Chords Workshop

by Mark Fowler

Based mostly on:

- **2 straight-forward articles by David Hamburger in *Acoustic Guitar Magazine* (August & September 2003)**
  - http://acousticguitar.com/lessons/Chord_Names/1.html
  - http://acousticguitar.com/lessons/Chord_Names2/1.html
- ***What Makes Music Work***, a book by P. Seyer, A. Novick, & P. Harmon
  - http://www.lovemusiclovedance.com/what_makes_music_work.htm
  - An amazingly simple but effective little book!!
- ***Chords & Progressions for Jazz and Popular Guitar***, a book by Arnie Berle
- ***Wikipedia Entry***
  - http://en.wikipedia.org/wiki/Chord_notation

Got Questions? **mfowler@binghamton.edu**

Get Full-Size, Full-Color Handout:

http://www.ws.binghamton.edu/fowler

(Click on "Other")

Next

What We'll Cover

- **Part Ia**
  - What notes are in the "normal" chords?
- **Part Ib**
  - What notes are in the "weird" chords?
- **Part II**
  - How do you play the "weird" chords?
- **Part III**
  - When do you use the "weird" chords?

Next

Part Ia

What Notes Are In The "Normal" Chords?

Next

What is a Chord?

- Three or more different notes played together

What Makes a Certain Chord?

- It depends on the “Intervals” (i.e., distance) between the notes

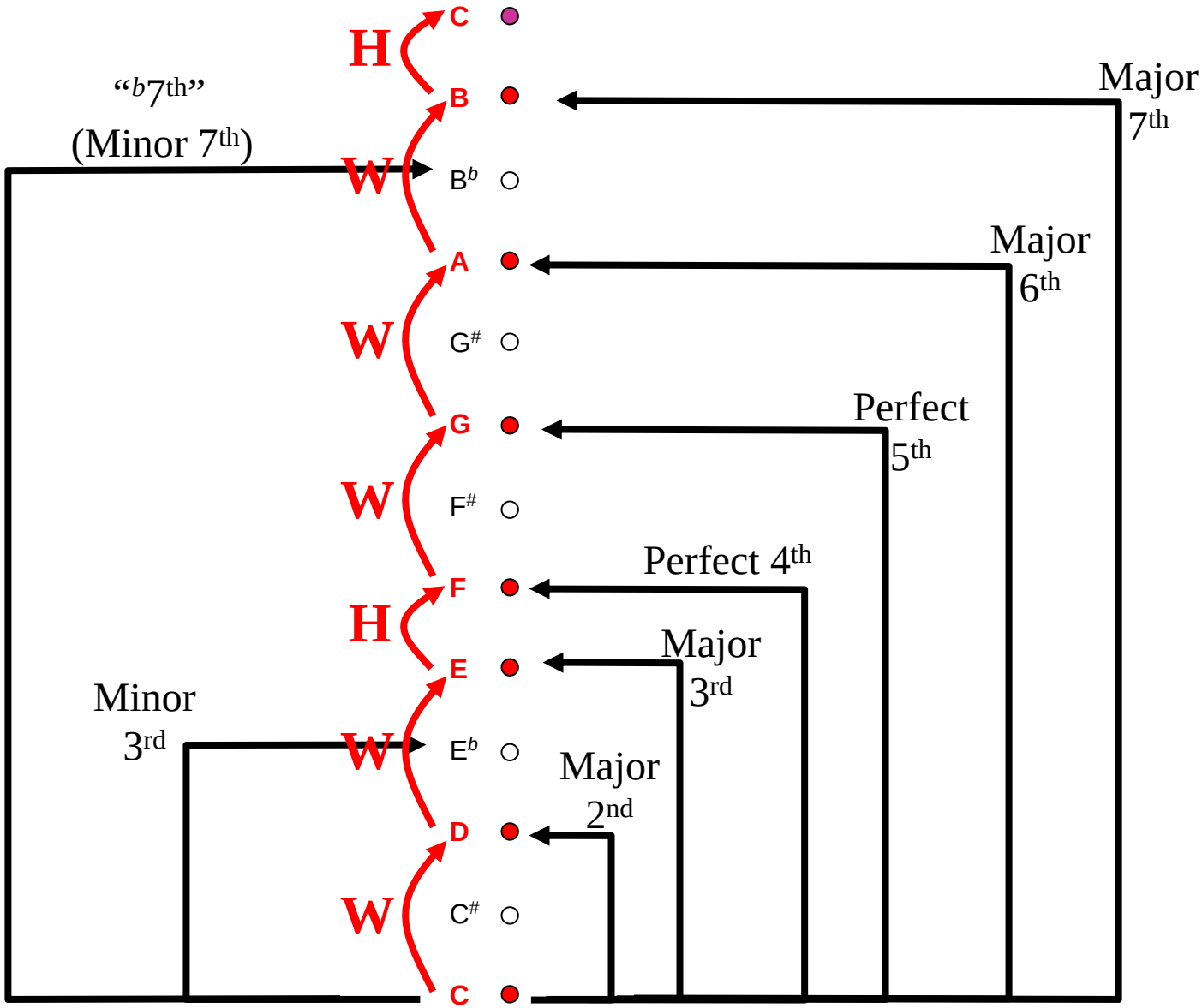
What Is an Interval?

- A measure of the distance between two notes
- Interval names are based on positions in scales
  - Actually, they are really based on the # of “half steps” between the notes

Note: 2 notes a half step apart are one fret apart

Next

Intervals within the C Major Scale



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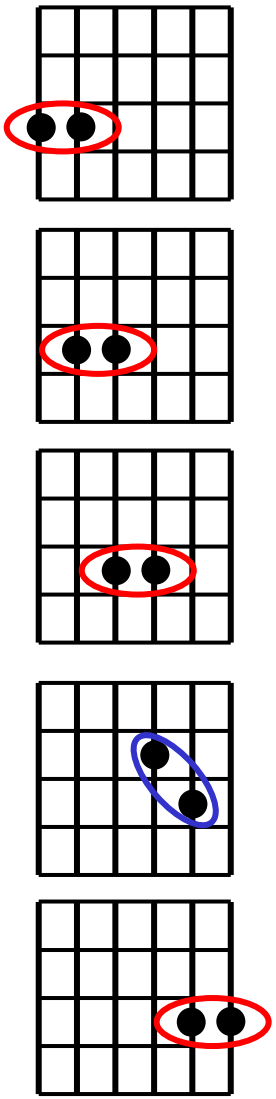
Intervals Between Strings On The Guitar

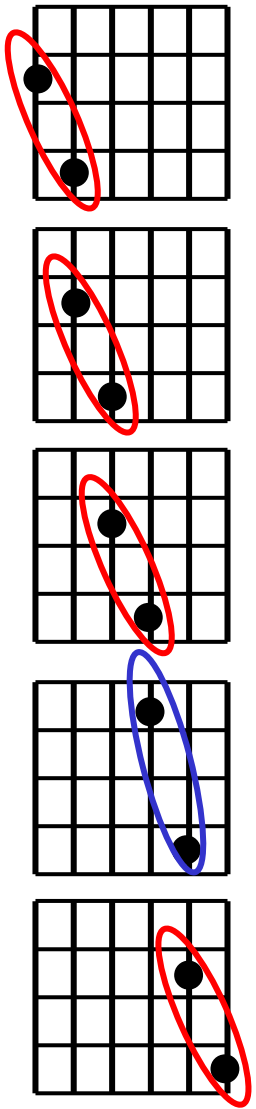
➢ 4ths

A 4th "up" is a 5th "down"

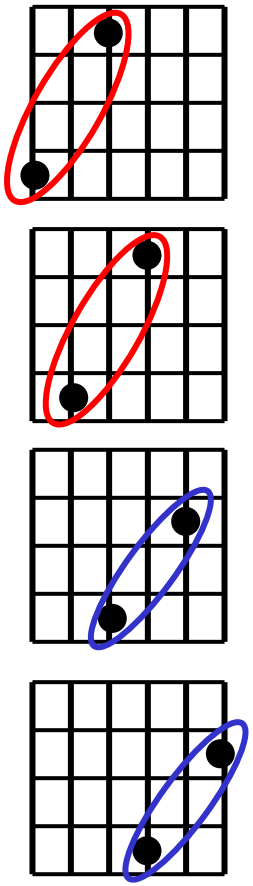


➢ 5ths

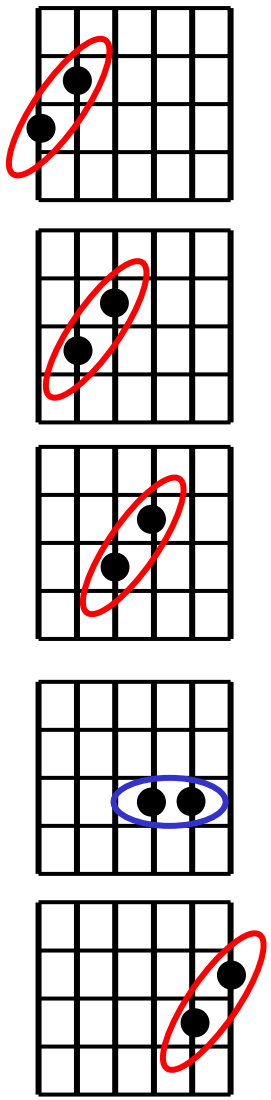
Adjacent Strgs



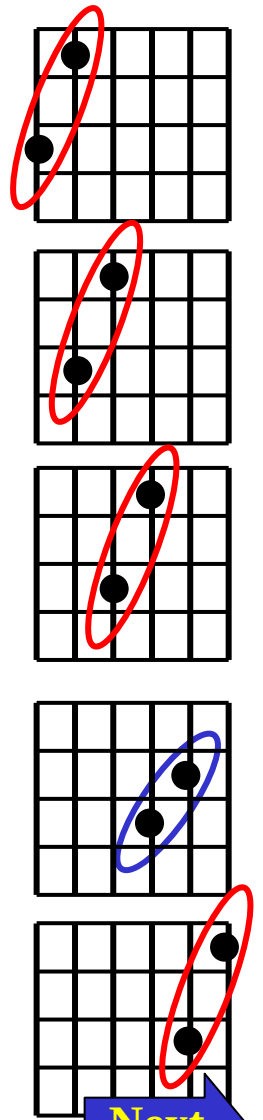
Skipped Strgs



➢ Maj 3rds



➢ Min 3rds



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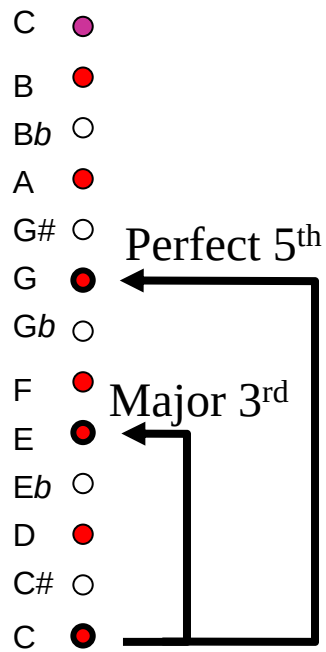
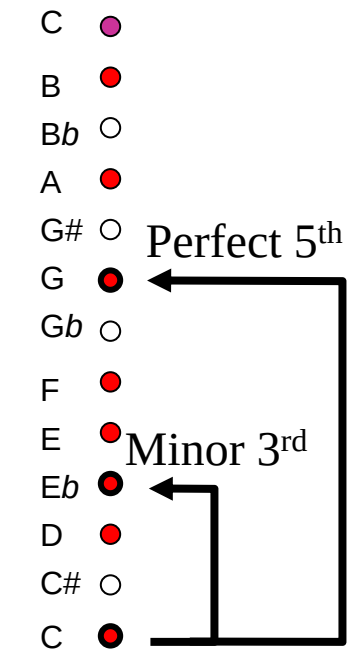
Triads – Simplest Chords

There are only 4 types of triads:

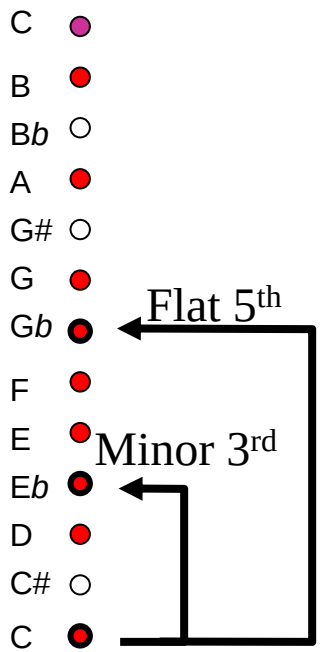
- **Major**
  R 3 5



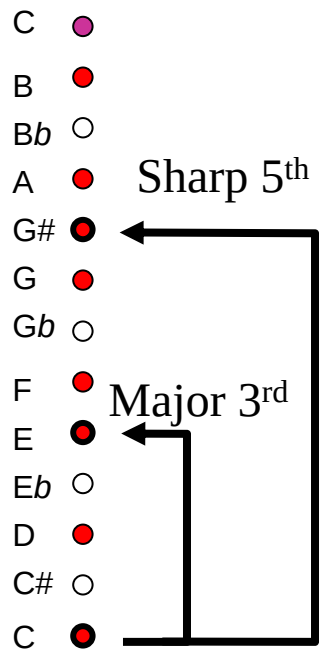
- **Minor**
  R ^{b}3 5



- **Diminished**
  R ^{b}3 ^{b}5



- **Augmented**
  R 3 $^{\#}$5



These constitute about 99% of the chords you see traditionally in a fiddle tune

We won't be needing these!

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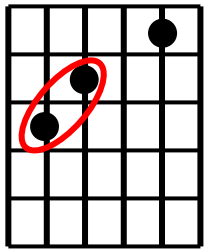
Triads-Based Guitar Chords: An Example

C Major

3 2 0 1 0



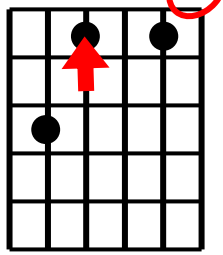
C E G C E

R 3 5 R 3

Note: In a typical Guitar Chord-Form we often repeat triad notes

C Minor

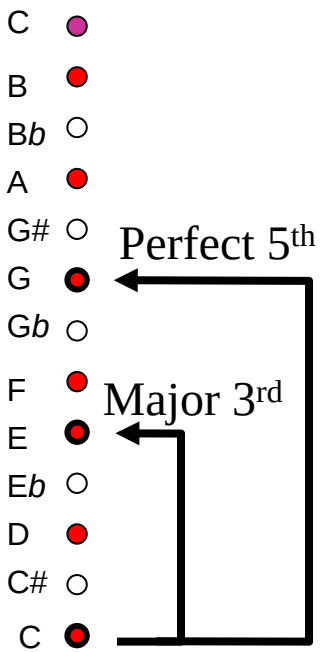
4 1 0 1 x



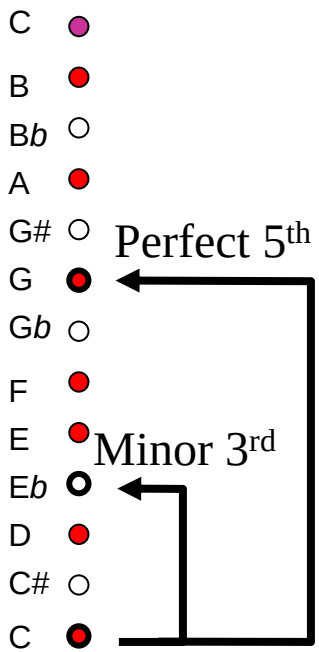
C Eb G C

R ^{b}3 5 R

- Major
  R 3 5



- Minor
  R b3 5



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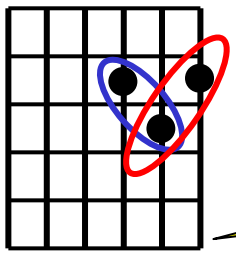
Triads-Based Guitar Chords: Another Example

D Major

0 0 1 3 2



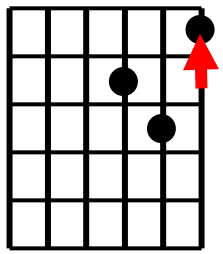
A D A D F#

5 R 5 R 3

In some Guitar Chord-Forms the triad notes don't appear "in order"

D Minor

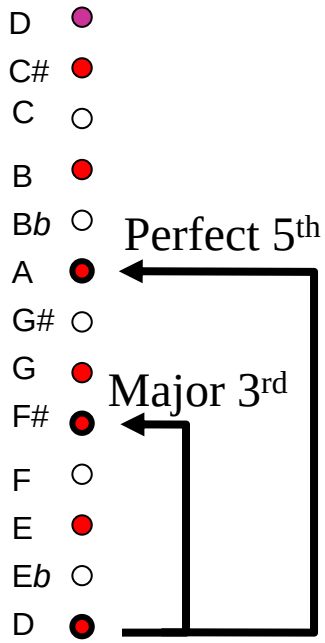
0 0 2 3 1



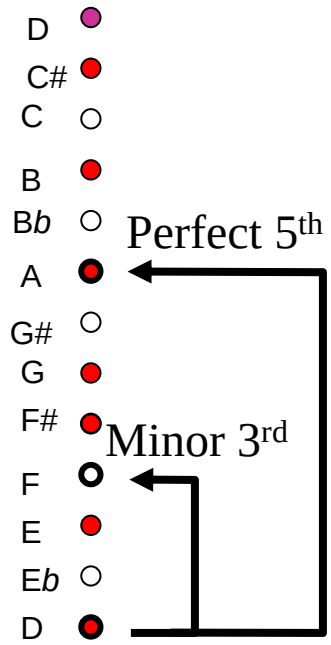
A D A D F

5 R 5 R ^{b}3

➢ Major
R 3 5



➢ Minor
R b3 5



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Part Ib

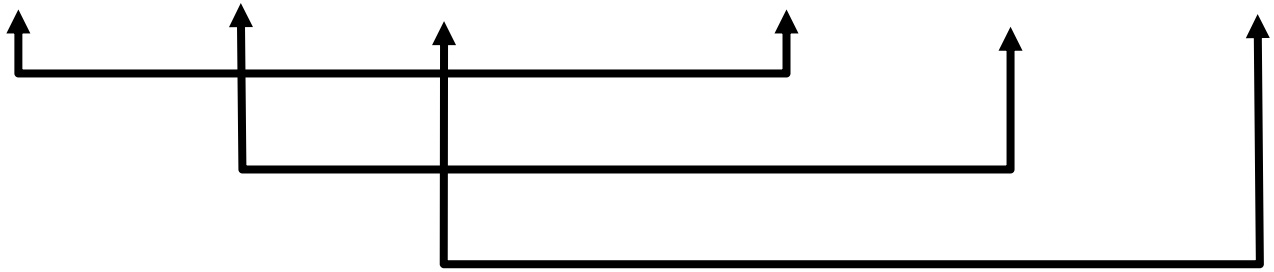
What Notes Are In These "Weird" Chords?

Next

Bigger Intervals

(shown relative to C in C major scale)

C	D	E	F	G	A	B	C	D	E	F	G	A	B	C
1	2	**3**	4	**5**	6	**7**	8	**9**	10	**11**	12	**13**	14	15



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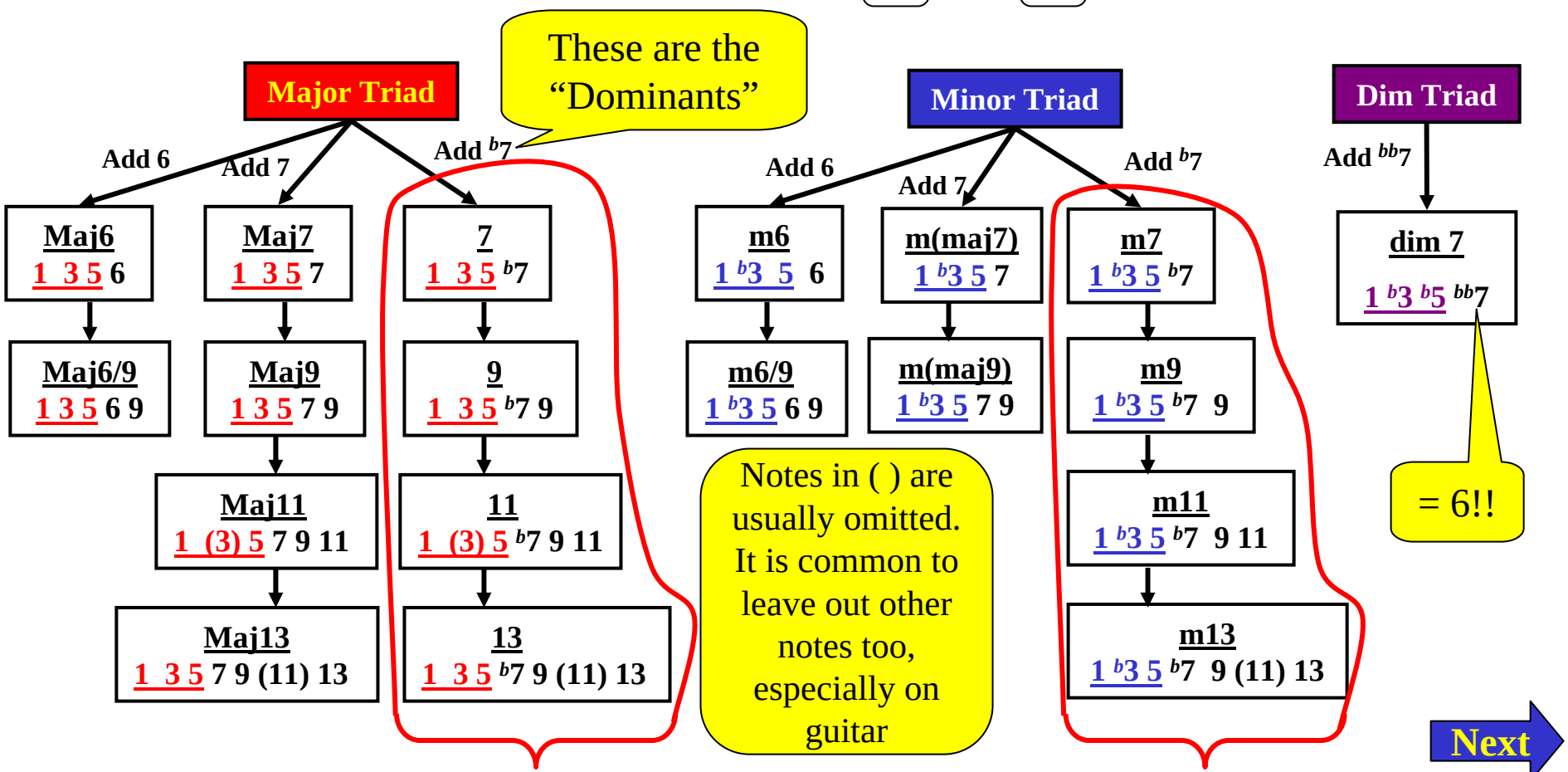
Nearly-Complete Jazz Chord "Family Tree"

For Jazz Chords: sequentially add other notes to a maj/min triad

Note the main pattern: 1 | 3 / $\flat$3 | 5 | 7 / $\flat$7 | 9 | 11 | 13



Altered Chords (e.g., A7$^{\#}$5$^{\flat}$9): Raise or Lower the 5, 9, 11, or 13

Part II

How Do You Play These "Weird" Chords?

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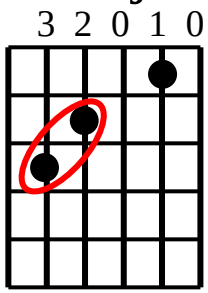
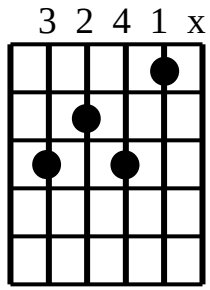
An Example

C Major



C E G C E
R 3 5 R 3

C^7

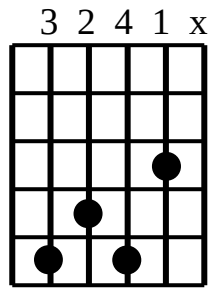


C E B^b C
R 3 ^{b}7 R

For *this* form we sacrifice the 5th !

This now becomes "Movable"

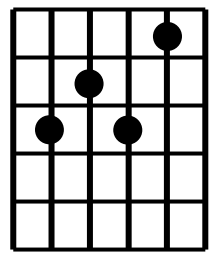
D^7



D $F^\#$ C D
R 3 ^{b}7 R

E^7

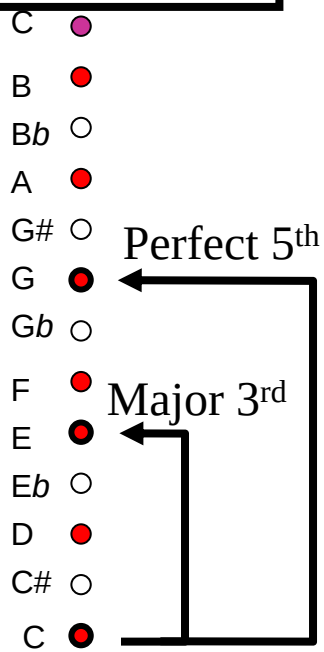
V



E $G^\#$ D E
R 3 ^{b}7 R

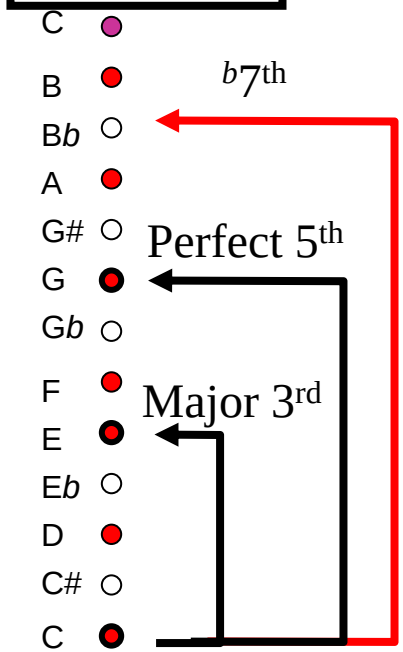
➢ Major

R 3 5



➢ Dom 7

R 3 5 ^{b}7



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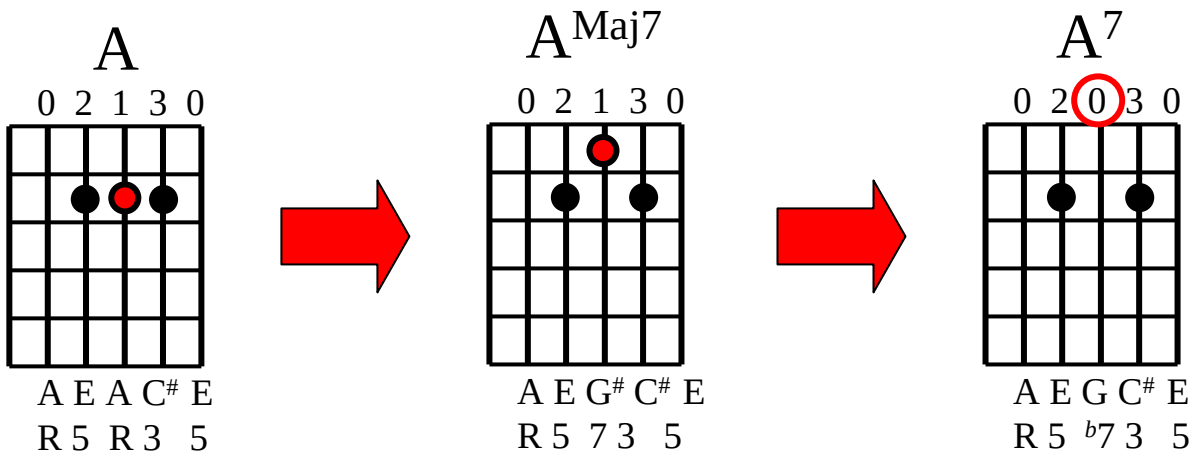
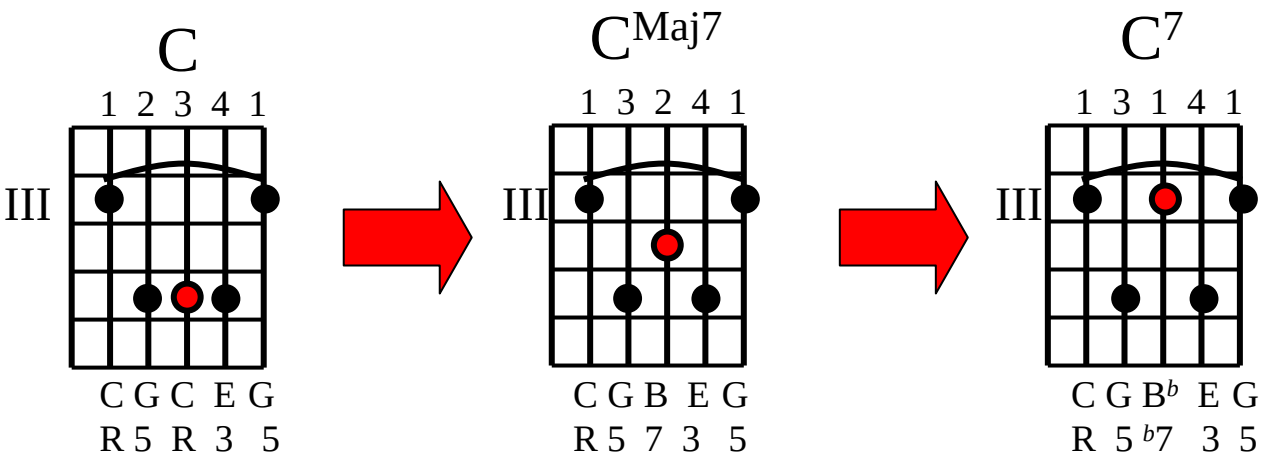
A Structure-Based Approach:

Find a Root and Keep Lowering It



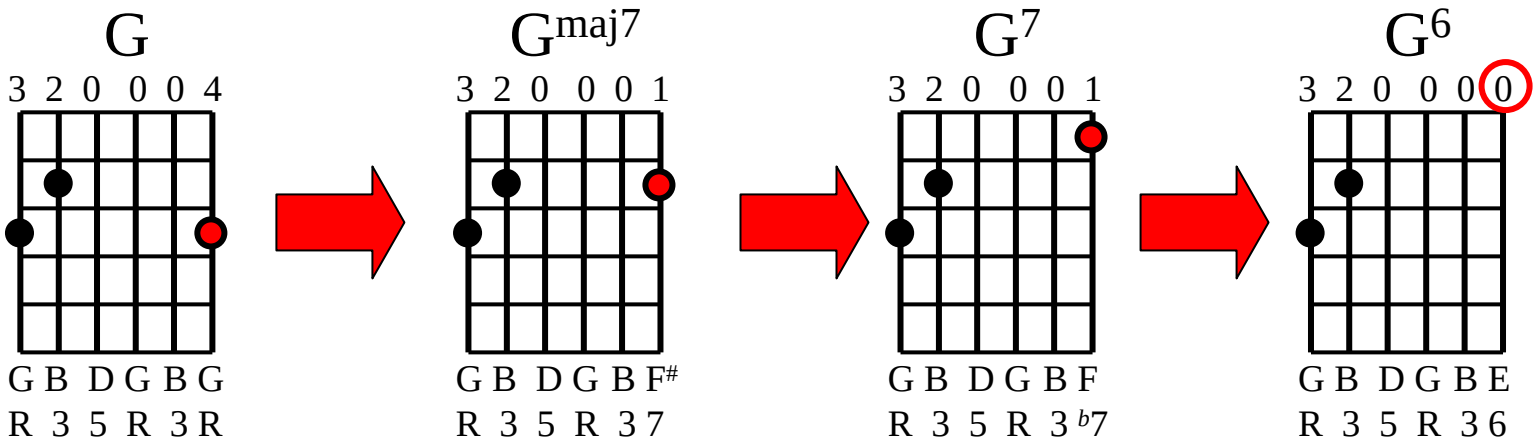
Make It Movable:

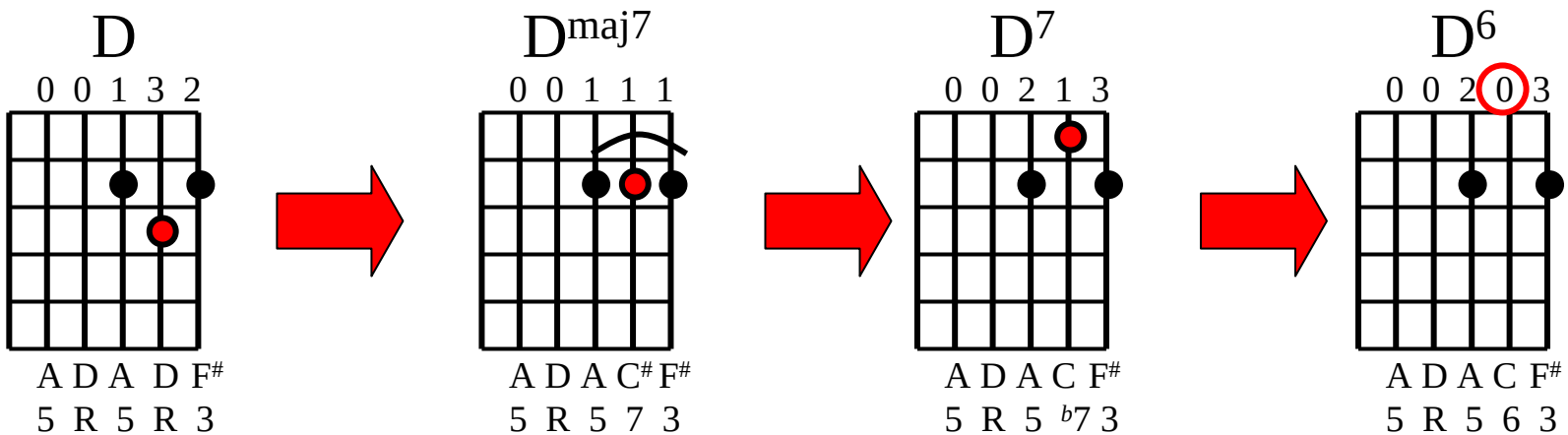


Next

More Examples of that Rule:

Find a Root and Keep Lowering It





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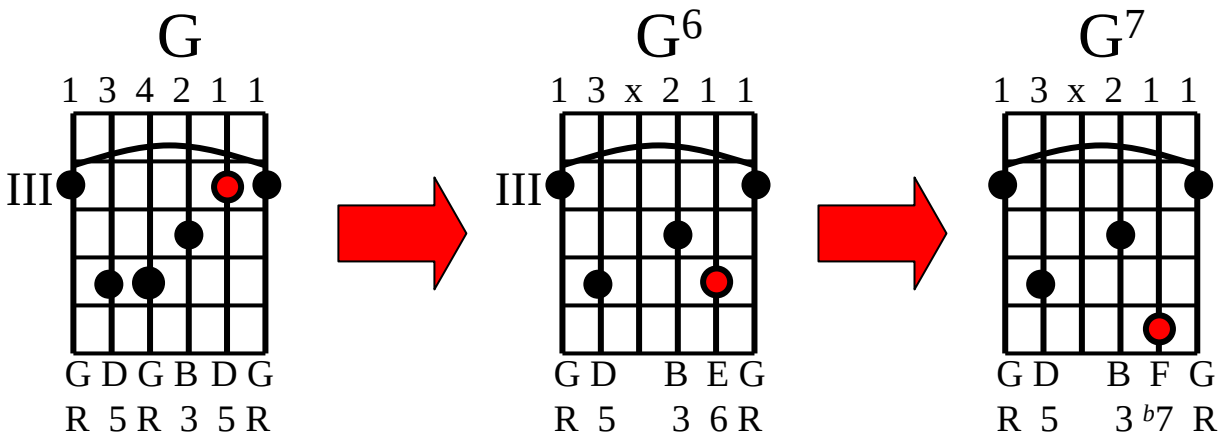
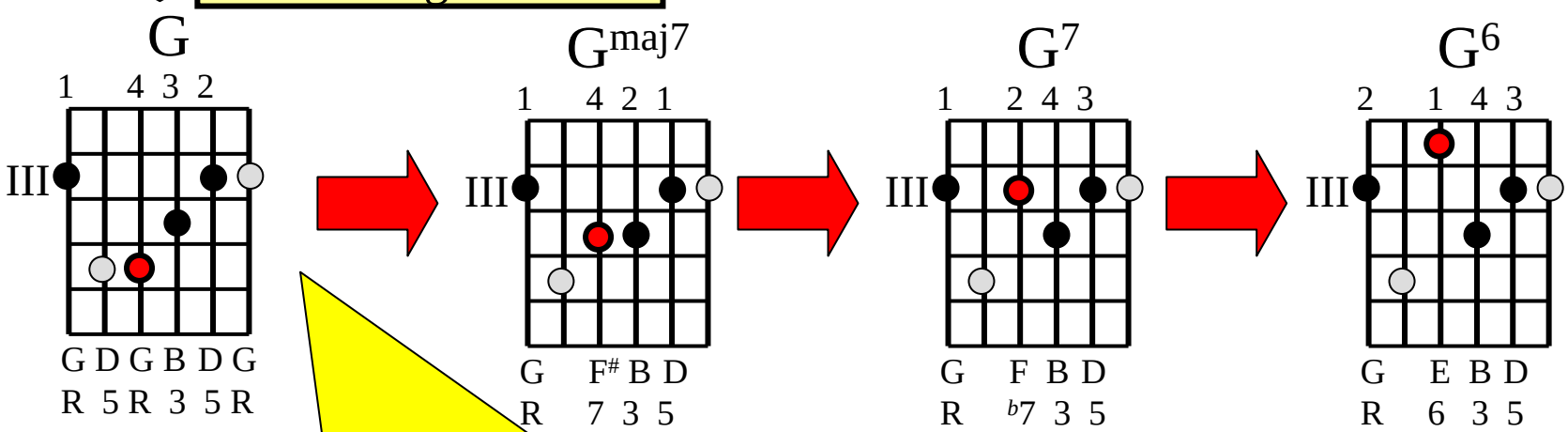
Another Structure-Based Rule:

Find a 5th and Keep Raising It



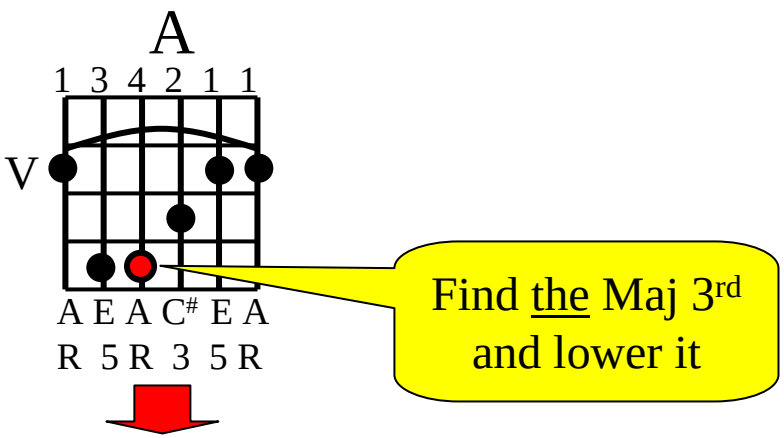
Or Use Our 1st Rule: Lowering a Root

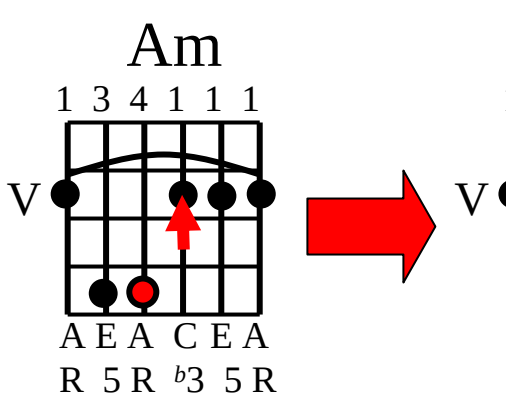


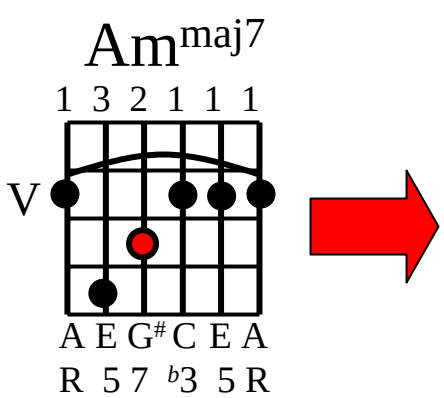
Gray Circles = notes left out to make the new chords playable playable!!!

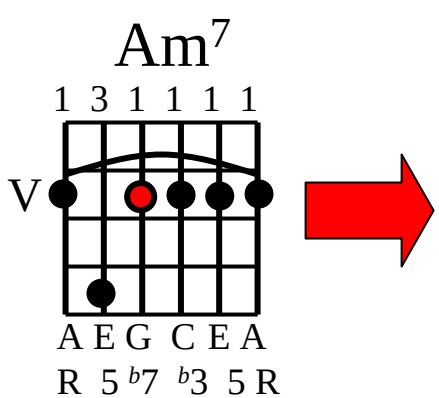
Next

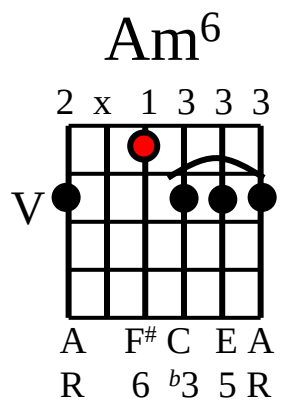
And More:

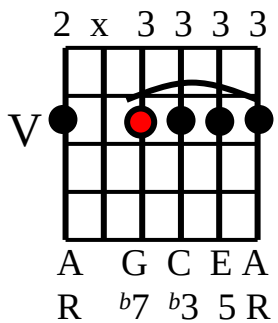












“Certified Jazzer’s Form”

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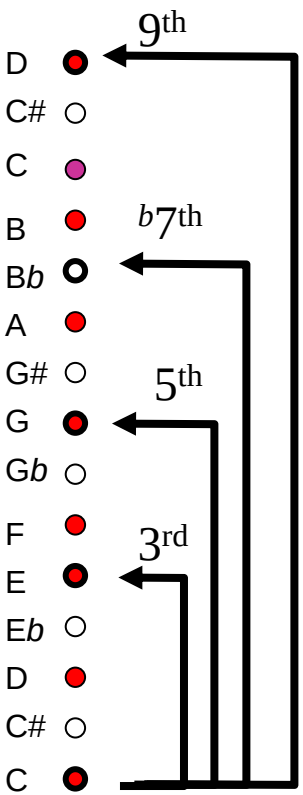
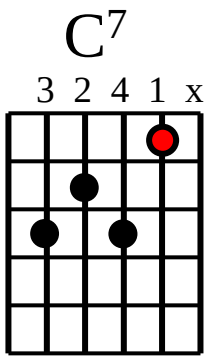
Another Rule: Making the dom 9th Chord

Find a Root and Raise It

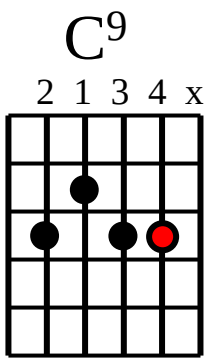
- Dom 9

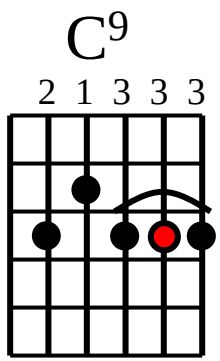
  R 3 5 ^{b}7 9





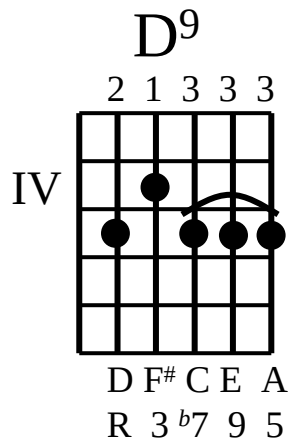
Recall: For *this* form we sacrificed the 5th !

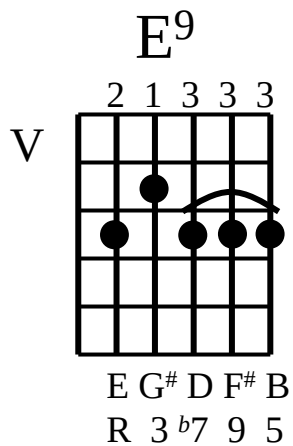




Here we gain back the 5th !

This form is movable





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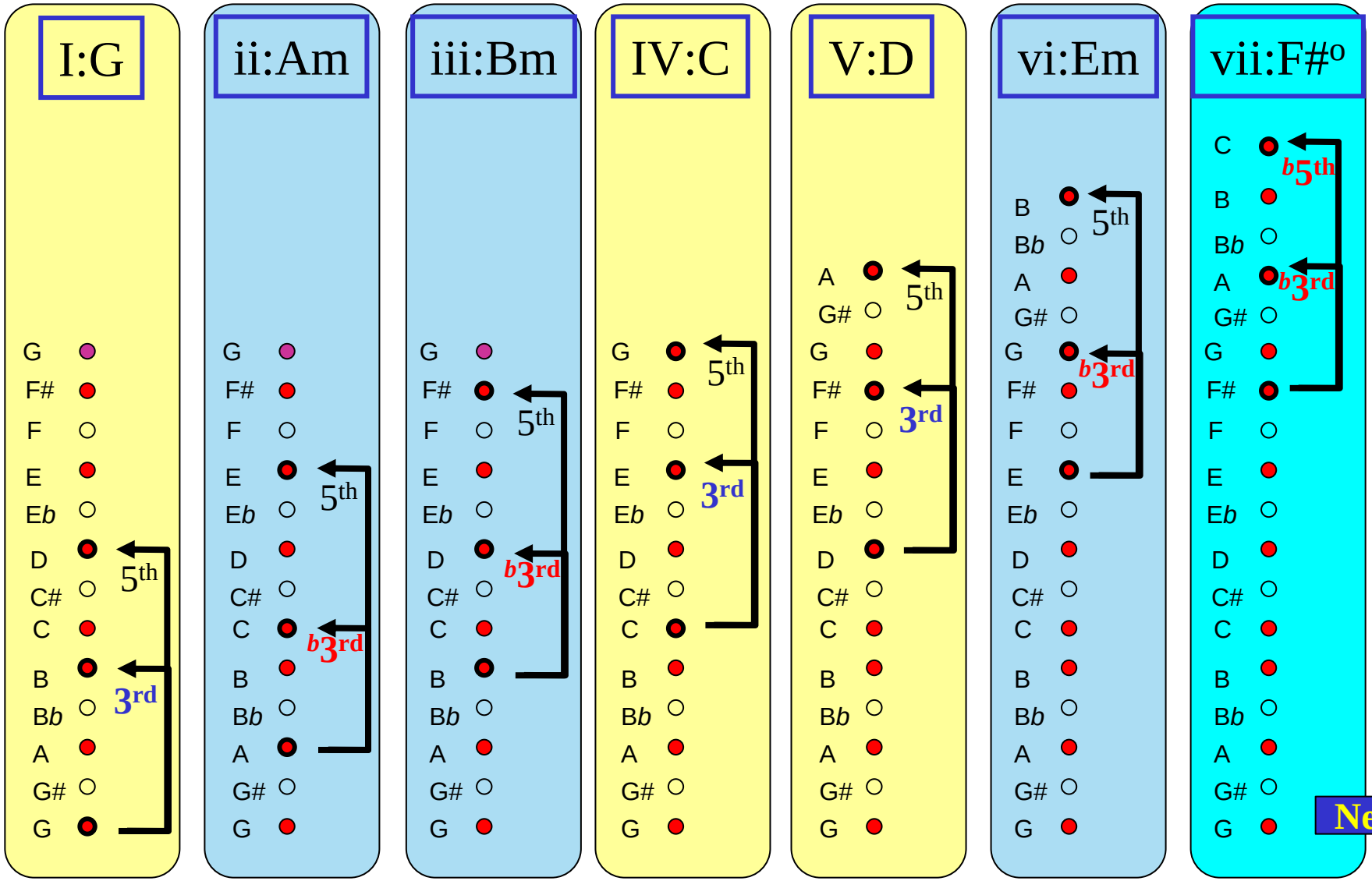
Part III

How Do You Use These "Weird" Chords?

Next

Triads Harmonize the Scale

Choose triad type so that each chord uses only scale tones



Typical Places to Use Jazz Chords

Recall: Number System for Chords (Example - Key of G)

I	ii	iii	IV	V	vi	vii
G	Am	Bm	C	D	Em	F#^{o}

Jazzy Replacements	
I	Maj7, Maj6 (… in blues the I is played as Dom7)
IV	Maj7, Maj6, (… in blues the IV is played as Dom7)
V	Dom7
ii, iii, vi	min7

To see why… see next two slides…

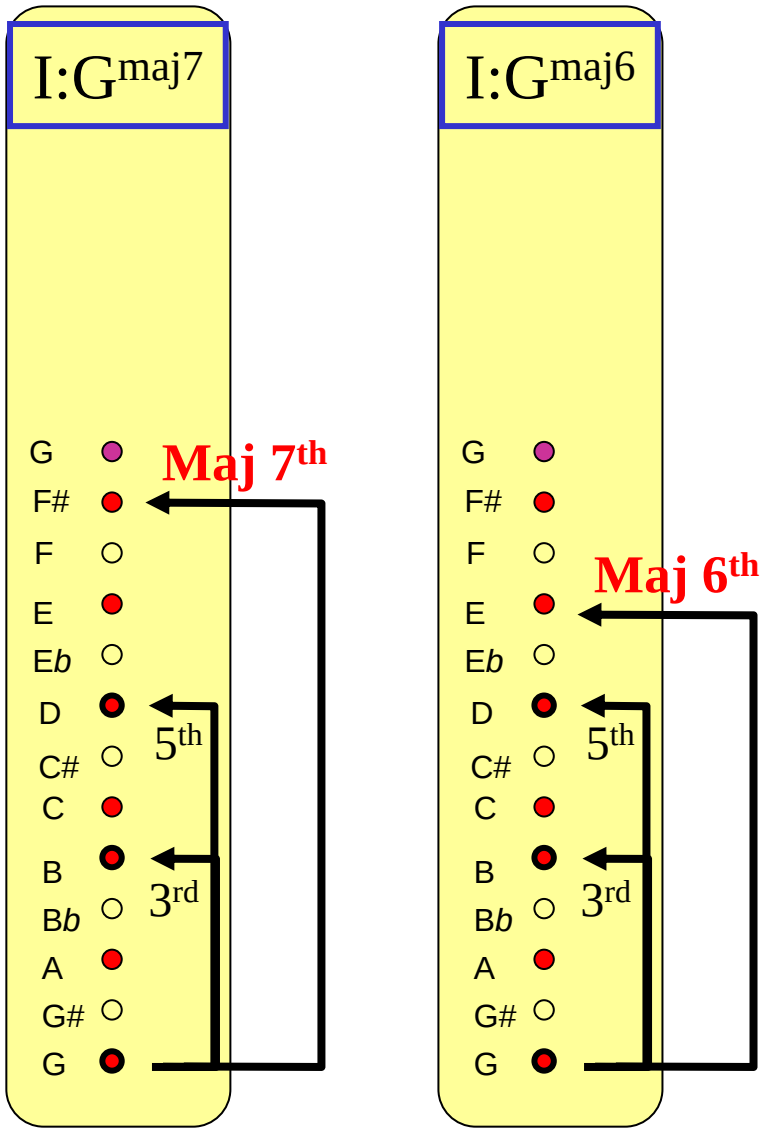
Numbered Chords with Replacements:

I	ii	iii	IV	V	vi	vii
G^{M7}	A^{m7}	B^{m7}	C^{M7}	D^{7}	E^{m7}	$F\#^{o7}$

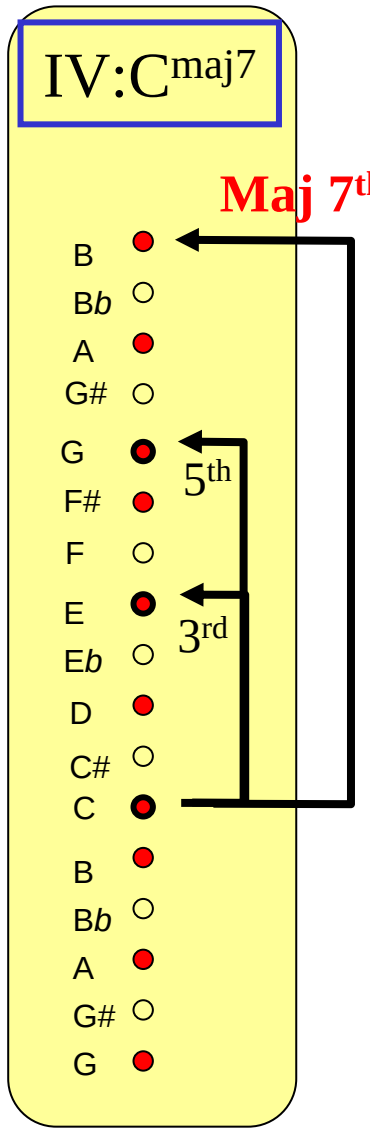
Next

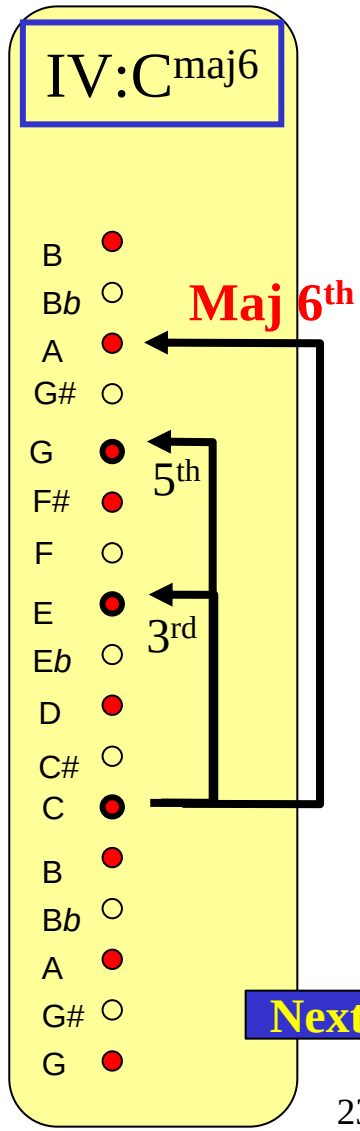
Pick Extensions to Stay in Scale

Why I is either Maj7 or Maj6:



Why IV is either Maj7 or Maj6:





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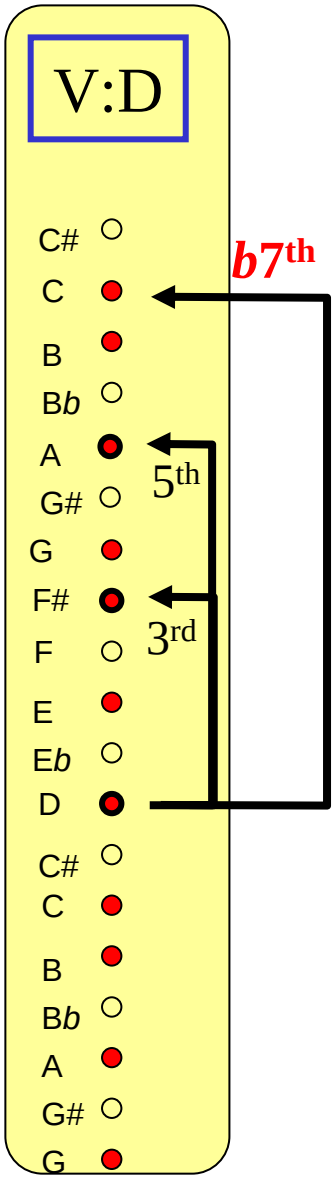
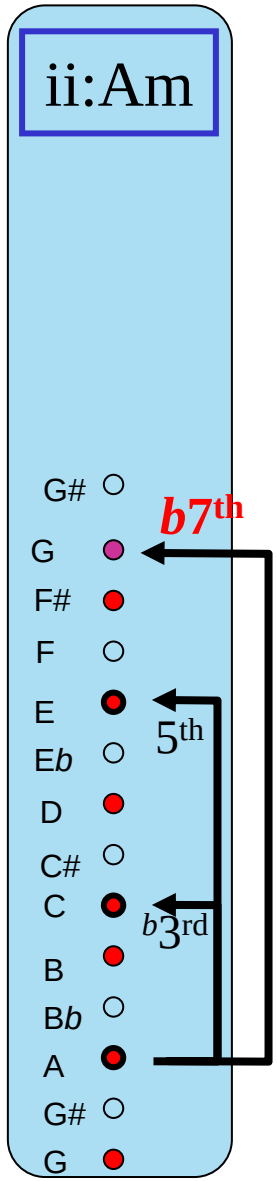
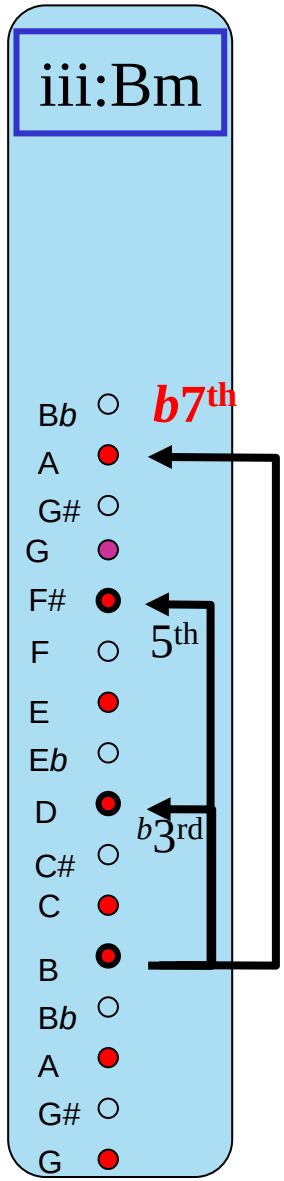
Pick Extensions to Stay in Scale

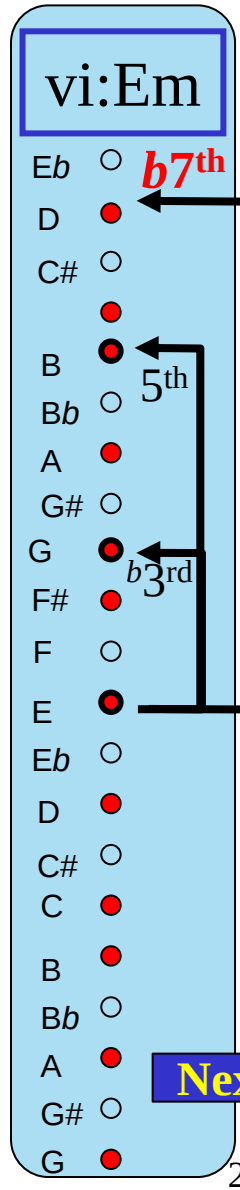
Why the V chord is Dom7:



Why ii, iii & iv chords are min7:







Next

Golden Slippers in G: Standard Progression

Let's use our replacement rules (and a couple other jazz ideas) to spice up the chords for this tune….

```
          I                       V                       I
A Part: | G / / / | / / / / | / / / / | D / / / | / / / / | / / / / | G / / / |

          I               IV              V               I
B Part: | G / / / | / / / / | C / / / | / / / / | D / / / | / / / / | G / / / | / / / / |

          I               IV              V                       I
        | G / / / | / / / / | C / / / | / / / / | D / / / | / / / / | / / / / | G / / / |
```

A good place to start is with the V chords…

Next

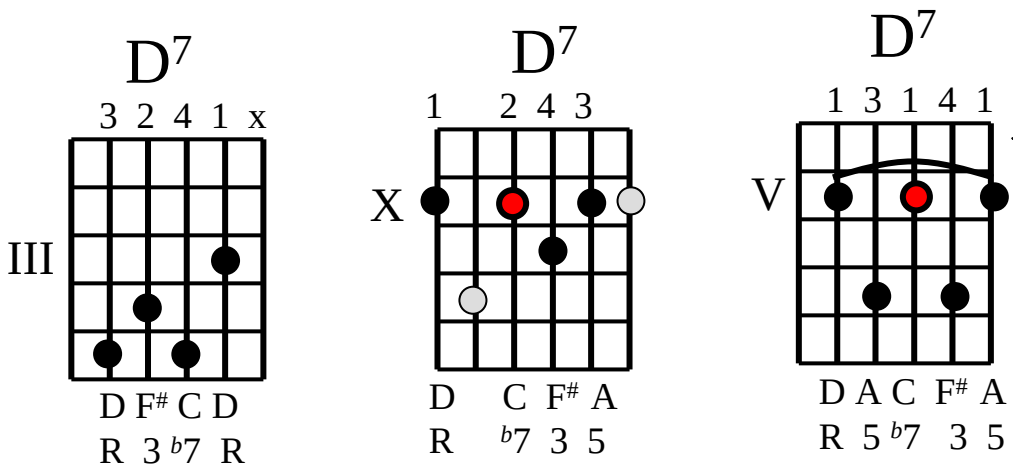
First Step: Change V to dom7

Jazzy Replacements	
I	Maj7, Maj6 (… in blues the I is played as Dom7)
IV	Maj7, Maj6, (… in blues the IV is played as Dom7)
V	**Dom7**
ii, iii, vi	min7

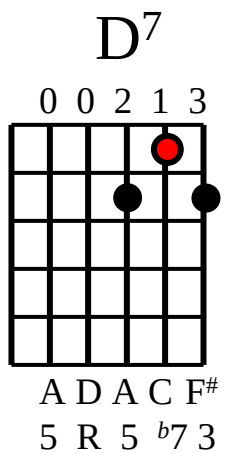
This first step doesn't make things too jazzy

Next

Some Jazz Dom7 Chord Forms for the V in G

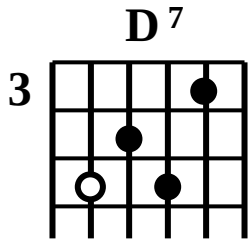


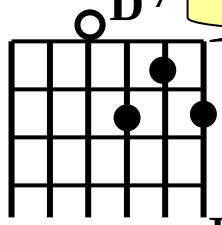
A simpler form to use for now… but it just doesn't have that nice jazz texture:



Next

Golden Slippers in G: w/ Dom 7th on V



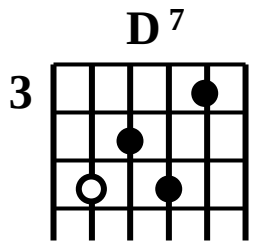


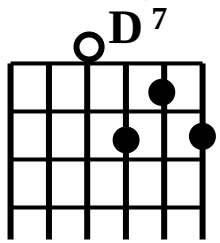
Could use this, for now

I V I

A Part: | G / / / | / / / / | / / / / | D7 / / / | / / / / | / / / / | G / / / |

Could use this, for now





I IV V I

B Part: | G / / / | / / / / | C / / / | / / / / | D7 / / / | / / / / | G / / / | / / / / |

I IV V I

| G / / / | / / / / | C / / / | / / / / | D7 / / / | / / / / | / / / / | G / / / |

Next

Second Step: Change I to Maj6

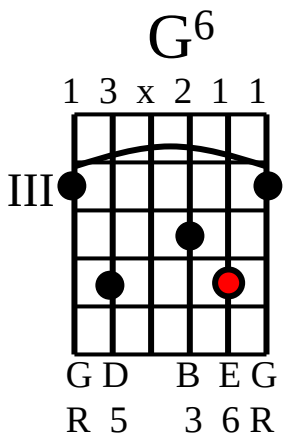
Jazzy Replacements	
I	**Maj7, Maj6 (… in blues the I is played as Dom7)**
IV	Maj7, Maj6, (… in blues the IV is played as Dom7)
V	Dom7
ii, iii, vi	min7

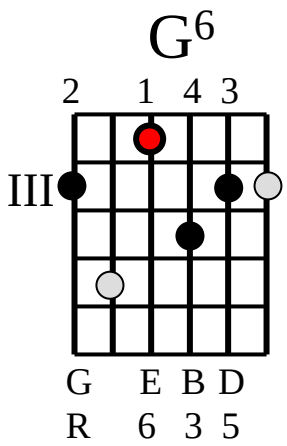
Changing the I chord to Maj7 makes things very "loungy-jazzy"… not so good for fiddle tunes.

Changing the I chord to Maj6 makes things more "western-swingy-jazzy"

Next

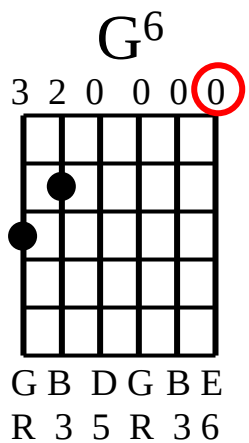
Some Jazz Maj6 Chord Forms for the I in G





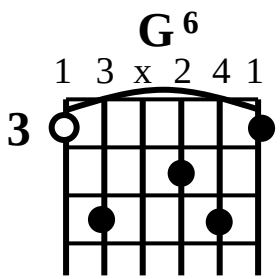
Leave out the gray circles… they are there only to show where this came from!

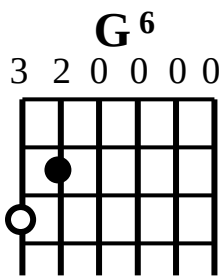
A simpler form to use for now… but it just doesn't have that nice jazz texture:



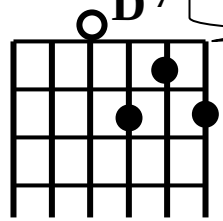
Next

Golden Slippers in G: w/ Maj 6th on I





Could use this, for now



Could use this, for now

I V I

A Part: | G6 / / / | / / / / | / / / / | D7 / / / | / / / / | / / / / | G6 / / / |

I IV V I

B Part: | G6 / / / | / / / / | C / / / | / / / / | D7 / / / | / / / / | G6 / / / | / / / / |

I IV V I

| G6 / / / | / / / / | C / / / | / / / / | D7 / / / | / / / / | / / / / | G6 / / / |

Next

3rd Step: Change IV to Maj6… with a "twist"

Jazzy Replacements	
I	Maj7, Maj6 (… in blues the I is played as Dom7)
IV	**Maj7, Maj6, (… in blues the IV is played as Dom7)**
V	Dom7
ii, iii, vi	min7

Changing the IV chord to Maj6 gives: C^6 = C E G A

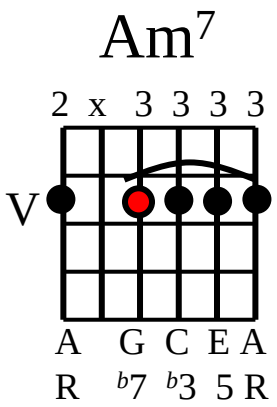
But… imagine re-arranging these same notes: A E C G

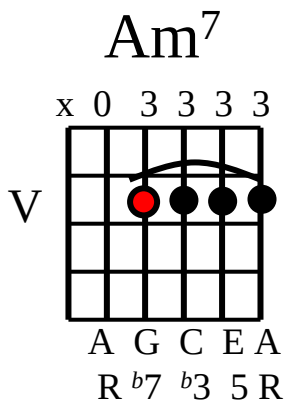
Hey… that is an A^{m7} … which is the ii^{m7} of G!!!

Can substitute ii^{m7} for IV^{maj6}!!!

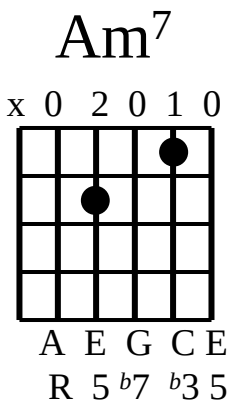
Next

Some Jazz min7 Chord Forms for the ii in G



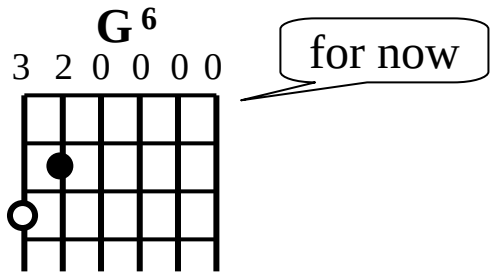


A simpler form to use for now… but it just doesn't have that nice jazz texture:



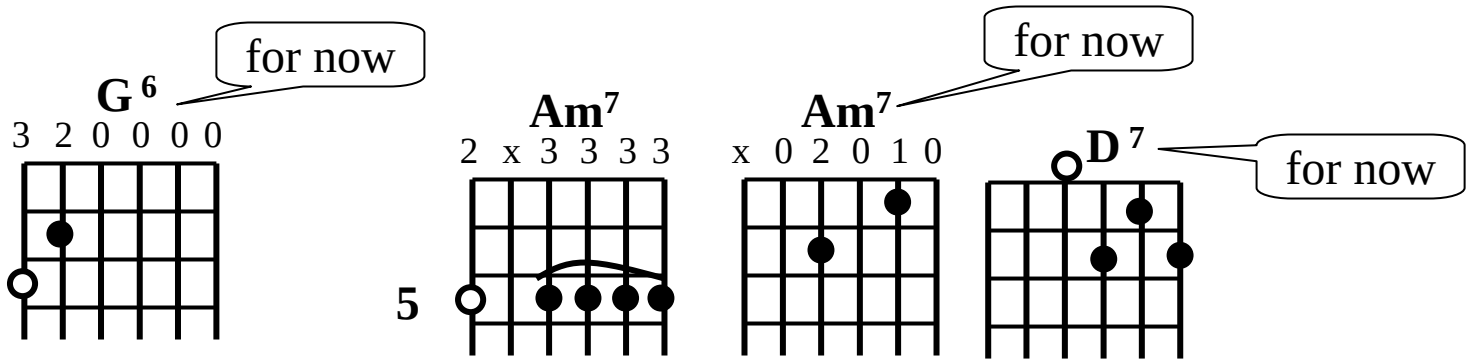
Next

Golden Slippers in G: w/ ii min7th sub for IV



I V I

A Part: | G6 / / / | / / / / | / / / / | D7 / / / | / / / / | / / / / | G6 / / / |



I ii7 V I

B Part: | G6 / / / | / / / / |Am7 / / / | / / / / | D7 / / / | / / / / | G6 / / / | / / / / |

I ii7 V I

| G6 / / / | / / / / |Am7 / / / | / / / / | D7 / / / | / / / / | / / / / | G6 / / / |

4th Step: Insert Passing Chords

For now lets forget that we substituted ii^{m7} for IV^{6}

Notice how in the B part we have IV = C going up to V = D:

```
          I                IV               V                I
B Part: | G6 / / / | / / / / | C  / / / | / / / / | D7 / / / | / / / / | G6 / / / | / / / / |
```

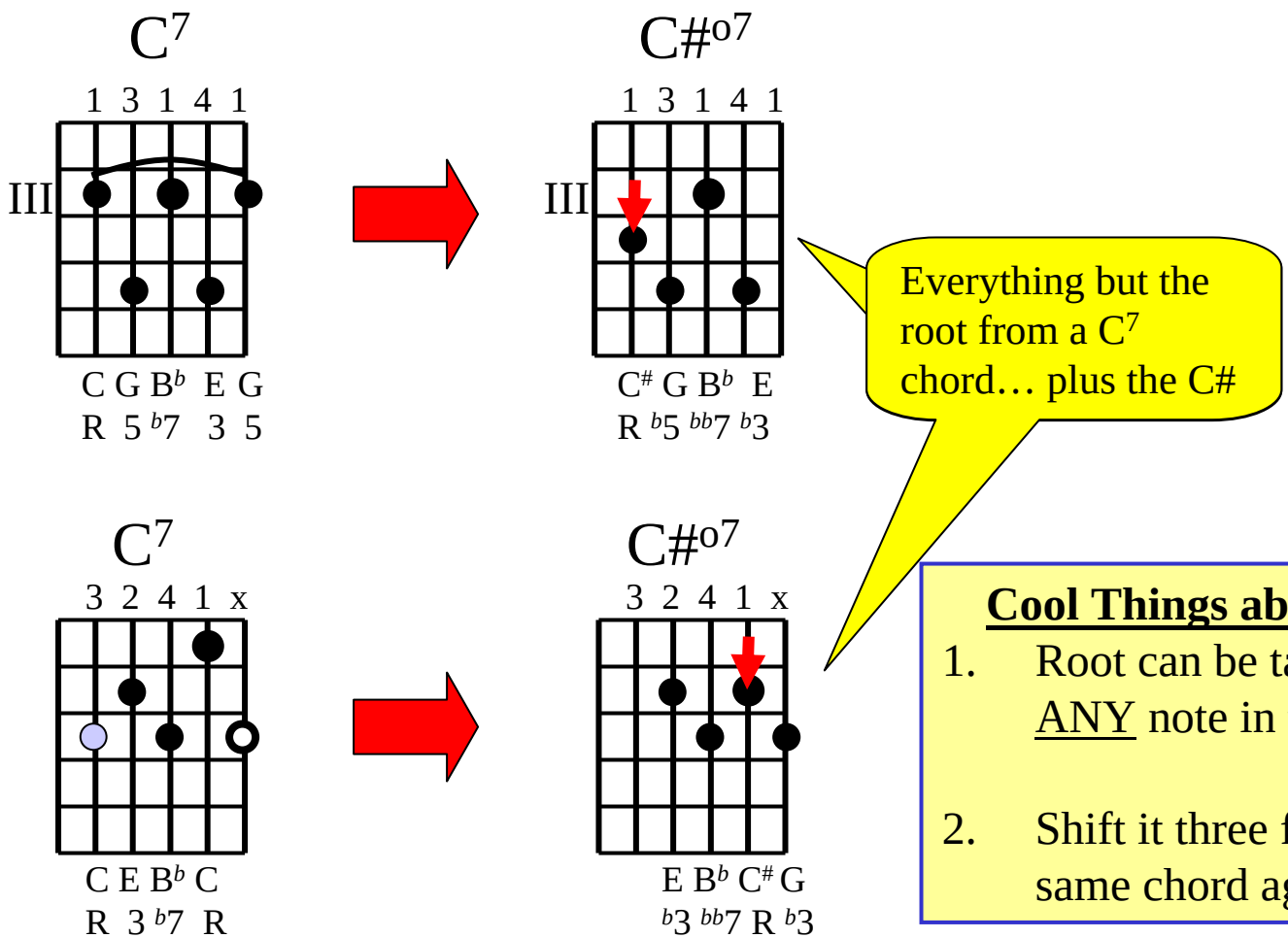
```
          I                IV               V                                  I
        | G6 / / / | / / / / | C  / / / | / / / / | D7 / / / | / / / / | / / / / | G6 / / / |
                             \_____________________/
```

A cool thing would be to go <u>chromatically</u> up through C#!!
But what chord type??!!

Next

Dim7 Chord Forms

So… let's take a C7 chord and move the root up to a C# but leave everything else the same… that gives us a "passing chord" that provides some chromatic motion:



Cool Things about Dim7 Chords

1. Root can be taken as ANY note in the chord.

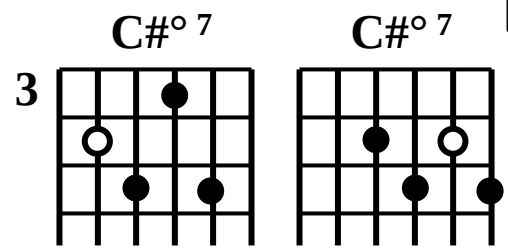
2. Shift it three frets and you get the same chord again!!!

Next

Golden Slippers in G: w/ dim7 passing chords

Example #1

A Part: | I G / / / | / / / / | / / / / | V D7 / / / | / / / / | / / / / | I G / / / |



Could use this, for now

B Part: | I G / / / | / / / / | IV C / / / | / / $C^{\#\circ 7}$ / | I D7 / / / | / / / / | G / / / | / / / / |

| I G / / / | / / / / | IV C / / / | / / $C^{\#\circ 7}$ / | V D7 / / / | / / / / | / / / / | I G / / / |

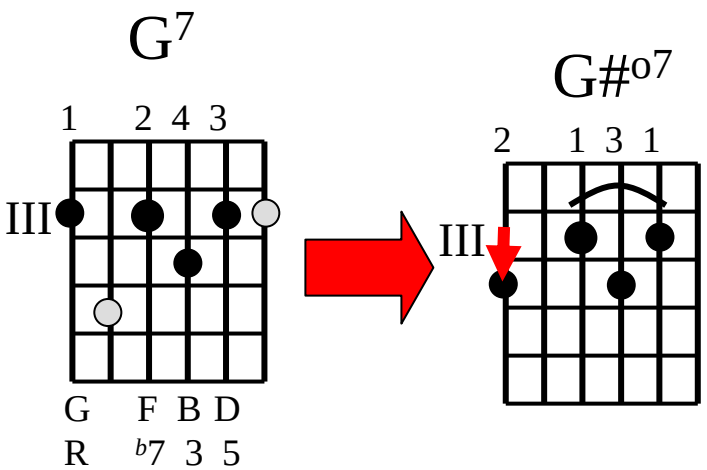
4th Step Revisited: Insert Passing Chords

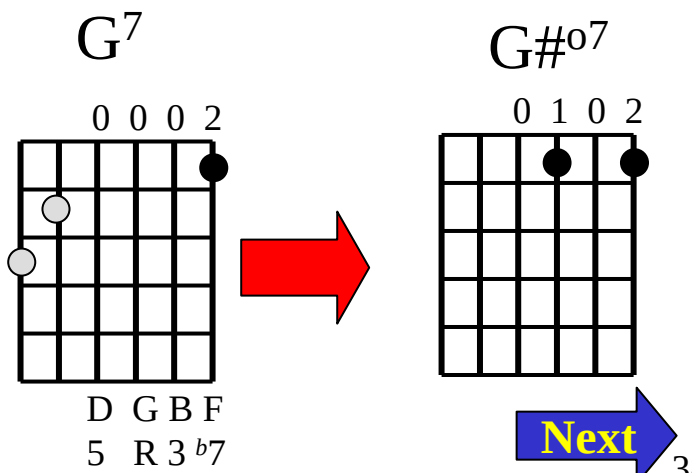
But… we substituted ii^{m7} for IV^{6}… So our B part looks like this:

	I			ii7			V			I		
B Part:	G6	/	/	/	Am7	/	/	/	D7	/	/	/	G6	/	/	/

	I			ii7			V				I	
	G6	/	/	/	Am7	/	/	/	D7	/	/	/	/	G6	/	/

A cool thing would be to go <u>chromatically</u> up through G#!!
But what chord type??!!

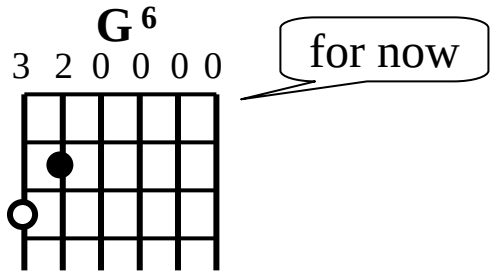


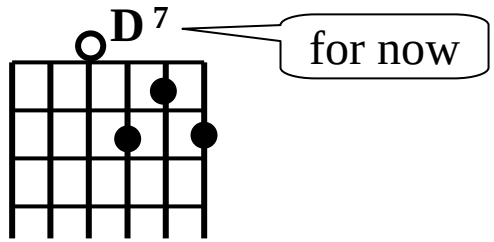


Next

Golden Slippers in G: w/ dim7 passing chords

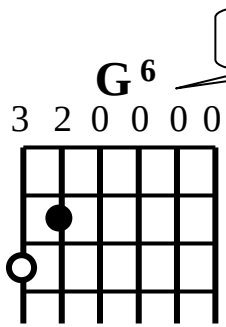
Example #2

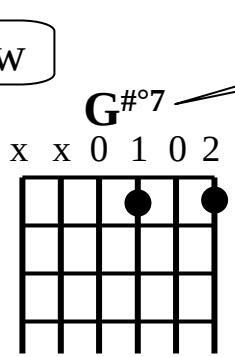


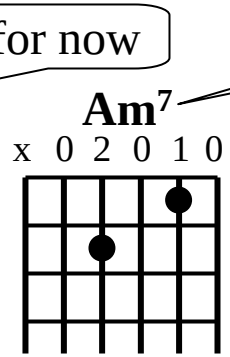


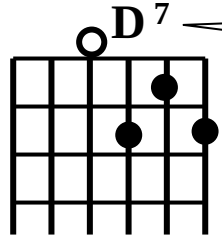
I V I

A Part: | G6 / / / | / / / / | / / / / | D7 / / / | / / / / | / / / / | G6 / / / |









I $I^{\#°7}$ ii^7 V I

B Part:| G6 / / / | / / $G^{\#°7}$ / |Am7 / / / | / / / / | D7 / / / | / / / / | G6 / / / | / / / / |

I $I^{\#°7}$ ii^7 V I

|G6 / / / | / / $G^{\#°7}$ / |Am7 / / / | / / / / | D7 / / / | / / / / | / / / / | G6 / / / |

5th Step: Further Jazzify the Chords

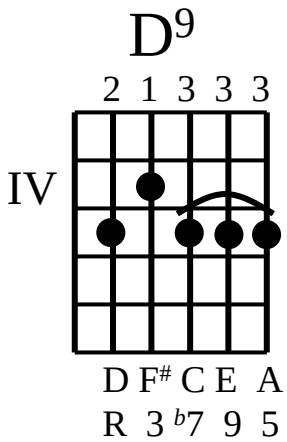
Our first step didn't make things too jazzy
We made the V chords dom7…

Jazzy Replacements	
I	Maj7, Maj6 (… in blues the I is played as Dom7)
IV	Maj7, Maj6, (… in blues the IV is played as Dom7)
V	**Dom7**
ii, iii, vi	min7

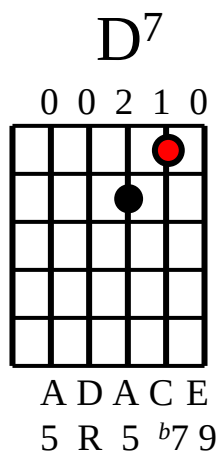
Now… to make things even jazzier…
use jazzy extensions: add in the 9
(& maybe 11, 13)

Next

A Jazz Dom9 Chord Forms for V in G

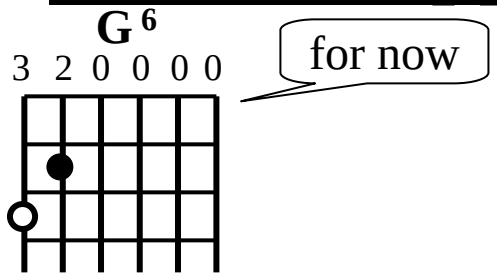


A simpler form to use for now… but it just doesn't have that jazz texture:

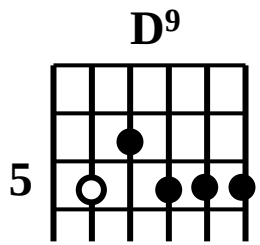


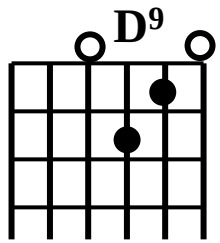
Next

Golden Slippers in G: w/ Dom 9th on V



for now

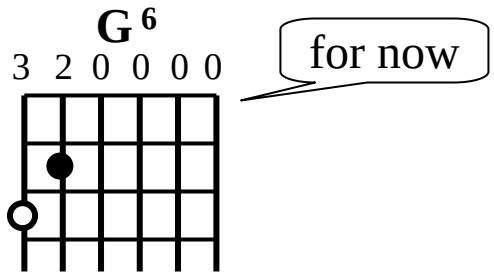




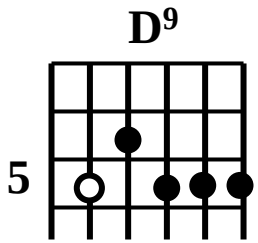
for now

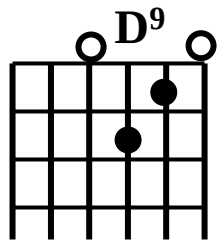
I V I

A Part: | G6 / / / | / / / / | / / / / | D9 / / / | / / / / | / / / / | G6 / / / |



for now





for now

I IV V I

B Part: | G6 / / / | / / / / | C / / / | / / / / | D9 / / / | / / / / | G6 / / / | / / / / |

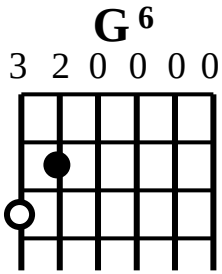
I IV V I

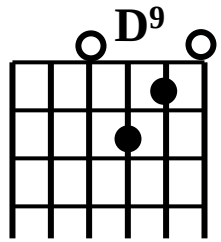
| G6 / / / | / / / / | C / / / | / / / / | D9 / / / | / / / / | / / / / | G6 / / / |

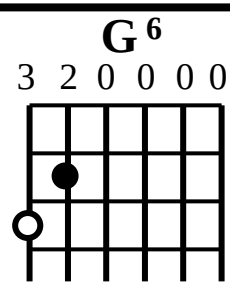
Next

Golden Slippers: “Complete”

“For Now” Forms



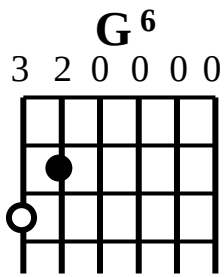


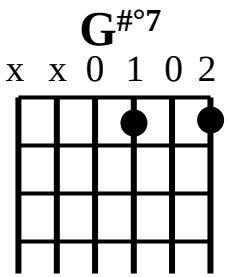


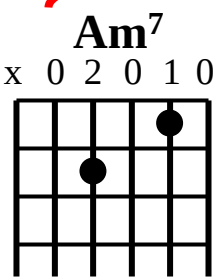
I V I

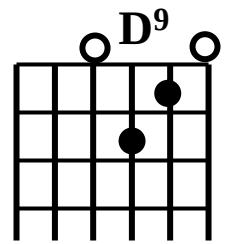
A Part: | G6 / / / | / / / / | / / / / | D9 / / / | / / / / | / / / / | G6 / / / |

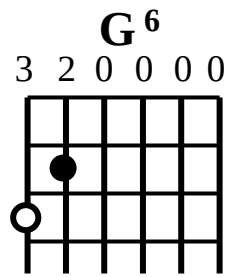
The ii – V – I progression shows up all over in Jazz!!!











I $I^{\#°7}$ ii^7 V I

B Part:| G6 / / / | / / $G^{\#°7}$ / |Am7 / / / | / / / / | D9 / / / | / / / / | G6 / / / | / / / / |

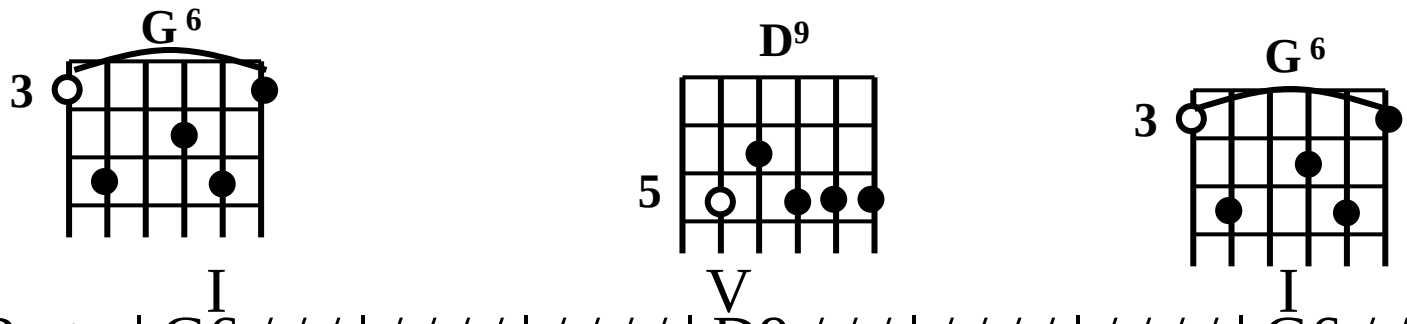
I $I^{\#°7}$ ii^7 V I

|G6 / / / | / / $G^{\#°7}$ / |Am7 / / / | / / / / | D9 / / / | / / / / | / / / / | G6 / / / |

Next

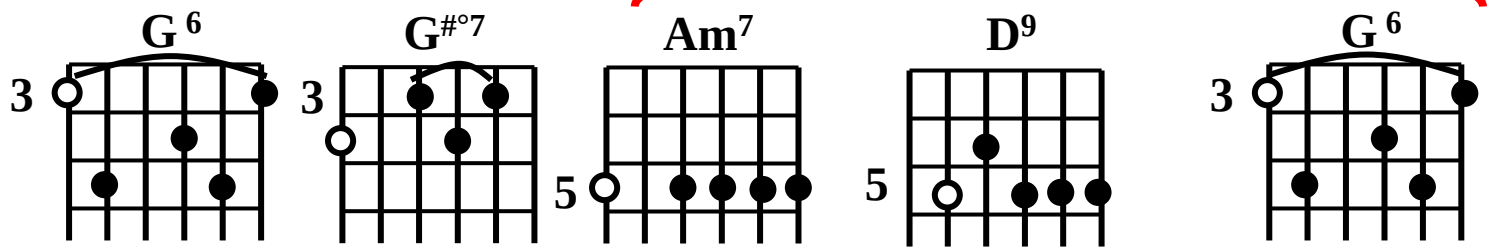
Golden Slippers: “Complete”

“To Work On” Forms



A Part: | G6 / / / | / / / / | / / / / | D9 / / / | / / / / | / / / / | G6 / / / |

The ii – V – I progression shows up all over in Jazz!!!



B Part:| G6 / / / | / / G#°7 / |Am7 / / / | / / / / | D9 / / / | / / / / | G6 / / / | / / / / |

I I#°7 ii7 V I

|G6 / / / | / / G#°7 / |Am7 / / / | / / / / | D9 / / / | / / / / | / / / / | G6 / / / |

STOP