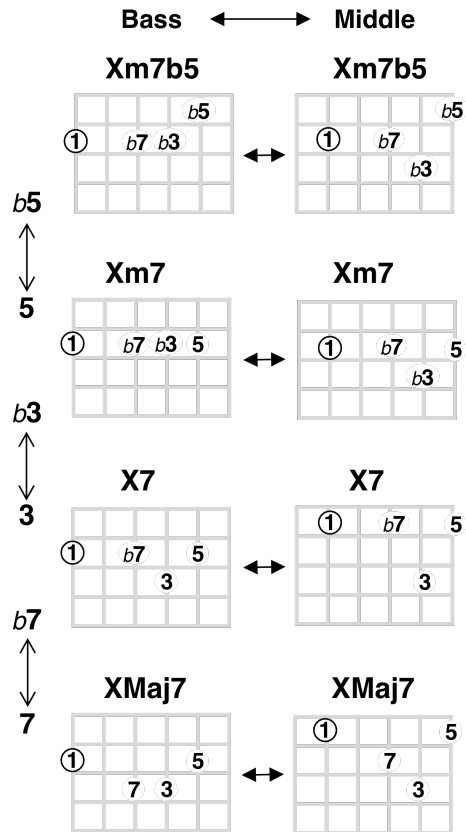
Here are three diagrams that illustrate these transformations for each voice family.



Transforms of the 1-5-7-3 Inversion



Transforms of the 5-1-3-7 Inversion



Transforms of the 1-7-3-5 Inversion

It's a good exercise to start on one corner or the other of each chart and make the one fret changes necessary to reach the opposite corner. Learn three shapes and with a little practice you can play 36! Think of the options when it comes to picking a voice and shape for a particular chord!

Chord Scale Practice

Musical scales are excellent exercises for melody players, as they train both the ear and the fingers for the notes in a scale. Likewise chords scales are excellent exercises for the jazz accompanist, training both the ear and fingers for the sound and feel of the essential 7th chords in a particular key.

For each of the chord scales, experiment with different rhythms, sometimes the whole chord, sometimes alternating bass note and treble strings, and, maybe, most important, as one note at a time arpeggios, making sure you get each note of the chord clearly sounding out.

Here then, are ways to play chord scales for the three voice families.

1-5-7-3

Remember that the major chord scale is:

I – Maj7
 II – m7
 III – m7
 IV – Maj7
 V – 7
 VI – m7
 VII – m7(b5)

Chord Scale Chords

And a major scale is made of a sequence of full step (2 frets) intervals and half step (1 fret) intervals.

Full — Full — Half — Full — Full — Full — Half

So playing a chord scale up a single string means using these frets for the root notes:

0 2 4 5 7 9 11 12

Combining these concepts we can then play a chord scale on the D string as follows, moving the root of the chord up the string (note that the 0 fret means those notes are played on open strings) and using the 1-5-7-3 shapes on the treble strings.

DMaj7 **Em7** **F#m7** **GMaj7**

0 2 4 5

A7 **Bm7** **C#m7b5** **DMaj7**

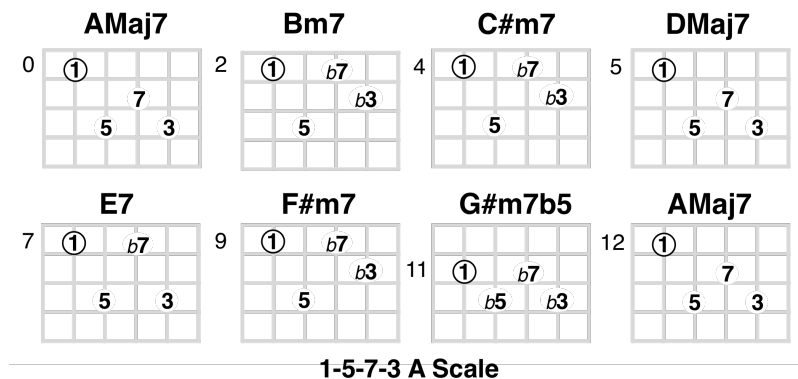
7 9 11 12

1-5-7-3 D Scale

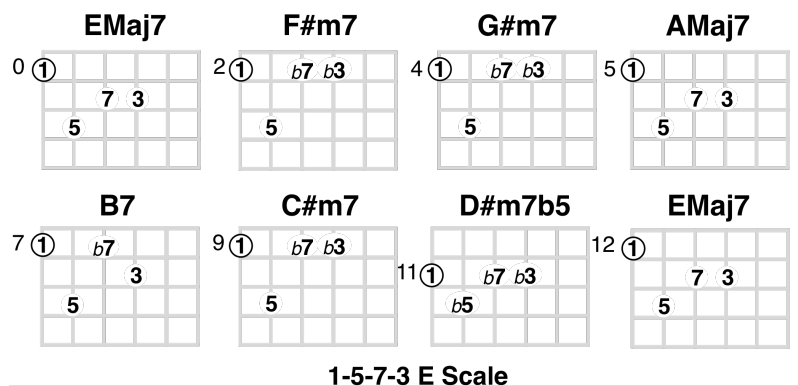
Play this going up and down the D string to get a feel for the sounds and the shapes.

If you look at songs in the key of D with jazz accompaniments, these are the chords you'll see.

We can do the same thing on the A string using the 1-5-7-3 shapes on the middle strings.



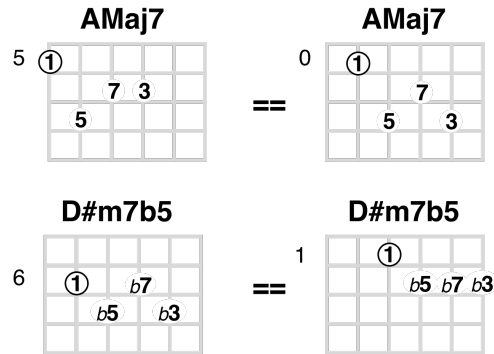
And on the E string as well, using the bass string shapes.



When we consider various ways to play a chord, the many shapes often have different voices, or may be an octave apart. That is, many of the different ways to play the same chord will offer different sounds or flavors for that chord. For example a chord in a 1-5-7-3 voice will sound different from that same chord in a 5-1-3-7 voice.

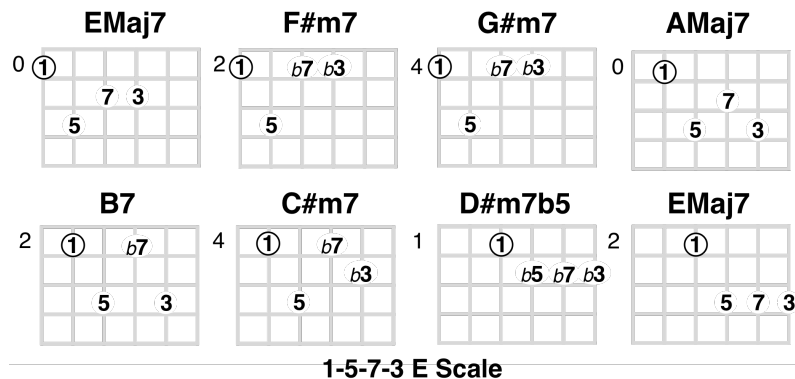
Some chord shapes, however, are identical. That is, they contain the exact same notes in the exact same sequence. This is because the same notes on the fret board can be found on multiple strings. Notes on the E string, for example, are the same as notes on the A string five frets closer to the nut.

Here are two examples of shapes with identical notes.



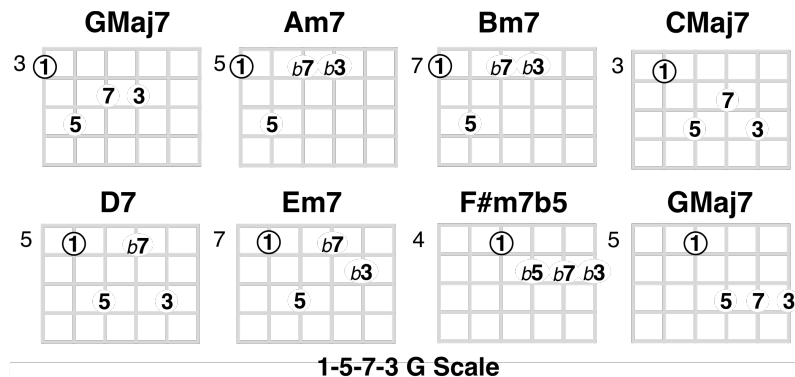
Shapes with Identical Notes

Using the equivalences, we can play the exact same E string chord scale shown above, but instead of going all the way up the string, shift over a string every time the notes get to the fourth fret or above.



1-5-7-3 E Scale

Armed with these shapes, we can then play a chord scale starting from any note on the E string. Here, for example, are those same shapes playing a G major chord scale.



1-5-7-3 G Scale

As you play these, keep in your head the roman numeral chord numbers, that is, which is I, II, III etc. These will be important for playing chord progressions, coming up. You can get a head start on that chapter by, in addition to playing the scales, try a progression using the shapes in these

scales. Try just II V I and then maybe I IV III VI II V I.

5-1-3-7

These 5-1-3-7 shapes are fun to play because they are often easier to finger with the 5 and the (1) next to each other, and having the 7 on the treble-most string lets it sound out and be easily changed.

The disadvantage is you don't have as clear a bass line when using these shapes.

Here are three chord scales using these shapes. The first uses just the treble string shapes, the second the middle string shapes, and the third the bass string shapes.

AMaj7	Bm7	C#m7	DMaj7
2	4	6	7
E7	F#m7	G#m7b5	AMaj7
9	11	13	14

5-1-3-7 A Scale

EMaj7	F#m7	G#m7	AMaj7
2	4	6	7
B7	C#m7	D#m7b5	EMaj7
9	11	13	14

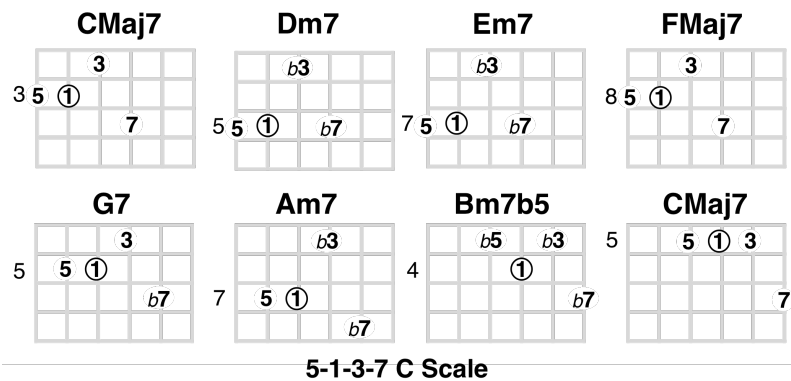
5-1-3-7 E Scale

CMaj7	Dm7	Em7	FMaj7
3 5	5 5	7 5	8 5
G7	Am7	Bm7b5	CMaj7
10 5	12 5	14	15 5

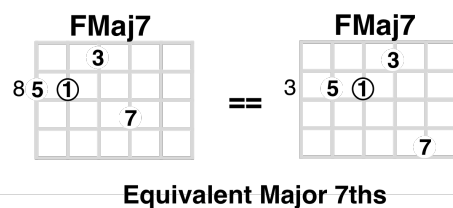
5-1-3-7 C Scale

Just as with the 1-5-7-3 scales, equivalent shapes can be used to play a scale across the fretboard.

Here's the exact same scale as for the C scale above, but staying in the middle of the fretboard.



There is a decision to make in this scale. Where to play the equivalent FMaj7 shapes when switching to the middle strings.



On the one hand, it's nice to keep the shapes closer together and play the middle string shape, but it requires a bit of a stretch with the pinky and it might be easier to play further up on the bass strings.

Try it both ways and see which is more comfortable, and notice that, sound wise, they are identical. Play each note in each shape to hear this. This particular decision of which FMaj7 you like better will be an issue for *The Girl from Ipanema*, later.

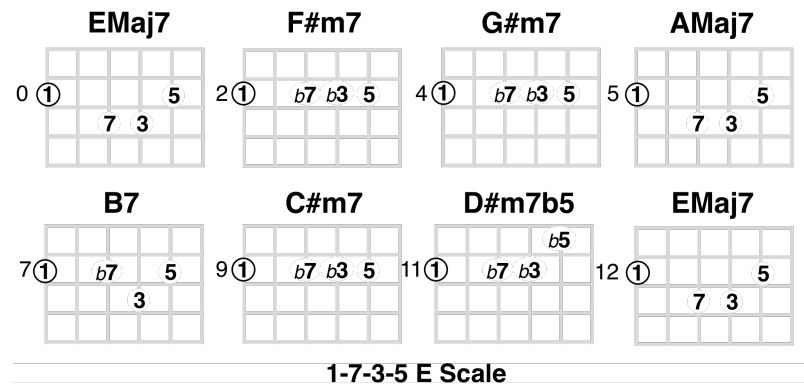
As with the 1-5-7-3 scale, keep in mind which is the I, II, III etc. Experiment with I, IV, V and then try I, III, VI, IV. Notice that it feels natural to go from the I to the IV just shifting over a string and staying rooted on the third fret. But coming from the VI it's easier to go to the IV on the bass strings.

Not to belabor the point too much, but the middle string shape for the major 7th chord gets easier to play the further up the neck it is. So while it might be a bit awkward in the C chord scale above, if the whole pattern was used for a D scale, starting at the 5th fret...

Ah, the options these movable chord shapes give you!

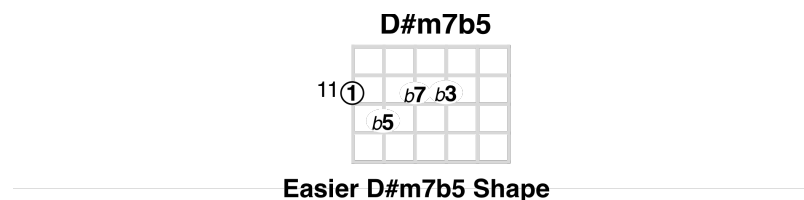
1-7-3-5

Here's one of the two chord scales for the 1-7-3-5 family.

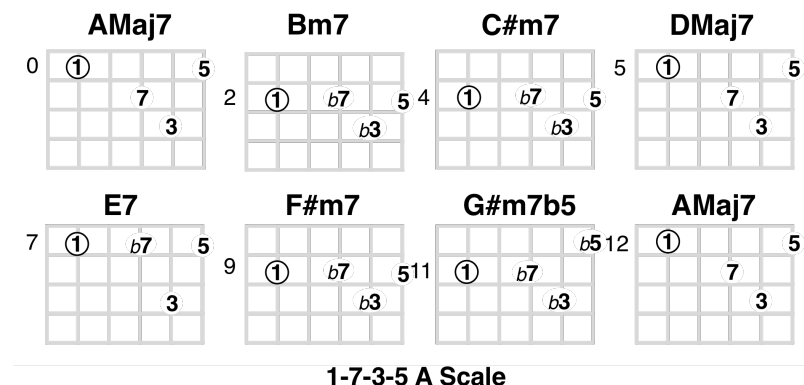


Note that the 1-7-3-5 family is very similar to the 1-5-7-3 family. In fact, they have three notes in common with just the 5 of the scale played an octave higher. For this reason chords in these two families can often be interchanged, one being easier to play or sounding a bit better in some situation or another.

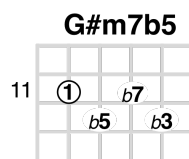
In particular, in the chord scale above the D#m7(b5) is a bit awkward, and the scale is easier to play using the 1-5-7-3 shape.



Here's the 1-7-3-5 chord scale on the A string.



Again, the 1-5-7-3 shape might be easier to play for the G#m7b5.



Easier G#m7b5 Shape

As we'll see in the next section on chord progressions, 1-7-3-5 shapes can often be interchanged with 1-5-7-3 shapes to create pleasing sounds that are easy to play.

Chord Progressions

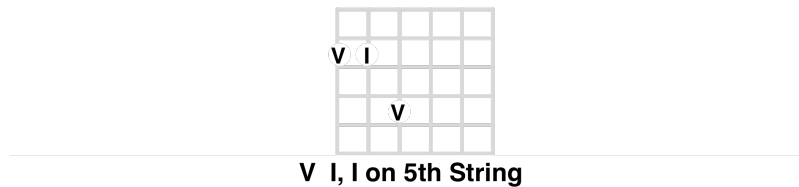
There are numerous standard chord progressions. These are sequences of chords, usually based on chords scales, that frequently occur in jazz songs.

The Idea

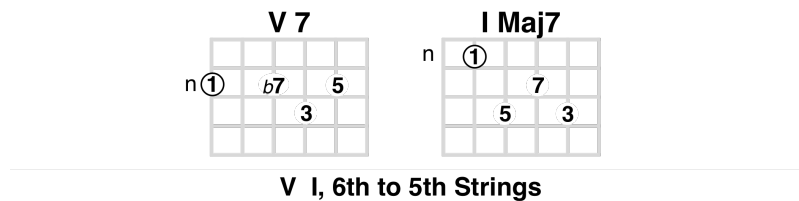
The simplest, and maybe most common, chord progression is V I, going from the V chord in a chord scale, to the I chord. For example, in the key of C going from G7 to CMaj7. This is often the way a song gets to its ending I chord.

The key to learning chord progressions on the fret board is to first figure out the map of the roots of the chords, and then find particular shapes that follow the map.

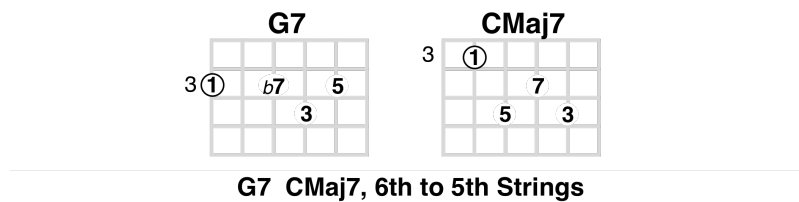
Here, for example, is a map showing two ways to get from a V to I when the I is rooted on the fifth string. It is, of course, the same spatial relationship as between the 1 and 5 notes of a scale.



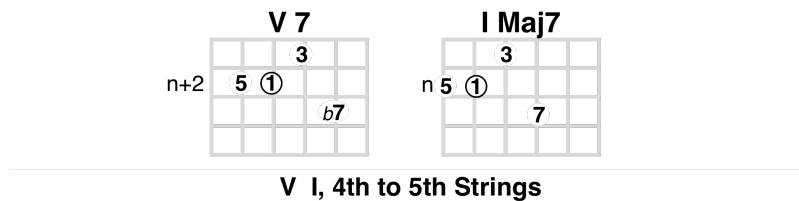
Here's one way to play this progression, going from a V 7 with it's root on the sixth string, to an I Maj7 with it's root on the fifth string. The "n" indicates the roots for each are on the same fret.



Here is that progression in C, going from a G7 to a CMaj7.



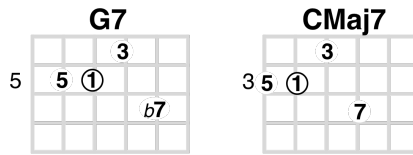
Here's another way to play the V I progression starting with a V 7 with it's root on the fourth string.



It's fun because the exact same 5-1-3-7 fingering is used for both, but when it's shifted it changes from a 7th to a Maj7th chord. (Remember, shifting the shape to the left causes the b7 to change to a

7 when it moves from the second to the third string.)

Playing them on the fifth and third frets gives another way to play it in C, going from G7 to CMaj7.



G7 CMaj7, 4th to 5th Strings

Note that, just sticking with chords that have the 1 or 5 in the bass, there are three ways to play an I Maj7 rooted on the fifth string. Likewise there are three ways to play the V 7 rooted on the fourth string, and two on the sixth string.

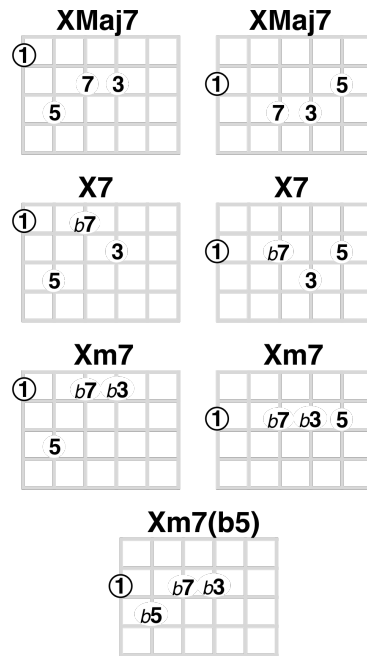
That makes 15 possible ways to connect a V to a I using just the chord shapes with 1 or 5 in the bass. The possibilities expand with longer progressions.

Rather than try to categorize all the possibilities, the next two sections look at these progressions as a cookbook with recipes and ingredients. The **recipes** are maps of the progression roots on the fret board. The **ingredients** are the chord shapes available for a given chord rooted on a given string.

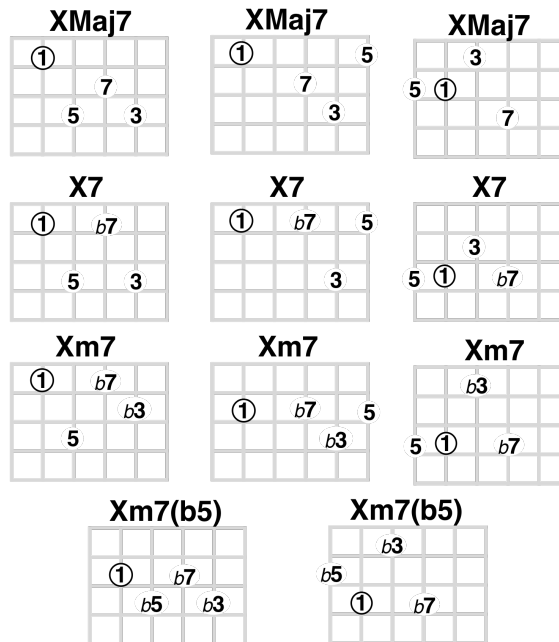
We'll start with the ingredients. Good ingredients will lead to tasty progressions.

Ingredients

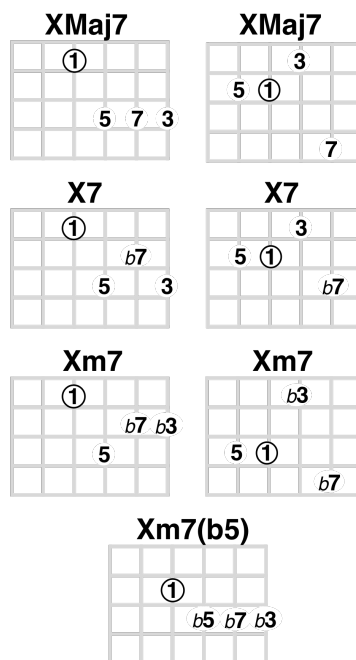
Because the recipes will be showing where the roots of the chords will be, these diagrams organize the chords according to the string with the root. Here are the essential 7th chord with roots on each of the four lower strings.



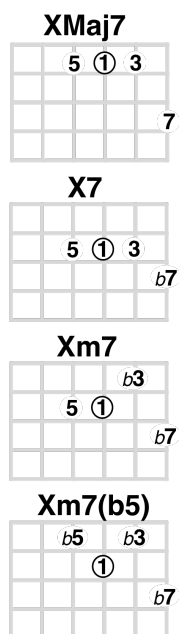
Roots on the 6th String



Roots on the 5th String



Roots on the 4th String



Roots on the 3rd String

Examples will be given in the next section, along with each progression, but they will only be suggestions. Use these shapes to explore and experiment with different ways to play each progression.

Recipes

There are many chord progressions that can be found in books and on the Internet. This section contains recipes for a few of the more common ones, illustrating how chord scales bring these progressions to life and give them their unique jazz sounds.

I	–	Maj7
II	–	m7
III	–	m7
IV	–	Maj7
V	–	7
VI	–	m7
VII	–	m7(b5)

Chord Scale Chords

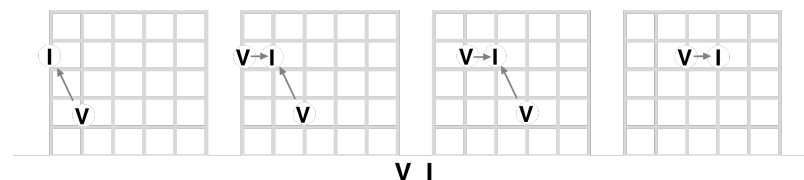
The recipes don't include all the possible ways to get from one chord to another, and, like most of the examples in the book, are intended for working with chords that have the root as one of the two lower notes of the chord.

This doesn't mean you should restrict yourself to just those chords, but rather that they are a simple place to start, and it's left as an exercise to the reader to try out the full range of possible shapes for a given progression.

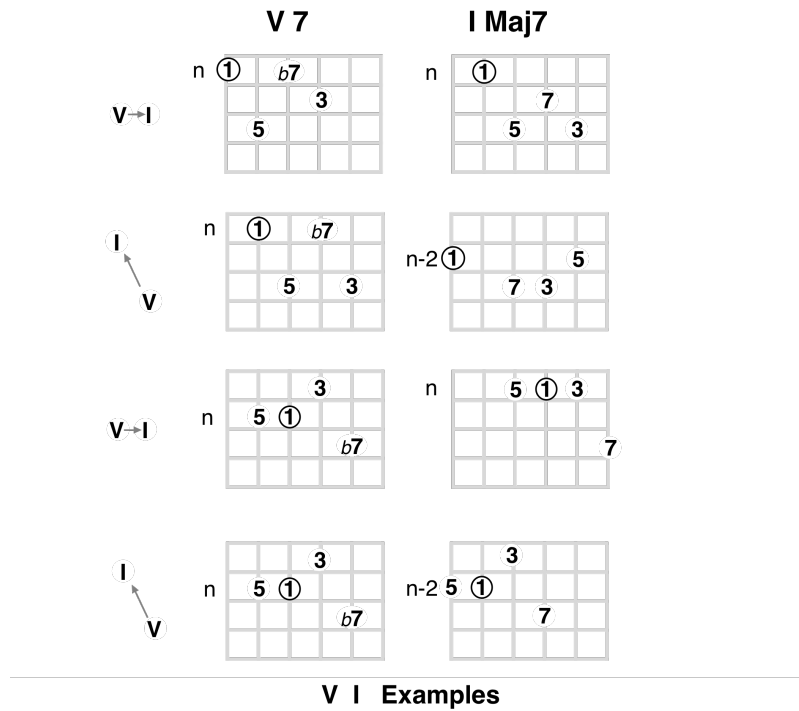
One further note, I find it's most enjoyable to play these movable progressions starting around the fifth fret. It's a comfortable place to play with room to move both up and down the fret board. And those chords that require a bit of a stretch are easier to play where the frets are closer together.

VI

Here are the maps for going from V to I with the I rooted on each of the four lower strings. In the chord scale that would be a V 7 chord going to an I Maj7, for example, from G7 to CMaj7.



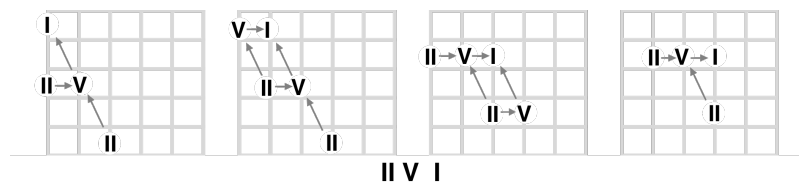
The ingredients provide the chord shape options that can be used for each. Here are a few examples, with the n, n-2, etc. showing the relative fret numbers:



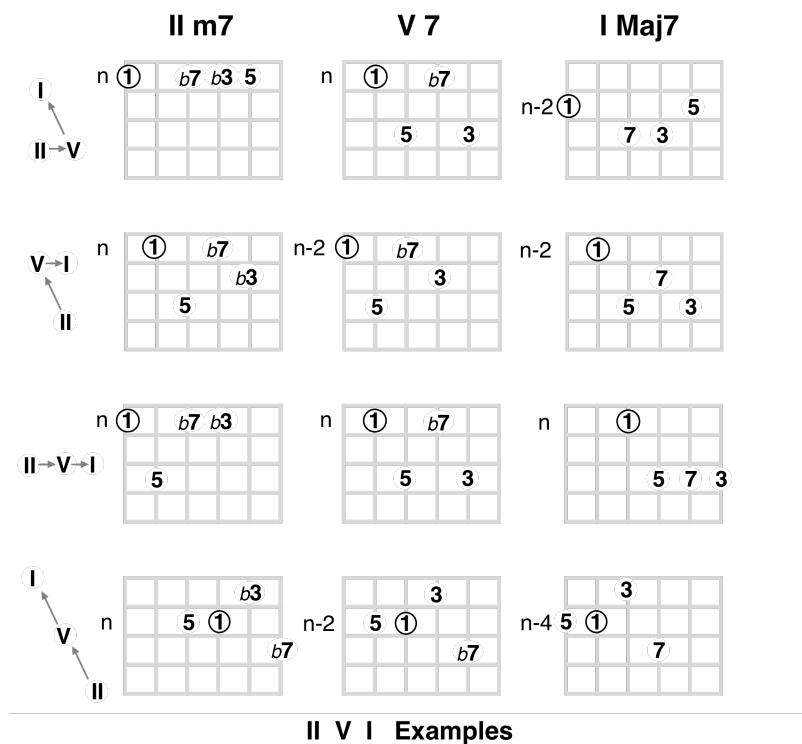
II V I

The V I ending of many songs is often preceded by a II as well. In the chord scale that would be a II m7. For example, in the key of C the progression would be Dm7 -> G7 -> CMaj7.

Here are the maps with the ending I chord on each of the four lower strings. The arrows show the direction of movement of the roots.



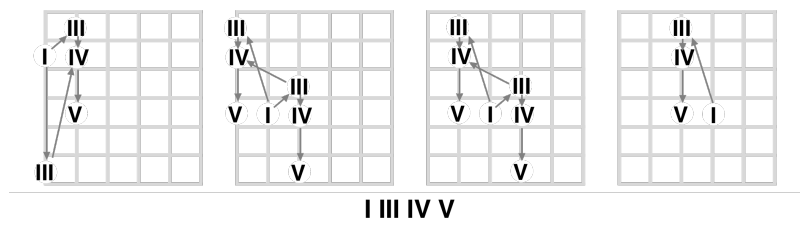
Here are some examples of II m7 -> V 7 -> I Maj7 using the maps above with various movable shapes from the ingredients.



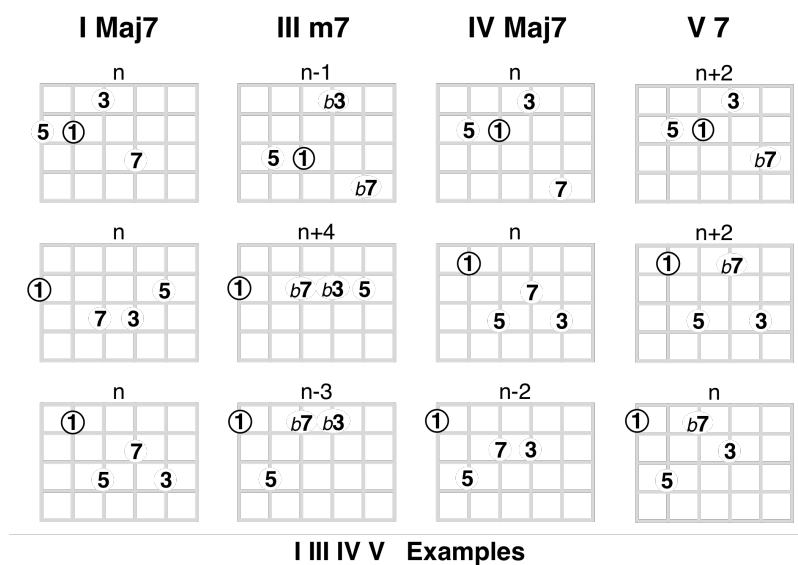
The last example is fun because it uses the same fingering for each chord, but the type of chord changes as it moves across, and down, the fretboard.

I III IV V

This pretty progression lends itself to heading back to the I after the V.



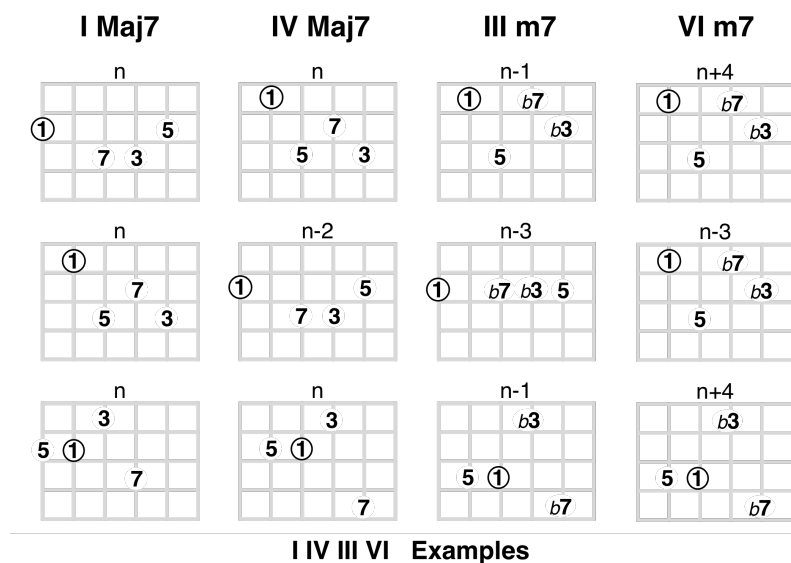
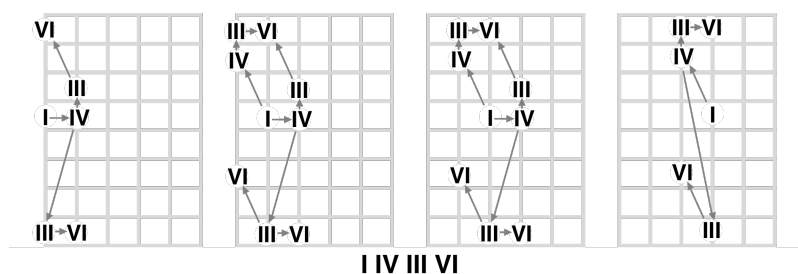
Here are some examples. The “n”s on the top indicate the relative fret on which the root (1) is played.



It's nice to finish these on I, but maybe use two different Is, an octave apart.

I IV III VI

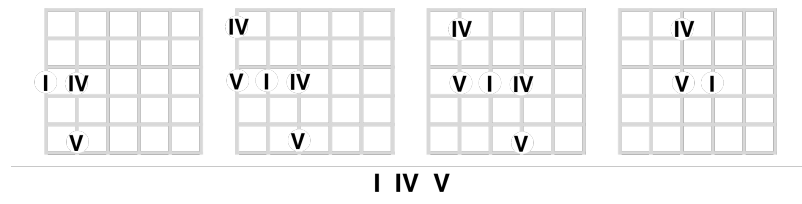
This progression lends itself well to continuing on to a II V I progression to return to the root.



Try adding a II V I progression to the ends of these and see how you like it.

I IV V

I IV V isn't really a progression, but these chords are used together in a number of different ways. Here's the map of how the roots connect.

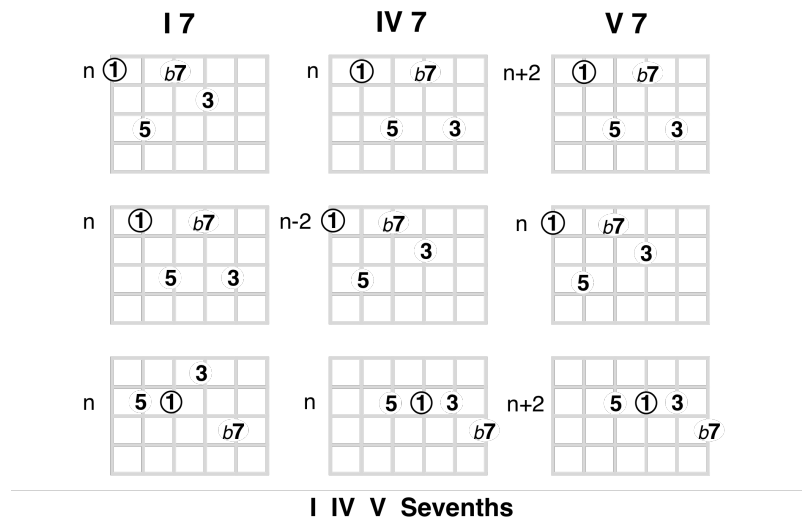


One classic use of these chords is in the blues progression.

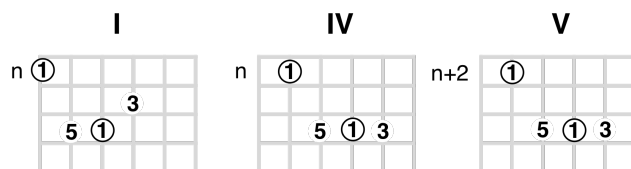
I	I	I	I
IV	IV	I	I
V	IV	I	I

Blues Chords

If you play that pattern using all sevenths chords it sounds like the blues. Here's some chord shape suggestions.

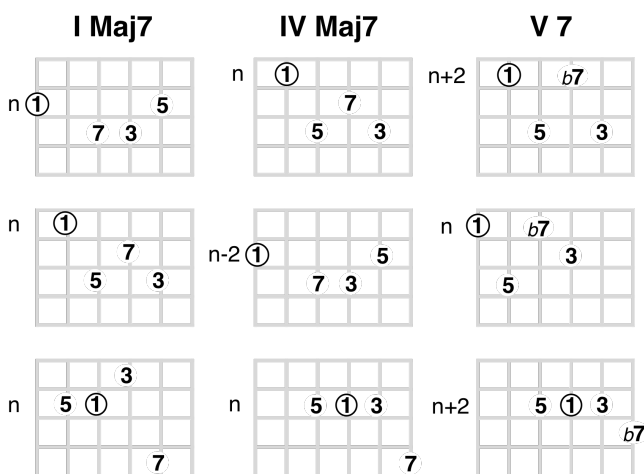


If you play the blues progression using all major chords, it sounds like rock and roll.



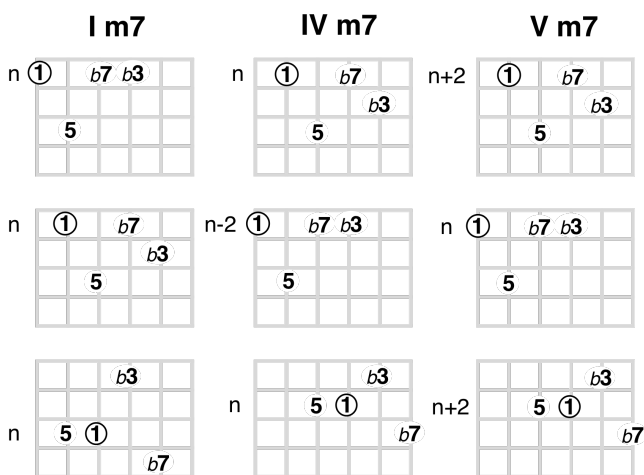
I IV V Major Chords

But if you play it with the chord scale, it sounds like jazz.



I IV V Scale Chords

It can also be played using all minor 7th chords. This sounds either bluesy or jazzy.



I IV V Minor Sevenths

The I IV V chords show up in many different combinations in many types of music, not just the blues. A folk song might have:

I	IV	I	V
I	IV	V	I

Folk Chords

A rock song, like Louie Louie repeats this over and over:

I	IV	V	IV
---	----	---	----

Rock Chords

Play with these chords, there's a lot of music to be made with them.

Other Progressions

Here are some other four chord progressions to play with.

I	VI	IV	V
II	V	I	VI
I	II	IV	I
I	III	VI	IV
II	VI	V	V
V	I	IV	V
I	III	IV	V
I	IV	VI	V
I	VII	IV	I
IV	V	I	I

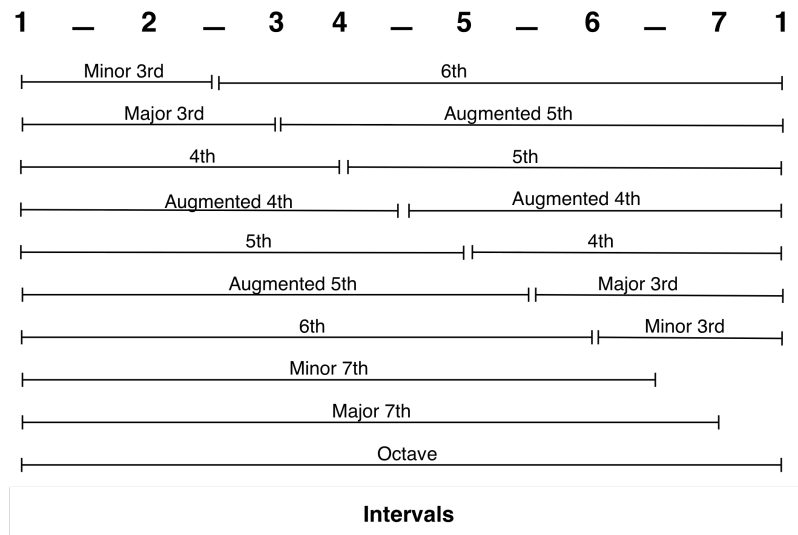
Other Progressions

Intervals

Intervals provide another way of looking at chords. Rather than notes, they are the distances between the notes, the number of half steps. They all have names.

There are twelve half steps in an octave, which corresponds to the twelve notes of the chromatic scale. Two intervals whose lengths add up to twelve half steps are said to complement each other.

Here, for reference, are the intervals and their complements. Some are more important than others.



Confusion

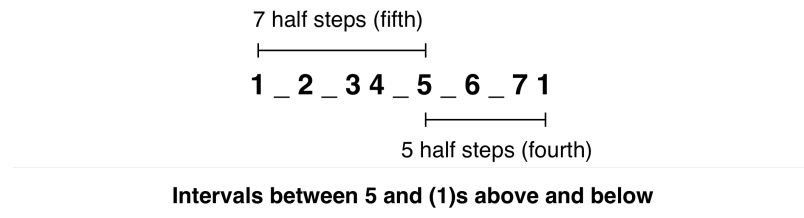
Note that the interval names are derived from the note you end on if you start at (1) and go up. This can cause some confusion.

For example, in the chart above, starting from the (1) on the left the seven half-step interval between it and the 5 above it is called a fifth. Likewise, the five half-step interval between that (1) and the 4 above it is called a fourth.

The distance from the 5 on the chart to the lower (1) on the left is, of course, also seven half-steps.

The interval is the same, it's the distance, whether it goes up the scale or down, no matter what note it starts on. Seven half steps anywhere in any direction is a fifth. So a (1) up to a 5 is seven half steps, and a 5 down to a (1) is seven half steps.

Here's the confusion. If you go down the scale from a higher (1), on the right in the chart, to the 5 below it, it's five half steps, a fourth.



So the distance from a (1) to a 5 depends on whether you're going up the scale or down the scale. Going up, it's a fifth. Going down, a fourth.

This matters for the fretboard where we're constantly connecting (1)s and 5s. Sometimes the (1) is higher, sometimes the 5. Don't let the word "fifth" or "fourth" confuse you, they mean seven half steps and five half steps, seven frets and five frets.

Building Blocks of Chords

Almost all chords are built from thirds, some major, some minor.

Major third — two whole steps, like between 1 and 3, 5 and 7, or C and E.

Minor third — a whole step and a half step (in either order) like between 1 and $b3$, 3 and 5, or C and Eb .

These thirds are stacked to build chords, from the simplest major chords, 1 3 5, to the monstrous 13th chord, 1 3 5 $b7$ 9 11 13, mentioned in the introduction. Here's how thirds define the three notes of major and minor chords.

Major chord — a chord formed by adding first a major third, then a minor third to a root tone. Like 1 3 5, C E G, or D F# A.

Minor chord — a chord formed by adding first a minor third, then a major third to a root tone. Like 1 $3b$ 5, C Eb G or D F A.

Diminished chord — a chord formed by adding two minor thirds. Like 1 $3b$ $5b$ or B D F, the chord scale VII in the key of C.

Here's how those chords, plus another third, define the essential 7th chords.

7th chord — a major chord with a minor third added. 1 3 5 $b7$.

Major 7th chord — a major chord with a major third added. 1 3 5 7.

Minor 7th chord — a minor chord with a minor third added. 1 $b3$ 5 $b7$.

Minor 7th with $b5$ — a diminished chord with a major third added. 1 $b3$ $b5$ $b7$.

Intervals Within a Chord

A chord gets both its shape and its sound from the other intervals inside it.

Fifth — a major third and a minor third in any order like between 1 and 5 or C and G.

Consider a major 7th chord with the notes 1 3 5 7. The interval between the 1 and 5 is a fifth, as is the interval between the 3 and 7.

We'll see that the chord shapes take advantage of this.

Fourth — a major third and a half step (in any order) like between 1 and 4, or more importantly, between a (1) and the 5 below it.

Augmented Fourth — two minor thirds. Like between (1) and a higher 4# / 5b. It is the only symmetric interval, the same going up or down.

Consider a 7th chord with the notes 1 3 5 b7. Significantly, the interval between the 3 and b7 is an augmented fourth.

Tuning and Shapes

Here's the significance of knowing whether an interval is between a root, (1), and a note lower or higher than the root, in particular, a 5.

Consider a Maj7th chord and the voices 1 5 7 3 and 5 1 3 7.



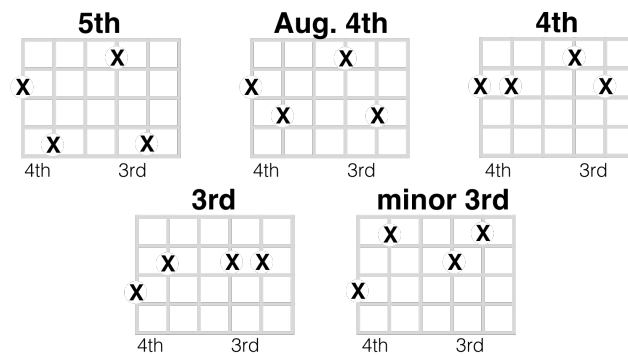
Fifths and Fourths in Maj7 Chords

In the 1 5 7 3 voice, the distance from the (1) to the 5 is up scale, so, considering that the interval between the sixth and fifth strings is a fourth, means the 5 is over one string and up two frets from the (1). That same spacial relation holds for all the chord shapes starting with a 1 5.

In the 5 1 3 7 voice, the distance from the (1) to the 5 is down the scale. So it is a fourth, which is the tuning between the strings. So just over one string. This spacial relation holds for all the voices starting with a 5 1.

Note that the distance from a 3 up to a 7 is also a fifth. And the spacing between the 3 and 7 in the chord diagrams above also reflect whether it's up scale or down scale.

The intervals change with the addition of flats on the 7, 3 and 5. Here's how the key intervals lay out between adjacent strings tuned a fourth apart (most of them) and a third apart (second and third strings).



Intervals on the Fretboard

Pythagoras

*There is geometry in the humming of the strings,
there is music in the spacing of the spheres.*

In Pythagoras's day, around 500 BC in ancient Greece, there were stringed instruments called lyres. They were like mini-harps. They had no frets, but had seven or so strings that when plucked sounded good together. Those harmonies touched the early Greeks, and in them they saw clues to the movements of the heavens and the workings of the human soul.

Pythagoras, of mathematical fame, turned his scientific mind to trying to figure out why some tones sounded so harmonious together, and others didn't.

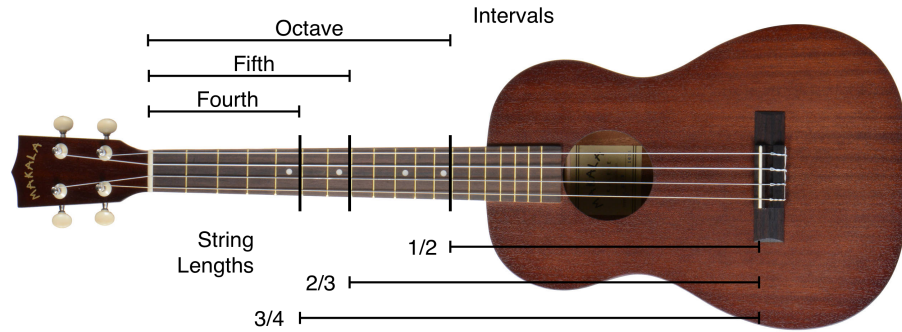
He invented and used a monochord for his experiments, which, as the name implies, is one long single string stretched over a sound chamber. The string could be pressed down to experiment with the sounds created from different string lengths. Sometimes two were used together to see how two different string lengths sounded together.

Pythagoras was looking for mathematical relationships between the most harmonious of notes. He made some discoveries.

- ◆ The most harmonious note came from pressing the string in the middle. That is, when the ratio of the full string to the shortened section was 2:1. We know this today as an octave.
- ◆ The next most harmonious sound came from pressing $1/3$ of the way down the string. That is, when the ratio of the full string to the shortened string was 3:2. We know this today as a fifth.
- ◆ And then, pressing $1/4$ of the way down he found another wonderful harmony at the ratio of 4:3. This we know as a fourth.

Picking up your own stringed instrument you can repeat his observations. No matter what type of fretted instrument, these ratios are the same.

- ◆ The 12th fret divides the string in $1/2$, an octave.
- ◆ The 7th fret divides the string at the $2/3$ point, a fifth.
- ◆ The 5th fret divides the string at the $3/4$ point, a fourth.



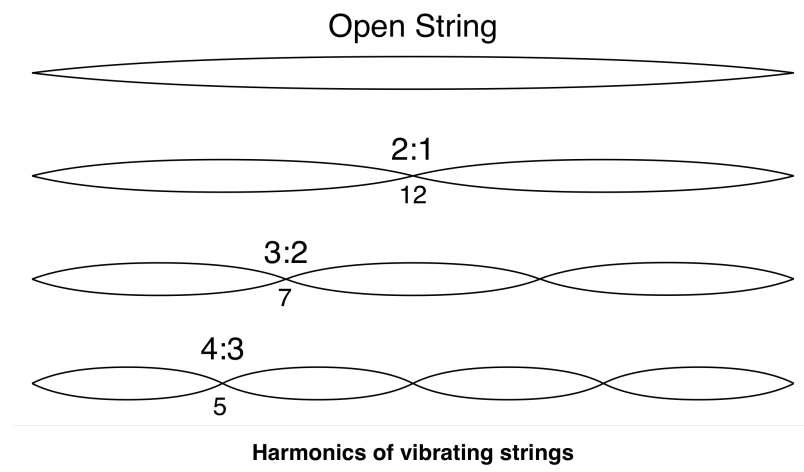
Relationship between today's intervals and Pythagoras's harmonic ratios

Remember, Pythagoras started with what sounded harmonious, and from that discovered the small integer ratios behind those harmonies. Those dots on the fretboard indicate that we, thousands of years later, still recognize the power of his observations.

Harmonics

There's more magic in these intervals and it has to do with harmonics, or vibrations of a string. If one lightly damps a string in the middle and plucks it, it will sound an octave higher. The string vibrates then, not as one long string, but as two half length strings as shown in the diagram below.

Try it by holding your finger lightly over the 12th fret of some string. It might be easiest with the lower strings. When you find just the right spot you'll hear a bell shaped tone, an octave above. (It helps to pluck cleanly and gently with a thumb nail to get that nice harmonic sound.)



You get the same effect by placing your finger over the seventh fret, thus dividing the string into vibrating thirds.

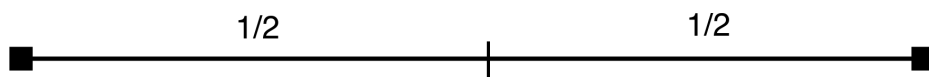
Holding your finger over the fifth fret, the $1/4$ point, effectively cuts the string in half twice. In other words, creating a tone two octaves higher.

Clearly there is a special place for these ratios.

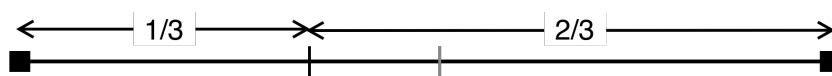
Pythagorean Scale

Full of the discovery of these simple ratios, Pythagoras set about developing a musical scale, a collection of notes that could be played at different positions on the monochord.

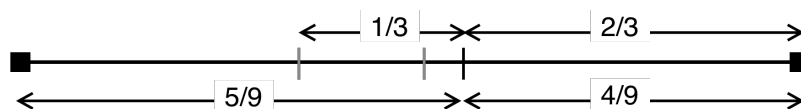
Step one was the octave. He drew a line on his monochord under the $1/2$ way point, where our 12th fret is today. He wanted the scale to be within the octave.



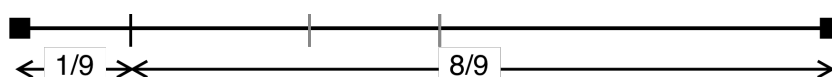
He then based his first note on his favorite 3:2 harmonic ratio, and drew a line $1/3$ way down the full string. This is where our 7th fret is today, and is where the 5th note of a major scale is played.



Now comes the clever part. He decided that the 3:2 ratio was the key to harmony and so he was going to continuously use it to find more notes in his scale. Thus, he went down $1/3$ of the way from his new note, and made another mark. This brought the playable part of the string to $4/9$ of the original string: $2/3 \times 2/3$ if you remember fractions and math (Pythagorus was good at this stuff). It's our 14th fret.



But that's out of range of the octave. What to do? Well simply lower it an octave to bring it back. How is that done? By making it twice as long, which is $2 \times 4/9 = 8/9$. He made another line. That is our 2nd fret.



And so on, he continued this laborious process, with increasingly complex fractions until, miracles of miracles, after the 12th note he was at the next octave. He had gone full circle.

Pythagoras thus invented the 12 chromatic notes of the Western musical scale, deriving them from a cascading sequence of beautifully harmonious 3:2 ratios, or, as we call them, fifths.

His work is most obvious on stringed instruments, where the frets correspond to our notes and his simple ratios. Have you noticed how the frets get closer as you move up the neck? No matter which fret you start on, if you go up 12 frets you divide the string in half, up 7 frets finds the $2/3$ mark, and 5 frets the $3/4$ mark. Harmonious.

You've probably heard of the Circle of Fifths, and it's sometimes explained as a pattern in the scale, but it's really the other way around. Pythagoras circled the fifths and invented the scale.

Epilog — It worked out beautifully, almost, well not quite. The perfect fifths didn't exactly converge on an octave as I said and as Pythagoras had hoped. It was close, but not perfect. To make it work, some intervals had to be shortened, which was okay if it was an interval not used in a particular key. But if one wanted to play in different keys, or build an instrument like a piano with fixed pitches, or a lute with frets... musicians from the Renaissance on kept experimenting with very small adjustments, temperaments, to the intervals trying to get something that played the same in every key.

They finally did, and that's the actual scale and the precise spacing of frequencies that we have today. Still, a musician with a sensitive ear and a fretless instrument, like the violin, will sometimes play those perfect harmonies that so moved Pythagoras.

Music of the Spheres

Pythagoras and other Greeks of the day spent their evenings under the full splendor of the Milky Way, pondering the motions of the stars, planets and moon. When Pythagoras found that simple integer ratios were the key to musical harmony, well isn't it obvious that those simple ratios also explained the motions and harmony of the cosmos as well?

They called this idea the Music of the Spheres.

Which brings us to the jazz classic, *Fly Me to the Moon*. But first, more about the Circle of Fifths.

Circle of Fifths

The Circle of Fifths is exactly the sequence of notes discovered by Pythagoras. It can be reconstructed using our modern scale by continuously going up a fifth from a starting note. Here are those notes, starting at C, each a fifth higher than the previous one. (Each sharped note has a corresponding flatted note not shown.)

C G D A E B F# C# G# D# A# F C

Those can be used as notes in a song, changing keys, or, for this book, chords in a progression.

Fly Me to the Moon

Many jazz songs use parts of the Circle of Fifths, but *Fly Me to the Moon* and *Autumn Leaves* are famous for chord changes that walk the full circle. We'll use those changes as examples, but first understand that it's not actually the Circle of Fifths as shown above.

- ◆ It's a simpler circle,
- ◆ backwards, and
- ◆ a different scale.

A Simpler Circle

Because we're playing chords whose notes want to stay in the chord scale, we're not really interested in the chromatic sharps and flats. There's a way to avoid those notes. Instead of going up a perfect fifth each time, we can use the (1) and 5 of each chord to determine the root of the next chord.

For example, in the key of C the first chord is CMaj7.

C E G B

The 5 in that chord is G, so G is the next chord. Now for this case, the interval from C to G is a perfect 5th, so it makes no difference.

And it's the same for almost all of the other chords, which start with either a major-minor third pair or minor-major third pair. That is, chords with a perfect fifth between the (1) and 5.

But the seventh chord in the chord scale is different. It's half diminished, meaning it starts with a minor-minor third pair. In C it's the Bm7(b5).

B D F A

It indicates the next chord will be F! Not F#. Yay! (The interval from B to F is one fret shy of a perfect fifth neatly creating a short cut over all the sharped/flatted notes.)

This is called the diatonic Circle of Fifths, meaning, for the key of C, that all the notes used are notes in the key of C. Here are the notes in the diatonic Circle of Fifths for the key of C.

C G D A E B F C

Using the generic chord notation, the chords corresponding to the Circle of Fifths are:

I V II VI III VII IV I

Backwards

The Circle of Fifths is defined by moving to higher and higher notes. It seems it's more often used in Jazz going backwards (counter-clockwise on the Circle). These are still fifths when each note is lower than the previous one. C to the higher G is a fifth, C to the lower F is a fifth. Both are seven frets apart.

There is some confusion in terminology here, however, as we think of C to F as being a fourth. It is when going up the scale, but not when going down. Fifths and fourths are complementary intervals, one goes up scale, the other to the same note an octave lower.

This is because fifths and fourths are complementary intervals, a fifth + a fourth = an octave.

Moving counter-clockwise the chords in C are:

C F B E A D G C

Using the generic chord notations these are:

I IV VII III VI II V I

Parts of this sequence show up in many songs. We saw the last chords, II - V - I, in the section on progressions. The VI is often used with it as well: VI - II - V - I, and can be employed in the introduction to a song, as a lead in that gets to the I that then starts the song going.

A Different Scale

We've just talked about major scales in this book because the notes of the major scale are used to define chords. A minor chord, for example, is defined as 1 b3 5, still referring to the major scale.

But if we're talking about songs in keys, major and minor matter. The chords for *Fly Me to the Moon* and *Autumn Leaves* are in A minor. It is the minor key associated with C, so it uses all of the same notes, and the same chord scale chords, just starting at a different place.

Here is the counter-clockwise Circle of Fifths for A minor.

A D G C F B E A

The Chords

We can now associate that Circle with the chord scale.

Am7 Dm7 G7 CMaj7 FMaj7 Bm7(b5) Em7 Am7

These are the chords of *Fly Me to the Moon* (almost, see the actual song in the next section). The Circle of Fifths, abbreviated, in a minor key, backwards.

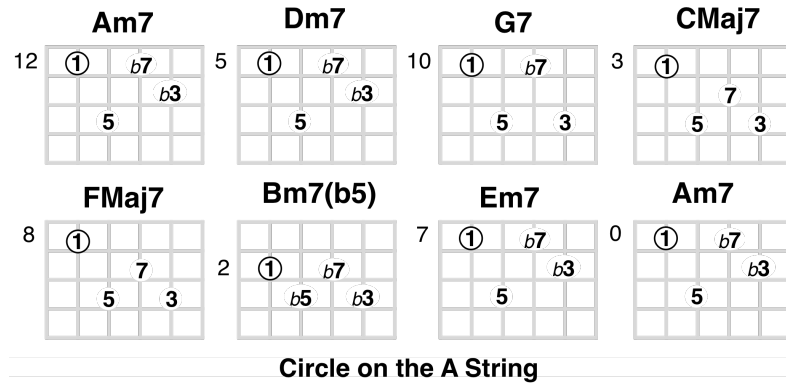
We'll use this progression in the next three sections, illustrating how each voice family can be used in playing it.

1-5-7-3

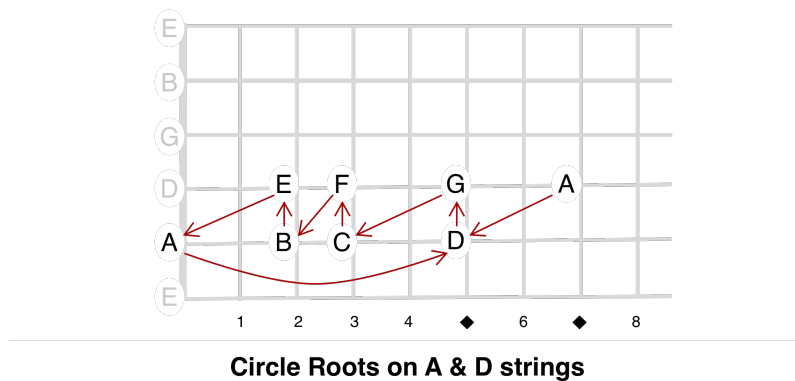
It's educational to start exploring the Circle by playing the progression on just one set of strings. Here it is using just the middle strings, with the root on the A string.

Note that, to keep within the octave, and stay on the guitar fretboard, the intervals played alternate between fifths (7 frets) going down and fourths (5 frets) going up.

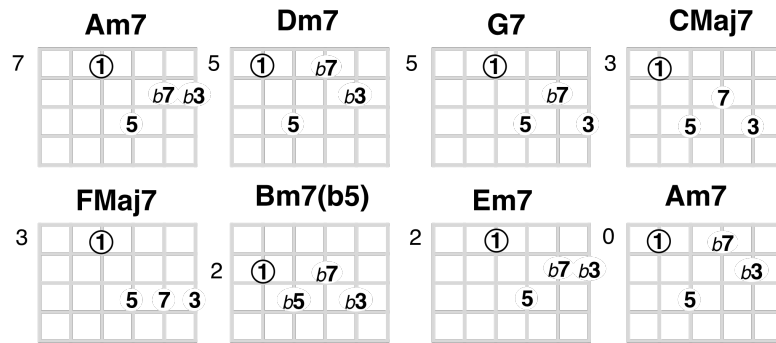
You can take advantage of the 1-5-7-3 voice family by playing these with the bass note separate and hearing how it moves through the Circle.



Since the guitar is tuned in fourths, it's much easier to play this moving back and forth between, say, the D and the A strings. Here's the progression of the roots of the chords doing that, still alternating down-a-fifth and up-a-fourth.

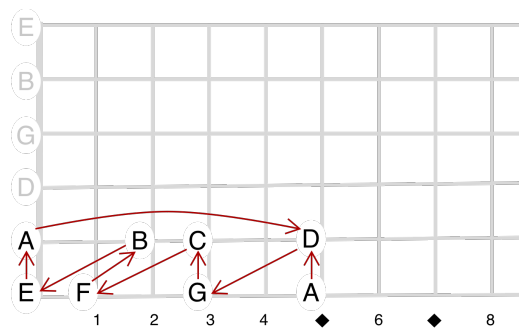


Here are the shapes to use, still in the 1-5-7-3 family. Note that these are the exact same notes as when played on just the A string.



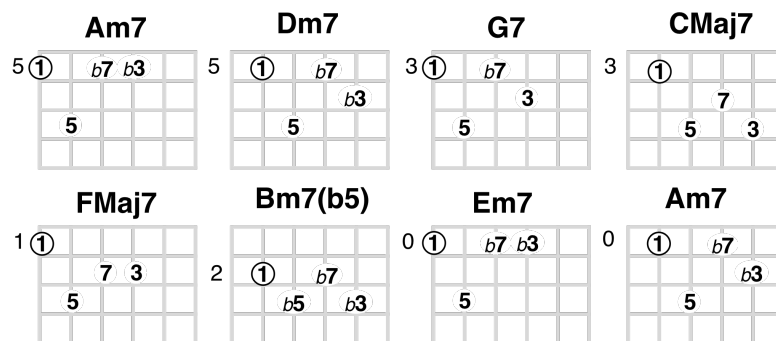
Circle on the A & D Strings

We can do the same thing using the E and A strings. Instead of a high to low pairing of chords, we get a low to high, with a different sound. Here's the progression of the roots.



Circle Roots on A & E Strings

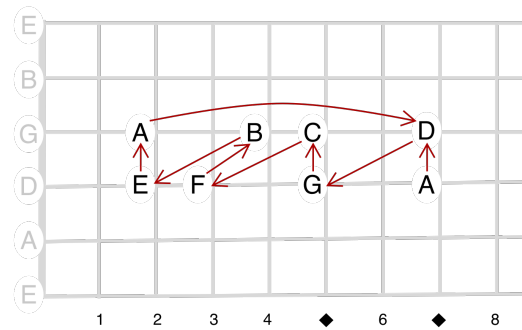
And here are the shapes.



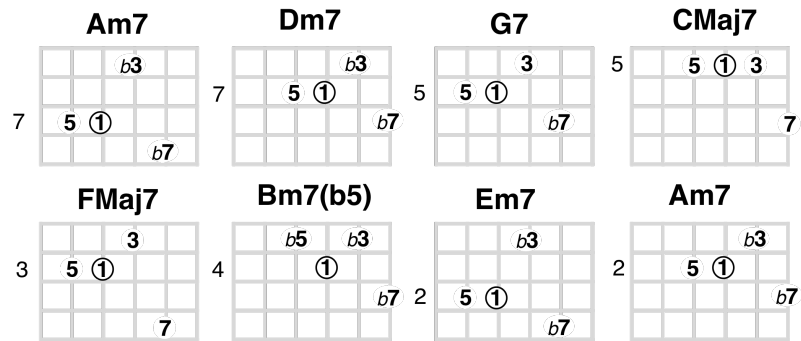
Circle on the A & E Strings

5-1-3-7

Here's the Circle for the 5-1-3-7 voice family. It works well going between the D and G strings.

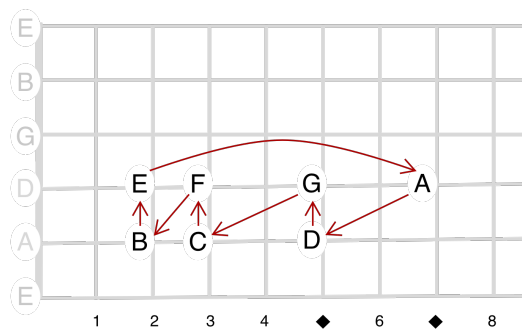


Circle Roots on D & G Strings

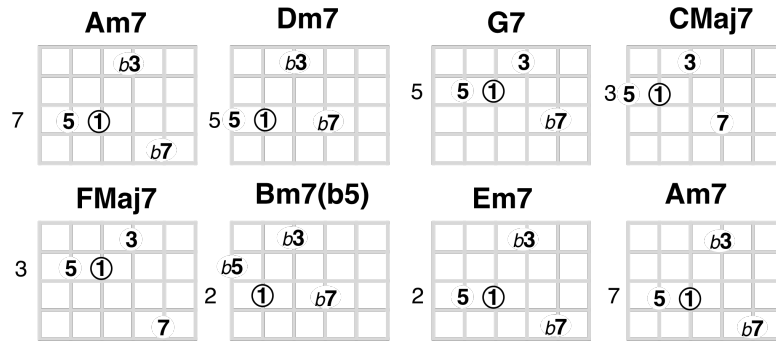


Circle on the D & G Strings

And the A & D strings.



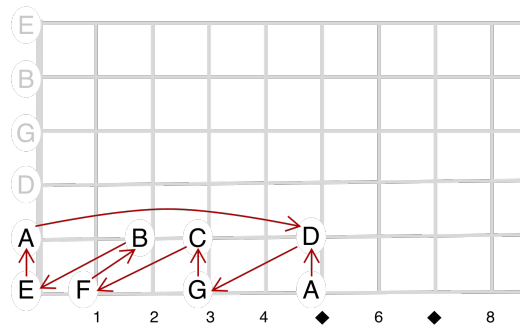
Chord Roots on A & D Strings



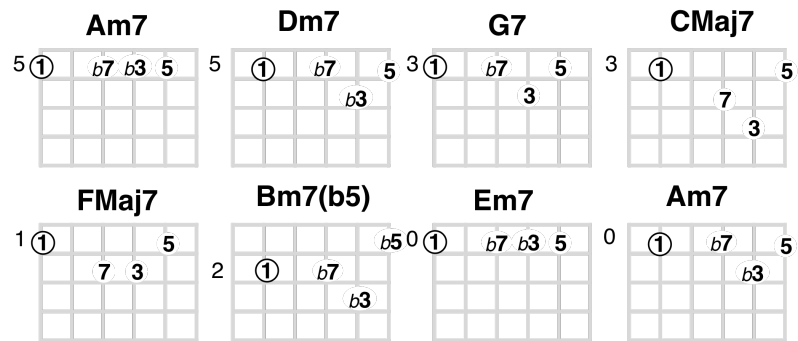
Circle on the A & D Strings

1-7-3-5

We can use the same roots as with the 1-5-7-3 family.



Circle Roots on A & E Strings

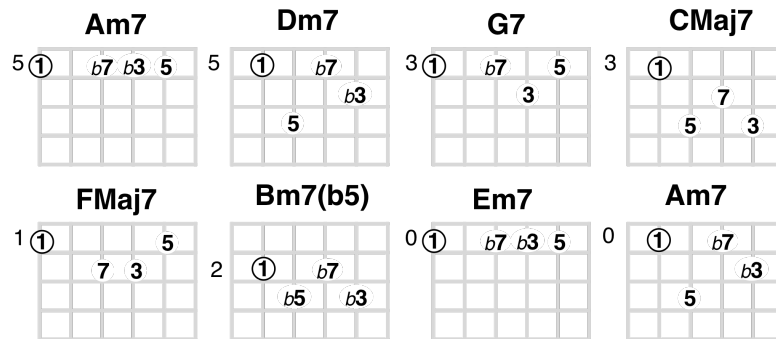


Circle on the A & E Strings

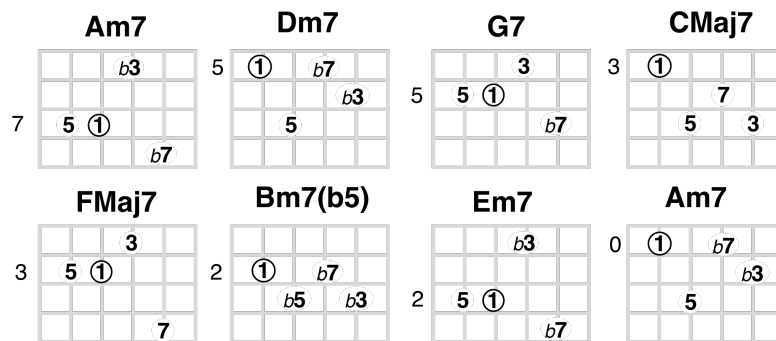
Blended Families

The voice families can be used together to walk the Circle. Here's two examples, 1-7-3-5 alternating with 1-5-3-7 and 1-5-3-7 alternating with 5-1-7-3. The root bass notes move as before.

I think you might find the fingering easier with these blended families.



Circle on the A & E Strings Blended



Circle on the D & A Strings Blended

Essential Seventh Songs

The three jazz classics in this section can all be accompanied using essential seventh chords. The particular chords mostly adhere to the forms needed to stay within the chord scale for the particular song.

For each song it's a good idea to listen to the songs as played by various artists. YouTube, of course, is a good source for finding them.

I can't include the lyrics or the melody in any of the songs due to copyright, but the chords to a song are not covered by copyright. And there's no restriction on discussing a song using its name. It is, also, allowed to use some excerpts of lyrics for discussion, so I've included some lyrics just to help line up the chords with the song.

Underneath the chords I've included the beats and measures, so you know how many beats each chord gets in each measure. The /s are the beats. The |s are the measure delimiters.

The rhythmic picking pattern you use is up to you, although there are suggestions included with some of the songs, as with *The Girl from Ipanema* and its Bossa Nova beat in this section, or the syncopated 5/4 rhythm of *Take Five* in the ending chapter "Fancier Songs."

Disclaimer — I'm someone who likes music and enjoys the logic behind the chords of jazz, but I'm not someone who can orchestrate the accompaniments in the following pages. YouTube is full of tutorials by people with far more musical talent than I have. My work here is mostly to provide a guide through the complex maze of guitar chord shapes.

Fly Me to the Moon

Here are the chords for *Fly Me to the Moon* as suggested in *The Real Book, Volume 2*.

The chords for the verse are a full counter-clockwise Circle of Fifths. The shapes chosen here alternate between 1-7-3-5 voices rooted on the E string and 1-5-3-7 voices rooted on the A string. These fingerings let the solid bass line come through. The alternating bass line also provides perfect harmony with the melody that moves in opposition to it.

The timing shown here is 4/4 time, but the song can also be, and often is, played in 3/4 instead.

You might notice that V is played with an E7 as opposed to an Em7 as would appear if it were part of a natural minor chord scale. This is because it uses what's called the "harmonic minor" in which the 7th note of the scale is sharpened, which is why a G# appears in the melody at "Jupiter" and an E7, with it's G#, is the correct, harmonious chord to play.

The verse is followed by two variations of the chorus. That pattern can repeat as often as you like, and the final time through the song the third chorus is used to end it.

Am7 5 ① b7 b3 5 / / / / Fly me ...	Dm7 5 ① b7 b3 5 / / / / and let me	G7 3 ① b7 b3 5 / / / / play among ...	
CMaj7 3 ① 7 5 3 / /	C7 3 ① b7 5 3 / /	FMaj7 1 ① 7 5 3 / / / /	Bm7(b5) 2 ① b7 b5 b3 / / / /
E7 0 ① b7 5 3 / / / / ...and Mars.	Am7 0 ① b7 b3 5 / /	A7 0 ① b7 5 3 / / In	

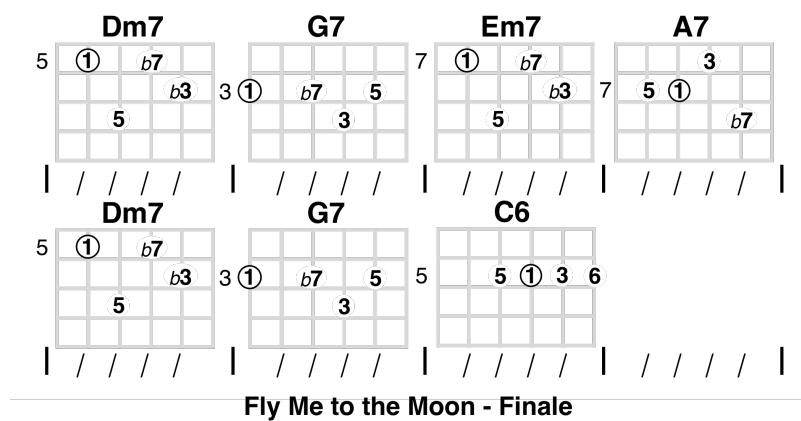
Fly Me to the Moon - Verse

Dm7 	G7 	CMaj7 	
/ / / /	/ / / /	/ / / /	
other words	hold my	hand	
Em7 	A7 	Dm7 	G7
/ /	/ /	/ / / /	/ / / /
CMaj7 	Bm7(b5) 	E7 	
/ / / /	/ /	/ /	

Fly Me to the Moon - Chorus 1

Dm7 	G7 	Em7 	A7
/ / / /	/ / / /	/ / / /	/ / / /
Dm7 	G7 	C6 	
/ / / /	/ / / /	/ / / /	
Bm7(b5) 	E7 		
/ /	/ /		

Fly Me to the Moon - Chorus 2



These are not 100% seventh chords, as there is a C6 that shows up twice. It's hard to find nice shapes for a sixth chord that have the root in the bass. There are other options, and the shapes chosen here show two of them.

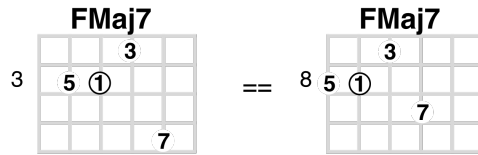
For the final chorus there was another change and that was to play the Em7 and A7 chords further up the neck, and then finish with a C6 on the fifth fret.

There are many ways this can be played. Experiment and enjoy.

The Girl from Ipanema

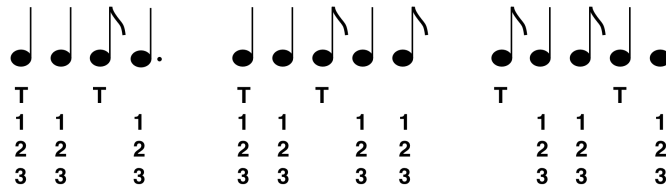
The Girl from Ipanema is another jazz classic that uses the basic seventh chords (plus two chords with flatted 9ths from later in the book).

Here's one way to play the chords using the 5-1-3-7 inversions. I had originally wanted to play the chords in the middle of the guitar and used a FMaj7 shape on the middle strings. But I found the stretch with the pinky a bit difficult so opted for the FMaj7 shown, which has the exact same notes. Also, it's fun to play some of the song on those higher frets.



Identical FMaj7 Shapes

The chords can be played using finger style and Bossa Nova rhythms. Here are three such rhythms:



Bossa Nova Strums

The first one is the basic rhythm and can be used for the entire song. The second one can be thrown in here and there for spice, and then for extra excitement followed with the third pattern. Use whichever sounds best to you and is the most fun to play.

That picking pattern works well with the 5-1-3-7 inversions.

FMaj7 **G7**

8 5 ① 3 7 5 5 ① 3 b7

||: / / / / | / / / / | / / / / | / / / / |

||: Tall and tan... | ...Girl | from I-pa-ne | ma... |

Gm7 **Gb7** **FMaj7**

5 b3 4 5 ① 3 b7 8 5 ① 3 7

| / / / / | / / / / | [1 / / / / |

Gb7b5 **FMaj7**

9 b5 ① 3 b7 8 5 ① 3 7

| / / / / :| [2 / / / / | / / / / |

Girl from Ipanema A1 & A2

Gbmaj7 **B7**

9 5 ① 3 7 2 ① b7 5 3

| / / / / | / / / / | / / / / | / / / / |

| Oh | but I watch her so | sadly | How |

F#m7 **D7**

4 b3 5 ① b7 5 ① b7 5 3

| / / / / | / / / / | / / / / | / / / / |

Gm7 **Eb7**

5 b3 5 ① b7 6 ① b7 5 3

| / / / / | / / / / | / / / / | / / / / |

Am7 **D7b9** **Gm7** **C7b9**

7 b3 5 ① b7 5 ① 3 b7 b9 5 5 ① b7 3 ① 3 b7 b9

| / / / / | / / / / | / / / / | / / / / |

Girl from Ipanema Bridge

Girl from Ipanema A3

The song could also be played using the 1-7-3-5 voices. These let you accent the bass notes more. Here is how the A1 and A2 sections could be played.

Girl from Ipanema A1 & A2

It's an exercise for the reader to finish the song with shapes that have the root on the bass note, or using any of the other shapes available on the guitar.

Who knows whether links I put in the book will still work into the future, but I include one here because it has a fascinating discussion of all the subtleties of this song. This is Adam Neely's YouTube video entitled *The Girl from Ipanema is a far weirder song than you thought*.

<https://www.youtube.com/watch?v=OFWCbGzxofU>

My YouTube channel has a video of Nancy and myself playing the song with her adding, on flute, the counter melody it discusses. *Girl Ipanema - Flute Vocal Guitar Bass*

<https://www.youtube.com/watch?v=u5BFbOvisMI>

Rhythm Changes

As the titles of the other songs in this section are the titles of the song covered, this section should be titled “I’ve Got Rhythm.” But the chord progression has taken on a life of its own and is used in many different songs and is often the basis for jazz jam sessions. As such, the progression is referred to as “Rhythm Changes.”

The progression from the A1 part of the song is:

I - Maj7	VI - m7	II - m7	V - 7
III - m7	VI - 7	II - m7	V - 7
V - m7	I - 7	IV - Maj7	VII - 7
III - m7	VI - 7	II - m7	V - 7

Rhythm Changes Progression

The chords can be played in any key, but are often played in Gershwin’s original key of Bb. Note that, using our movable chords, it doesn’t really matter too much what key we play in. The shapes used for Bb starting on the third fret below, can simply be started at the fifth fret to play in C.

BbMaj7	Gm7	Cm7	F7
Dm7	G7	Cm7	F7
Fm7	Bb7	EbMaj7	Ab7
Dm7	G7	Cm7	F7

Rhythm Changes in Bb

The B section of the song shifts gears to a sequence of fourths, each chord taking two measures.

III - 7	III - 7	VI - 7	VI - 7
II - 7	II - 7	V - 7	V - 7

Rhythm Changes B Section

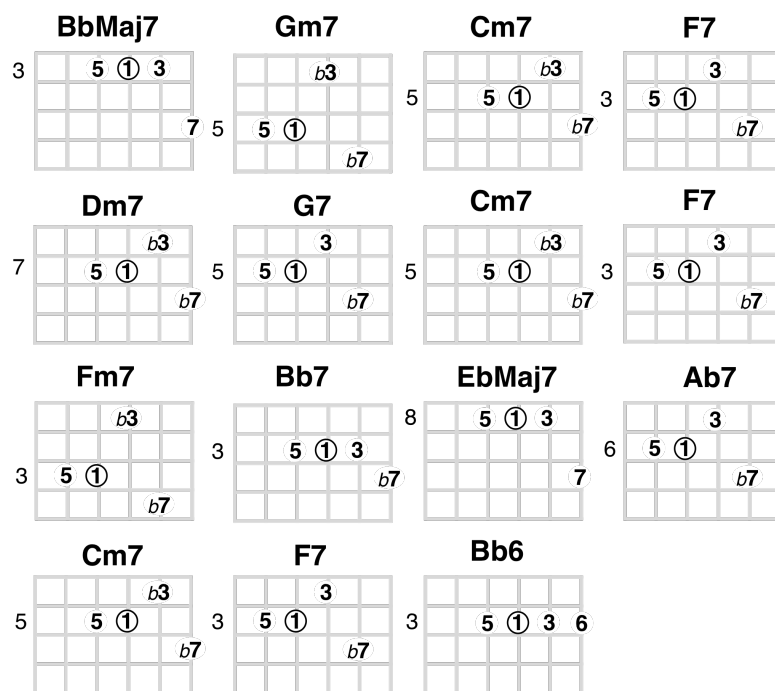
Here’s a fun way to finger the Rhythm Changes chords using 5-1-3-7 inversions. The song uses two chords per measure for the A1 and A2 sections, relatively fast but they’re fun to play slow as well using more leisurely plucking patterns. For the B section, each chord lasts for two measures.

BbMaj7 	Gm7 	Cm7 	F7
Dm7 	G7 	Cm7 	F7
Fm7 	Bb7 	EbMaj7 	Ab7
Dm7 	G7 	Cm7 	F7

Rhythm Changes A1 using 5 1 3 7

D7 	D7 	G7 	G7
C7 	C7 	F7 	F7

Rhythm Changes B using 5 1 3 7



Rhythm Changes A2 using 5 1 3 7

The 5-1-3-7 inversions used above work well, bouncing similar fingerings between the four treble and middle strings. This allows for quick changes and can be used, with some practice, maybe, at the speed of the original song.

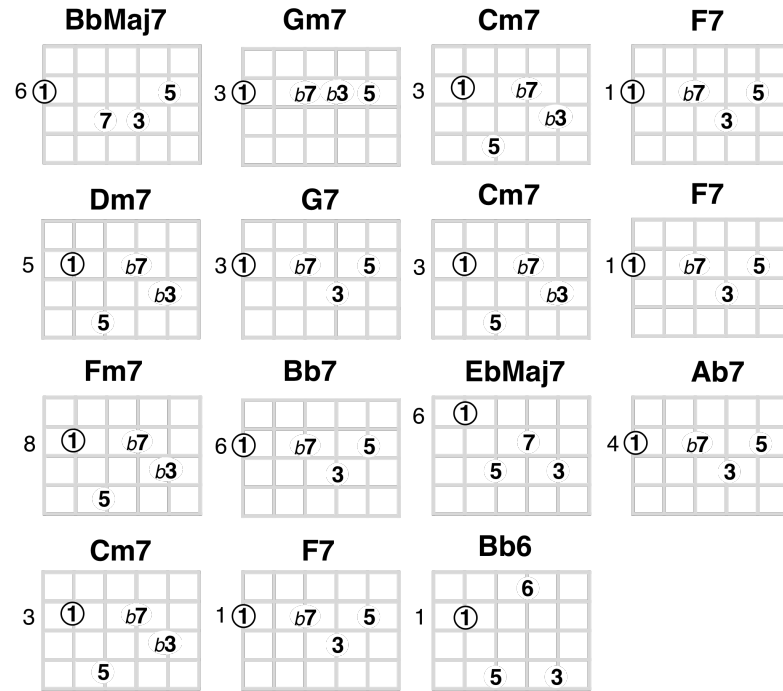
However, it's a just plain nice chord progression, and sounds good at any speed, and using other inversions gives you other options. Putting the root notes on the bass strings using 1-5-7-3 and 1-7-3-5 inversions lets you play with more of an oom-pah sound.

BbMaj7	Gm7	Cm7	F7
6 ① 5 7 3	3 ① b7 b3 5	3 ① b7 b3 5	1 ① b7 5 3
Dm7	G7	Cm7	F7
5 ① b7 b3 5	3 ① b7 5 3	3 ① b7 b3 5	1 ① b7 5 3
Fm7	Bb7	EbMaj7	Ab7
8 ① b7 b3 5	6 ① b7 5 3	6 ① 7 5 3	4 ① b7 5 3
Dm7	G7	Cm7	F7
5 ① b7 b3 5	3 ① b7 5 3	3 ① b7 b3 5	1 ① b7 5 3

Rhythm Changes A1 using 1 7 3 5

D7	D7	G7	G7
5 ① 7 5 3	5 ① 7 5 3	3 ① b7 5 3	3 ① b7 5 3
C7	C7	F7	F7
3 ① 7 5 3	3 ① 7 5 3	1 ① b7 5 3	1 ① b7 5 3

Rhythm Changes B using 1 7 3 5



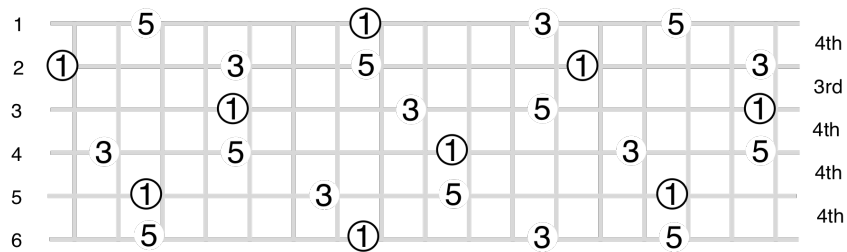
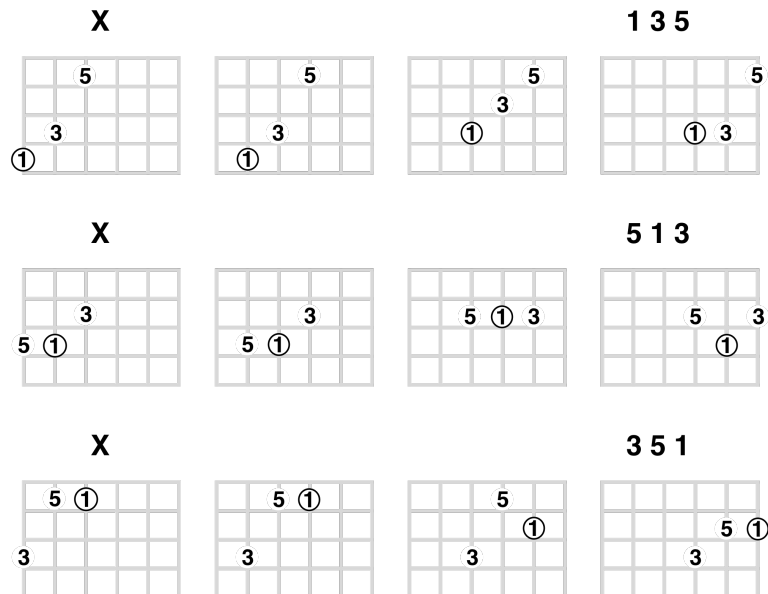
Rhythm Changes A2 using 1 7 3 5

You might be able to find an old video of George Gershwin playing the song at lightening speed on a piano.

Major and Minor Triads

Sometimes jazz songs use ordinary three note chords.

Here's how just the 1, 3 and 5 of a major chord layout on the fretboard, and the ways to play them as triads. They are often linked to each other, duplicating notes to create the four, five, and six strings shapes often used to play major chords.

X Notes — 1 3 5**Major Triads**

The minor chords are similar. Here they are:

Xm Notes — 1 b3 5

Minor Triads

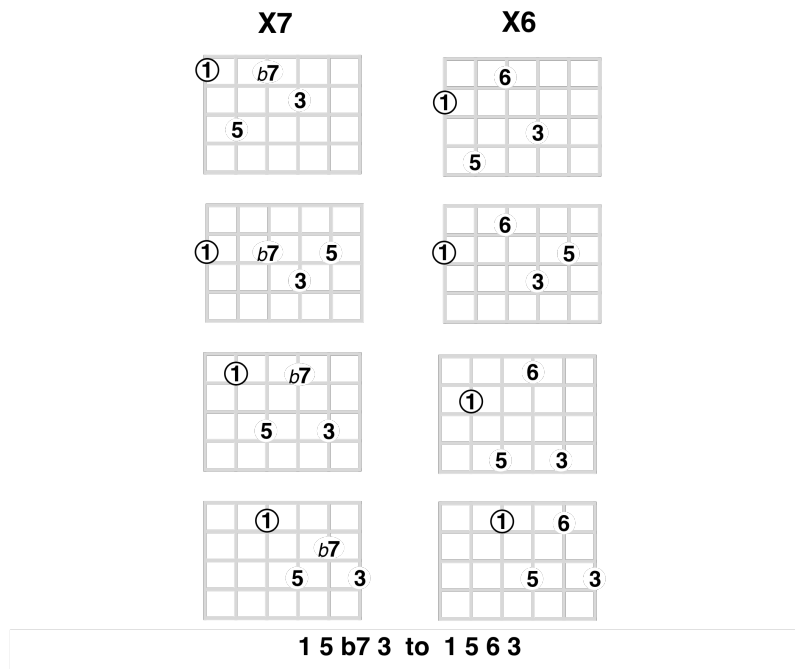
Xm 	1 b3 5
Xm 	5 1 b3
Xm 	b3 5 1

It's left as an exercise for the reader to experiment with all the possibilities for making four note major and minor chords. Like the standard six string shape used for a barred F or Fm can be moved anywhere and plucked on any four of it's strings.

13

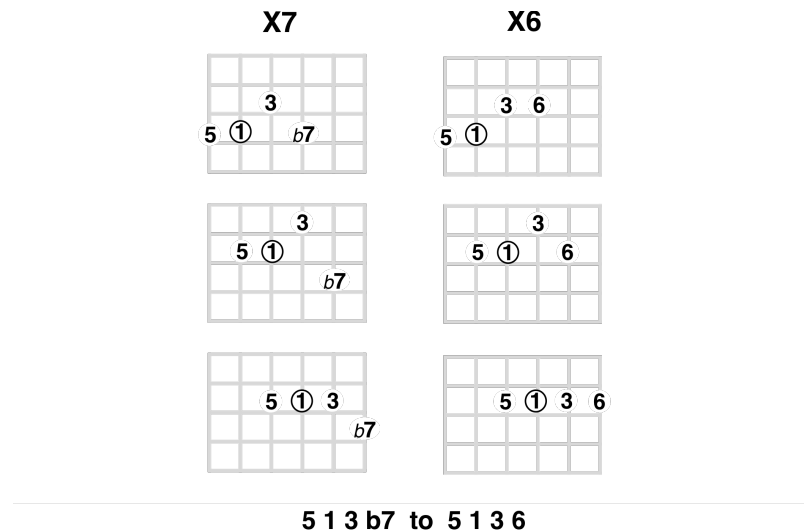
6ths

Sixth chords are easy to see on the fret board, as they are the same as 7th chords, but with the finger on the *b7* moved back a fret. Here are the ways 7th chords in the 1 5 *b7* 3 voice can be changed to 6th chords.



Unfortunately, with the exception of the last one, these are awkward to finger. The problem is the (1) and *b7* are usually at the same fret, and easily played with a bar, but moving the *b7* to a 6 means some other contortion is required to make the chord.

The good news is that the 5 1 3 *b*7 voices lend themselves very well to morphing into 6th chords.



Even better is the fact that the pinky finger playing the 6 is the same as for the *b*7 and a progression of Maj7th to 7th to 6th is easily played, and sounds good too.

Substituting 6th Chords

Sixth chords can be used instead of other chords in chord progressions, but they will sound better for some chords in a chord scale than others. The trick is to use the 6th chords where they, like the 7th chords discussed earlier, have all their notes in the scale of the key being played.

The intervals of a 6th chord are:

M3 m3 M2

If you look at a scale you will see that this pattern lines up with notes in the scale for the I IV V chords. So 6th chords can be used to substitute in progressions for those chords.

16

IV 6

IV 6

[illegible]

Look at the chord progressions shown earlier and see how 6th chords sound substituted for the I, IV, or V chords. The 5 1 3 6 voices might sound best.

Extended and Altered

Jazz chords include all sorts of variations of the chords we've seen so far. The variations fall into two large categories, **altered** and **extended**.

Altered chords have a basic note in the chord changed. This might be the 5, in which case it's called an **augmented** chord, or it might be the 3, in which case it's a **suspended** chord.

Extended chords have an additional note added to a basic seventh chord. These notes are the 9, 11, and 13. They get their name from thirds stacked for two octaves.

1 3 5 7 9 11 13

The 9, 11, and 13 are just the 2, 4, and 6 of the next octave, and for making the chords, those are the notes that are often played. The name preserves the harmonic roles of the notes, as it is those intervals of thirds that make the sounds we hear.

These two types of variations are indicated in the names of the chords. For example, a G7+5 is a G7 chord augmented with a sharpened 5. A G13 is a G7 with a 13 replacing the 5.

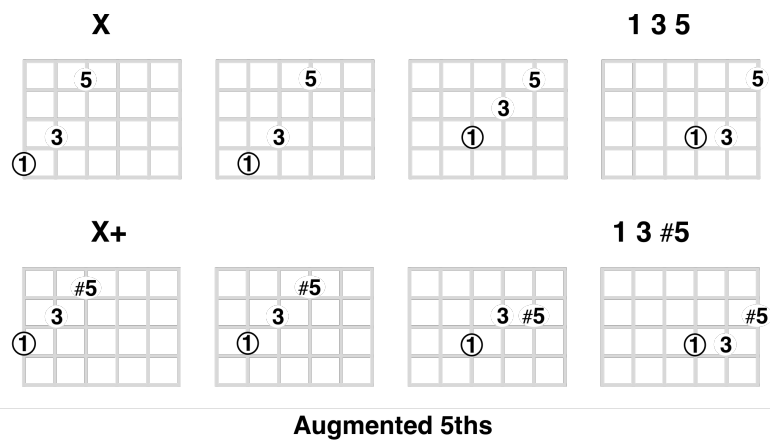
Chords can be both altered and extended, and jazz musicians constantly mix and match the various ways to modify the sound of a chord. The many ways chords can be substituted is beyond the scope of this book, but here are how to learn and make these chords when you find them in your wanderings through jazz classics.

Augmented and Suspended

The appendix (Lots of Shapes) shows many ways to play various augmented and suspended chords. These are indicated by a + or - for the augmented chords, and a sus or sus(4) for the suspended ones. Here are some shapes that are fun to play.

Augmented 5s

Augmented 5s are easy to play if you know where the 5 is. Here are some shapes with the (1) in the bass, showing how to move from a major chord to an augmented chord.



These are fun to play moving the 5 to the #5 and back. It's also fun to take it up one more fret to the 6 and then back down.

Suspended 3s

Suspended 3s sound good when the 3 is on treble string of the chord. Here's how to move from 5 1 3 triads to suspended 2s and 4s.

X		5 1 3	
Xsus(4)		5 1 4	
Xsus2		5 1 2	

Suspended 3rds

Try playing these going from the 3 to the 4 to the 3 to the 2 and back.

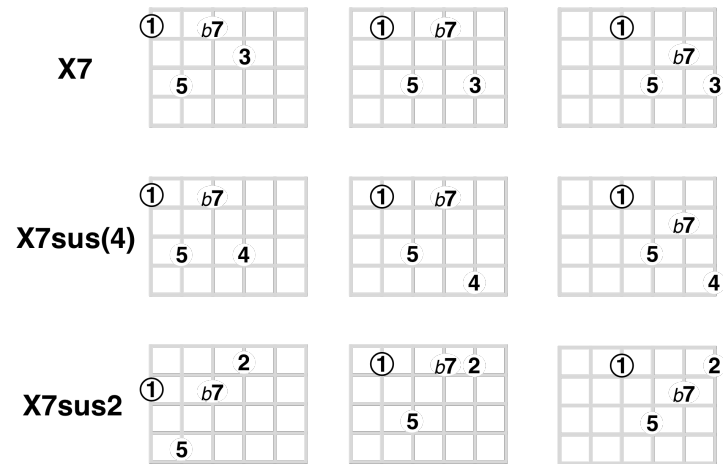
Augmented and Suspended 7th Chords

Any chord can be augmented or suspended. Here's some shapes for applying the idea to 7th chords. The 1 b7 3 5 voice lends itself nicely to augmented chords.

X7		
X7+5		

Augmented 7th Chords

The 1 5 *b*7 3 voice lends itself nicely to suspended chords.



Suspended 7th Chords

Experiment with these. The middle shapes are nice because it's easy to go between all three chords using just the pinky.

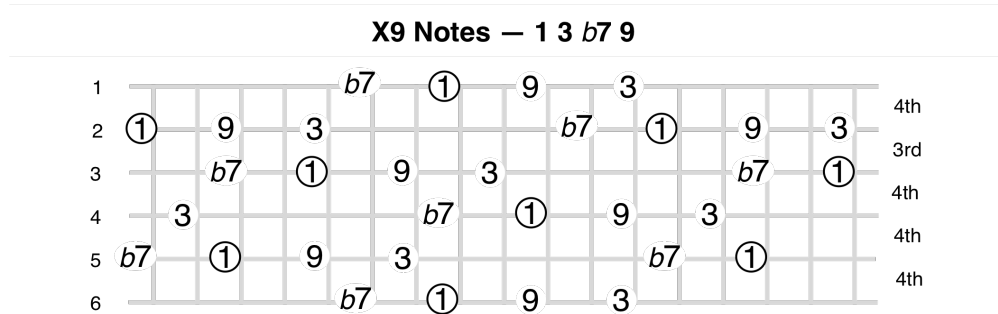
Extended chords have notes added from a second octave, being the 9th, 11th, and 13th. To keep a four note chord some other note is dropped.

9th Chords

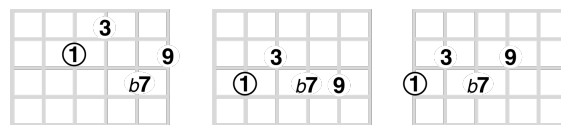
For most 9th chords the 5 is dropped and the *b7* is included, so the notes are:

1 3 *b7* 9

These notes tend to cluster together on the fretboard, leading to different voices for playing them than those seen with 7th chords.



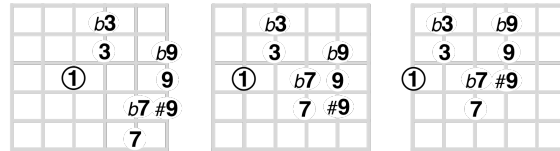
You'll notice that a natural voice, with the notes played in order, is the easiest way to make a 9th chord. Here are three shapes with the root on each of the three base strings.



9th Chord Shapes

Like with 7th chords, there are a lot of variations on 9th chords, used for different harmonic effects, and, with concern at times, for how a particular chord fits in the chord scale. The names are sometimes confusing. Sometimes chords with a 9 are called 9th chords, such as X9, and sometimes they are called 7th chords with a 9 variation, such as X7(*b9*).

Here are the variations that might be used and that are easily derived from the shapes above.



9th Chord Variations

See the Shape Library for more details and options and variations on chords with a 9, such as those with #5 or b5 instead of the 3, or a 13 instead of a b7.

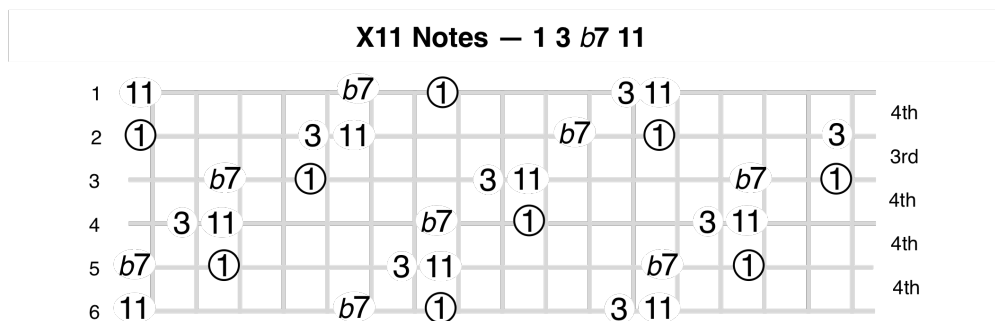
To make the four note chord, it's also possible to drop the (1). In the Shape Library you'll see options for 9th chords where the notes are:

3 5 b7 9

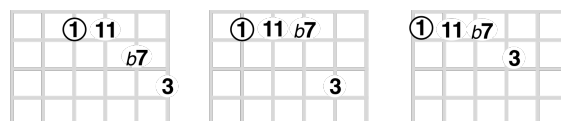
This is not as bad as it sounds because the ear will often fill in the (1) based on the chord progression being played. Also, if you're playing in a group with bass player, it's not necessary to play the (1).

11th Chords

The 11 is, of course, the same as the 4 and just a half step up from the 3. This limits the options for making good shapes for 11 chords.



Here are some shapes with the root on the base string. These are easy to play, but might sound nicer if the 11 was more on the treble side of the shape.

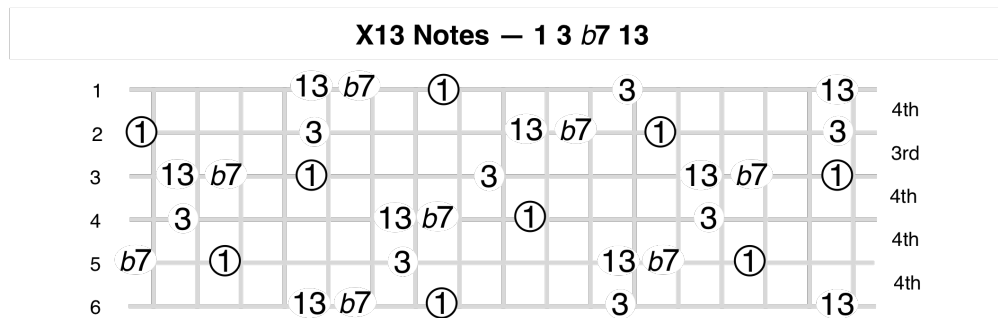


11th Chord Shapes

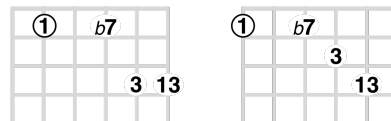
The Shape Library has other options, and you might find some of your own in the fretboard map above.

13th Chords

13th chords have the same problem as 11th chords, with the 13 and b7 being just a half step apart.



The good news is there are a couple of nice sounding ways to play a 13th chord with the root on the bass string and the 13 on the treble string of the shape.



13th Chord Shapes

And thus we've completed this survey of chords, the notes, voices, the order of the notes, and shapes, the fingering patterns for the notes. The songs in the next section make use of these fancier jazz chords, providing surprising spice as they appear. Enjoy.

Fancier Songs

The four jazz classics in this section make use of chords beyond the four essential sevenths, although *Take Five* is mostly essential sevenths, just played in a different time signature and a difficult key, which is not a difficult key when using movable chord shapes.

Summertime

Here are the chords for George Gershwin's *Summertime*, in the key of Am. Because they're all moveable and start at the middle of the fretboard, it's easy to move them up or down a few frets, playing in Gm, say, or Bm.

The separated bass notes on the repeating Am6 and Bm6 lend themselves to picking the bass note on the first beat of a measure and the treble notes on the second beat and sliding up and down between the two shapes.

The song starts with "Sum - mer time..." The chords start on "time."

Sum-mer |

Am6 : / / : time	Bm6 / /	Am6 / /	Bm6 / /
an' the liv-in is			
Am6 / /	Bm6 / /	Am6 / /	
Bm6 /	Am6 /	Dm7 / / / /	E+ / / / /
high Oh, yo			

Summertime Part I

Am6 5 ① b3 5 / / dad-dy's	Bm6 7 ① b3 5 / / rich	Am6 5 ① b3 5 / / An yo'ma	Bm6 7 ① b3 5 / / is good
Am6 5 ① b3 5 / /	Bm6 7 ① b3 5 / /	Am6 5 ① b3 5 / /	D7 5 ① b7 5 3 / /
C 3 ① 5 ① 3 / /	Am 7 5 ① / /	D 5 ① 5 ① 3 / /	G11 5 ① 11 b7 3 / /
Am 7 5 ① / / / / cry			

Summertime Part II

Am **D9-5** **Am6** **Bm6**

D9 **D9-5**

D **G11** **C** **F11**

Bb **E7** **Am**

Am6

Summertime Ending

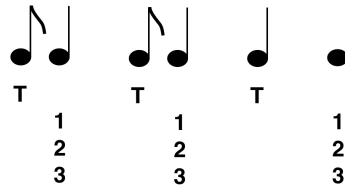
It's fun to, instead of playing the last Am6 chord, simply drop a pinky on the 6 note and play it. Also note that the Am6 and Bm6 in the transition use a different shape than the main Am6 and Bm6. I just thought it sounded better here, but experiment and see what works best for you.

Summertime is one of those songs that, to me, sounds good no matter who plays it and how.

Take Five

Take Five is in 5/4 time in the key of Eb minor, with it's six flats. Intimidating key? Not with moveable chords, just anchor everything off the sixth fret.

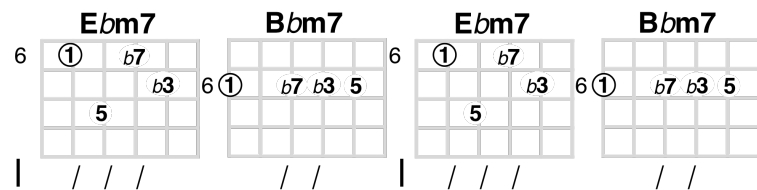
The 5/4 timing is different though. The first chord in each measure gets three beats, the second chord gets two, played with a syncopated rhythm.



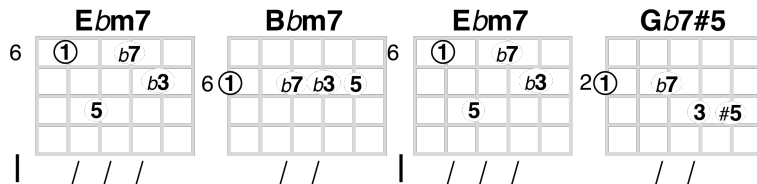
Take Five 5/4 Picking Pattern

Listen to it on YouTube or elsewhere to get a sense of the swing rhythm used to play it.

Here are the movable shapes I like for playing it.



Repeat above two more times



Take Five A1 Section

Cbm7 / / /	Abm6 / /	Bbm7 / / /	Ebm7 / /
Abm7 / / /	Db7 / /	Gbm7 / / /	Gb7#5 / /
Cbm7 / / /	Abm6 / /	Bbm7 / / /	Ebm7 / /
Abm7 / / /	Db7 / /	Fm7/4 / / /	Bb7 / /

Take Five B Section

Ebm7 / / /	Bbm7 / /	Ebm7 / / /	Bbm7 / /
----------------------------	--------------------------	----------------------------	--------------------------

Repeat above two more times

Ebm7 / / /	Bbm7 / /	Ebm7 / / /	/ /
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Take Five A2 Section

Look for a video of Dave Brubeck playing this. It was recorded on an album called *Time Out* where each of the songs was in a different time signature. Thus the name *Take Five* for this song.

Stormy Monday

Stormy Monday by T-Bone Walker is another jazz/blues song whose chord progressions have taken on a life of their own, and they make full use of all the alterations and extensions previously discussed.

Mark Fowler wrote an informative article called "Jazz Chords" that describes in detail the roles each of these chords have in *Stormy Monday*. It was (still is?) available on his Binghamton.edu Web site.

He started with a simple 12 bar blues using seventh chords:

G7 C7 G7 G7

C7 C7 G7 G7

D7 C7 G7 G7

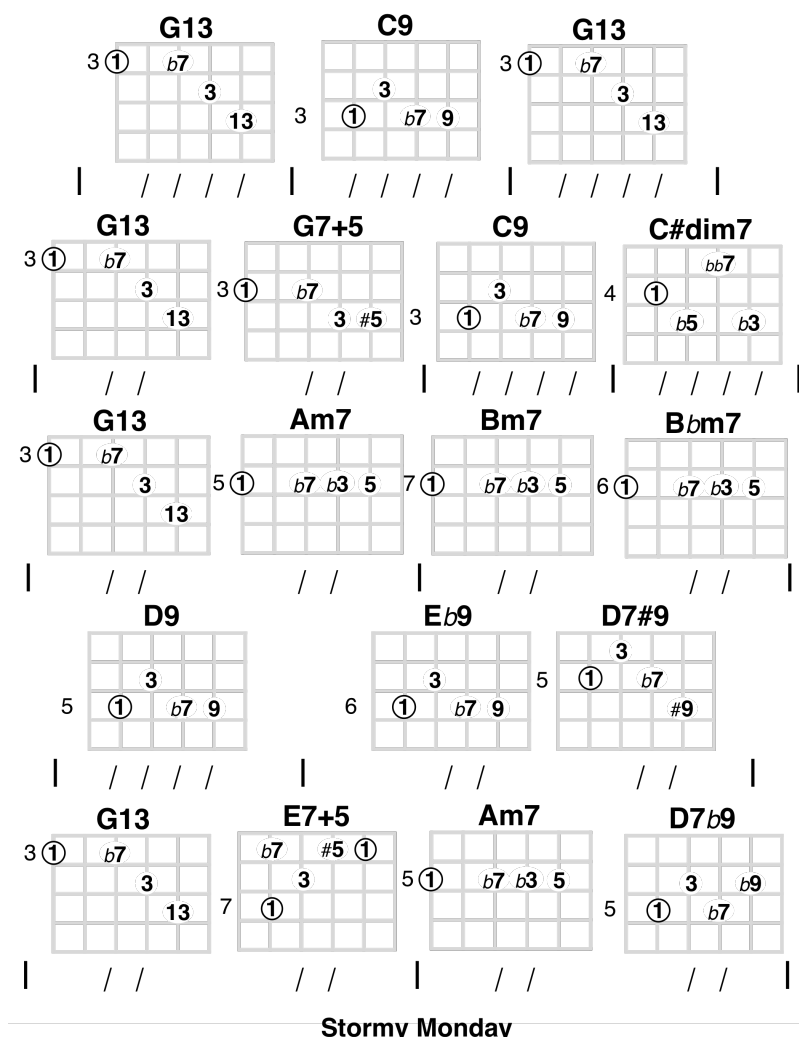
He then described various substitutions with extended and altered chords, added some turn-arounds and a classic walk-up to get to the progressions the song is known for. Listen to both T-Bone Walker's and the Alman Brothers's version of it to hear them. (The :s below indicate two chords played in a measure.)

G13 C9 G13 G13:G7+5

C9 C#dim7 G13:Am7 Bm7:Bbm7

D9 Eb9:D7#9 G13:E7+5 Am7:D7b9

Here are some choices for these chords that I liked. They keep the root notes on the bass, so the flow of the bass sounds through the progression. If one was playing with a bass player, maybe different shapes would be better.



The chord names do little to illustrate what's happening. For example, the transition from the G13 to the G7+5 requires just one finger, pulling off the 13 to reveal a #5, to make a smooth transition that leads into the C9. And the move from Eb9 to D7#9 slides three of the four fingers down one fret, leaving the 9 in place and changing it's role to a #9.

The only chord that creates a problem with the bass line is the E7+5 in the eleventh measure. It's difficult to find a shape that keeps the root on the bass string. I think it sounds good to simply cheat and play the root on the 5th string dropping the b7, as suggested in the diagram.

T-Bone Walker was one of the first jazz/blues musicians to use an electric guitar and his hit recording of *Stormy Monday* in 1948 influenced other musicians, such as B. B. King, to take the electric guitar seriously.

Bewitched, Bothered and Bewildered

These two books started with me pondering the chords for *Bewitched, Bothered and Bewildered*. It's a beautiful song, well worth getting the music and lyrics for from the source of your choice.

Here are the chord shapes I like using with this song. I've tried to choose shapes where, on the transitions, it's easy to add a single note which can be played by itself, instead of repeating the whole chord. For example, in the 10th measure, going from G7 to G7+5, can be done by putting a pinky on the #5 after playing the G7 and just playing that note.

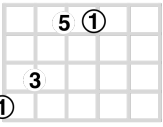
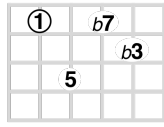
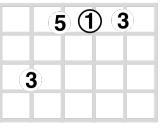
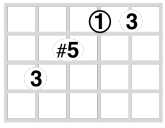
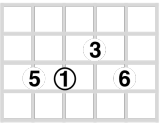
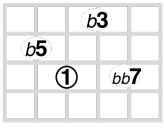
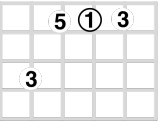
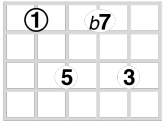
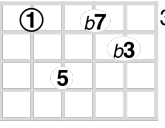
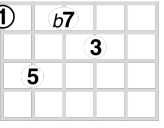
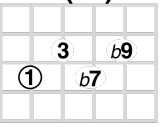
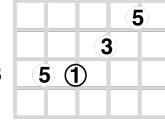
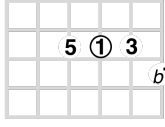
There are similar opportunities in many of the transitions. Experiment.

Dm7 	G9 	Em7 	A9
: / / / / / / / /			
: He's a fool and don't I know it			
Dm7 	G9 	Em7 	A13
/ / / / / / / /			
Dm7 	G9 	Em7 	Am7
/ / / / / / / /			
Dm7 	G7 	CMaj9 	C6
[1 / / / / / / / /			
Dm7 	G13 	G7 	G7+5
[2 / / / / / / / /			
Put me on the blink I'm			

Bewitched Introduction

C		Dm7	
: / / / /		/ / / /	
: wild a-gain		be- guiled a-gain A	
C/E	C+	F6	Fdim7
/ /	/ /	/ / /	/
C	D7	Dm7	G7
/ /	/ /	/ /	/
A7(b9)	Dm7		
/	/ / / /	/ / / /	/
am	I	I	

Bewitched A1

C  / / / / could - n't		Dm7  / / / / sleep would - n't		sleep	
C/E  / /	C+  / /	F6  / / /	Fdim7  /		
C  / /	D7  / /	Dm7  / /	G7  /		
C7(b9)  / am	F  / / / / I	A7  / / / /			

Bewitched A2

Dm / / /	DmMaj7 /	Dm / / / /	
Lost my heart, but what of it?			
Am / / /	AmMaj7 /	Am / / / /	
Dm7 / /	G13 / /	Dm7 / /	G13 / /
Em7 / /	Ab7 / /	Dm7 / /	
G7-5 /		G7 /	

Bewitched Bridge

[1 / / / / | / / / / :||
 [2 / / / / | / / / / ||

Bewitched A3

Bewitched, Bothered and Bewildered is from the 1940 Rodgers and Hart musical *Pal Joey*. It was considered scandalous at the time due to its lyrics in which a woman discusses her desires. Hmmm, and Nancy wanted to sing it...

Shape Library

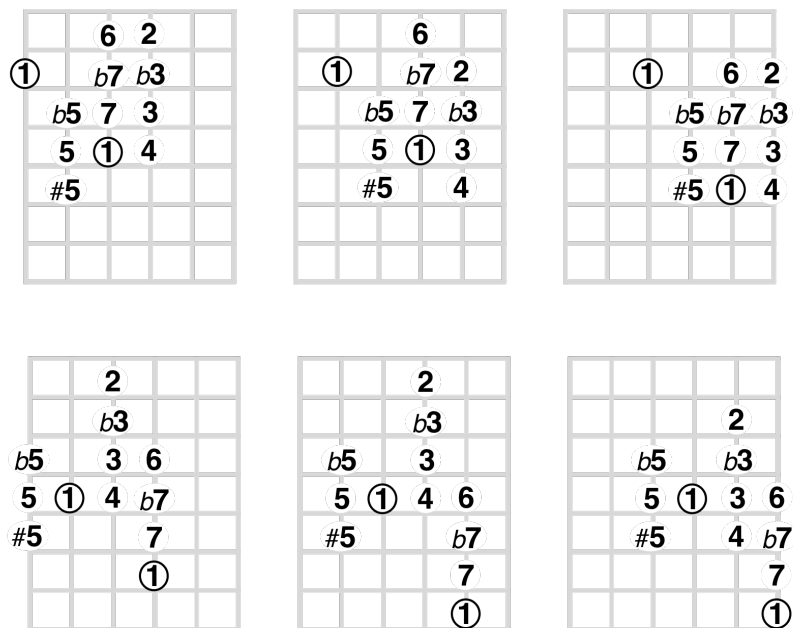
This is a library of movable chord shapes for each chord, as well as a fretboard map that can be used to find other shapes and/or work on solos over the chord.

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X9 - (1) 3 5 b7 9	124
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XMaj9 - (1) 3 5 7 9	126
Xm9 - 1 b3 b7 9	127
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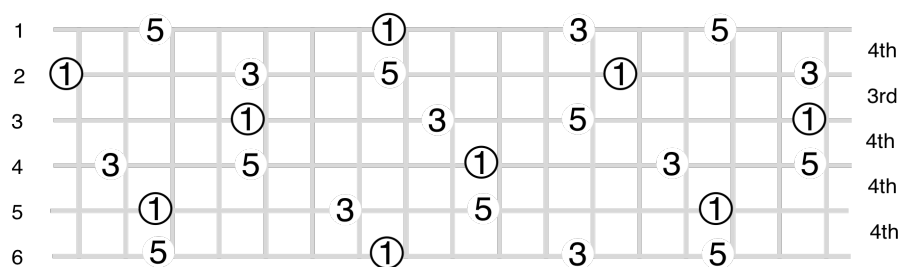
X9+5 - 1 #5 b7 9	130
X9+5 - (1) 3 #5 b7 9	131
X9-5 - 1 b5 b7 9	132
X9-5 - (1) 3 b5 b7 9	133
X7(b9) - 1 3 b7 b9	134
X7(b9) - (1) 3 5 b7 b9	135
X7(#9) - 1 3 b7 #9	136
X7(#9) - (1) 3 5 b7 #9	137
X11 - 1 3 b7 11	138
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XMaj7#11 - 1 3 7 #11	140
X13 - 1 3 b7 13	141
X13 - (1) 3 b7 9 13	142
X13(b9) - 1 3 b9 13	143
X13(b9) - (1) 3 b7 b9 13	144

There are many variations on 7th chords in the pages that follow. The general pattern for these variations, for the 1-5-7-3 and 5-1-3-7 inversions can be summarized as follows:



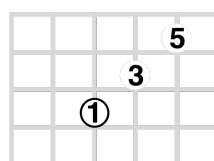
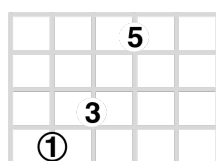
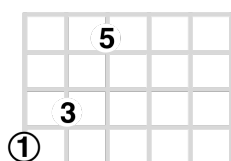
7th Chord Variations

X Notes — 1 3 5

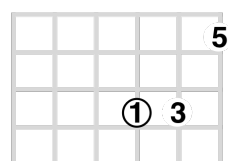


Major Triads

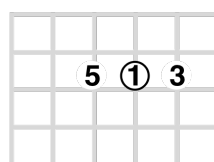
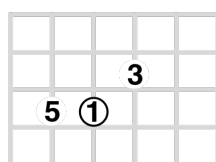
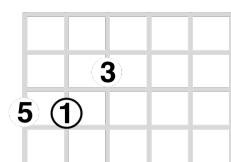
X



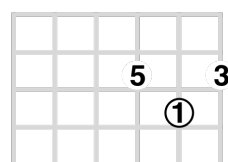
1 3 5



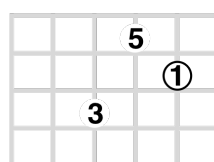
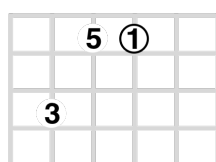
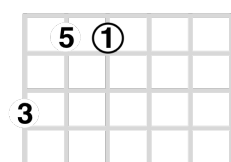
X



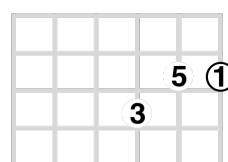
5 1 3



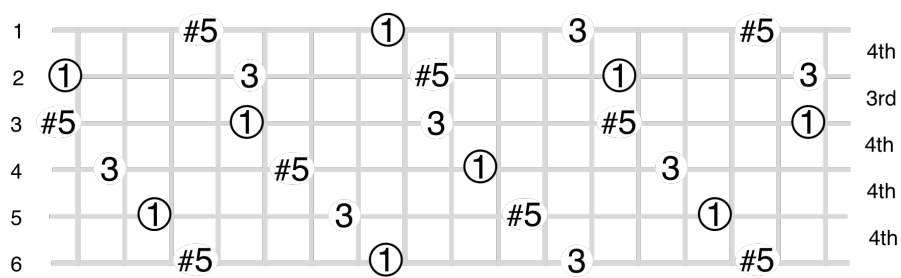
X



3 5 1

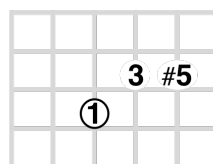
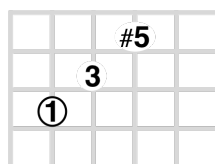
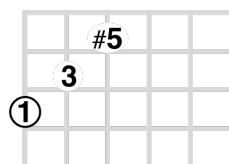


X+ Notes — 1 3 #5

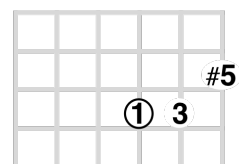


Augmented Triads

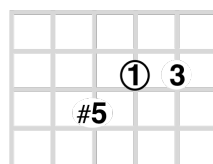
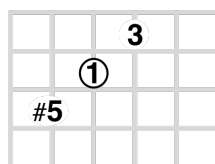
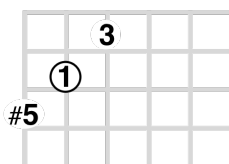
X+



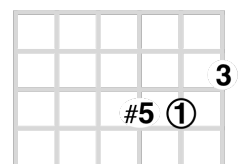
1 3 #5



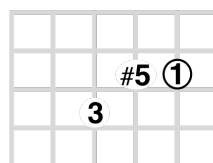
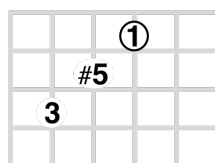
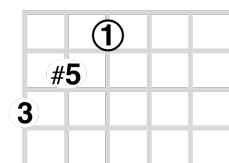
X+



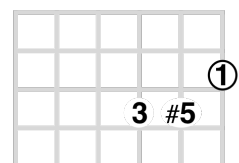
#5 1 3



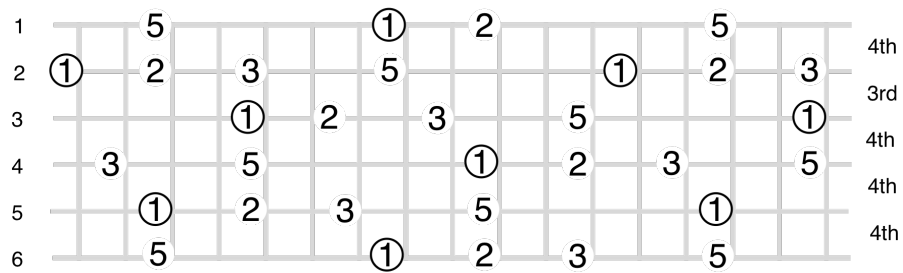
X+



3 #5 1

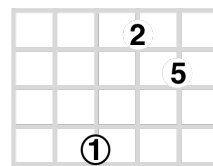
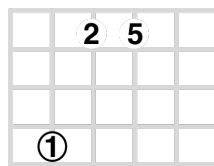
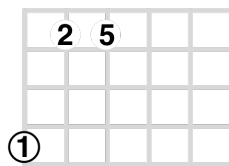


Xsus2 Notes — 1 2 5

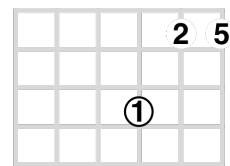


Sus2 Triads

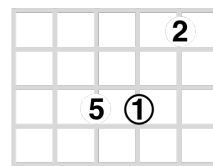
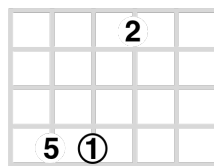
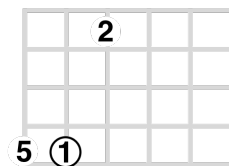
Xsus2



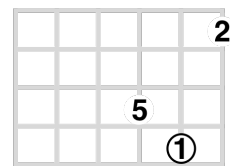
1 2 5



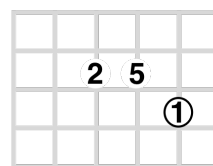
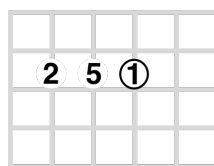
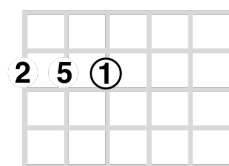
Xsus2



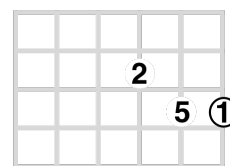
5 1 2



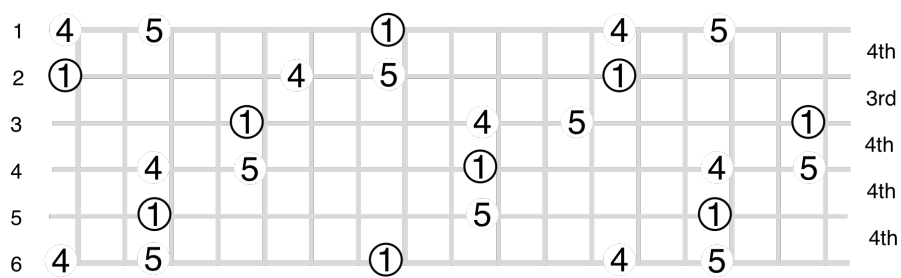
Xsus2



2 5 1

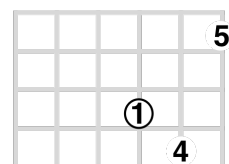
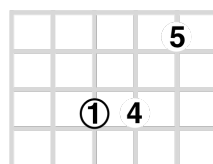
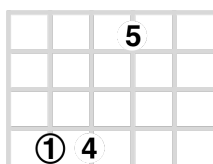
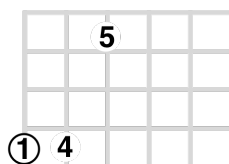


Xsus(4) Notes — 1 4 5



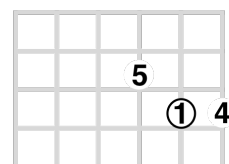
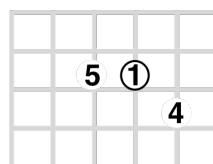
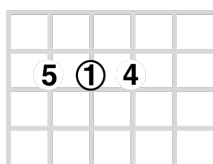
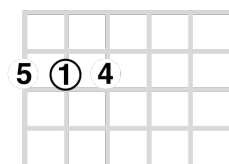
Sus(4) Triads

Xsus(4)



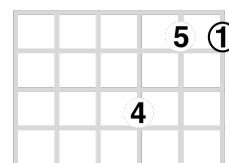
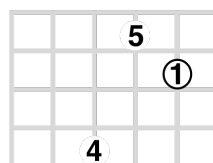
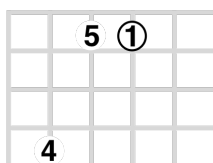
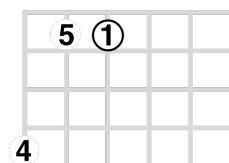
1 4 5

Xsus(4)



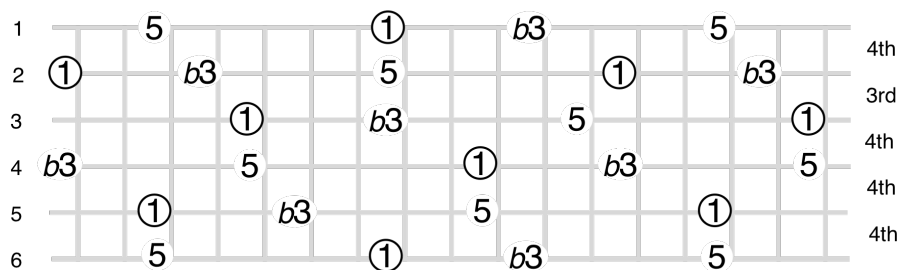
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Xsus(4)



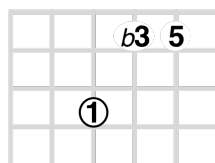
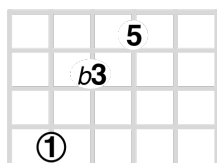
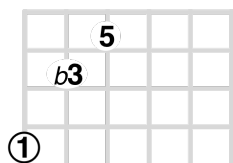
4 5 1

Xm Notes — 1 b3 5

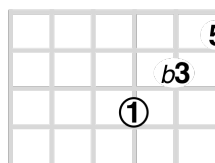


Minor Triads

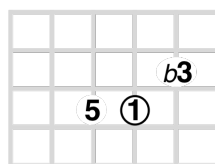
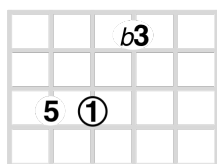
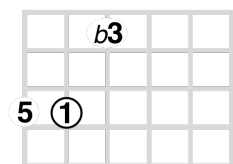
Xm



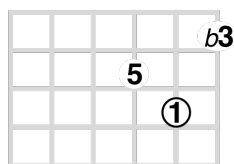
1 b3 5



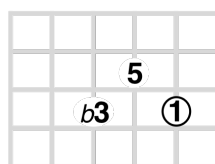
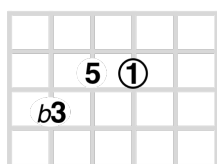
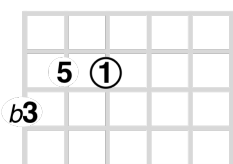
Xm



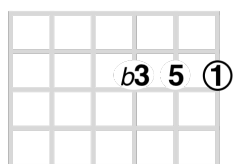
5 1 b3



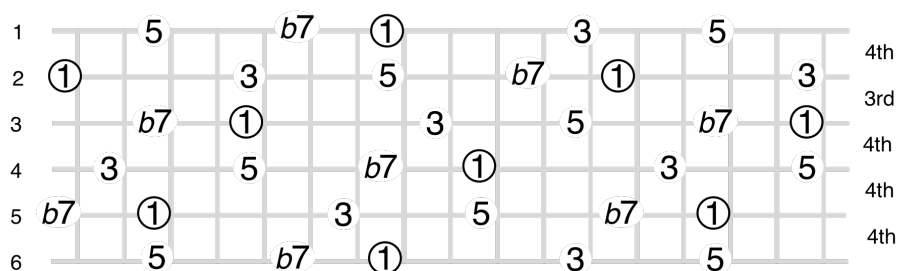
Xm



b3 5 1



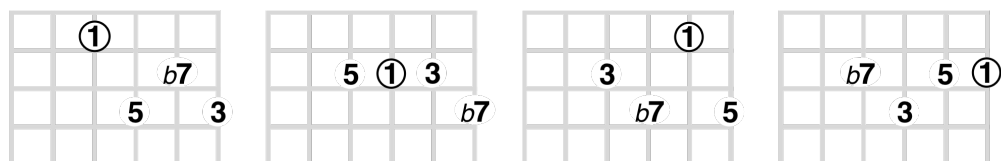
X7 Notes — 1 3 5 b7



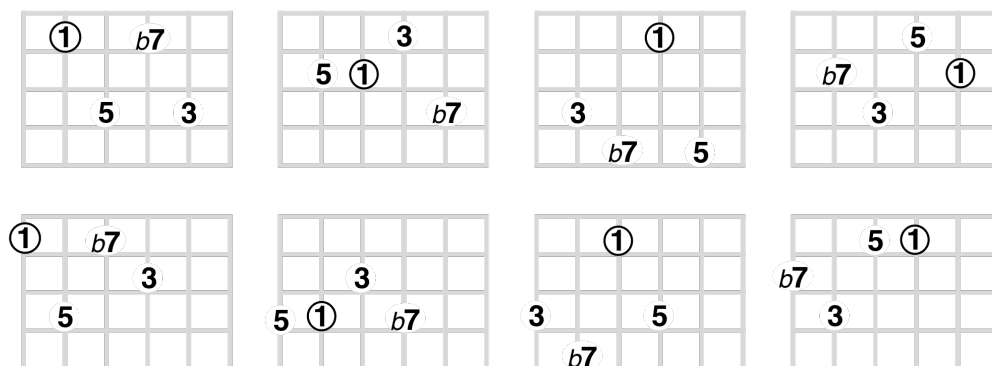
X7

1 3 5 b7

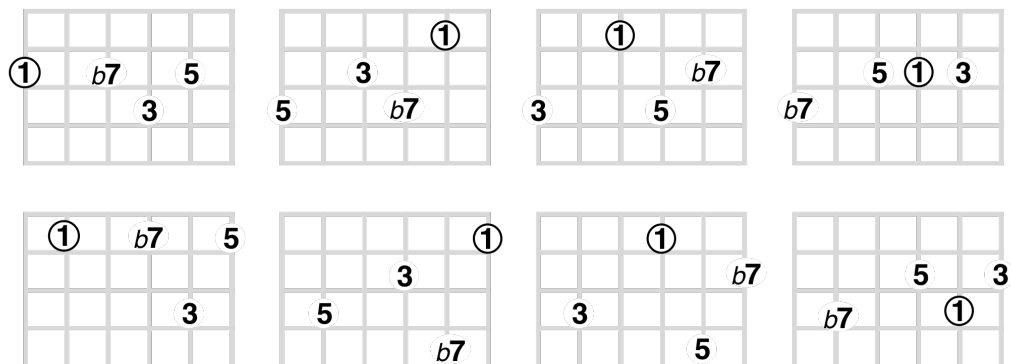
The Treble (Baritone Ukulele) Shapes



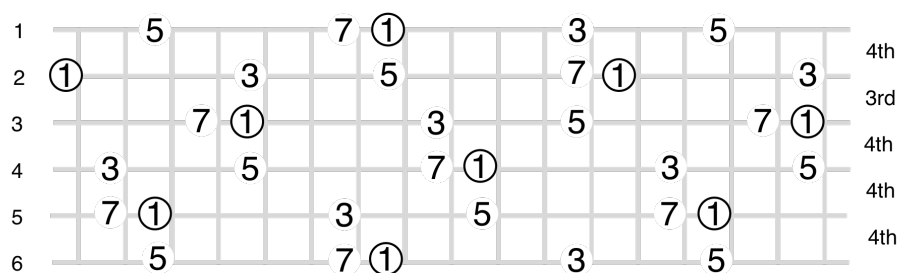
Shape Shifting



Other Options



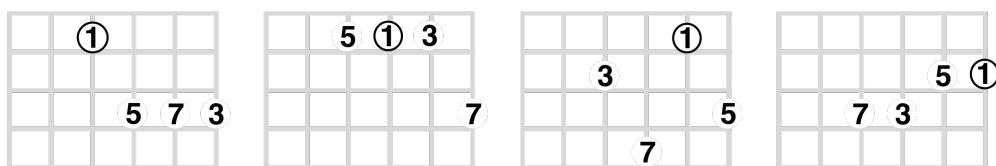
XMaj7 Notes — 1 3 5 7



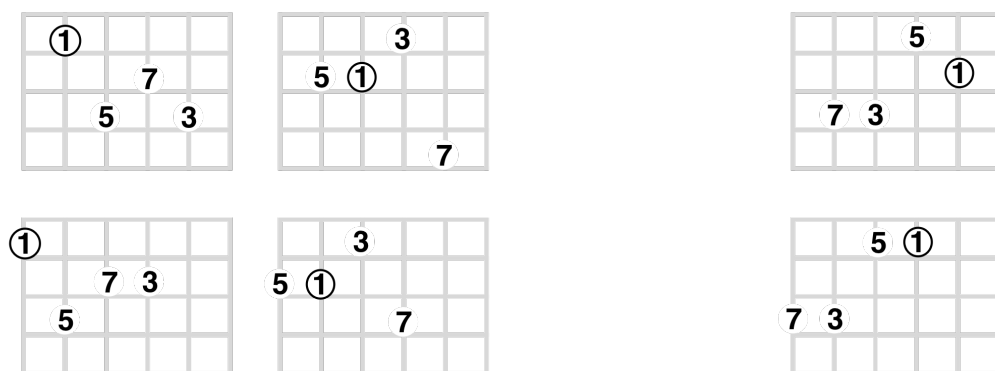
XMaj7

1 3 5 7

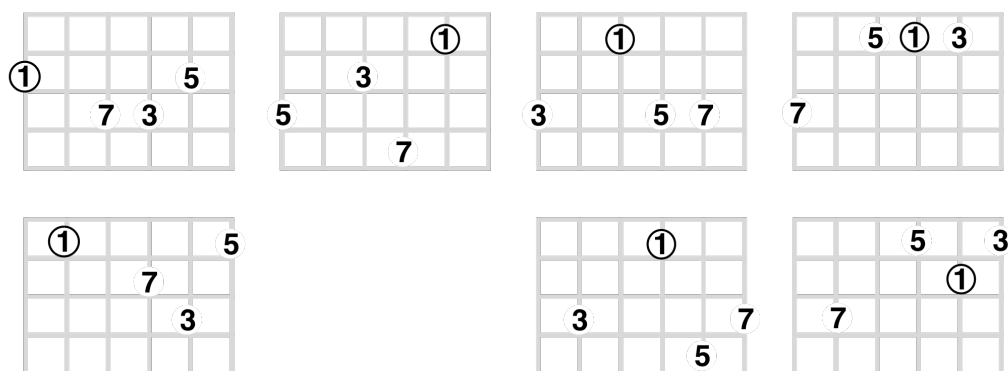
The Treble (Baritone Ukulele) Shapes



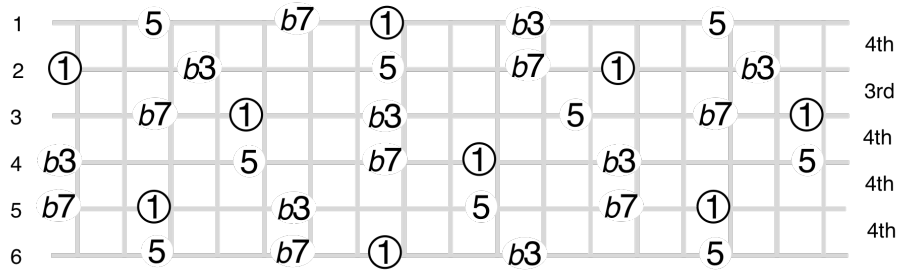
Shape Shifting



Other Options



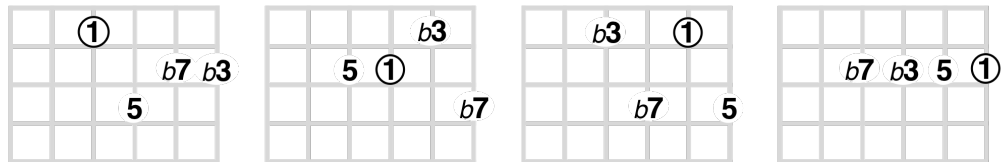
Xm7 Notes — 1 b3 5 b7



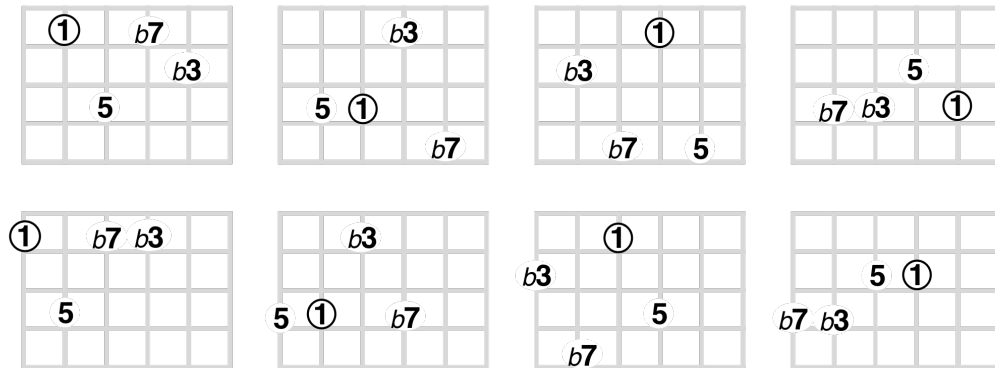
Xm7

1 b3 5 b7

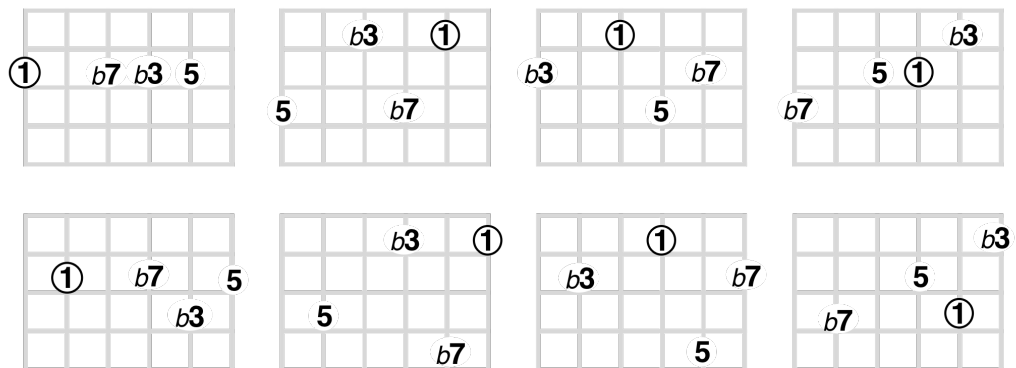
The Treble (Baritone Ukulele) Shapes



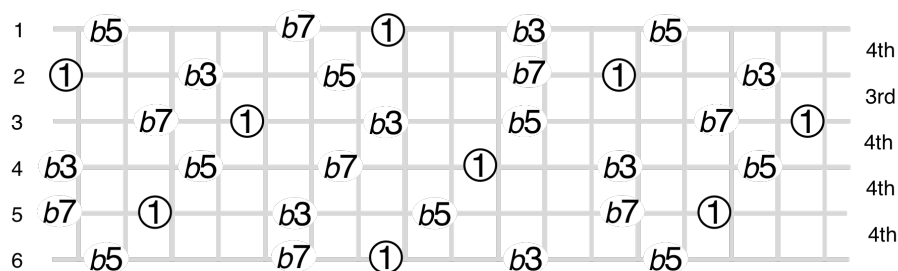
Shape Shifting



Other Options



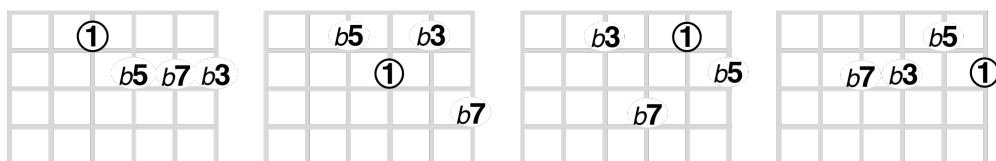
Xm7b5 Notes — 1 b3 b5 b7



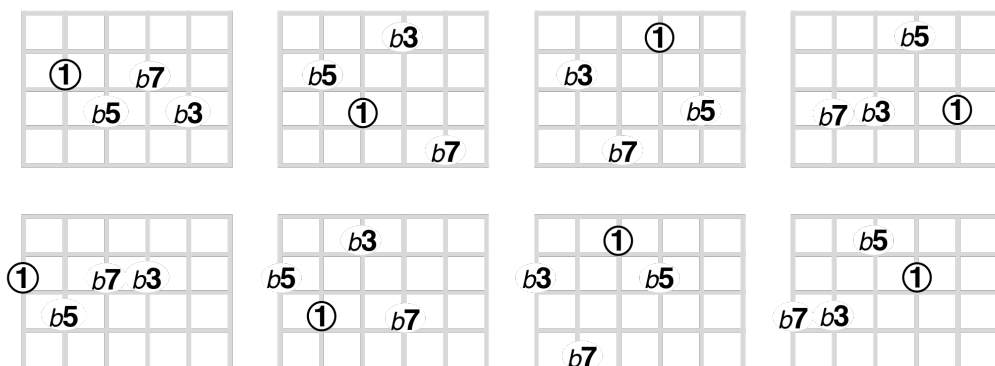
Xm7b5

1 b3 b5 b7

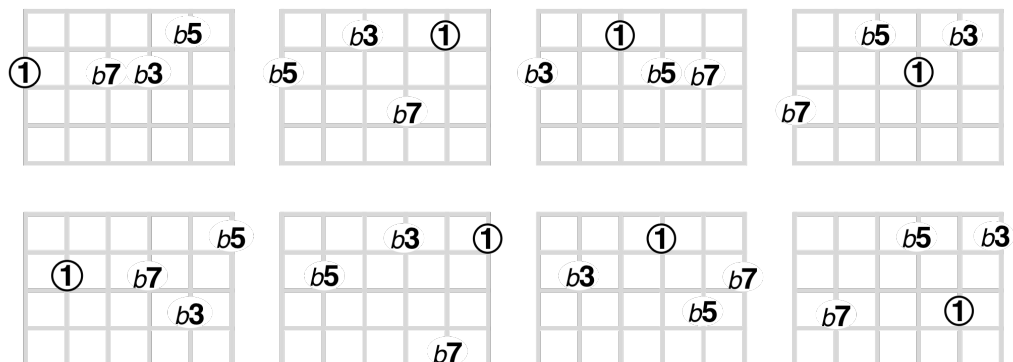
The Treble (Baritone Ukulele) Shapes



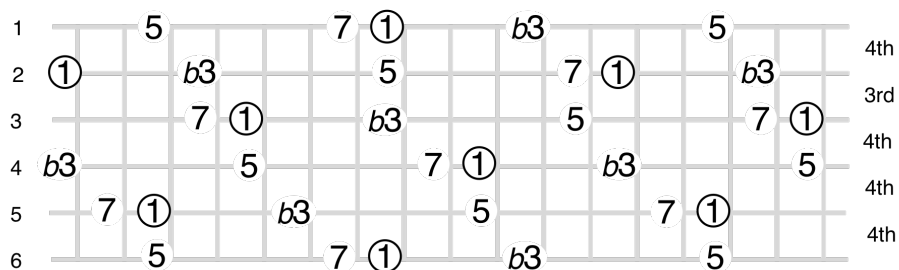
Shape Shifting



Other Options



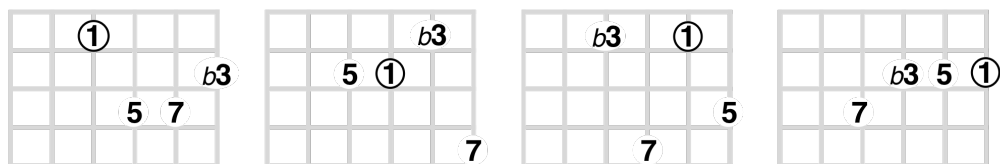
XmMaj7 Notes — 1 b3 5 7



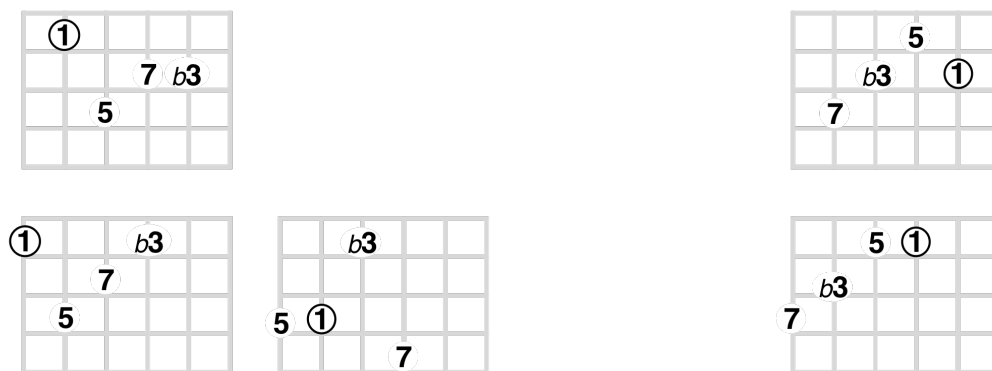
XmMaj7

1 b3 5 7

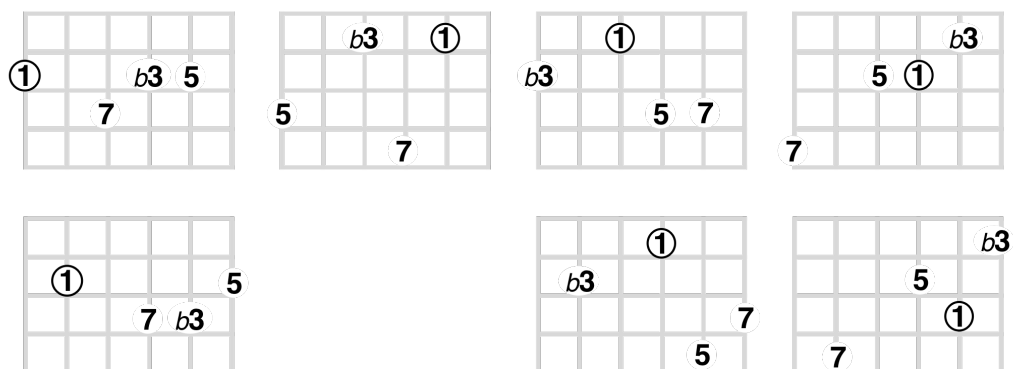
The Treble (Baritone Ukulele) Shapes



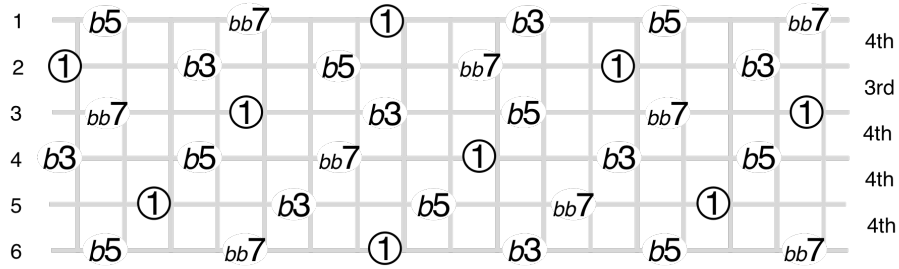
Shape Shifting



Other Options



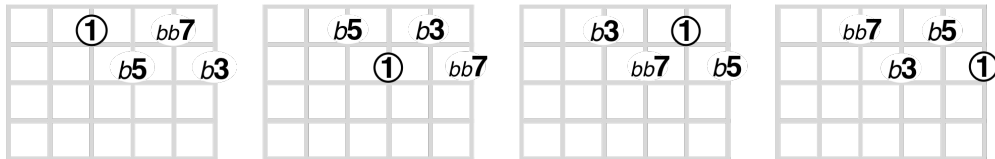
Xdim7 Notes — 1 b3 b5 bb7



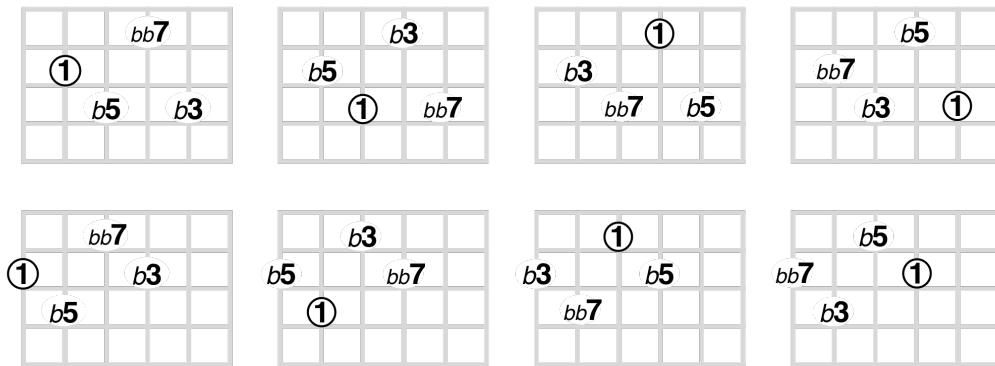
Xdim7

1 b3 b5 bb7

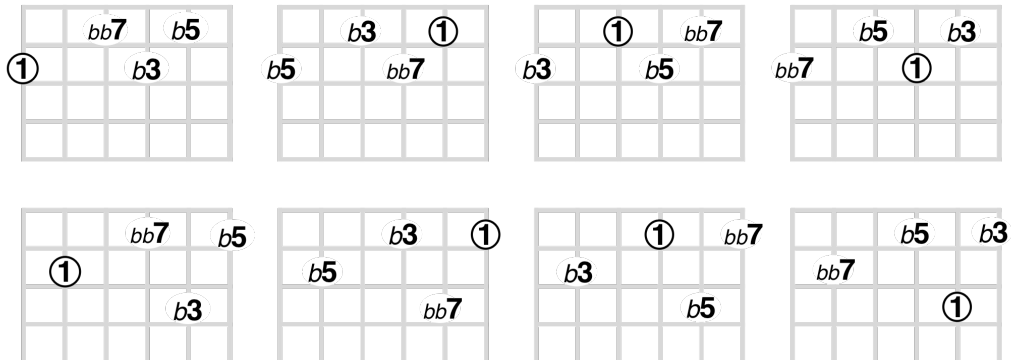
The Treble (Baritone Ukulele) Shapes



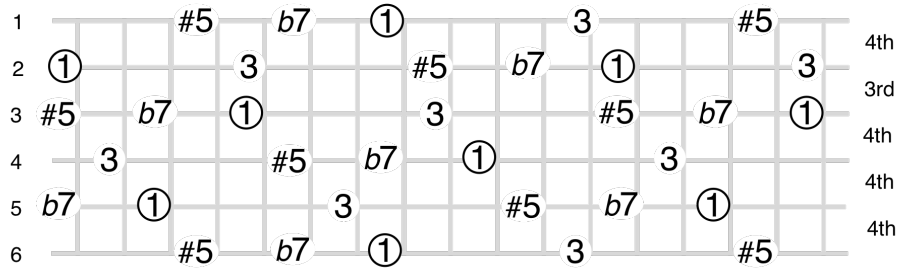
Shape Shifting



Other Options



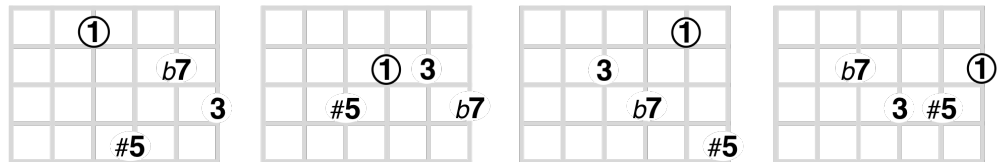
X7+5 Notes — 1 3 #5 b7



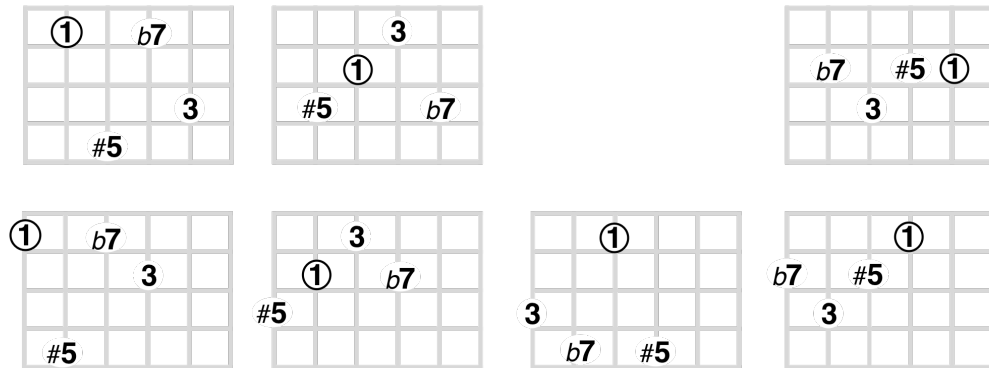
X7+5

1 3 #5 b7

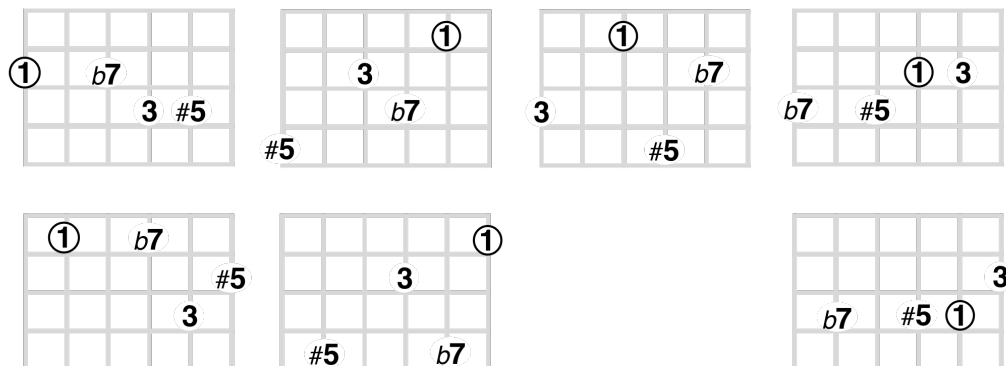
The Treble (Baritone Ukulele) Shapes



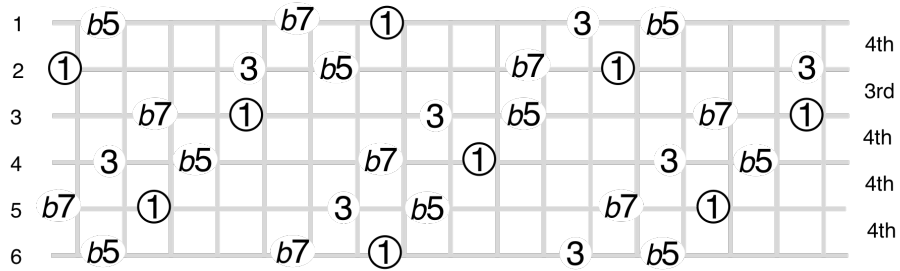
Shape Shifting



Other Options



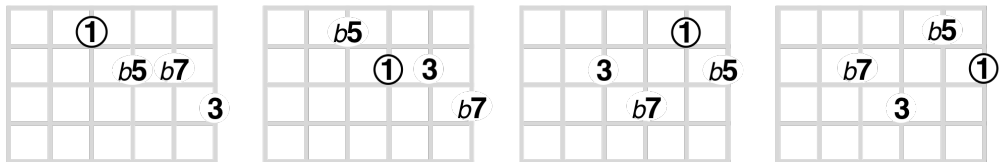
X7-5 Notes — 1 3 b5 b7



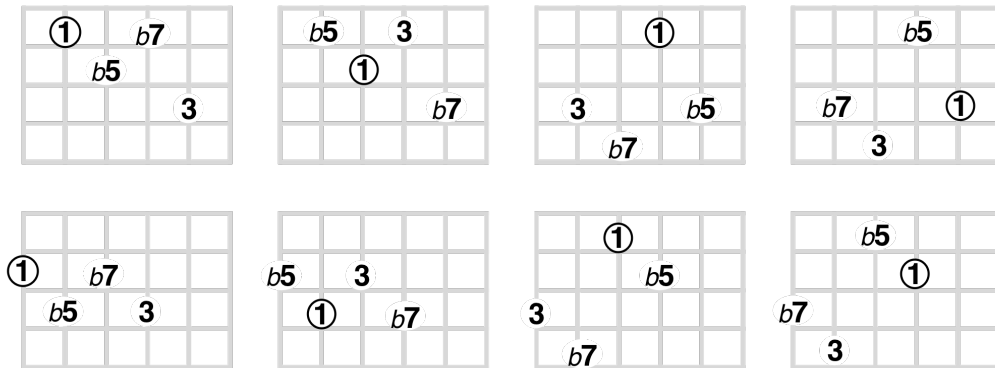
X7-5

1 3 b5 b7

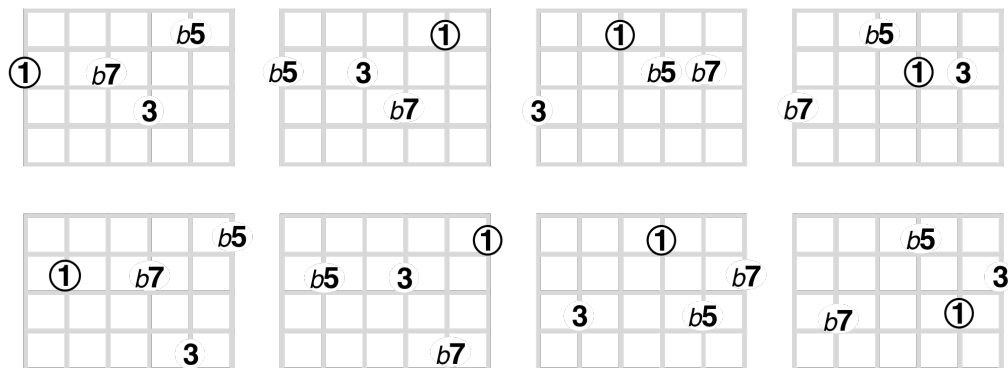
The Treble (Baritone Ukulele) Shapes



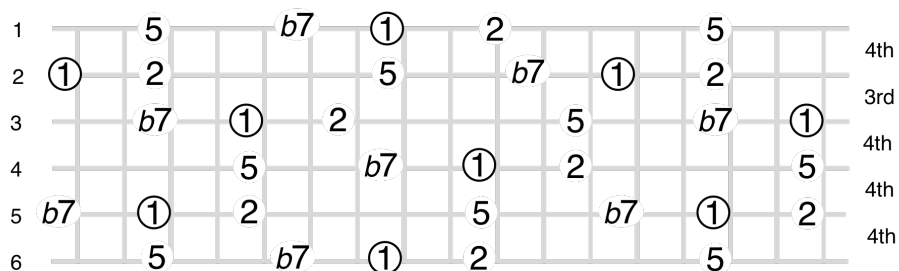
Shape Shifting



Other Options



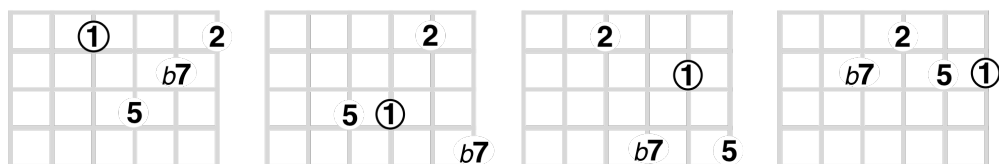
X7sus2 Notes — 1 2 5 b7



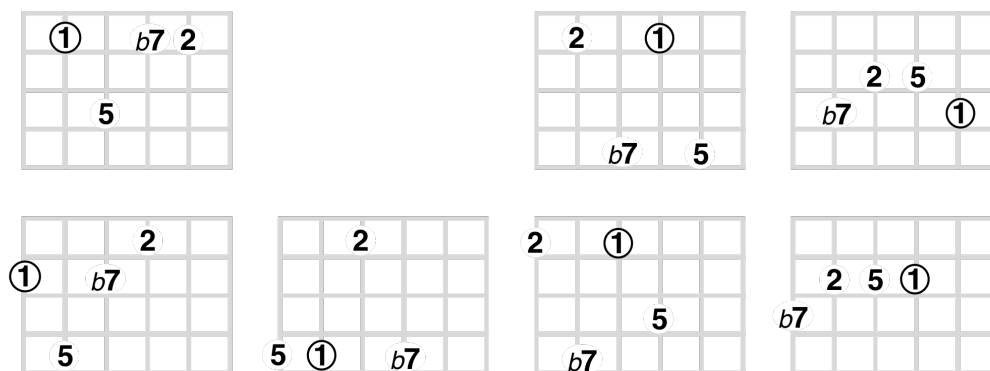
X7sus2

1 2 5 b7

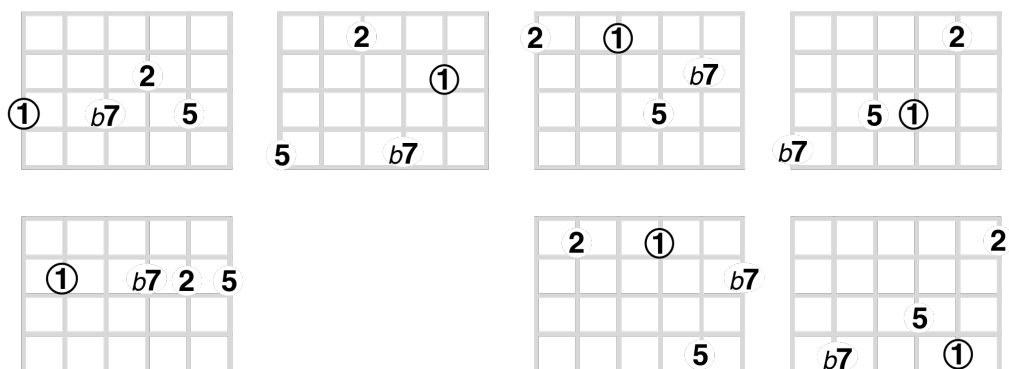
The Treble (Baritone Ukulele) Shapes



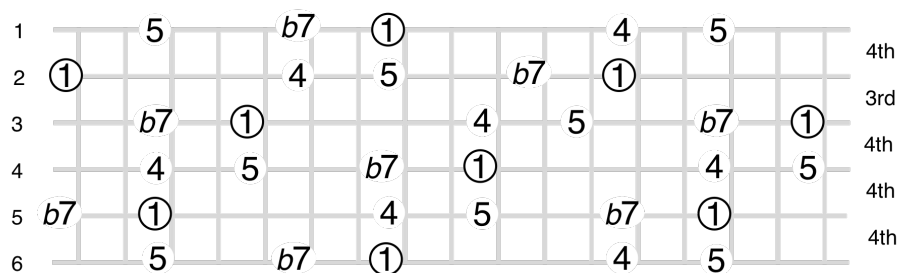
Shape Shifting



Other Options



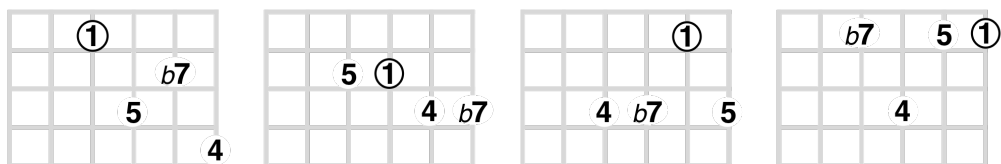
X7sus(4) Notes — 1 4 5 b7



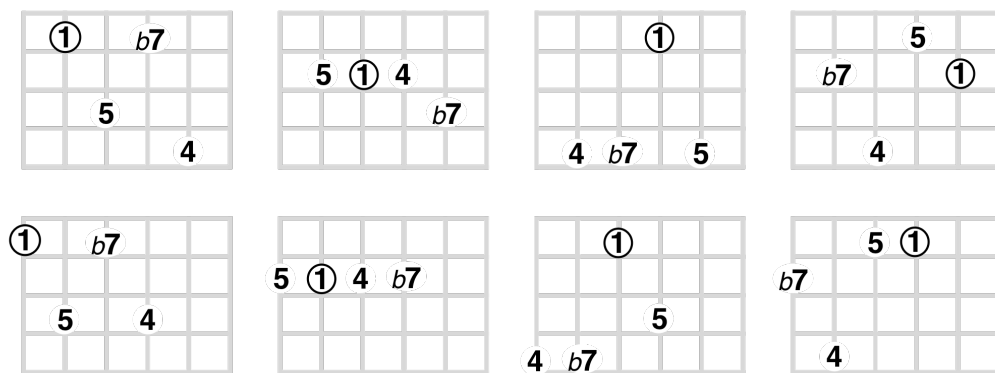
X7sus(4)

1 4 5 b7

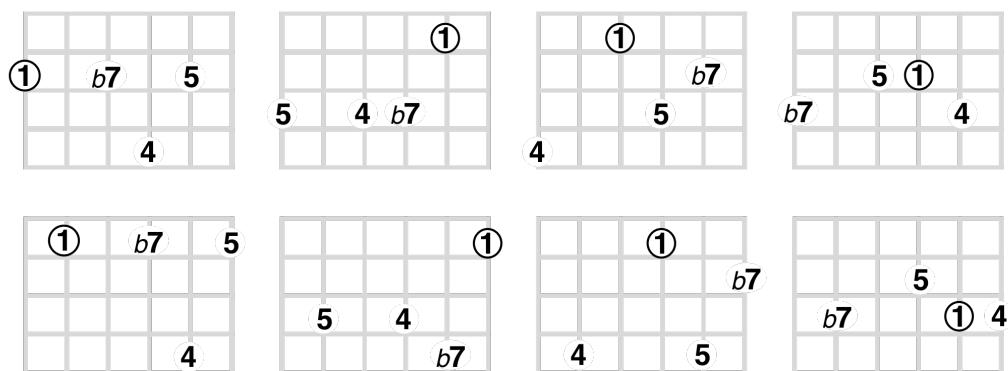
The Treble (Baritone Ukulele) Shapes



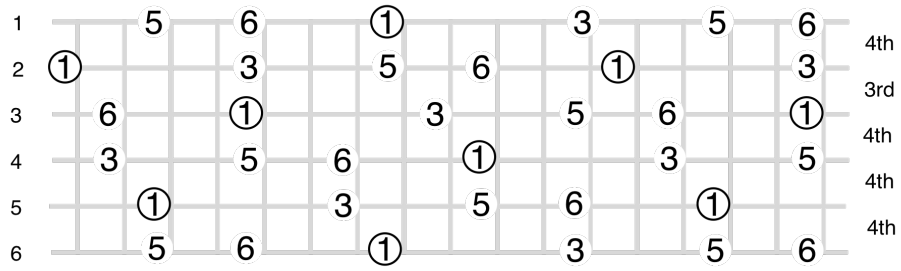
Shape Shifting



Other Options



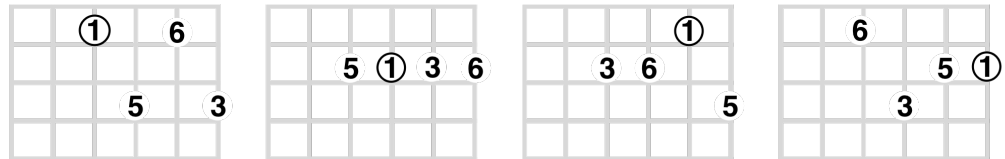
X6 Notes — 1 3 5 6



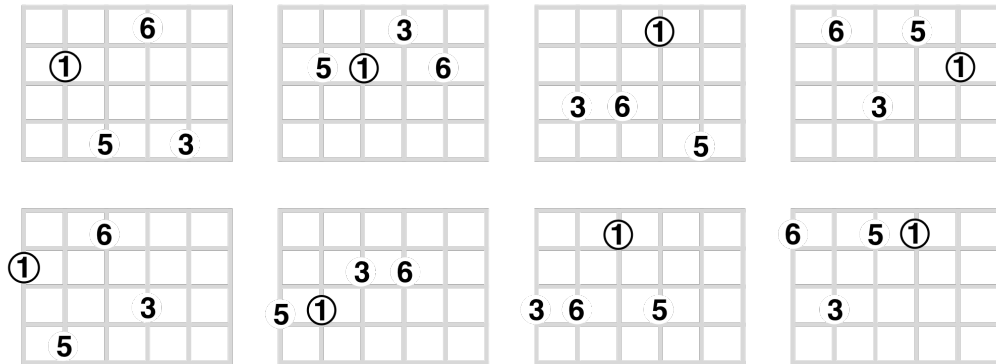
X6

1 3 5 6

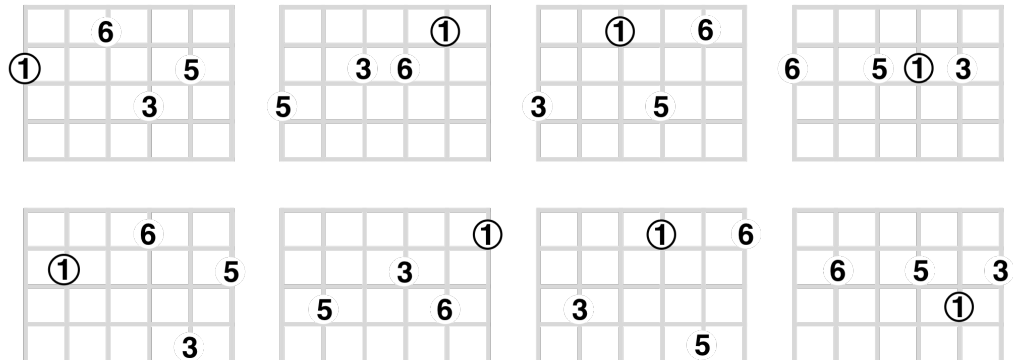
The Treble (Baritone Ukulele) Shapes



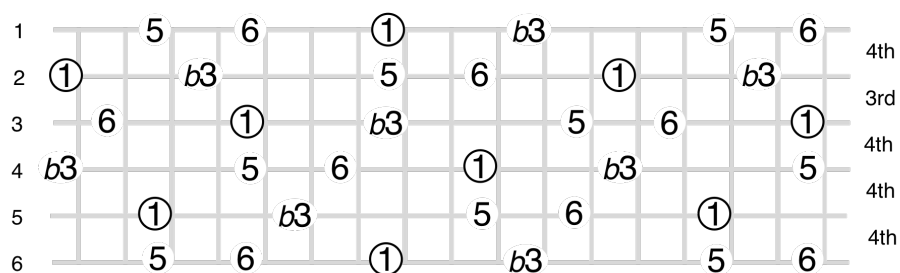
Shape Shifting



Other Options



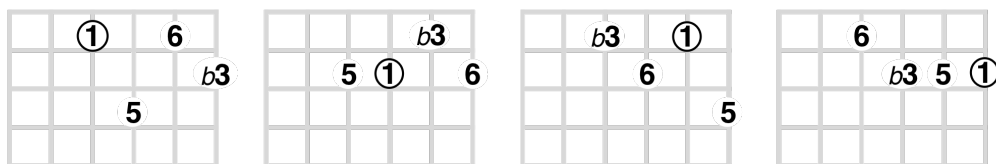
Xm6 Notes — 1 b3 5 6



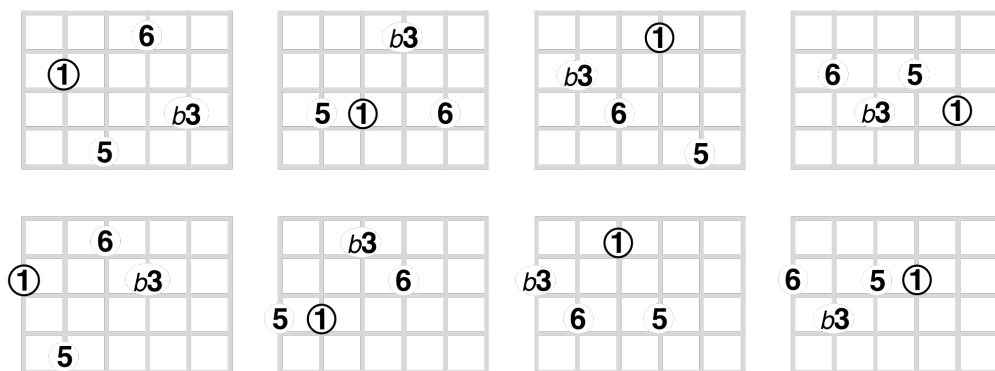
Xm6

1 b3 5 6

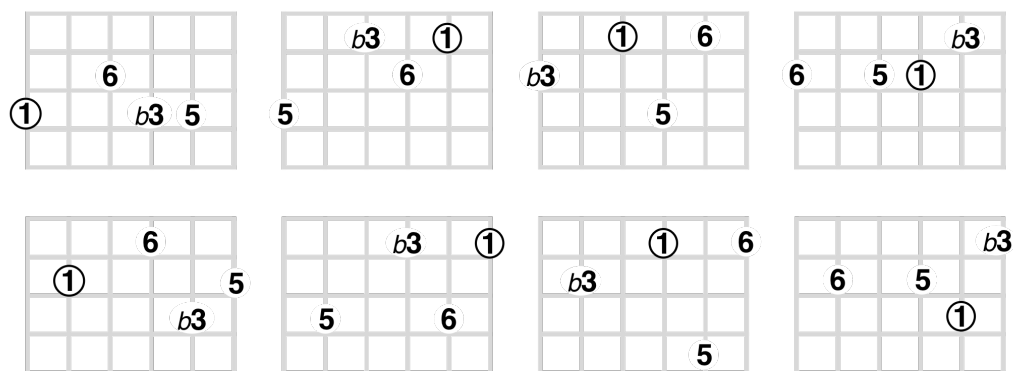
The Treble (Baritone Ukulele) Shapes



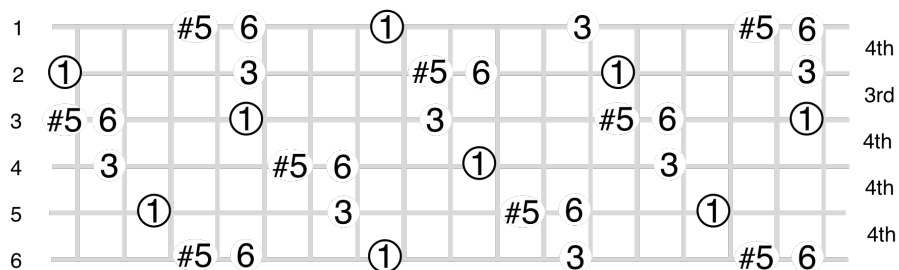
Shape Shifting



Other Options



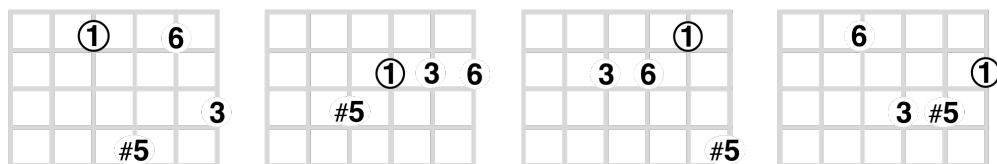
X6+5 Notes — 1 3 #5 6



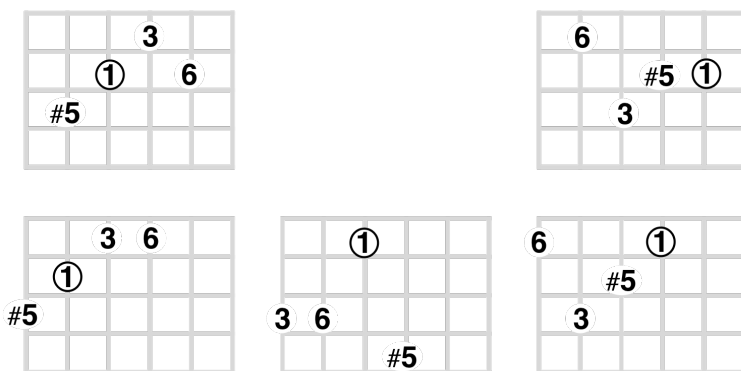
X6+5

1 3 #5 6

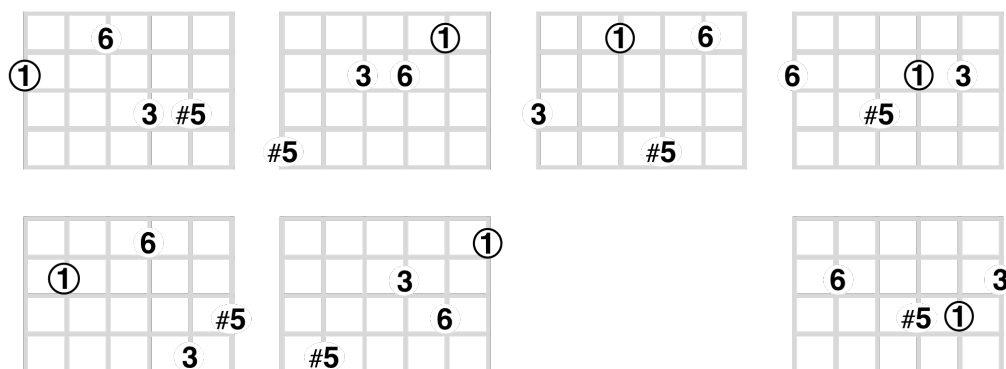
The Treble (Baritone Ukulele) Shapes



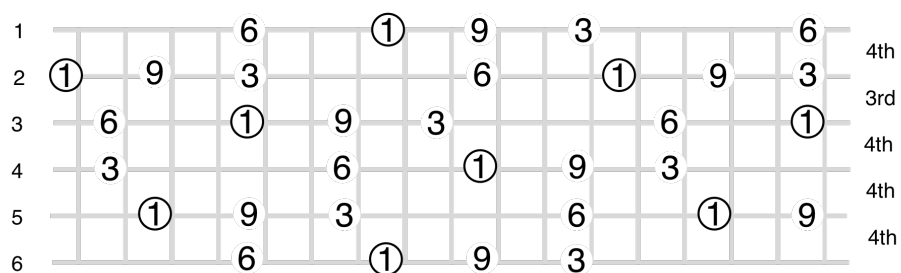
Shape Shifting



Other Options



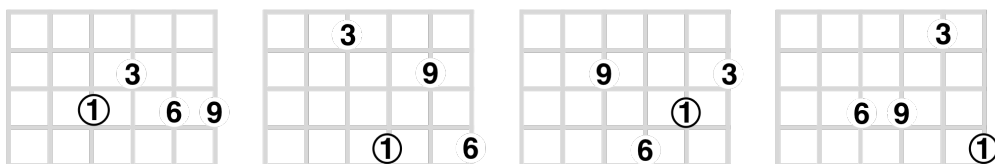
X6/9 Notes — 1 3 6 9



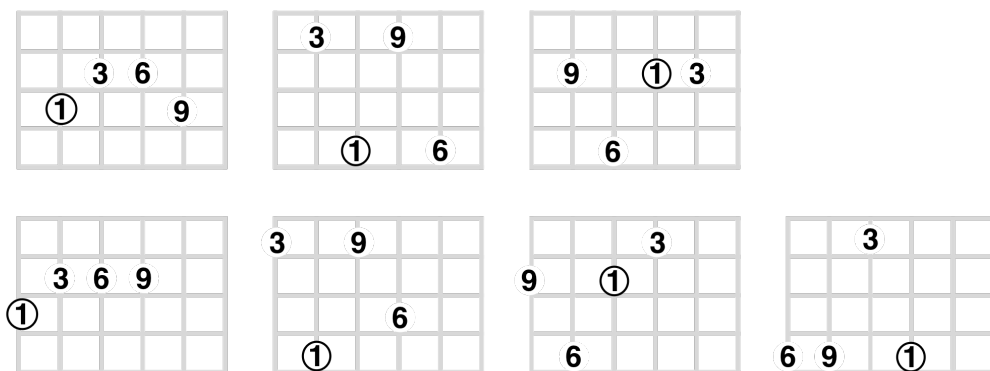
X6/9

1 3 5 9

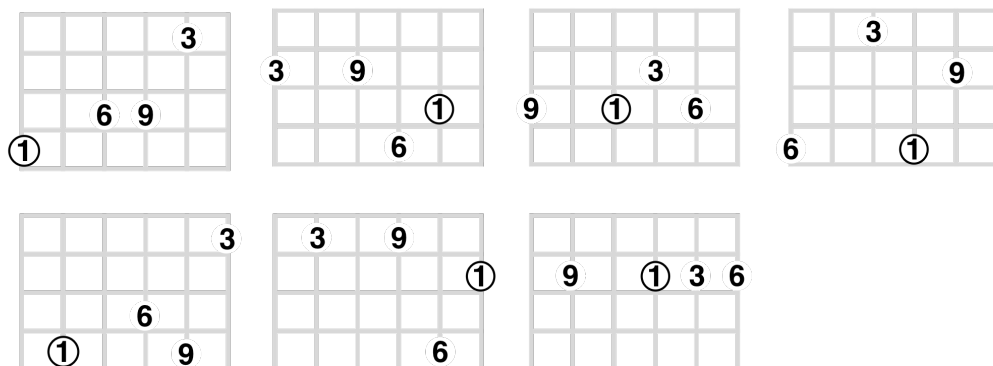
The Treble (Baritone Ukulele) Shapes



Shape Shifting



Other Options



1 3 b7 9

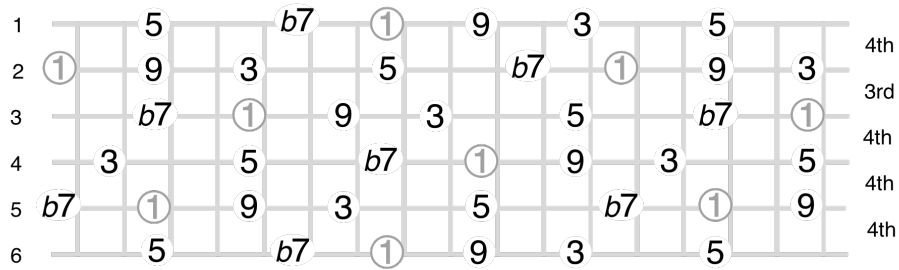
The image contains two 4x4 grids. The left grid has a knight piece on the light square at row 2, column 2 (from the top-left). It is labeled with a circled '1' and a '3' above it, and a 'b7' label below it. The right grid has a knight piece on the dark square at row 2, column 3. It is labeled with a circled '1' and a '3' above it, and a 'b7' label below it.

The image displays three 5x5 grids, each representing a different placement of the numbers 1, 3, 9, and b7. The numbers are placed in the following positions:

- Top Left Grid:**
 - Row 2, Column 1: 1
 - Row 2, Column 3: 3
 - Row 3, Column 2: b7
 - Row 3, Column 4: 9
- Top Right Grid:**
 - Row 1, Column 2: 9
 - Row 1, Column 3: 1
 - Row 1, Column 4: 3
 - Row 4, Column 3: b7
- Bottom Left Grid:**
 - Row 1, Column 1: 1
 - Row 2, Column 2: 3
 - Row 2, Column 4: 9
 - Row 3, Column 2: b7

The first grid shows the placement of numbers 1, 3, 9, and b7. The second grid shows the placement of numbers 1, 3, 9, and b7.

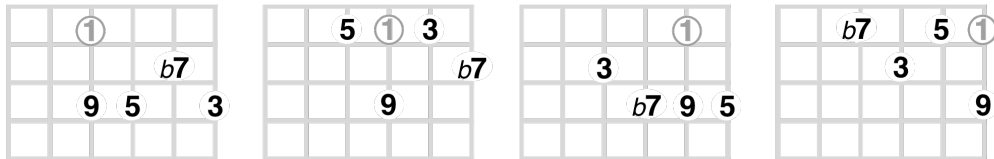
X9 Notes — (1) 3 5 b7 9



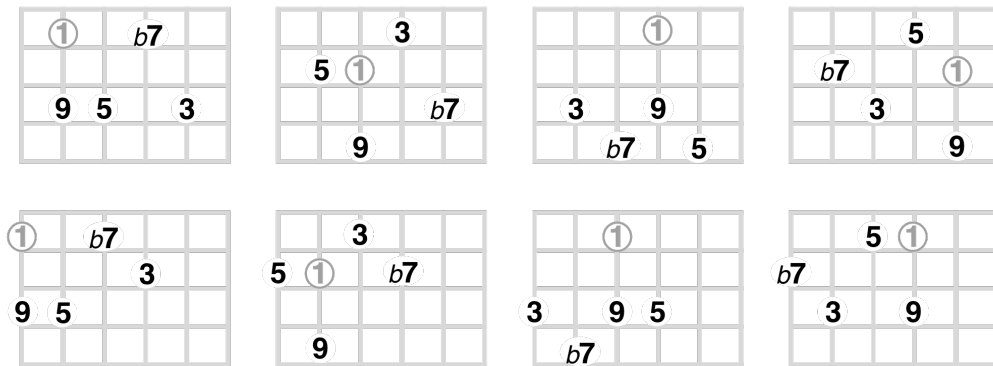
X9

(1) 3 5 b7 9

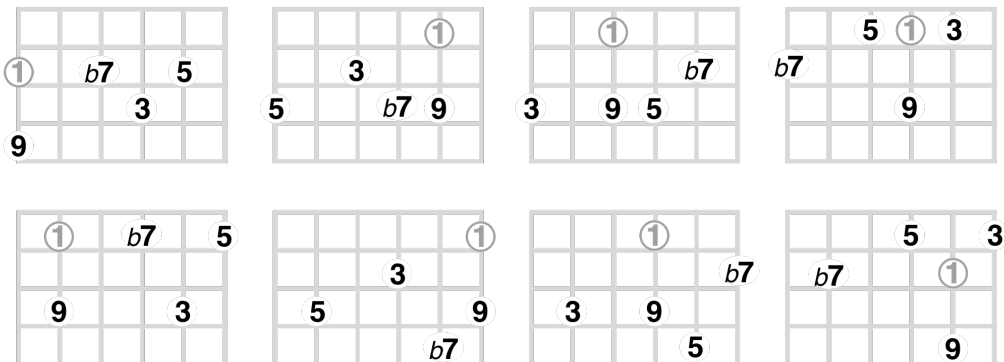
The Treble (Baritone Ukulele) Shapes



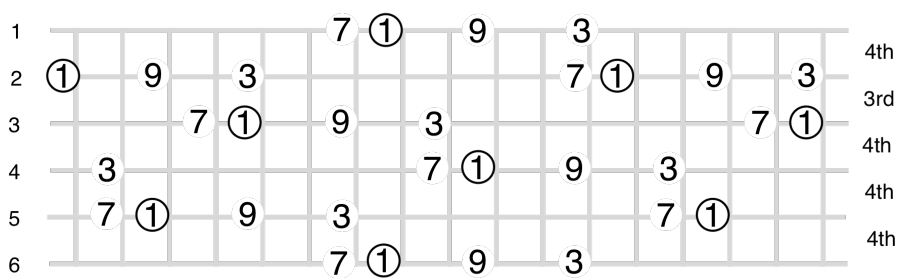
Shape Shifting



Other Options



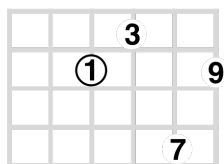
XMaj9 Notes — 1 3 7 9



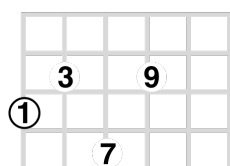
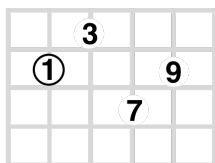
XMaj9

1 3 7 9

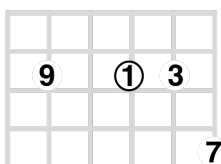
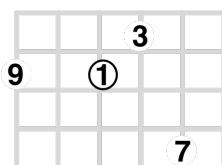
The Treble (Baritone Ukulele) Shapes



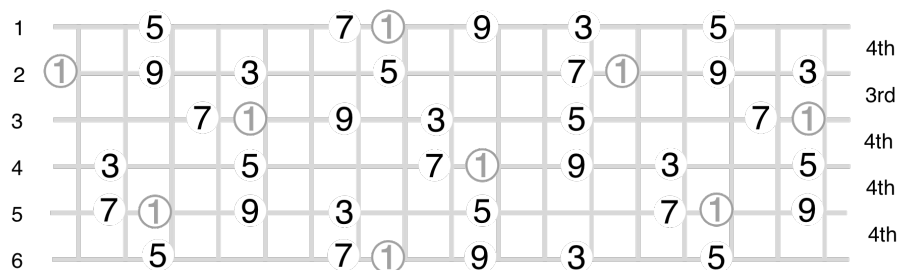
Shape Shifting



Other Options



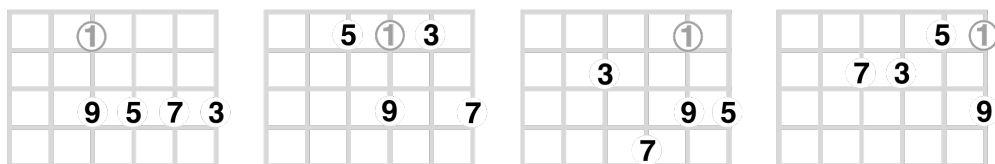
XMaj9 Notes — (1) 3 5 7 9



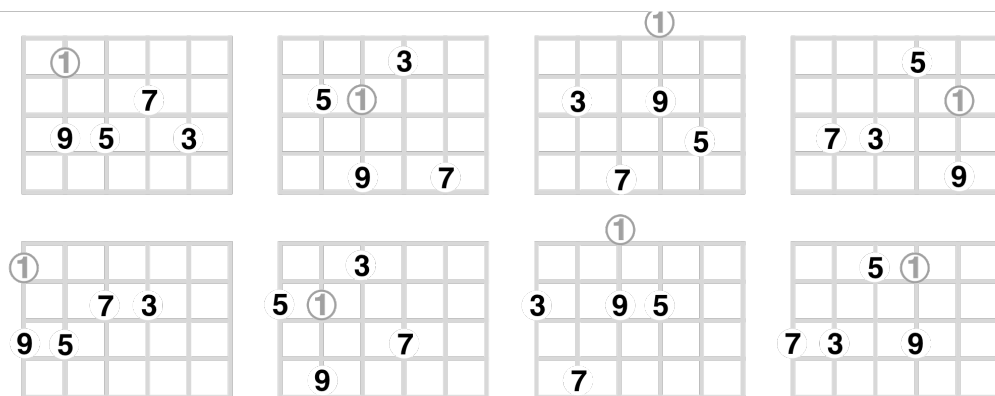
XMaj9

(1) 3 5 7 9

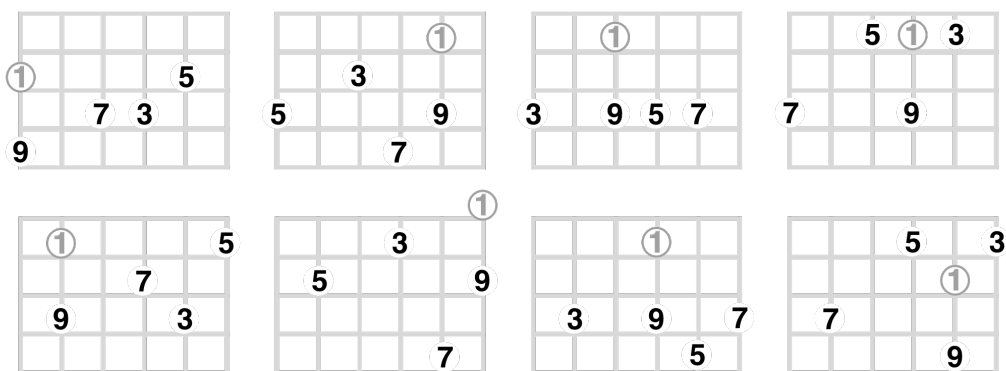
The Treble (Baritone Ukulele) Shapes



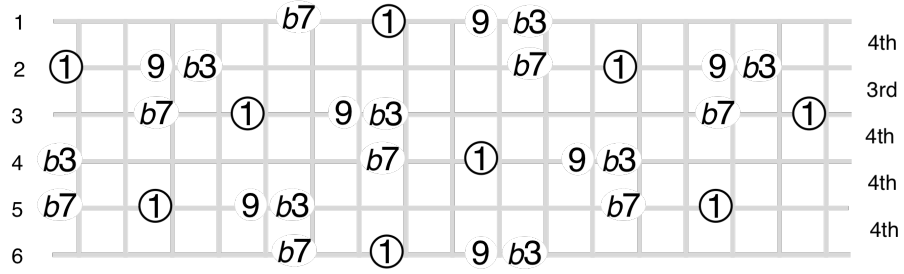
Shape Shifting



Other Options



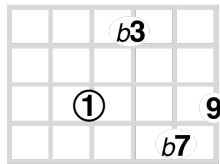
Xm9 Notes — 1 b3 b7 9



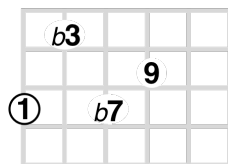
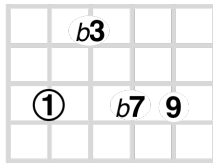
Xm9

1 b3 b7 9

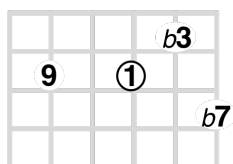
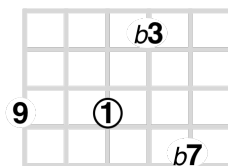
The Treble (Baritone Ukulele) Shapes



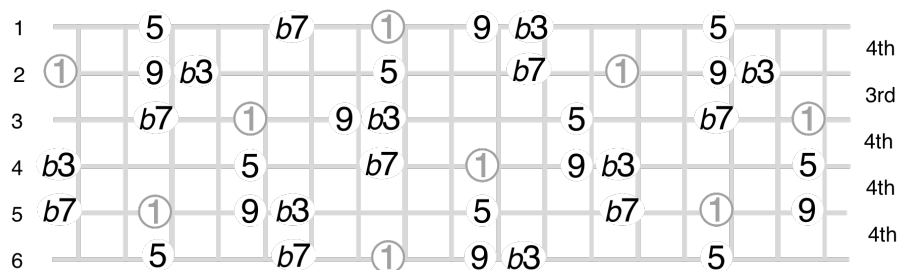
Shape Shifting



Other Options



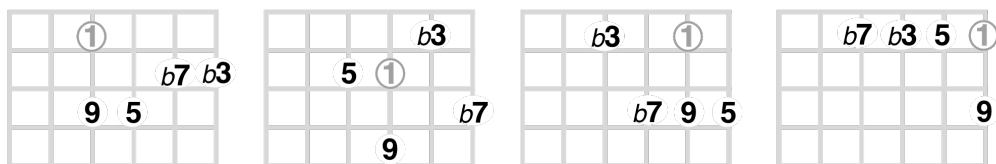
Xm9 Notes — (1) b3 5 b7 9



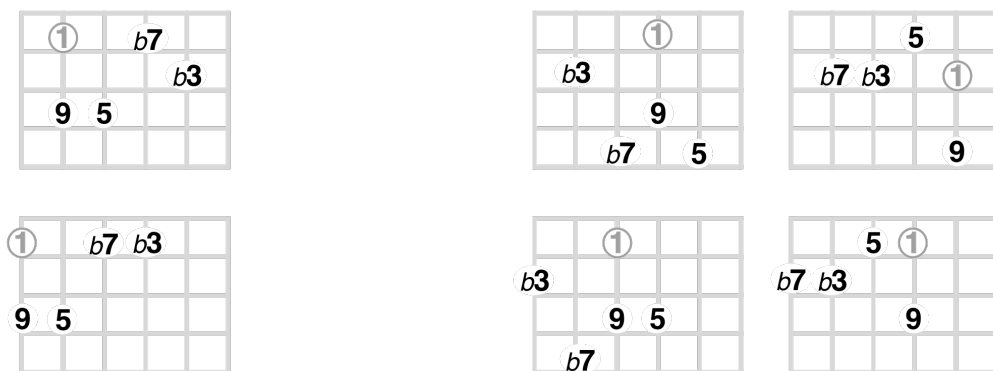
Xm9

(1) b3 5 b7 9

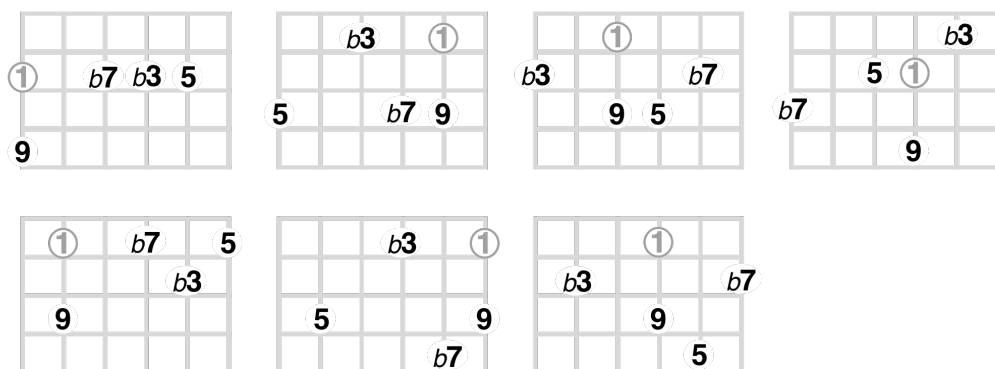
The Treble (Baritone Ukulele) Shapes



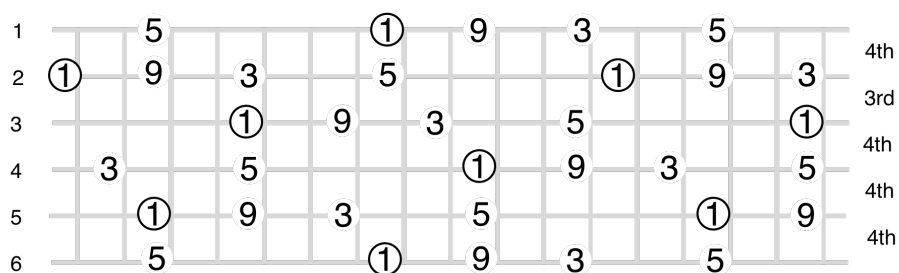
Shape Shifting



Other Options



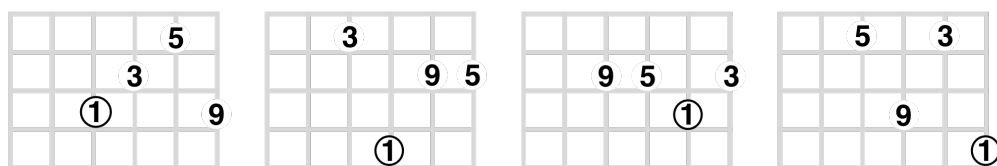
Xadd9 Notes — 1 3 5 9



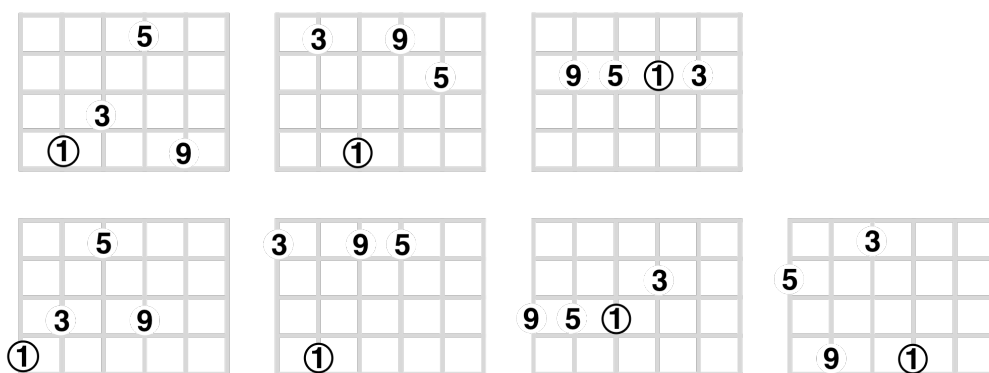
Xadd9

1 3 5 9

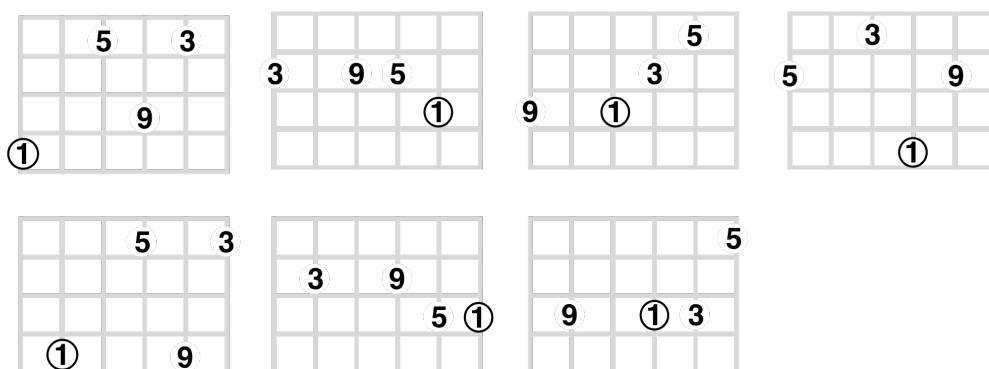
The Treble (Baritone Ukulele) Shapes



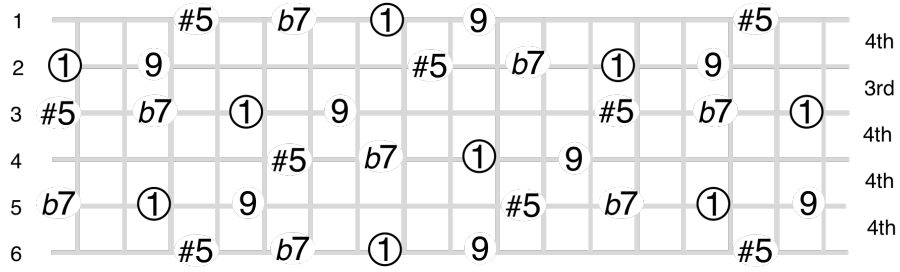
Shape Shifting



Other Options



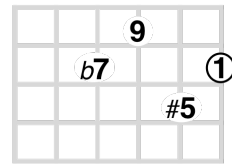
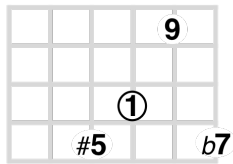
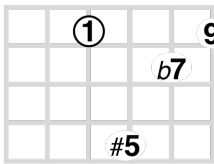
X9+5 Notes — 1 #5 b7 9



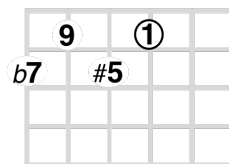
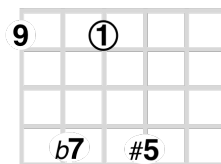
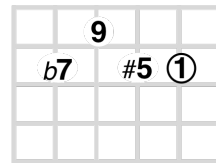
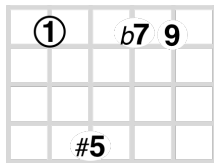
X9+5

1 #5 b7 9

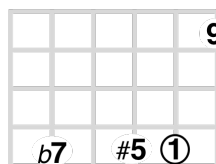
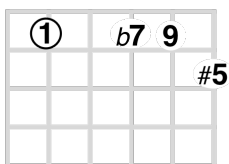
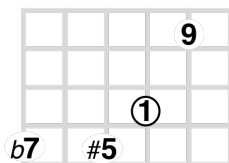
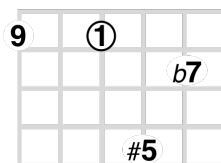
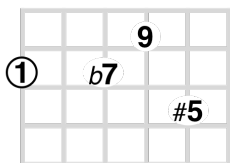
The Treble (Baritone Ukulele) Shapes



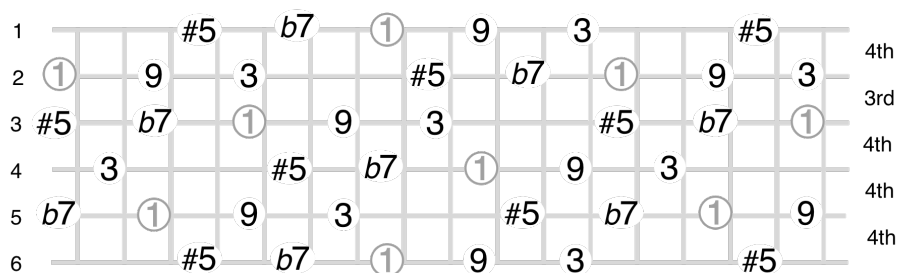
Shape Shifting



Other Options



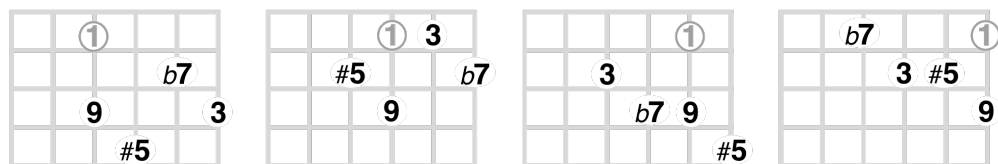
X9+5 Notes — (1) 3 #5 b7 9



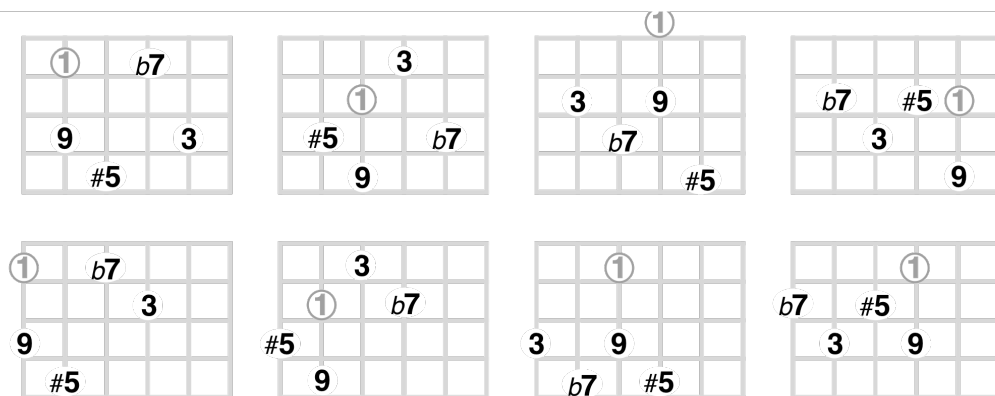
X9+5

(1) 3 #5 b7 9

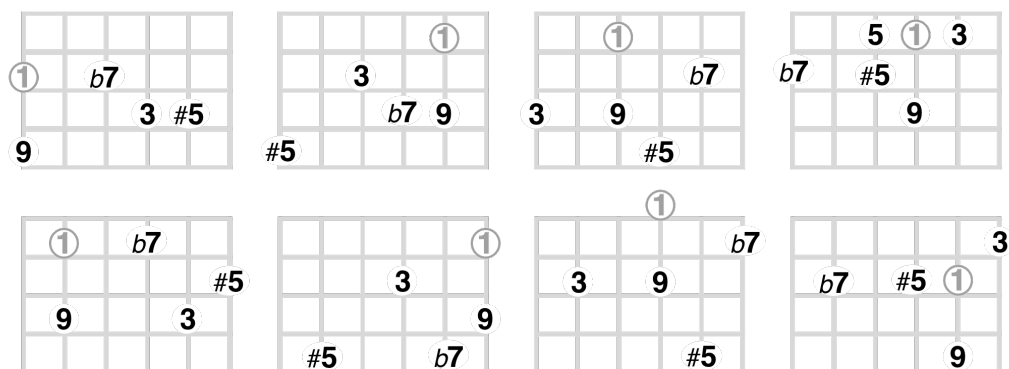
The Treble (Baritone Ukulele) Shapes



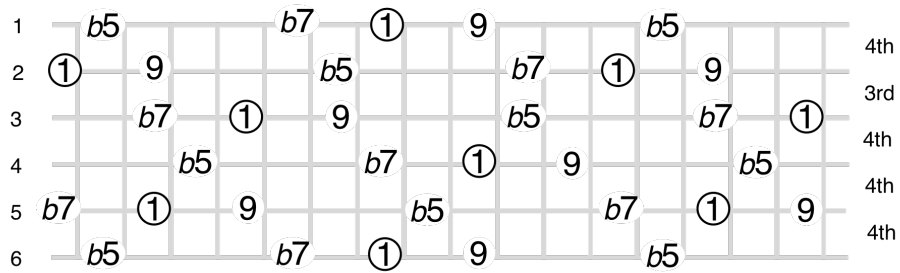
Shape Shifting



Other Options



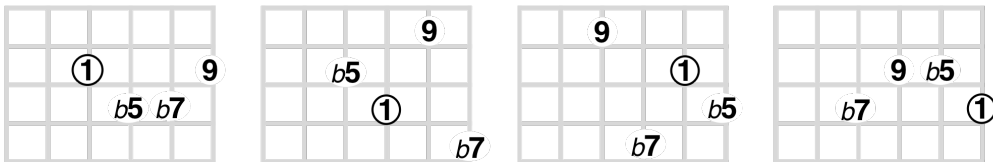
X9-5 Notes — 1 b5 b7 9



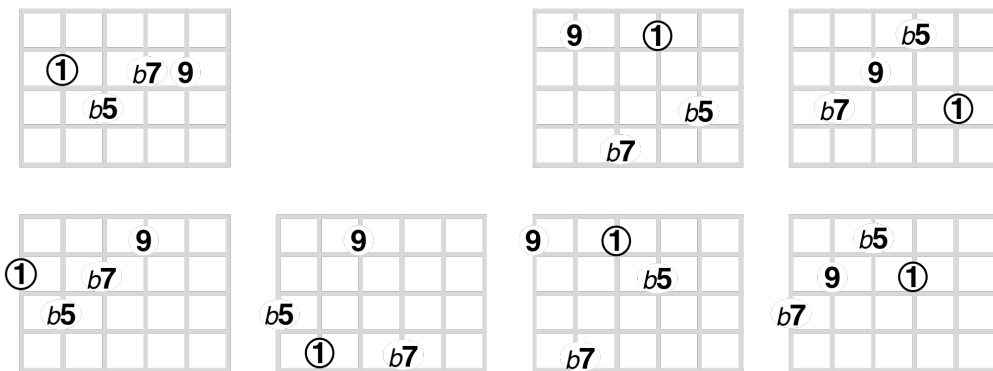
X9-5

1 b5 b7 9

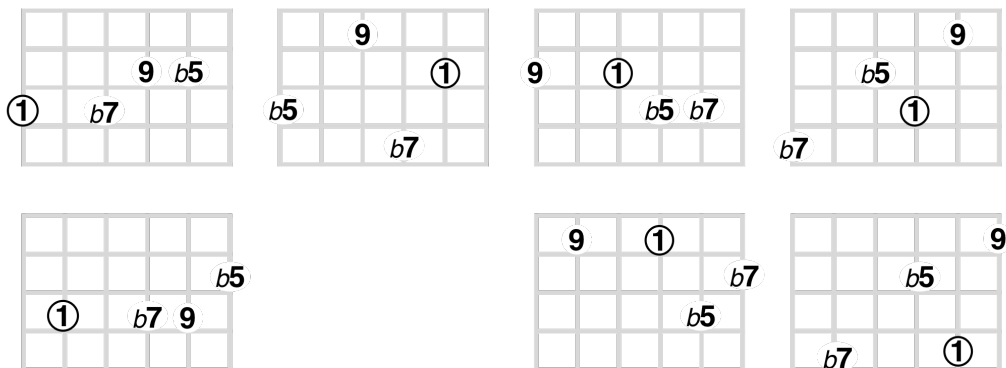
The Treble (Baritone Ukulele) Shapes



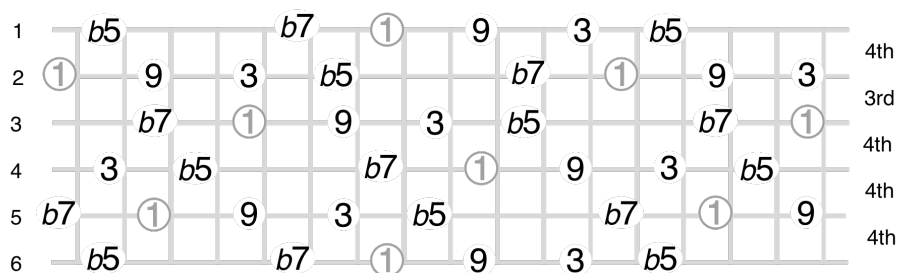
Shape Shifting



Other Options



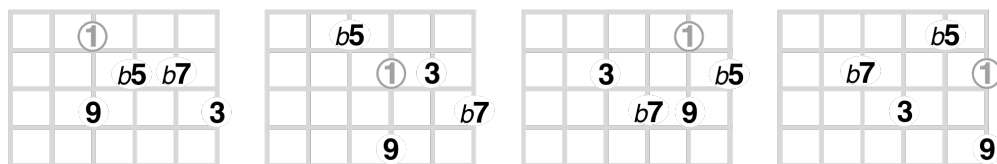
X9-5 Notes — (1) 3 b5 b7 9



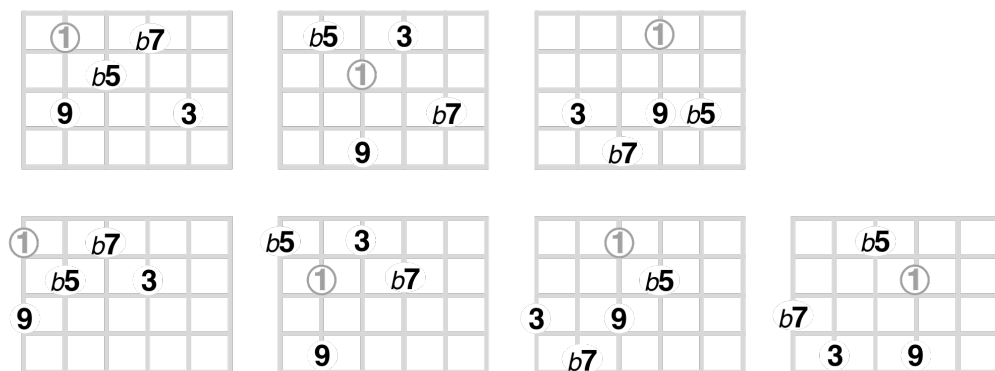
X9-5

(1) 3 b5 b7 9

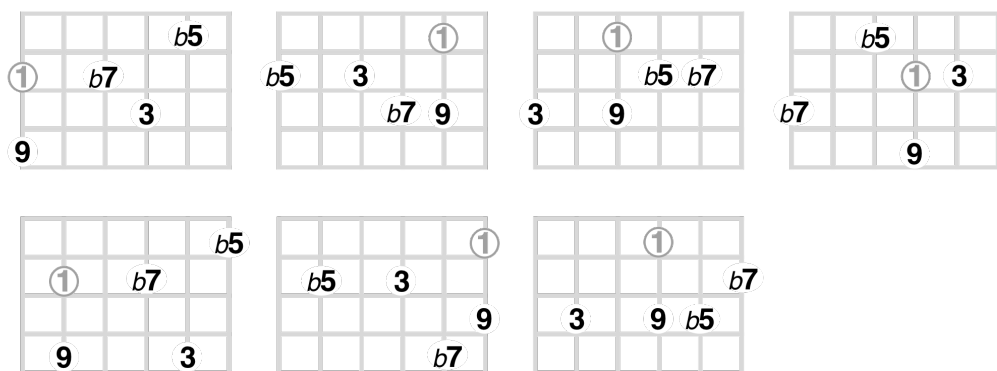
The Treble (Baritone Ukulele) Shapes



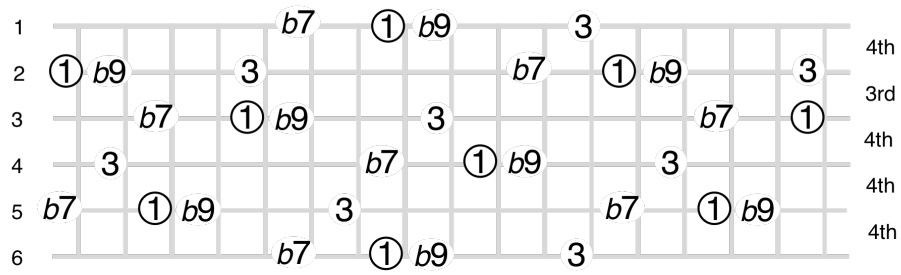
Shape Shifting



Other Options



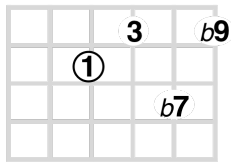
X7(b9) Notes — 1 3 b7 b9



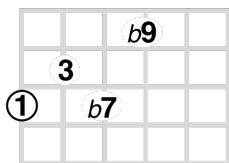
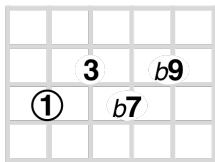
X7(b9)

1 3 b7 b9

The Treble (Baritone Ukulele) Shapes

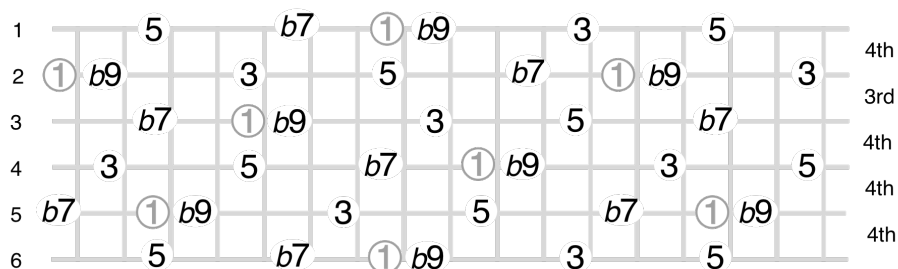


Shape Shifting



Other Options

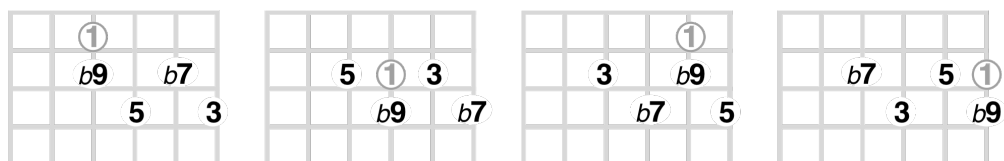
X7(b9) Notes — 1 3 5 b7 b9



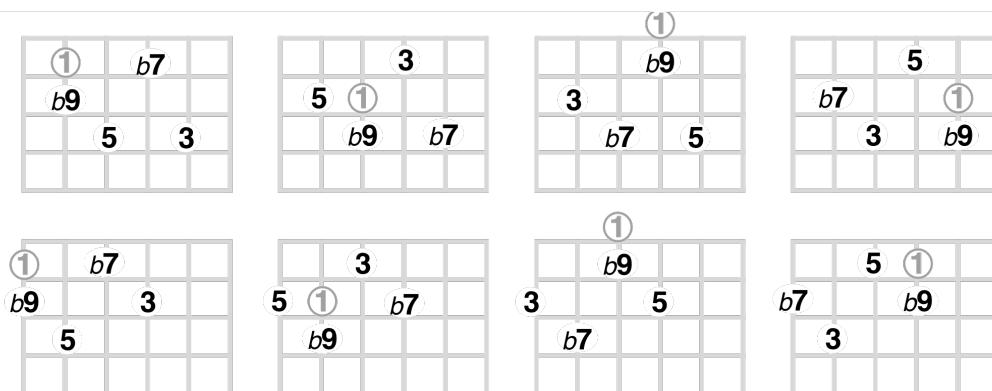
X7(b9)

1 3 b7 b9

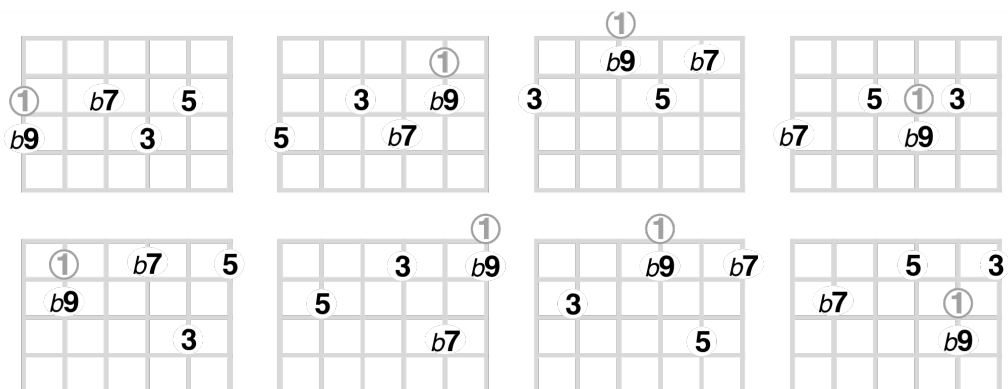
The Treble (Baritone Ukulele) Shapes



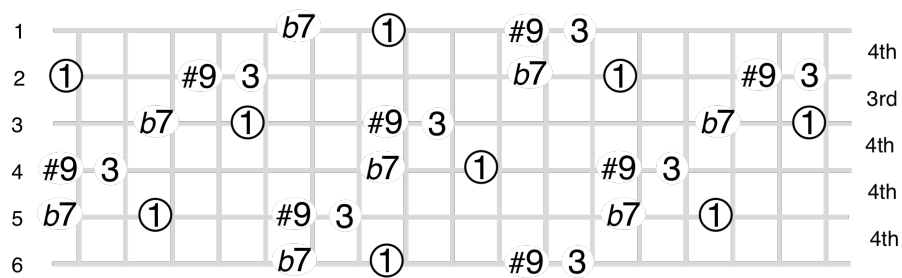
Shape Shifting



Other Options



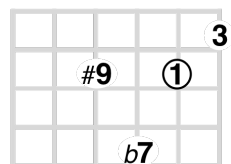
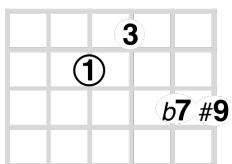
X7(#9) Notes — 1 3 b7 #9



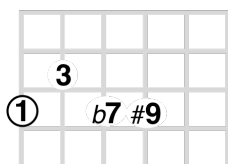
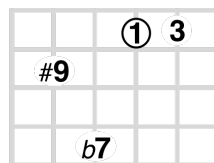
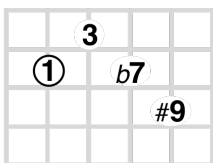
X7(#9)

1 3 b7 #9

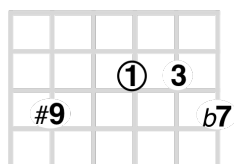
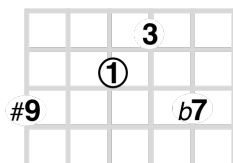
The Treble (Baritone Ukulele) Shapes



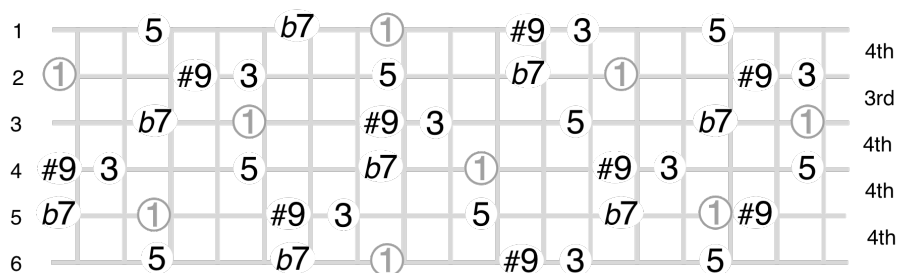
Shape Shifting



Other Options



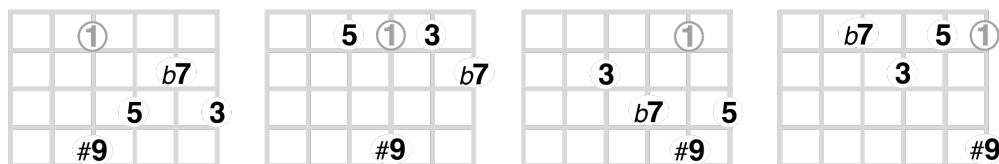
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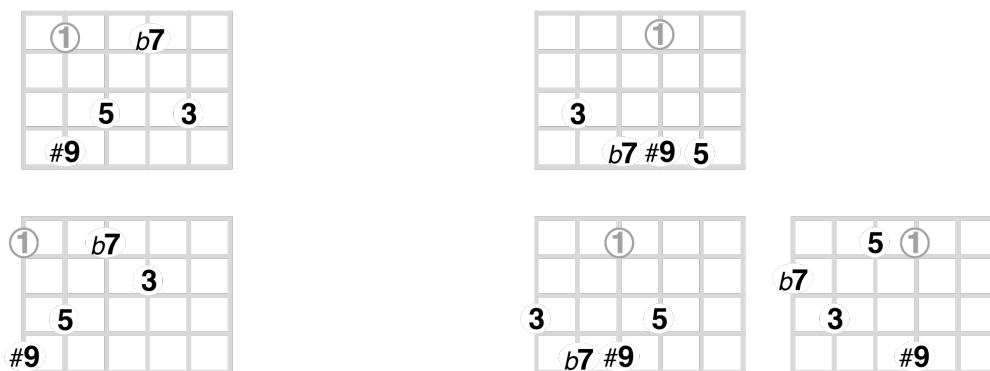
X7(#9)

(1) 3 5 b7 #9

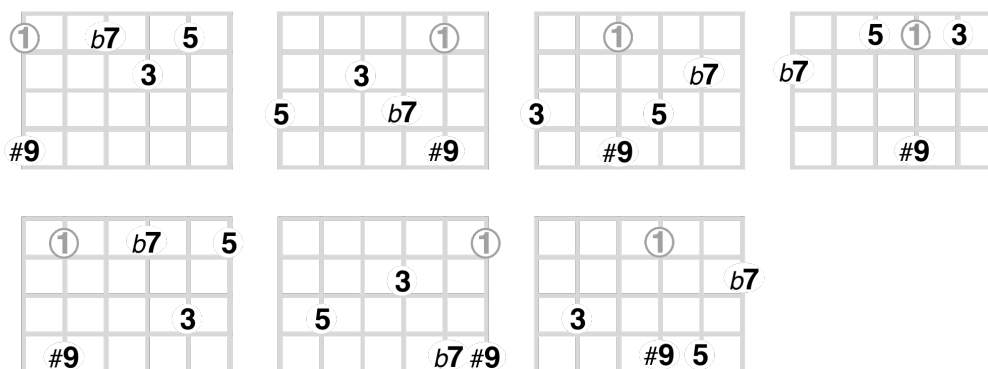
The Treble (Baritone Ukulele) Shapes



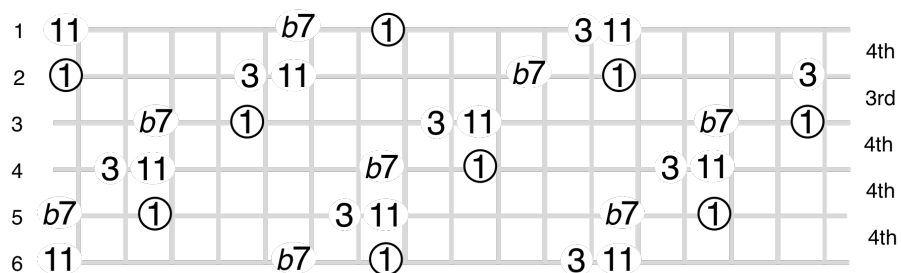
Shape Shifting



Other Options



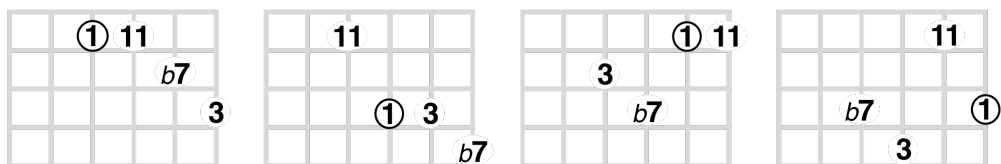
X11 Notes — 1 3 b7 11



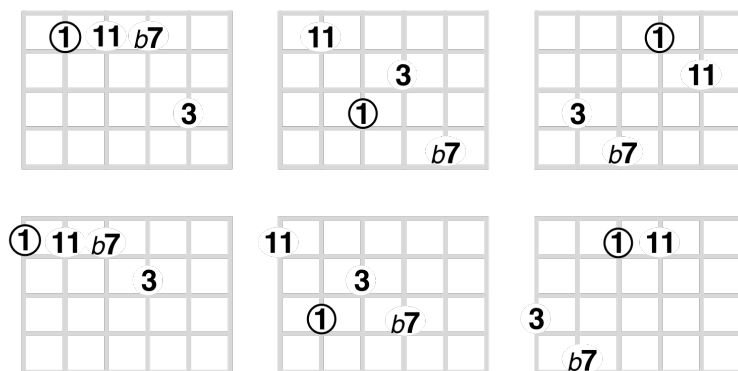
X11

1 3 b7 11

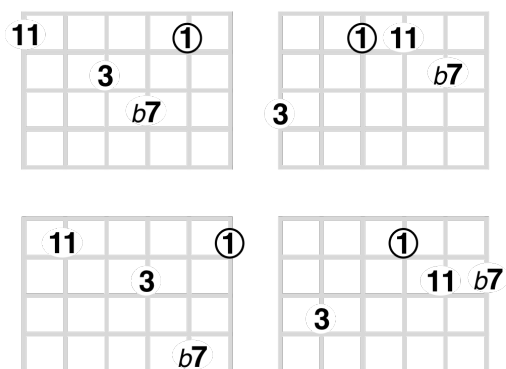
The Treble (Baritone Ukulele) Shapes



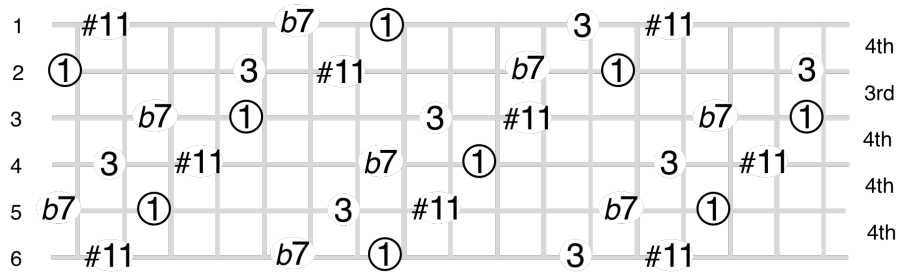
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Other Options



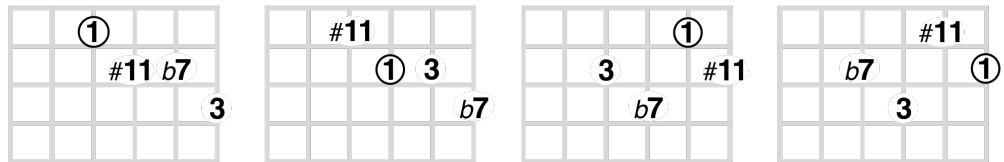
X7#11 Notes — 1 3 b7 #11



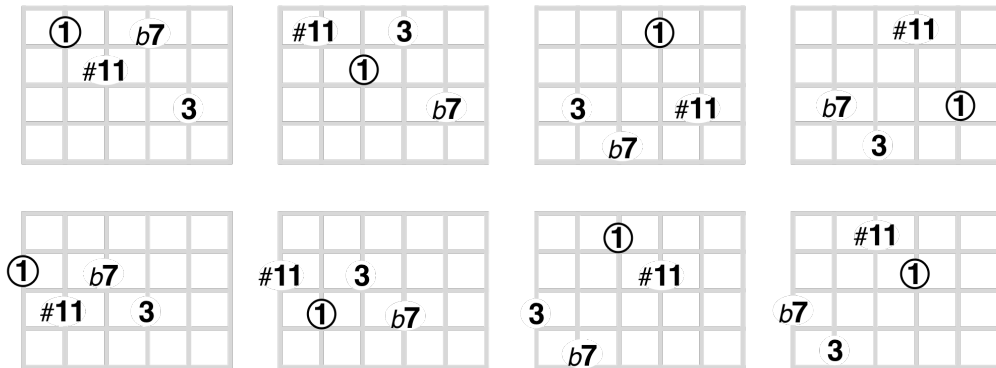
X7#11

1 3 b7 #11

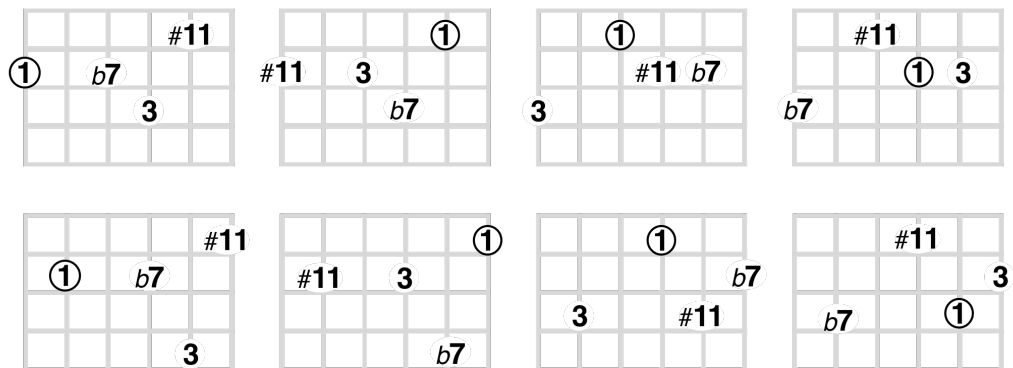
The Treble (Baritone Ukulele) Shapes



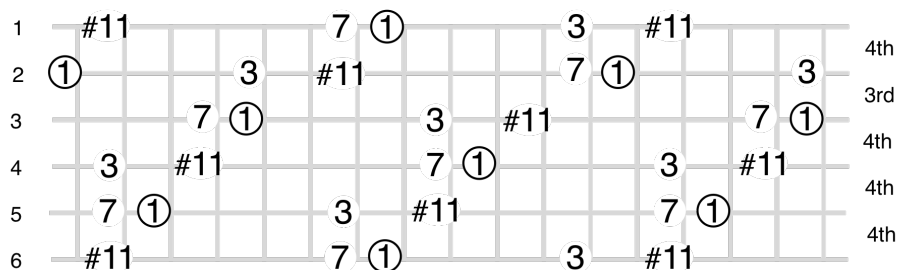
Shape Shifting



Other Options



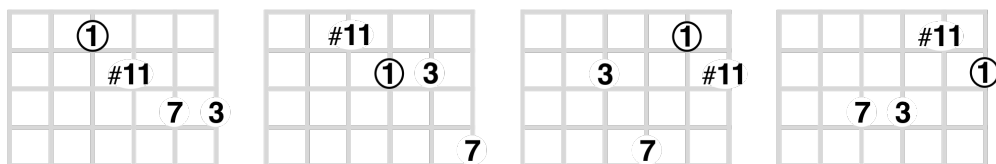
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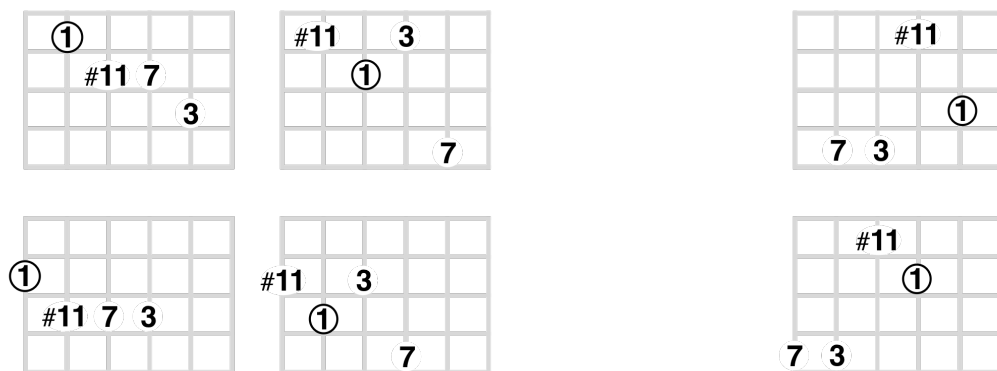
XMaj7#11

1 3 7 #11

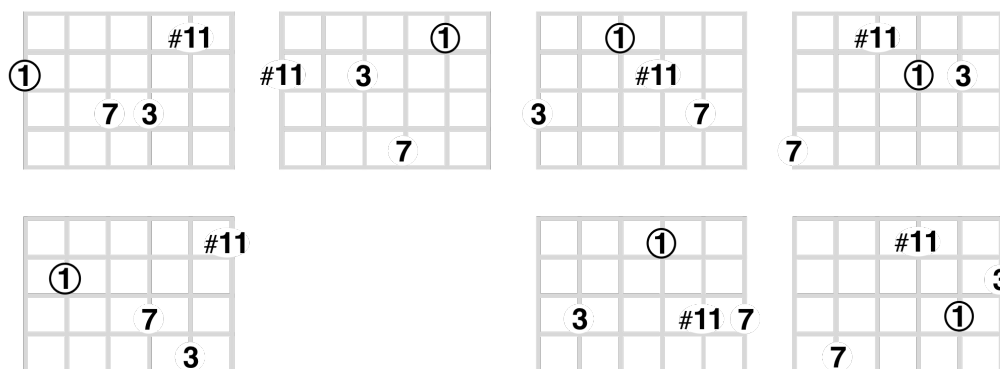
The Treble (Baritone Ukulele) Shapes



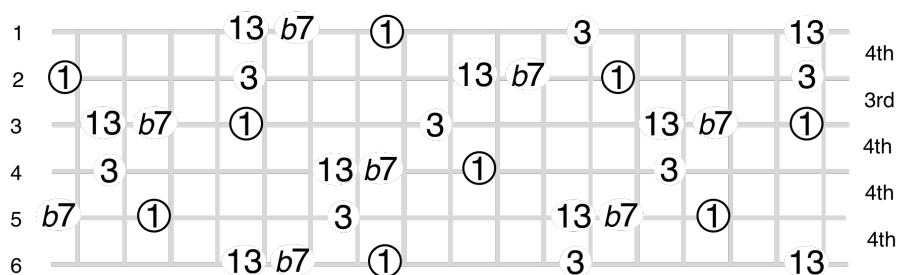
Shape Shifting



Other Options



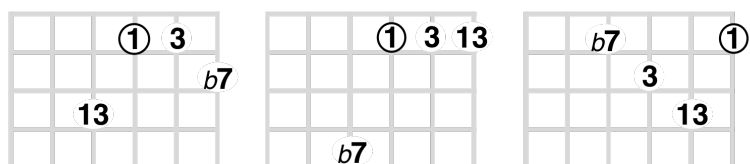
X13 Notes — 1 3 b7 13



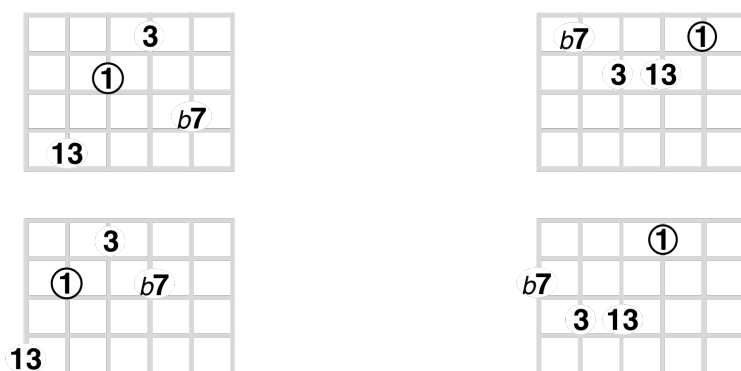
X13

1 3 b7 13

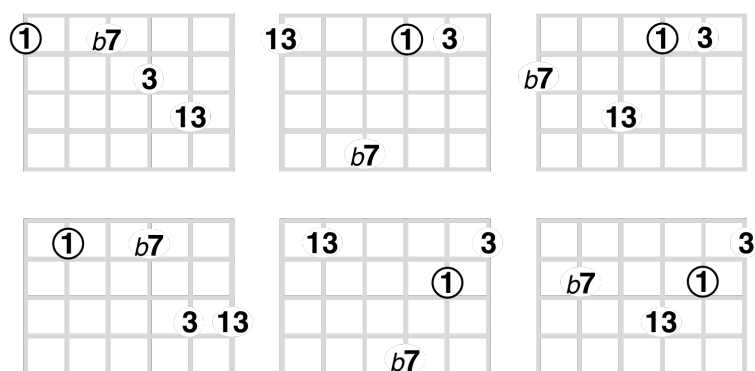
The Treble (Baritone Ukulele) Shapes



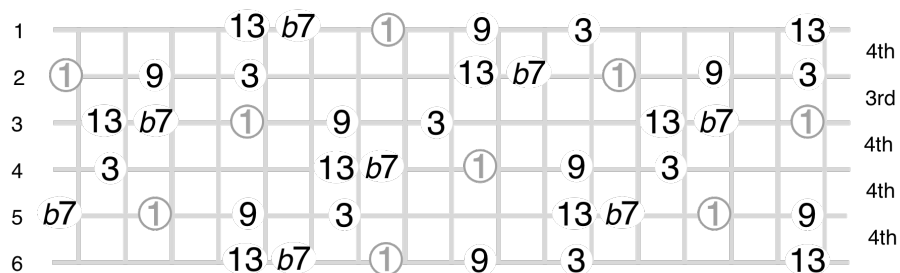
Shape Shifting



Other Options



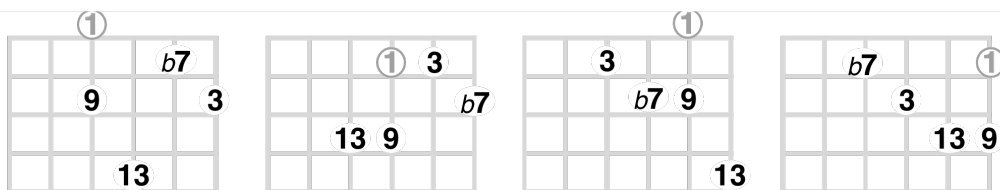
X13 Notes — (1) 3 b7 9 13



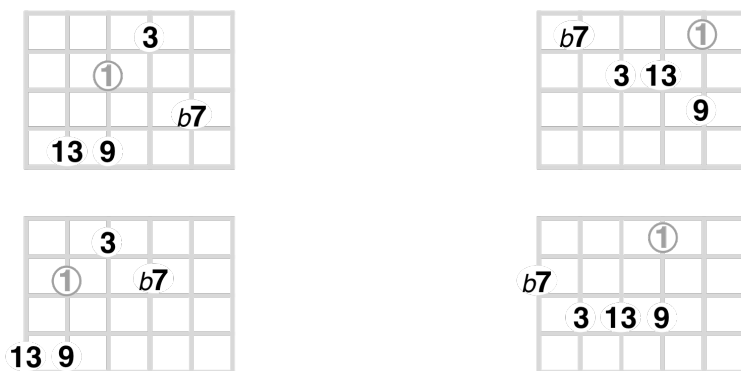
X13

(1) 3 b7 9 13

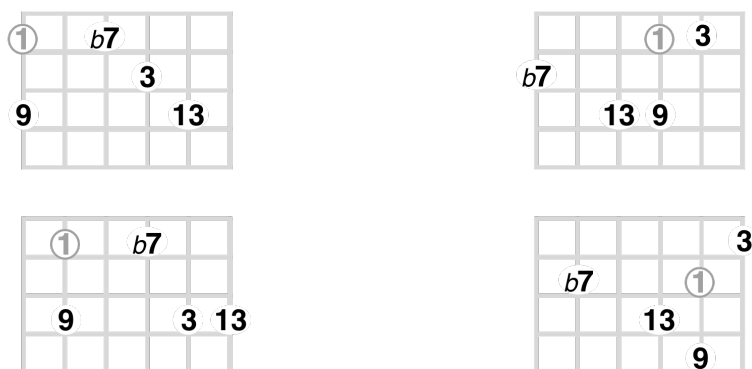
The Treble (Baritone Ukulele) Shapes



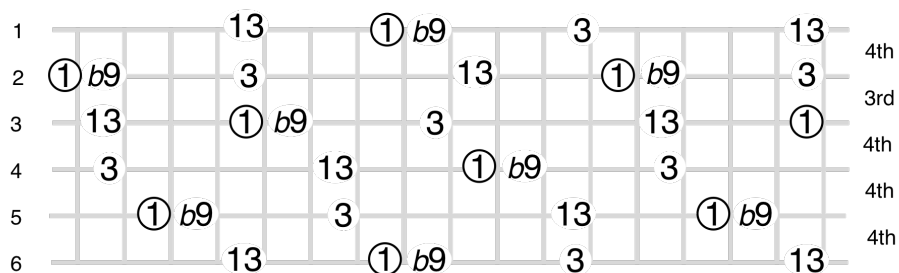
Shape Shifting



Other Options



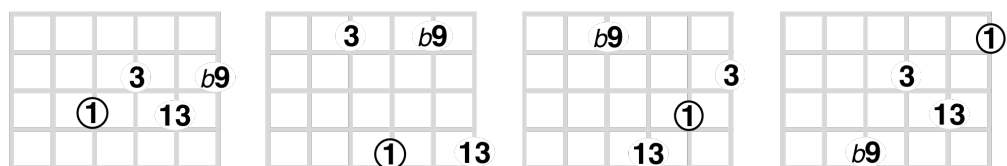
X13(b9) Notes — 1 3 b9 13



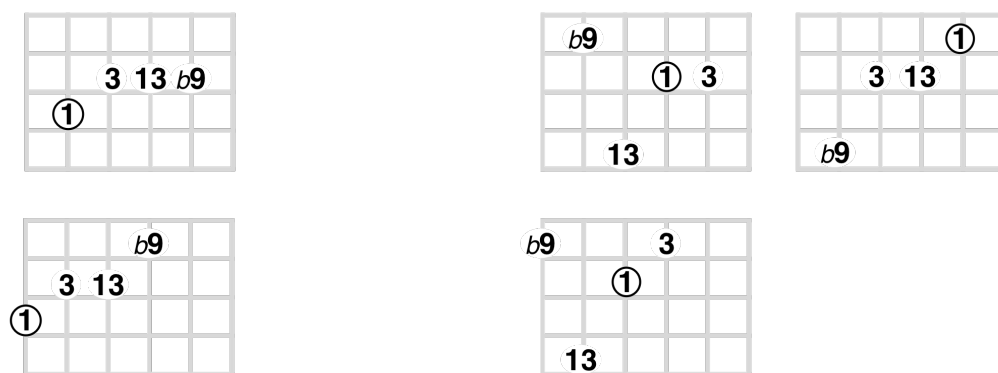
X13(b9)

1 3 b9 13

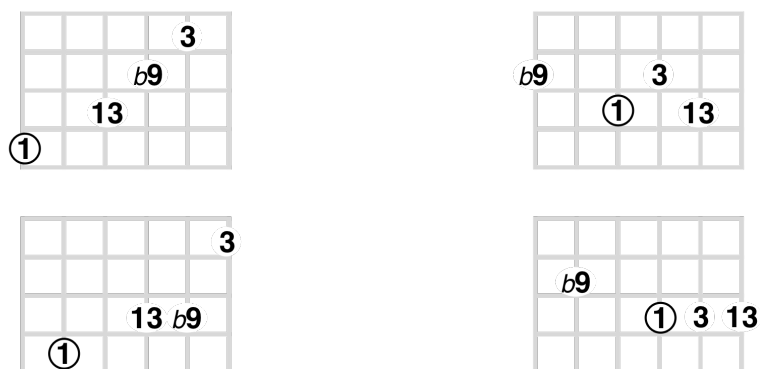
The Treble (Baritone Ukulele) Shapes



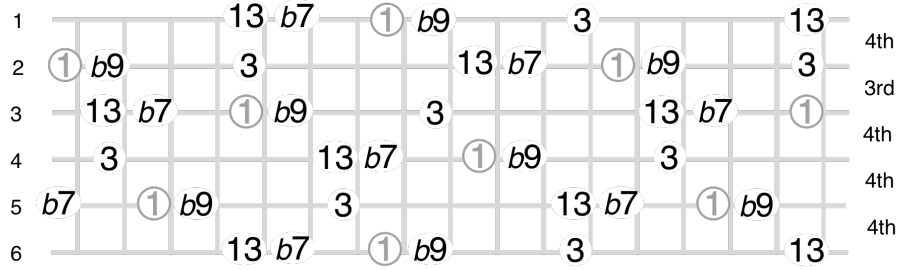
Shape Shifting



Other Options



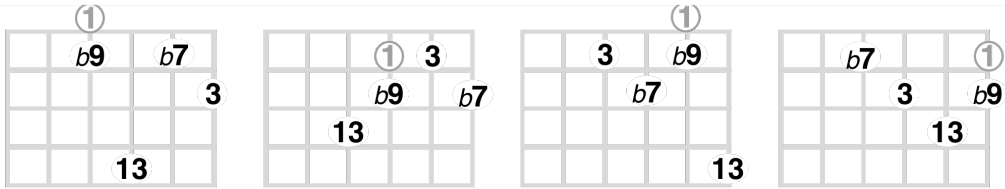
X13 Notes — (1) 3 b7 b9 13



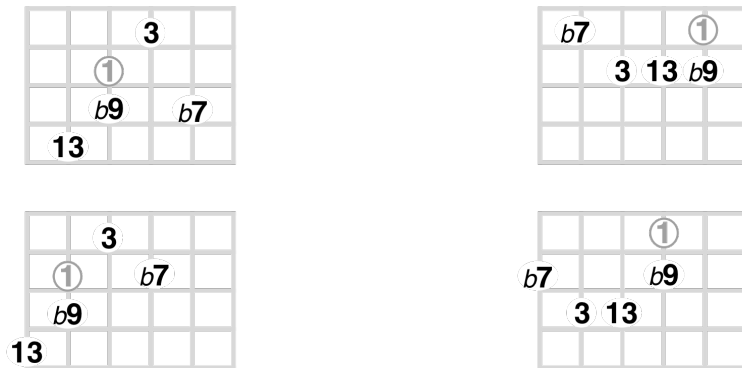
X13

(1) 3 b7 b9 13

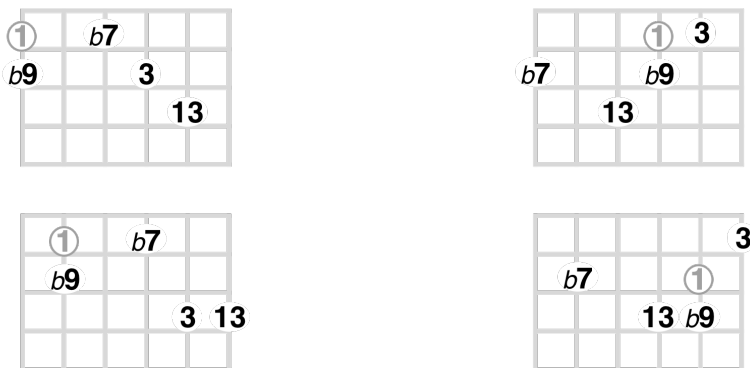
The Treble (Baritone Ukulele) Shapes



Shape Shifting



Other Options



Nancy and Dennis made videos of some of the songs in this book. You can see/hear them on his YouTube channel. They are under the heading "Music Videos."

youtube.com/c/dennismerritt

The "Jazz Chords on Frets" heading has instructional videos illustrating concepts from the book.

You can read more of Dennis C Merritt's writings at:

dennismerritt.com