

"4 STEPS TO NEXT LEVEL GROWTH" by Jermaine Griggs

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Published by:

Hear and Play Music Group

1901 Carnegie Avenue Suite 1F, Santa Ana, CA 92705

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<http://www.hearandplay.com>

“4 STEPS TO NEXT LEVEL GROWTH”

by Jermaine Griggs

STEP ONE:

KEY DETERMINATION

STEP ONE: KEY DETERMINATION

You can know all your scales, the number system, basic and advanced chords, and even patterns... but if you can't find the key of a song quickly, none of that will matter when it comes to **playing by ear**. Finding the key is like the battery in your car. You can have the best engine, the best anti-lock braking system, hundreds of horsepower, and every amenity under the sun... but if your car won't start, all that stuff is useless. Finding the key to a song gives you a reference point to apply all the stuff you've learned to... and that's what we'll turn to first in this guide.

Finding The Key To Any Song

Developing the skill to find the key of a song is ESSENTIAL.

Everything starts here when it comes to putting all your skills to use.

There are **2 primary ways** to do this.

1) Intuitively

2) Analytically

I'll cover both below.

FINDING THE KEY OF A SONG* **INTUITIVELY*

Keep in mind, this method is very intuitive and sensorial but I'll try my best to describe it here on paper.

At any given time, there is one note you can press down while listening to a song and it will feel like "home."

It will sound like a common tone you can hold down during the entire song. In fact, even though the song is progressing from chord to chord, pattern to pattern, this ONE tone will never clash with any of the chords, regardless of what's going on in the song.

If you had to close your eyes and imagine the very last chord of the song... the chord that propels the audience to their feet, clapping and cheering (because they know it's the last ending chord) --- that's most likely the key of the song, the common "home base" tone we're looking for.

If you're not good at finding the key of a song, the good news is you can work on it DAILY while driving in your car --- no piano needed.

Actually, I've always recommended humming the key with your own voice before jumping on the piano to figure out what key it is.

A NOTE ABOUT PERFECT PITCH: You don't need perfect pitch in order to do this. In fact, only 1 in 10,000 people have perfect pitch. (That's the ability to hear a tone and just know what it is without any musical reference like a piano or relative note). I REPEAT... you do not need this skill.

When you're humming, who cares what note it is. That's not important at the moment. What's important is that you're humming the TRUE KEY and that you have it stuck in your head.

Then, when you get to the piano, you can easily hit a few notes until you've determined that key you're humming. Essentially, you're matching what's in your mind (or what you're humming) to one of the 12 unique notes on the piano. That's how 99% of musicians do it.

A FEW TIPS:

- The key of the song is essentially the first tone of the scale, the tonic. That's what we're looking for. We're looking for a scale to place this song in so we can work our magic with the number system, chords, and patterns, etc. Without a reference point (the "key"), we're lost.
- Usually songs begin on the 1-chord and since the 1-chord IS THE KEY WE'RE IN, we can try to figure out the first chord of the song and that may lead us to the key. (Note: Don't confuse the term "1-chord" with the first chord of the song. Those AREN'T THE SAME THING. When I say "1-chord," I'm talking about the first chord of any given scale. Now, usually the 1-chord is also the first chord of the song but not always. Some songs start with a *pickup* on the "5-chord," which leads to the 1-chord. But as a general rule, the 1-chord will usually begin the song).
- Usually songs end on the 1-chord (a.k.a. – the "tonic"). But just like the tip above, this isn't always the case. Some songs may end on a major chord off the 6th tone (very pretty way to end a song). Some songs may end on the 4-chord. But as a general rule, most will end with a feeling of peace... rest... tension-free... "home." And that's what the 1-chord provides.
- If you can try to hum any of these chords (the first chord of the song, the last chord of the song, or any chord that feels like "home,"), then you have a good chance of finding the "TRUE" key.
- All songs "wrap" around to the beginning (usually after the end of a verse or chorus). If you can hum the first chord that's played when the song returns to the beginning, that's probably the key as well.

As you can see, there are many ways to do this. You can rely totally on “feeling” and just go for it or you can strategically pinpoint certain chords and moments in a song (beginning, ending, “*wrap-arounds*” after verses) that are notorious for being the 1-chord, or the key you’re in.

THE “MINOR CHORD” TRICK – How to confirm you’ve got the right key, when in doubt.

I take credit for this trick because I’ve never seen anyone else teach it. I got the idea in the shower one day and it WORKS.

I call it the *minor chord trick*.

Before I explain it, though, let me tell you why it’s important.

In the beginning, if a musician is wrong about the key, I find there are usually 1 of 2 keys they are usually humming erroneously. If they are humming anything else other than these two commonly mistaken tones (which are still WRONG but not “AS” wrong), they are probably tone deaf. ☺

You gotta be IN THE BALLPARK (at least) for this minor chord trick to work!

When I say “in the ballpark,” that means your guesses are good but not quite the REAL key of the song.

I find people are usually humming the 3rd of the key... or the 5th of the key.

And this makes perfect sense, if you think about the 1-chord.

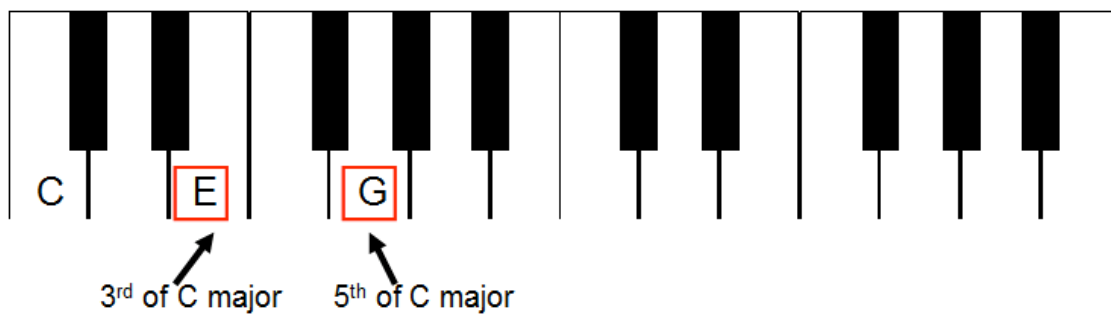
Let’s say the REAL key was **C major**.

And as we learned above, there are certain chords that can point us in the right direction, namely the first or last chord of the song... or any moment where the song seems to wrap back around to the beginning.

Since the song is in C major, that chord would be some type of “C major” chord. Easy so far right?

Well, here’s the problem:

Instead of humming the keynote “C,” some first-timers skew towards “E” (the 3rd tone of C major) or “G” (the 5th tone of C major).



And the funny thing is, these tones will really fool ya.

Heck, they may feel like they work since they are in the C major chord. In fact, if you’re used to singing in a choir, you probably sing these notes, depending on whether you’re a soprano, alto, or tenor.

The key is to find the “REAL” tonic... the real **key center**. (Oh, these are just fancy ways to say “*the key of da song!*”)

So, to make sure you have the absolute correct tone, we employ this “MINOR CHORD” trick I came up with to test these notes.

Here's how it works:

STEP #1: If you think you've pinpointed the right key of the song, figure out what minor chord has this note on top (in root position).

EXAMPLE: I think G is my key. What minor chord has G on top? Answer: C minor (C + Eb + G).

Note: The minor chord should always be in root position. That means, if you're playing a C minor chord, C will always be the lowest note.)

STEP #2: After you've determined the minor chord that puts the note you're testing on top, you're pretty much done. The other two notes in this minor chord are the tones you should test your guess against. If your note is truly the RIGHT TONE, the other two notes in this minor chord should sound like garbage! If any of the other two notes sound better or more harmonious with the song than the note you've picked, jump ship! That means the *minor chord trick* has determined you didn't have the right key all along. Better yet, it has given you the right key.

EXAMPLE: I think F is my key. I've hummed it and tapped it repeatedly as I listen to the song and it seems to work. It seems to be that "common" tone you always talk about Jermaine. So now, I need to determine which minor chord has F on top. The answer is Bb minor (Bb + Db + F). Now, I will proceed to press down "Db" to hear if it sounds like the key of my song. Next, I will press down "Bb" to hear if it sounds like the key of my song. If I have, in fact, chosen the right key, "Db" and "Bb" should sound horrible and way off. If any of them sounds better than "F," it is probably the TRUE KEY.

TIP: Both minor and major triads have the same notes on top so if you're a little slow at figuring out minor, try figuring out the major first. Bb major and Bb minor both put F on top. C major and C minor both put G on top. So if you're better at figuring out the major

chord that puts your note on top, do that. HOWEVER, when it comes time to test against the other two notes, you need to use the notes from the MINOR chord (not the major chord you may have used to help you out a little bit). THIS IS A **MINOR CHORD** TRICK. I hope that makes sense.

WHY DOES THE MINOR CHORD TRICK WORK?

Quite simple. Essentially what it does is make sure you're not accidentally choosing the 3rd or the 5th of the true key.

Let's say the true key was C and because I lack experience, I am accidentally humming E. At least I'm in the ballpark since E is the 3rd tone of C... but this *ain't* good enough.

There is only ONE TRUE KEY and if you get it wrong, you've messed up everything that follows. (And as you do this more, you'll know you've got the right key... you'll just feel it intuitively. But in the beginning, rely on my tips and tricks).

So back to the example... If I've accidentally chosen "E" (because I don't know any better), the minor chord trick will eventually correct me.

#1 – So I ask myself, "what minor chord puts E on top?" If I'm a little slow with my minor chords, I could also ask myself "what major chord puts E on top" since the highest notes are the same for both major and minor chords. The answer is "A minor." (even though I may have used "A major" to help me find the highest note, I must use the notes of "A minor" to test with or this trick won't work).

#2 – Since the "A minor" chord is A + C + E, and I've already chosen "E" as my original key, I need to test my answer against "C" and "A."

Now think about it...

“E” is the 3rd tone of C right?

And because the “3rd” is one of the most mistaken tones, basically the minor chord trick is pointing me to C, which could be the TRUE key (and according to this example, IT IS!)

“E” is also the 5th of A. Had I mistakenly hummed the 5th of the true key (which is common as they share many characteristics), this minor chord trick would have unveiled “A” as the true key.

What if I’m humming the correct key all along?

No problem. The minor chord trick will confirm that you’re right.

Back to my example above... Let’s say I was humming “C” all along and it was indeed the correct key.

By finding the minor chord that puts C on top, it would lead me to F minor.

The notes of F minor are: F + Ab + C.

Hitting Ab when a song is really in C major will sound horrible. Ab will fail the test.

Hitting F won’t sound as bad as Ab but it will still not work and it should be obvious to your ears. F fails too.

By testing Ab and F, you’re at least making sure you haven’t fallen victim to the most common mistakes. If neither Ab nor F works, your answer has passed the test.

And even before you apply my minor chord trick, if you held “C” down and it sounded good throughout the entire song – if you hummed it and it never clashed, and if you had unshakeable confidence that it was the key, you were already destined to be right.

EXERCISE: Answer the following questions concerning the “minor chord” trick.

#1 – You believe a song is in F major. What minor chord are you going to use to test against your answer?

#2 – You believe a song is in A major. What minor chord are you going to use to test against your answer?

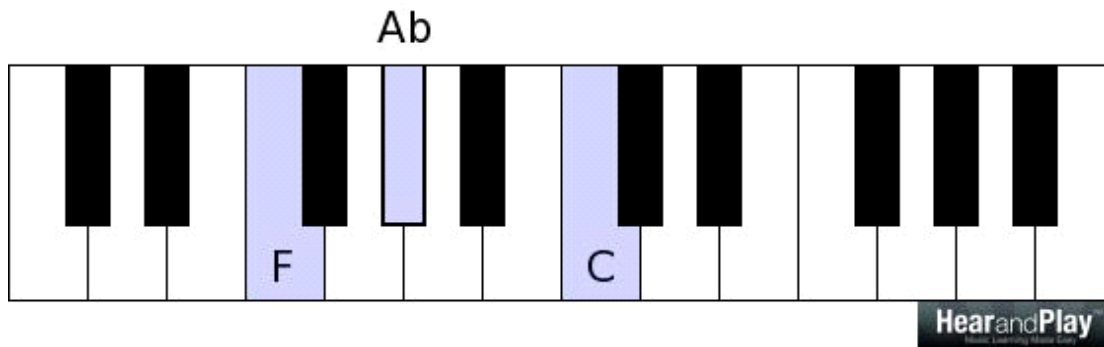
#3 – You believe a song is in G# major. What minor chord are you going to use to test against your answer?

Answers:
#1 – Bb minor (Bb + Db + F)
#2 – D minor (D + F + A)
#3 – C# minor (C# + E + G#)

"MINOR CHORD TRICK" REFERENCE SECTION

How it works: For example, if you think the *true key* is C, pick the minor chord that puts C on top.

F minor puts C on top.



So, to make sure C is really the key, you will test Ab and F... the other remaining notes of F minor.

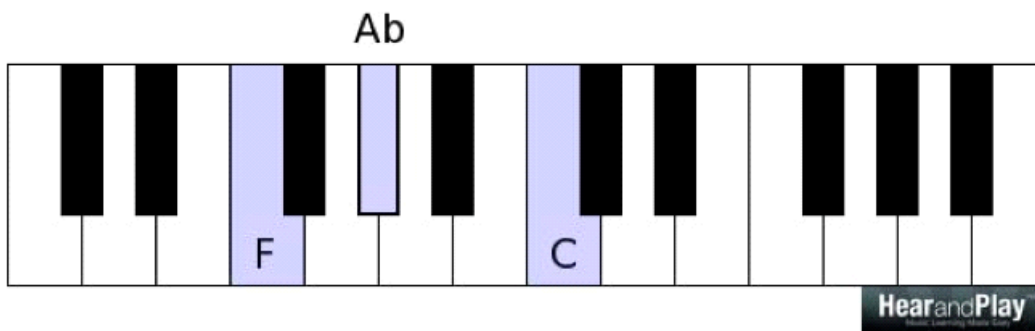
What does this do?

It makes sure you haven't mistakenly guessed C as the third. If so, since C is the 3rd tone of Ab major, you will find Ab to be the correct answer and it will sound infinitely closer to the song than C. Otherwise, if C is the true answer, Ab will sound far from the key.

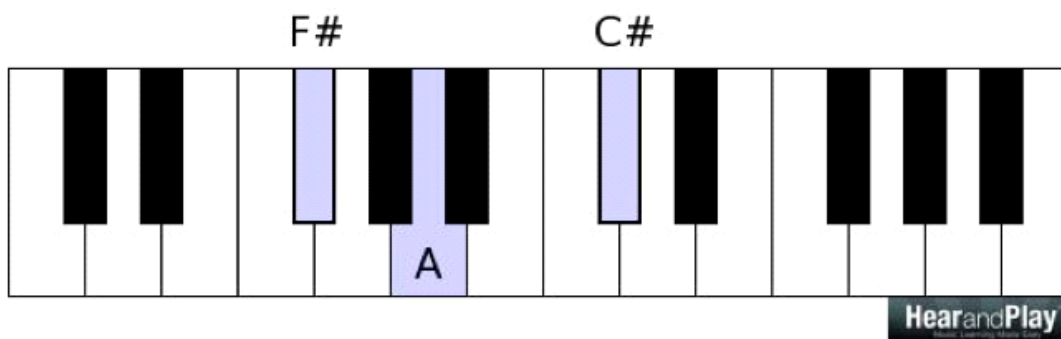
In the same way, it makes sure you haven't accidentally guessed C as the fifth (another common mishap). Since C is the fifth tone of F, it sounds very close... but it is not the key. If F is truly the key, it will sound way better than C and you'll have the true key. If C is truly the key, it will triumph over both Ab and F (the other notes of the minor chord).

That is my minor chord trick (made up by yours truly!). *On the following pages, I've listed all the minor chords so you'll have a convenient chart to refer to.*

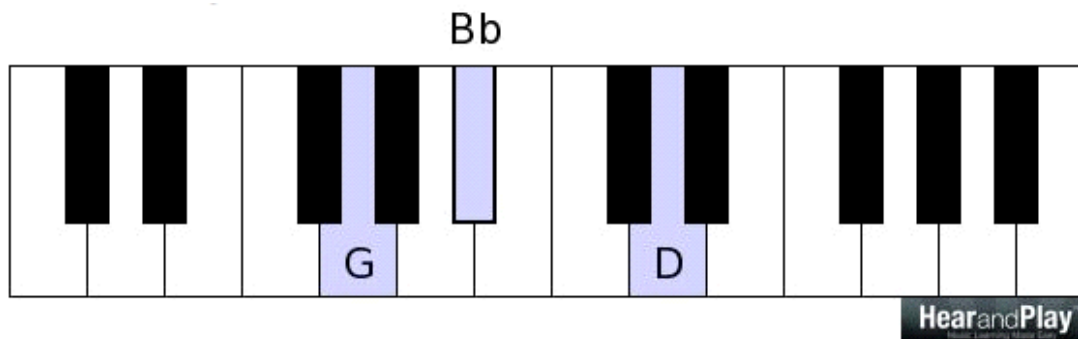
If you think C is the key, test against the notes of F minor:



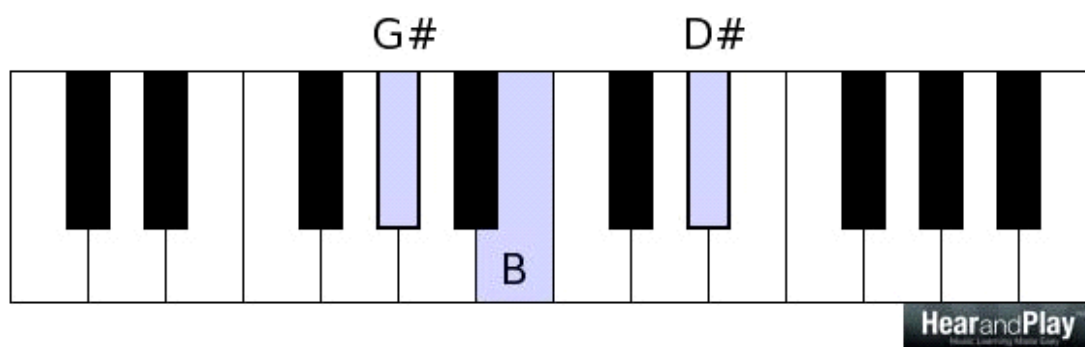
If you think C# or D^b is the key, test against the notes of F# minor (or G^b minor):



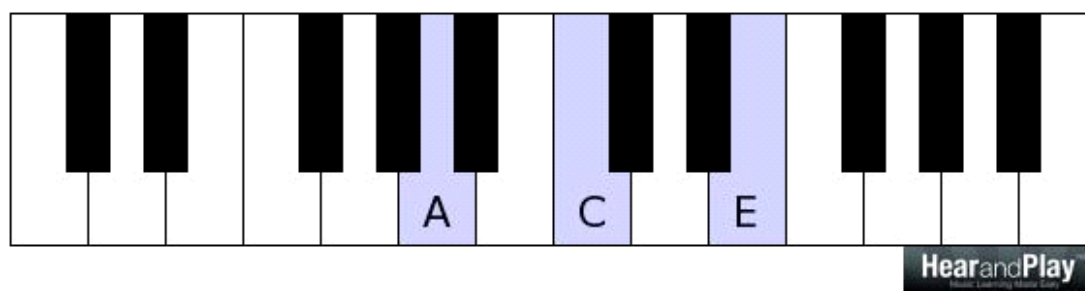
If you think D is the key, test against the notes of G minor:



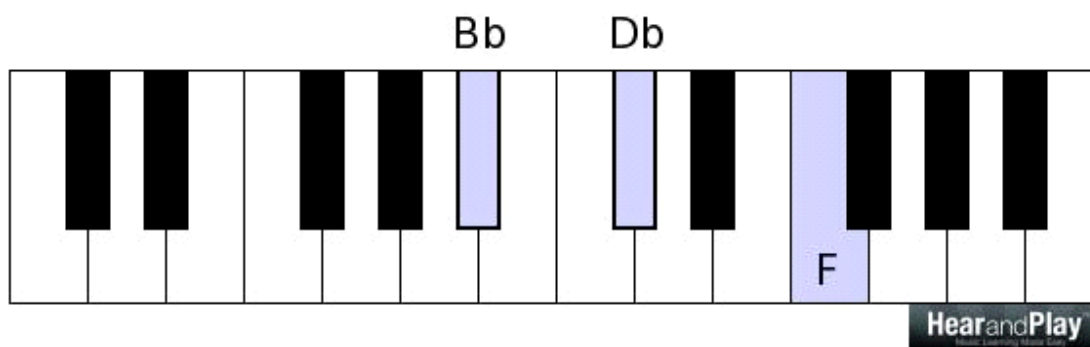
If you think D# or Eb is the key, test against the notes of G# minor (or Ab minor):



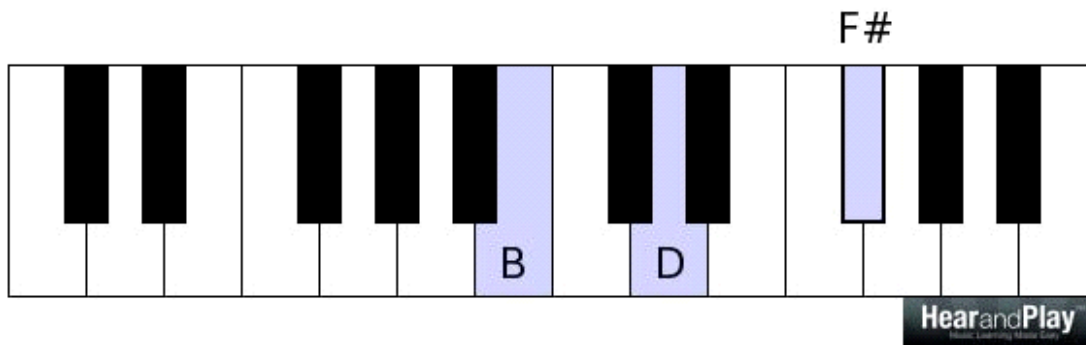
If you think E is the key, test against the notes of A minor:



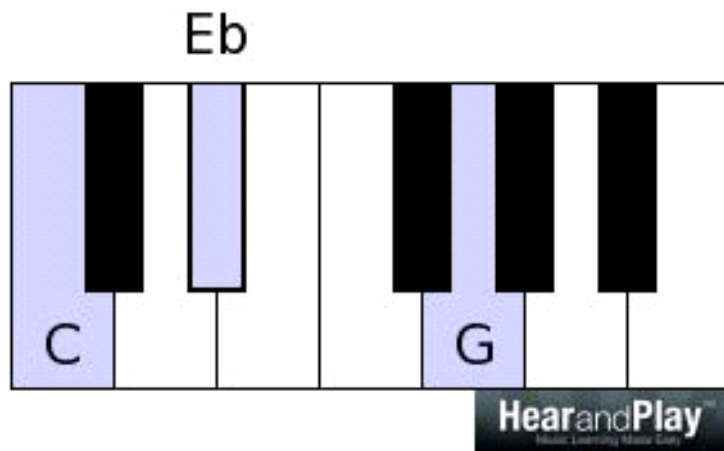
If you think F is the key, test against the notes of Bb minor:



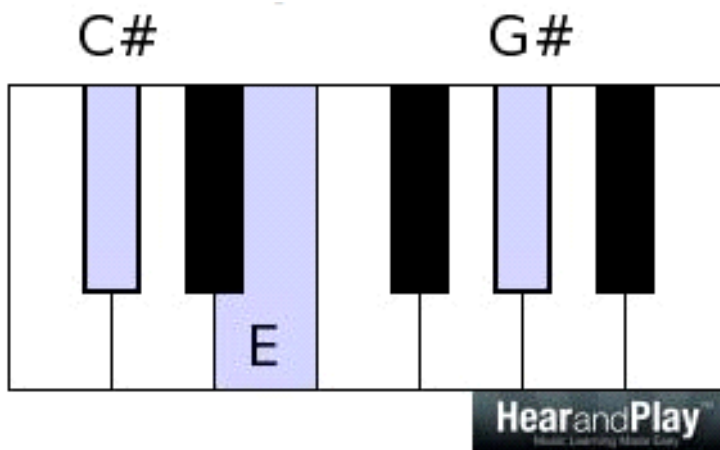
If you think F# is the key, test against the notes of B minor:



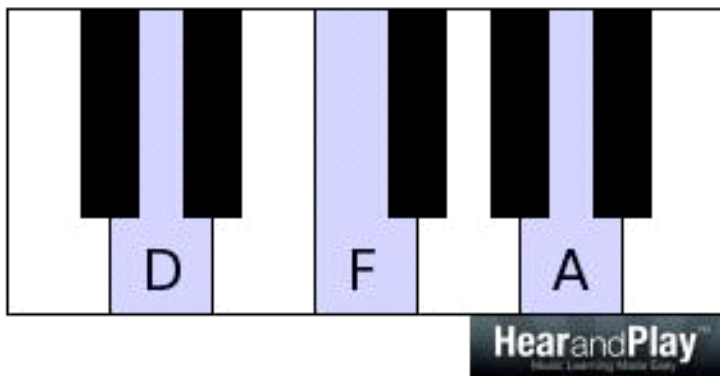
If you think G is the key, test against the notes of C minor:



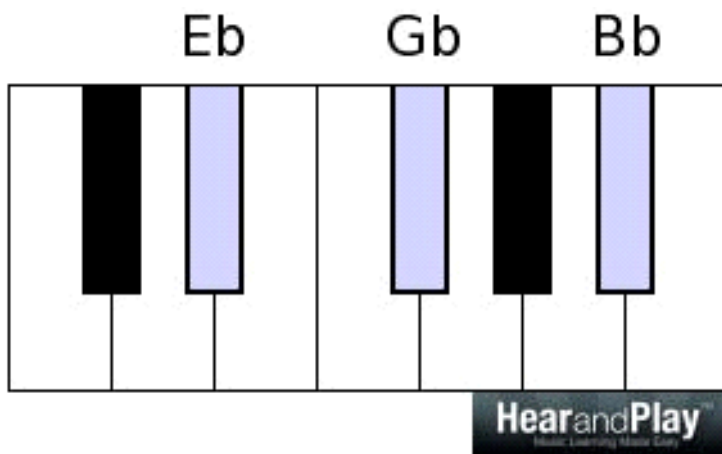
If you think G# or Ab is the key, test against the notes of C# minor (or Db minor):



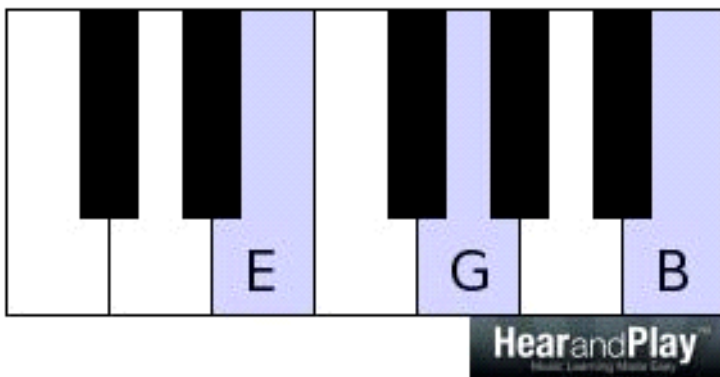
If you think A is the key, test against the notes of D minor:



If you think Bb is the key, test against the notes of Eb minor:



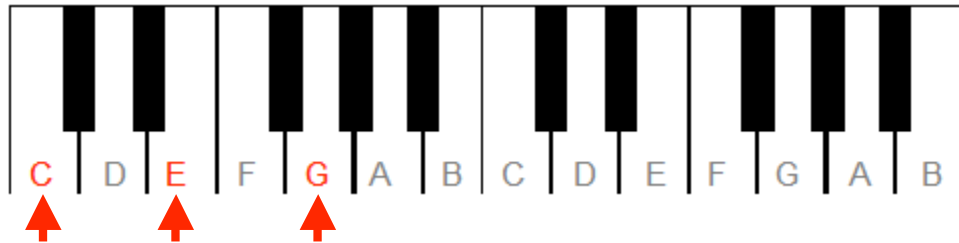
If you think B is the key, test against the notes of E minor:



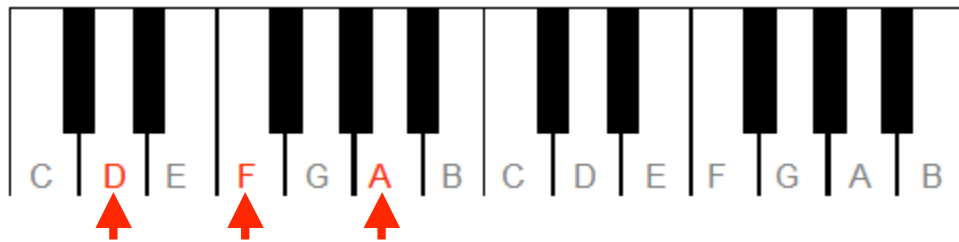
FINDING THE KEY OF A SONG ANALYTICALLY

From our online lessons and other resources, you may know that certain chords are most likely to occur on certain tones of the scale.

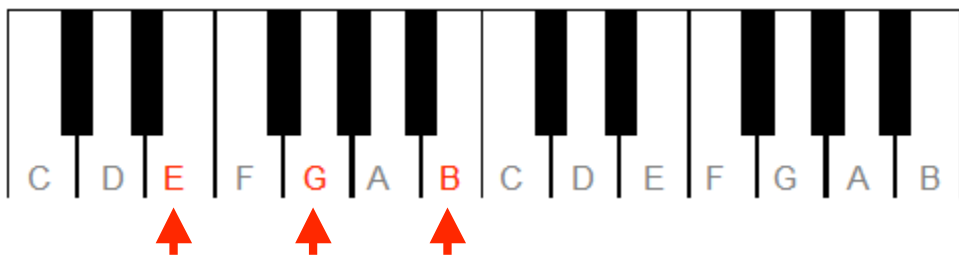
1st tone – Major chord: In the key of C, a “C major” chord is naturally created off the 1st tone of the scale.



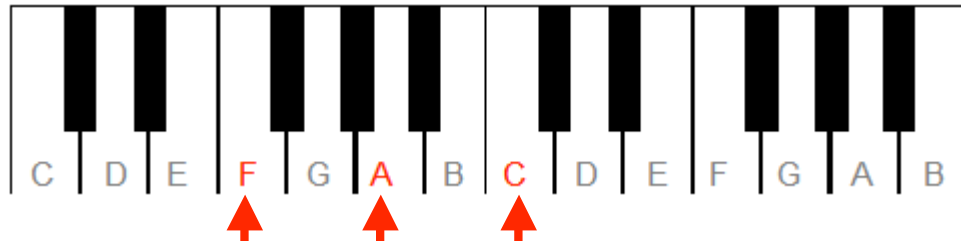
2nd tone – Minor chord: In the key of C, a “D minor” chord is naturally created off the 2nd tone of the scale.



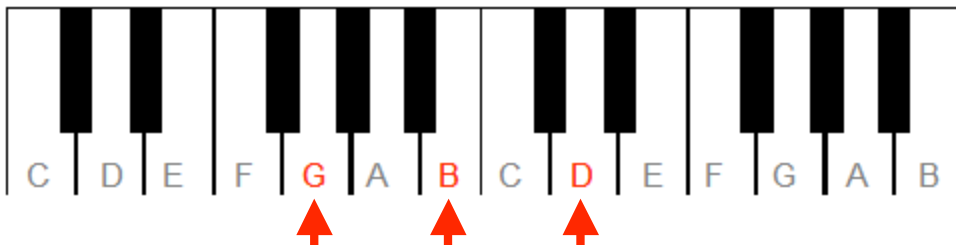
3rd tone – Minor chord: In the key of C, an “E minor” chord is naturally created off the 3rd tone of the scale.



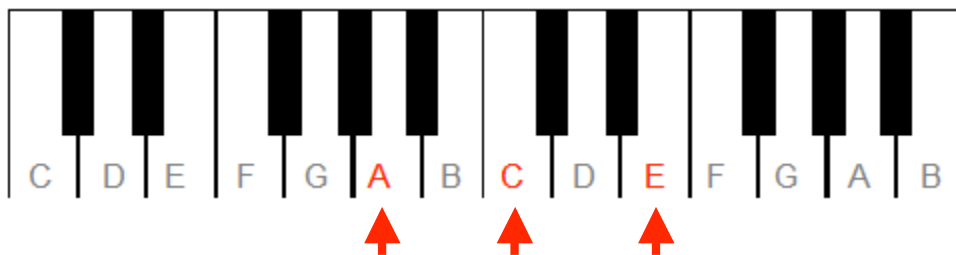
4th tone – Major chord: In the key of C, an “F major” chord is naturally created off the 4th tone of the scale.



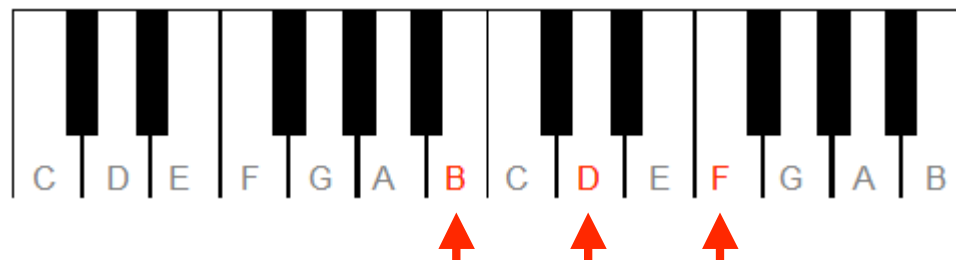
5th tone – Major chord: In the key of C, a “G major” chord is naturally created off the 5th tone of the scale.



6th tone – Minor chord: In the key of C, an “A minor” chord is naturally created off the 6th tone of the scale.



7th tone – Diminished chord: In the key of C, a “B diminished” chord is naturally created off the 7th tone of the scale.



So if you were at your piano and you happened to pick out an “A minor” and “D minor” chord in a song, there’s a high probability this song is in the key of C major.

Here’s why...

If we plotted out every major key and the chords that are naturally created in each of those keys, you won’t find many other keys with “A minor” and “D minor” chords in them.

In fact, only ONE other key has this combination: **F major**.

F major:

1st tone – F major

2nd tone – G minor

3rd tone – A minor

4th tone – Bb major

5th tone – C major

6th tone – D minor

7th tone – E diminished

So from the analytical point of view, you have narrowed your choices down to C major and F major.

Obviously, there will be many other chords in the song and if you keep going, you may run into a G major or G dominant 7 chord.

Since G is the 2nd tone of F major and will usually be minor, this gives us even more proof that we’re in the key of C (but it doesn’t seal the deal as the 2nd tone is known to use a major or dominant chord at times to provide more *fuel* to the 5th tone of the scale).

But let's say a C major chord comes next and it "feels" like a chord of rest... it feels stable. If you could end your song on that chord and the audience would know it was the end of your song, it's probably the 1-chord. If this is the case, C major is the key.

If C major sounds really unstable and like it needs to resolve somewhere, it's probably the 5-chord of F major. If that's the case, it should resolve to F major and that's where you'll get the same "home" and tension-free feeling I described above.

This, my friend, is the analytical game.

On the next page, I've conveniently listed every key and the diatonic chords naturally created in each of those keys. Study this chart and we'll do a few exercises to see just how well you understand the analytical side of *determining the key signature*.

THE DIATONIC CHORD MATRIX:

	<i>1st tone</i>	<i>2nd tone</i>	<i>3rd tone</i>	<i>4th tone</i>	<i>5th tone</i>	<i>6th tone</i>	<i>7th tone</i>
<i>C major</i>	C maj	D min	E min	F maj	G maj	A min	B dim
<i>F major</i>	F maj	G min	A min	Bb maj	C maj	D min	E dim
<i>Bb major</i>	Bb maj	C min	D min	Eb maj	F maj	G min	A dim
<i>Eb major</i>	Eb maj	F min	G min	Ab maj	Bb maj	C min	D dim
<i>Ab major</i>	Ab maj	Bb min	C min	Db maj	Eb maj	F min	G dim
<i>Db major</i>	Db maj	Eb min	F min	Gb maj	Ab maj	Bb min	C dim
<i>Gb major</i>	Gb maj	Ab min	Bb min	Cb maj	Db maj	Eb min	F dim
<i>B major</i>	B maj	C# min	D# min	E maj	F# maj	G# min	A# dim
<i>E major</i>	E maj	F# min	G# min	A maj	B maj	C# min	D# dim
<i>A major</i>	A maj	B min	C# min	D maj	E maj	F# min	G# dim
<i>D major</i>	D maj	E min	F# min	G maj	A maj	B min	C# dim
<i>G major</i>	G maj	A min	B min	C maj	D maj	E min	F# dim

In this small chart lies every diatonic chord you'll ever play for every major key!

Here are some tips to keep in mind:

1) If you've managed to pick out a single major chord in a song, using the analytic approach, there are three major keys the song is most likely in (including the keynote of the major chord you picked out).

Example: If you've picked out a Bb major chord, there are 3 major keys this Bb major chord could have come from.

*#1 – **Bb major** – You could have hit the jackpot and picked out the 1-chord, which is the key you're in.*

#2 – **F major** – *The Bb major chord you’ve picked out could be the 4-chord in the key of F major.*

#3 – **Eb major** – *The Bb major chord you’ve picked out could be the 5-chord in the key of Eb major.*

Note: This is not a game of “black” and “white.” Major chords do appear on tones or degrees other than the 1, 4, and 5. Since playing by ear is a game of trial and error, you’ll try these keys first. If they don’t work, you’ll move on.

2) The same rule above applies to minor chords. If you’ve managed to pick out a single minor chord in a song, there are three keys that minor chord could belong to. For example, “C minor” could belong to Bb major as the 2-chord... Ab major as the 3-chord... or Eb major as the 6-chord.

3) The more chords you’re able to pick out, the better you’ll be. If you happen to pick out two different minor chords in a song, now you’ve really increased your chances of landing the right major key because there will only be TWO keys with both of those minor chords in them. Go ahead, study the chart above and see if you can find the same exact minor chords present in more than 2 different keys. You won’t!

4) And if you can pick out 3 minor chords, you’ve just narrowed it down to ONE KEY. No keys have the same exact minor chords in them. For example, there’s only one key with “D minor,” “E minor,” and “A minor” chords. It’s C major. Try to find another key with this same combination. You won’t.

Now let's do an exercise:

EXERCISE: WHAT MAJOR KEY AM I IN?

Chord 1	Chord 2	Chord 3	What Key Am I In?
Bb minor	F minor	C minor	
D major	C major	A minor	
C major	F major	G major	
B minor	D major	E major	
F minor	C minor	Eb major	

I have done an amazing video tutorial on how to find the key to any song at <http://www.hearandplay.com/findingkey>. Be sure to check it out.

Answers:
#1 – Ab major
#2 – G major
#3 – C major
#4 – A major
#5 – Ebor Ab major

STEP TWO:

NUMBER SYSTEM

STEP TWO: NUMBER SYSTEM

FORMING SCALES ON YOUR OWN

1) Why Won't He Wear White When Hot – W.W.H.W.W.W.H.

W = whole step H = half step

"A half step is from key to key with NO keys in between. A whole step always skips a key with ONE key in between."

With this simple formula above, you can form any major scale.

For example, if I wanted to form a C major scale, I'd simply start at C.

The formula calls for a whole step first. What's a whole step up from C? That would be D (because whole steps always skip ONE note as opposed to half steps, which do not skip notes).

C D

The next move is another whole step.

C D E

"Why Won't He..." --- looks like we need a half step next.

C D E F

(Notice, I didn't skip any notes between E and F because, unlike whole steps, you do not skip any notes when you move in half steps. They are from *key to key*.)

Next up --- another whole step:

C D E F **G**

Another whole step:

C D E F G **A**

Another whole step:

C D E F G A **B**

And lastly, a half step:

C D E F G A B **C**

At the end of this section, I've listed all 12 scales and their number systems but I wanted to reserve a moment above to show you how to form scales from scratch using simple half steps and whole steps.

SCALES ARE IMPORTANT AND MUST BE MEMORIZED!

Repetition is the mother of skill. Playing them over and over is the key to ultimately memorizing them. You'll start by writing them on paper and playing them from the paper. But over time, you'll just naturally memorize them. There's no way you can play scales dozens and hundreds of times and NOT MEMORIZE THEM.

Either the problem is:

1) You're not playing them enough – Playing them once or twice here or there (when ya want to) *ain't gonna cut it*. You have to put in dozens and hundreds of repetitions.
REPETITION IS THE MOTHER OF SKILL.

2) You're not focusing – It's like writing down a phone number. You can write it down and you can "WRITE" it down. You can just record what someone tells you in a way that you're not focused on remember it or you can actually analyze what they tell you and find ways to remember the number.

For example, when my wife and I were dating, her first phone number ended in 3587. Immediately after phoning it a few times, I came up with a way to remember it because no one likes to pull out a paper every time you want to call someone (and cell phones weren't as widespread and "smart" then anyway so I was still doing it the "old school" way.)

The way I remembered it was odd numbers starting at 3 (like 3, 5, 7) but instead of going immediately to 7, go to the number higher than it first and end on 7 --- thus 3 5 8 7).

Once I made that connection in my head, all it took was one time and I could never forget 3,5,8,7. I had found a way to make sense of it that STUCK WITH ME. Then eventually, I just memorized it and even my shortcut wasn't needed anymore.

IF YOU'RE STRUGGLING WITH SCALES, YOU NEED TO DO THE SAME THING.

You can use:

- Acronyms – like *"why won't he wear white when hot"*
- White notes vs black notes – *"like always play the 3-grouped black keys together in this major key"*
- Feeling – some scales "feel" differently than others.

- # of sharps / flats – Every scale will use every alphabet letter. By nature, you CANNOT skip a musical letter. Each scale will always have an A, B, C, D, E, F, and G. The only difference is whether a note will be, for example, "A flat" (Ab), "A sharp" (A#), or a plain "A."

And you need to concentrate on each scale just like you'd do to memorize a phone number or combination lock password.

“EXTRAS”

Things you should do WHILE you're learning your scales are:

- Number each one from 1 to 7
- Know the common fingerings (for help with coordination and speed later on)
- Practice the scales in the pattern of the “circle of fifths” (going counter-clockwise as if a clock was ticking backwards).

NUMBER SYSTEM

I wish I could make this “deep,” but all this entails is numbering each tone of the scale.

So if your “C major” scale is C D E F G A B C.

You’ll just write down:

C = 1

D = 2

E = 3

F = 4

G = 5

A = 6

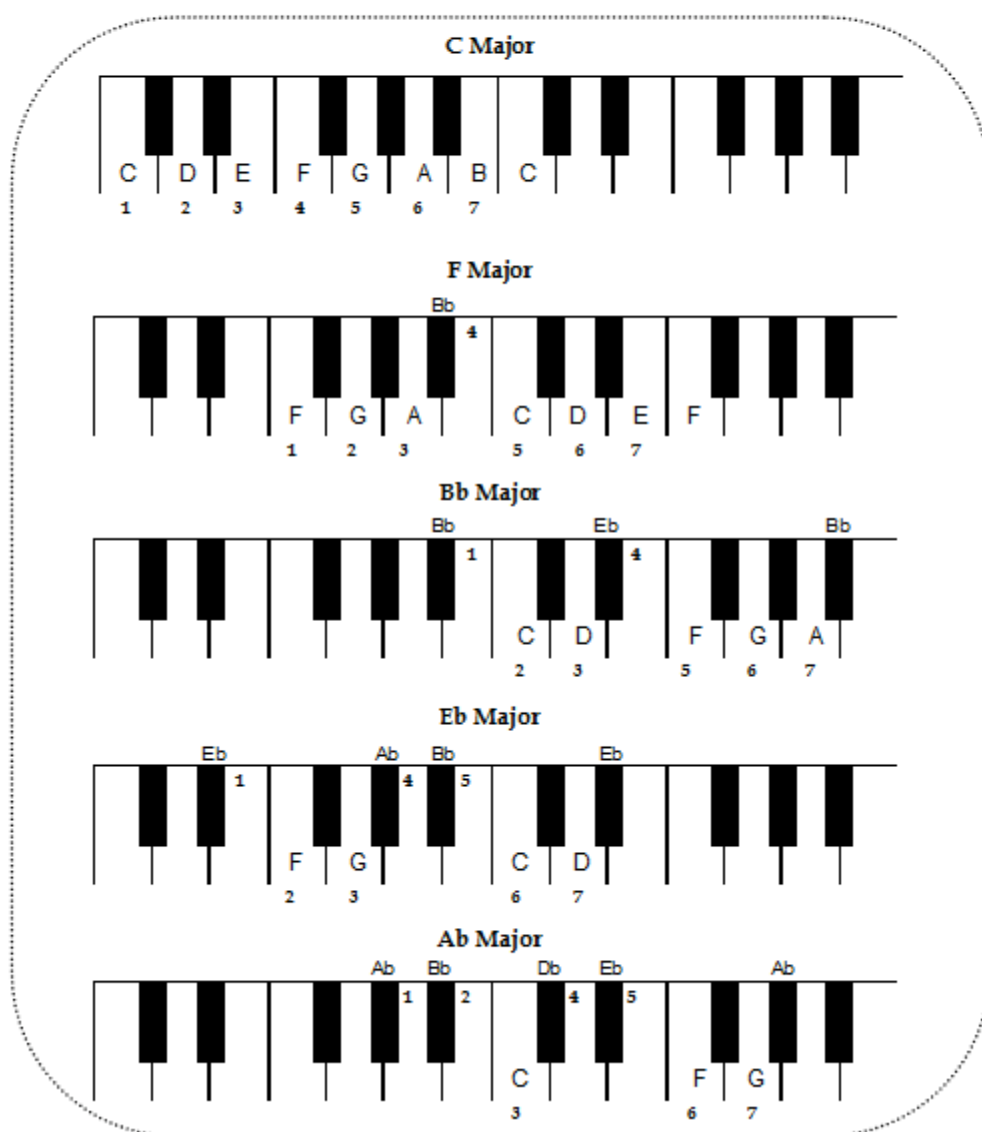
B = 7

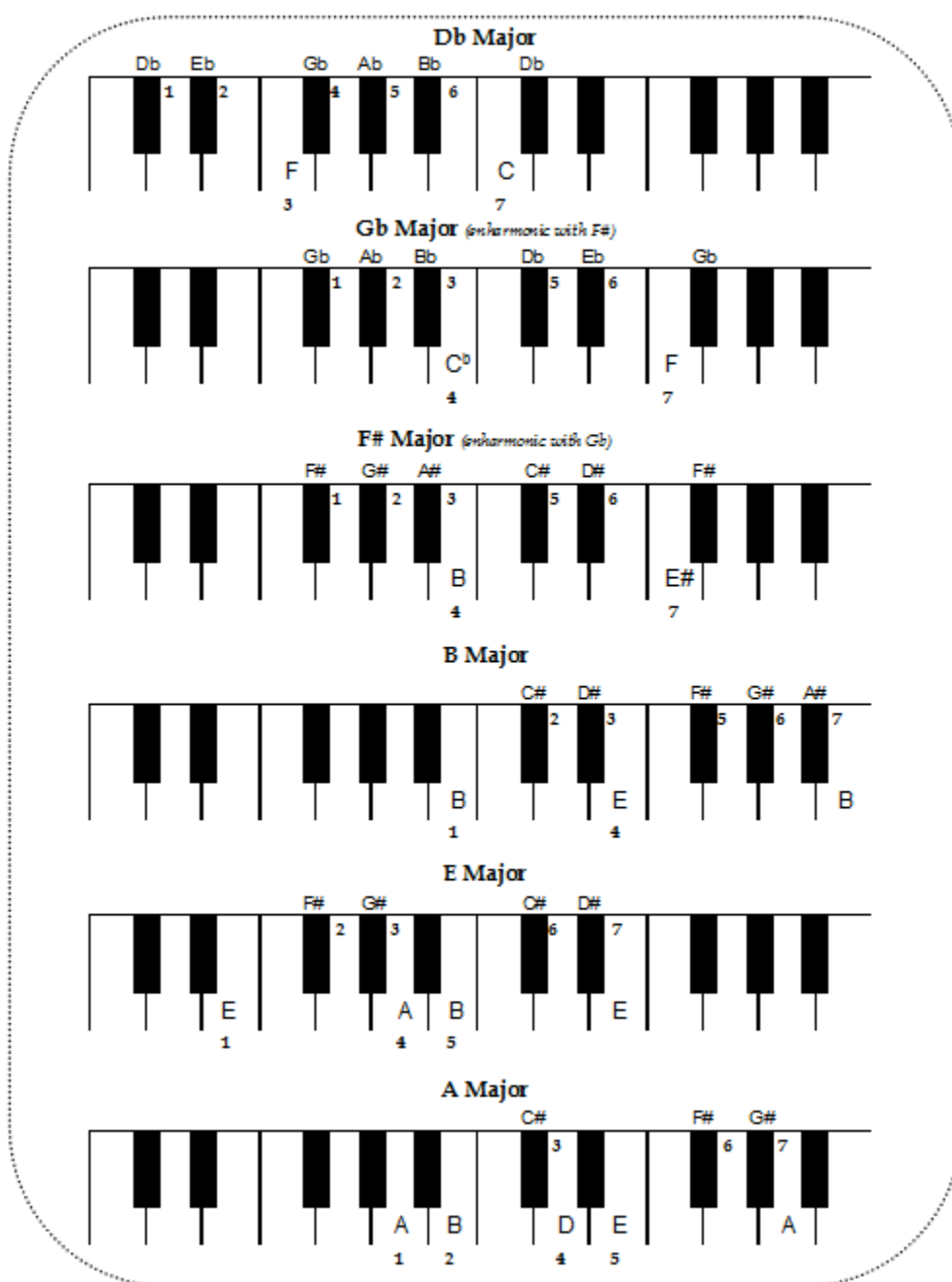
Getting the numbers in your system works just like the previous tips I gave.

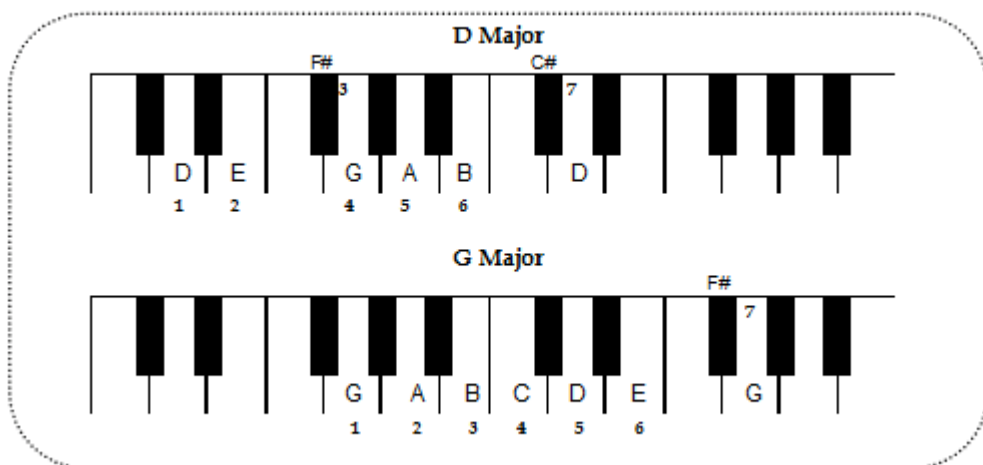
- Call out the numbers as you practice each scale
- Use my flash cards

For a full-length video lesson I created on using and remembering the number system, visit: <http://www.youtube.com/watch?v=hf6qJwAt4Rg>. There’s a special pdf report that goes along with that video at <http://www.hearandplay.com/numbers> (it covers a really effective way to get the “numbers” *down in your system...* FOR EVERY KEY!). All the work is done for you too so check those two links out AFTER you read this entire report.

Here's a reference chart. You can study this with the cards. But don't use this to cheat. You can either start by studying this and reinforcing what you've learned with the cards. Or you can try the cards first and use these pictures as summaries. Up to you! Either way will work!







LET'S PLAY A GAME: "number game"

Either use the flash cards or have someone yell out questions like "5th of Ab" or "7th of B." With another musician, race to see who calls out the correct tone.

Use the flash cards I've provided at <http://www.hearandplay.com/numbers>

STEP THREE:

CHORD CONSTRUCTION

STEP THREE: Chord Construction

Knowing your triads is very important and the next step in the process.

Just as it sounds, *triad* is associated with the number “three.”

These are 3-toned chords.

There are four main types of triads. These are what I call the “*FANTASTIC FOUR*” because by understanding them, you can play nearly every other chord out there!

Understand these four basic chords and how to apply them in the right places and you’ll shave years off your learning curve.

These chords are the:

- Major chord
- Minor chord
- Augmented chord
- Diminished chord

You can also say “major triad,” “minor triad,” “augmented triad,” “diminished triad.” It all means the same thing (at least now, but later on you’ll learn about sevenths, ninths, elevenths, and thirteenth chords... or what we call “extended chords”).

QUALITY VS QUANTITY

Here’s a concept you may hear a lot in music.

Chords are made up of **qualities** and **quantities**. When you hear someone say a “major triad chord,” the “major” part is the quality. The “triad” part is the quantity.

Major = quality

Triad = quantity (3-toned)

$$\text{QUALITY} + \text{QUANTITY} = \text{CHORD}$$

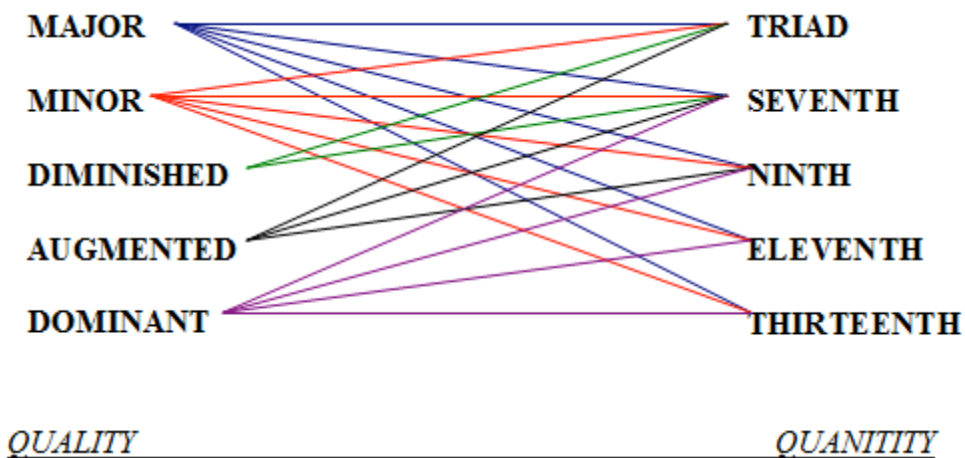
Other qualities you'll study:

- Minor
- Diminished
- Augmented

Other quantities you'll study:

- Sevenths (4-toned)
- Ninths (5-toned)
- Elevenths (6-toned)
- Thirteenths (7-toned)

All the chords you'll ever want to know are basically created by mixing and matching these qualities and quantities (of course there are many more qualities like "dominant," "minor-major," "half-diminished," and various altered chords. For now, let's stick with these though).

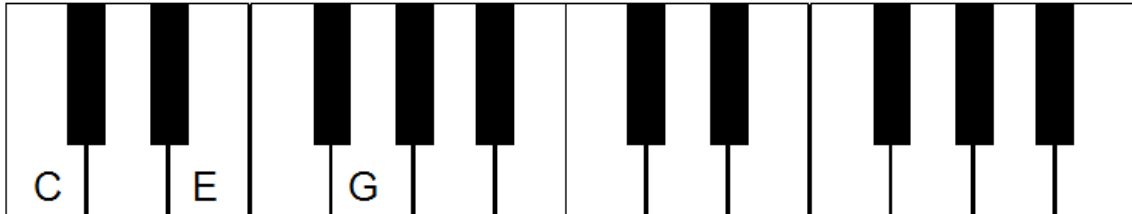


FANTASTIC FOUR

Here are the four basic chords in the key of C major:

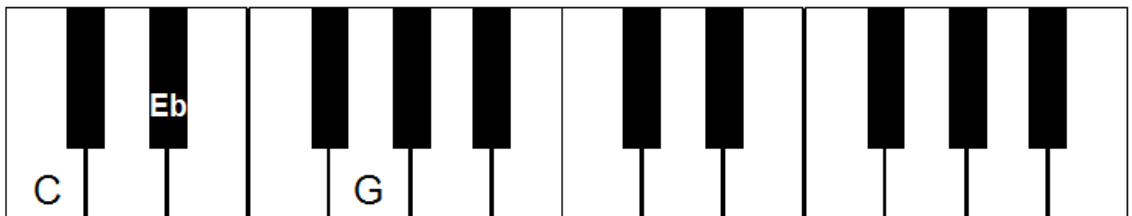
C major

$(1 + 3 + 5)$



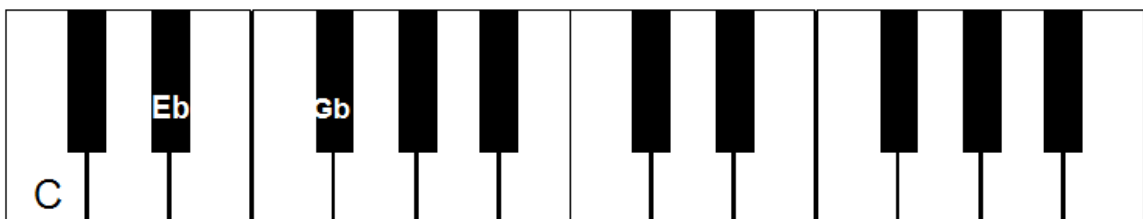
C minor

$(1 + b3 + 5)$



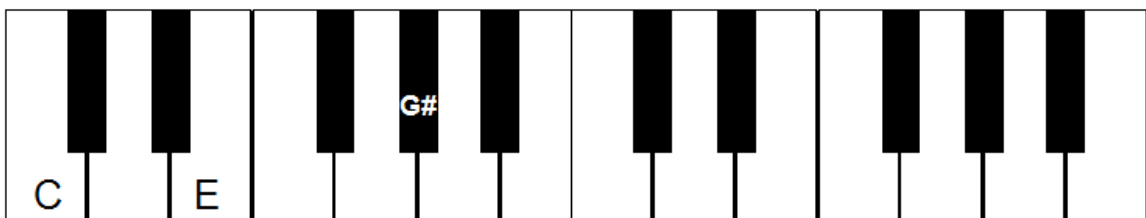
C diminished

$(1 + b3 + b5)$



C augmented

$(1 + 3 + \#5)$



Note: Numbers are important. “b” means to flat the tone by a half step. “#” means to raise the tone by a half step. “b3” simply means “the 3rd tone lowered a half step.”

Why are these chords important?

Because with these four simple chords, you can form approximately 80-90% (my own estimation) of all the other chords you’ll ever play!

What you need to do?

- 1) Learn them in all 12 keys using the “transposition” technique below.
- 2) Use the flash cards I’ve created for you to memorize them in all 12 keys (see below).
- 3) Practice them daily along with the formulas you’ll learn to morph them into bigger, extended chords.

For a full-length video lesson I created on learning and remembering these “FANTASTIC FOUR” chords in all 12 keys, visit: <http://www.youtube.com/watch?v=oBBmXHycBs>. There’s a special pdf report that goes along with that video at <http://www.hearandplay.com/learnchords> (it covers a really effective way to get these “fantastic four chords” *down in your system... FOR EVERY KEY!*). All the work is done for you too so check those two links out AFTER you read this entire guide.

TRANSPOSITION (aka “transposing”)

Time and time again, I hear musicians asking if I’ll transpose my examples into other keys. While this is convenient, you can do this for yourself! No need to rely or wait for someone to do it for you.

It’s real simple.

There are two methods. I'll cover the first one in this guide. You can find the other covered on my blog at www.hearandplay.com/blog

1) Chromatic approach

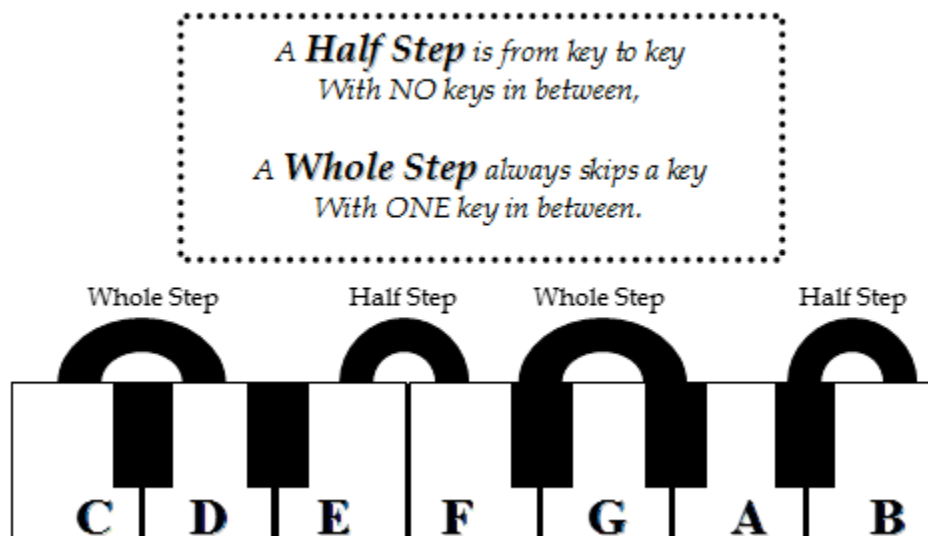
2) Circular approach

Chromatic Approach

In the chromatic approach, you're simply taking a chord you know and moving every note up a half step.

Remember, half steps are from key to key with NO keys in between as opposed to whole steps, which always skip a key with one key in between.

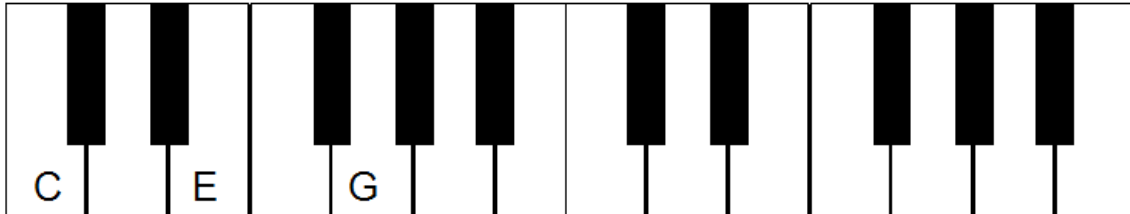
Remember my poem:



So, let's say you want to take the FANTASTIC FOUR chords from C major and move them up a half step to D flat major (Db) --- all you have to do is move every finger in your chord up the same distance... in this case, a half step:

C major

(1 + 3 + 5)

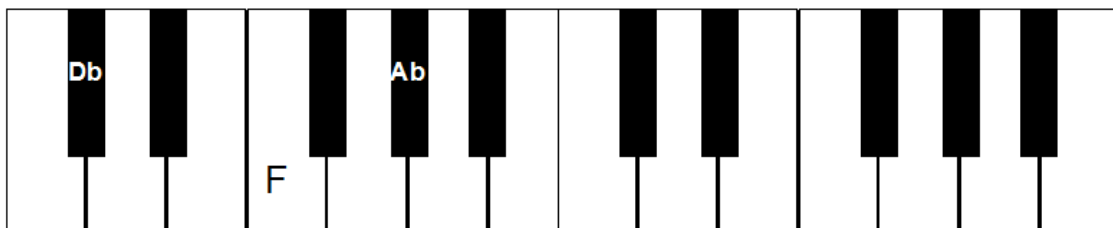


The “C” in your chord becomes “Db” (which is a half step higher). The “E” in your chord becomes “F” (a half step higher). And lastly, the “G” in your chord becomes “Ab” (a half step higher). The end result is a Db major chord.

Notice the QUALITY doesn't change. Whenever you take a chord and move every note up the same distance, the chord quality DOES NOT CHANGE. You haven't changed anything about the chord but the starting point. In this case, we're still playing the same type of major chord... but on Db instead of C. Make sense?

Db major

(1 + 3 + 5)



If you want to change this chord from a Db major to a D major chord (a half step higher), just do the same thing. Move every note up the same distance --- a half step.

What if you want to move a chord from C major to E major (skipping several notes).

What do you do?

The concept is the same but you just have to think slightly more since you're not just moving every finger up a half step like in the past example.

STEP #1: Determine the distance between the "NEW" key and your "CURRENT KEY."

If you want to transpose a chord... any chord... from C to E, first you need to find out how many half steps are in between C and E.

C to Db is 1 half step.

Db to D is another half step (2).

D to Eb is another half step (3).

Eb to E is the last half step (4).

All combined, "E is 4 half steps up from C." (that's how I'd phrase it).

<p>_____ (HIGHEST NOTE) _____ is _____ (#) _____ half steps up from _____ (LOWEST NOTE) _____</p>

So if your number is 4 half steps, then that's how many notes you're going to move EVERY finger of your current chord up by. Simple.

STEP #2: Just move every note in your chord up (or down) the correct number of half steps, as determined by step #1

So the same C major chord can be changed into E major by simply moving every note in the chord up 4 half steps.

<i>Chord</i>	<i>1st note</i>	<i>2nd note</i>	<i>3rd note</i>	<i># of half steps</i>
C major	C	E	G	
Db major	Db <i>(up 1 half step)</i>	F <i>(up 1 half step)</i>	Ab <i>(up 1 half step)</i>	1
D major	D <i>(up another half step)</i>	F# <i>(up another half step)</i>	A <i>(up another half step)</i>	2
Eb major	Eb <i>(up another half step)</i>	G <i>(up another half step)</i>	Bb <i>(up another half step)</i>	3
E major	E <i>(up another half step)</i>	G# <i>(up another half step)</i>	B <i>(up another half step)</i>	4

HOMEWORK: Always remember the “law of 12.” Whenever you learn a new chord (regardless of how basic or even how advanced it is), transpose it to all 12 keys. On the next page is a chart you can print out to use to transpose any chord to all 12 keys. Print out as many as you want.

CHORD TRANSPOSITION CHART

(Here's an example of how I'd use it)

Note: The first chord is always the starting chord.

Chord	1 st note	2 nd note	3 rd note	4 th note	5 th note	6 th note	7 th note	# of half steps
<i>Cmin9</i>	C	Eb	G	Bb	D			
<i>C#min9</i>	C#	E	G#	B	D#			1
<i>Dmin9</i>	D	F	A	C	E			2
<i>D#min9</i>	D#	F#	A#	C#	E#			3
<i>Emin9</i>	E	G	B	D	F#			4
<i>Fmin9</i>	F	Ab	C	Eb	G			5
<i>F#min9</i>	F#	A	C#	E	G#			6
<i>Gmin9</i>	G	Bb	D	F	A			7
<i>G#min9</i>	G#	B	D#	F#	A#			8
<i>Amin9</i>	A	C	E	G	B			9
<i>Bbmin9</i>	Bb	Db	F	Ab	C			10
<i>Bmin9</i>	B	D	F#	A	C#			11

CHORD TRANSPOSITION CHART

Tip: Print many copies of this worksheet so you can use it with every chord you learn

Chord	1 st note	2 nd note	3 rd note	4 th note	5 th note	6 th note	7 th note	# of half steps
								1
								2
								3
								4
								5
								6
								7
								8
								9
								10
								11

Seventh Chords

Here comes the fun part.

There are several ways to form seventh chords:

- Number system (example: 1+3+5+7)
- Intervallic system (example: major third + minor third + major third)
- Polychord-based system (my favorite because of the flexibility it gives you)

We will cover the last method here.

“Polychords” combine multiple smaller chords together to form bigger chords. Most extended chords are polychords as you’ll find that many smaller chords make up these larger ones.

POLY = more than one.

“more than one” + chords = POLY + chords = **THE SECRET.**

With seventh chords, you don’t quite get the “*polychord*” thing going on (because seventh chords aren’t that big compared to ninths, elevenths, and thirteenth) but we can use the same approach to go about forming them.

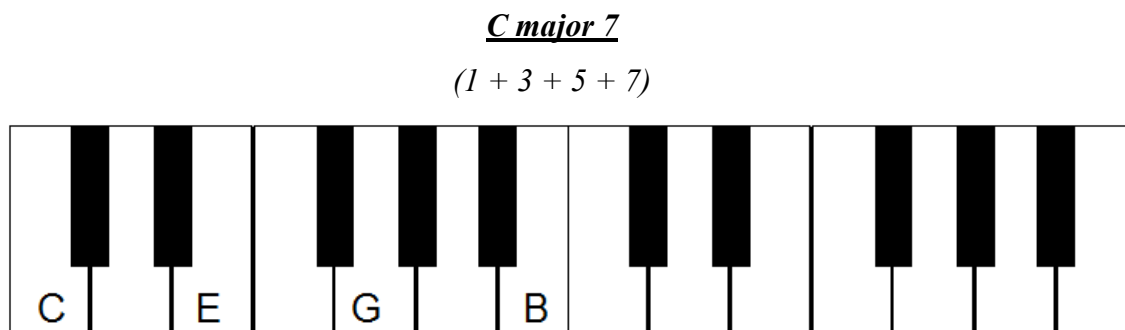
Here’s the secret with seventh chords...

Are you ready?

YOU CAN USE THE “FANTASTIC FOUR” TRIADS TO FORM THEM.

Let me prove it to you...

Here's a C major 7 chord:



I've put the numbers "1 + 3 + 5 + 7" because it's always important to know what degrees of the major scale form the chord. And in this case, if you combine the 1st tone of the scale, the 3rd tone of the scale, the 5th tone of the scale, and the 7th tone of the scale together --- you'll get a major 7th chord.

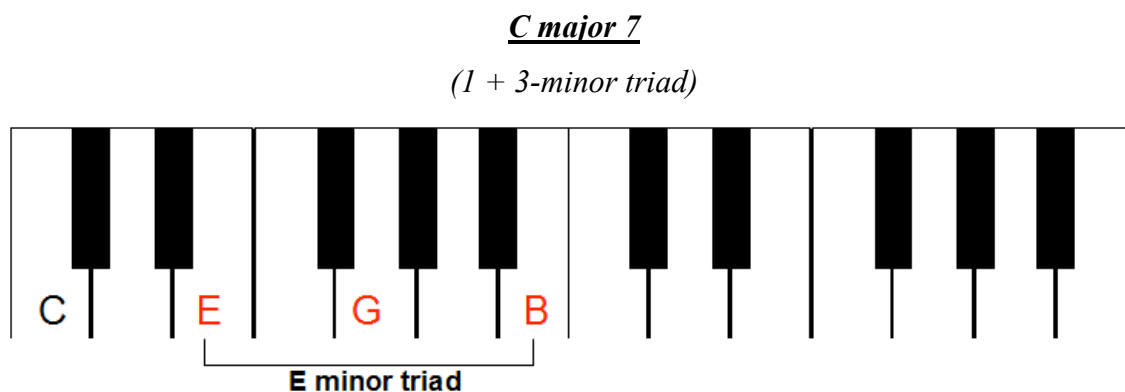
C D E F G A B C

But there's another way to look at this chord.

You can look at it as "*E minor over C bass.*"

Or "*C + [E minor Triad].*"

In other words, you can go to the third tone of any scale and play its minor chord and together you'll have a major 7 chord.



What if I said you can learn all the big chords by just knowing the basic FANTASTIC FOUR triads and apply them in this way? Major, minor, diminished, augmented.

Why think about chords this way?

There are many reasons. (...and I'm not trying to discourage you to take the number or intervallic approach... not at all... I teach those approaches as well).

One has to do with freedom.

When you think about an "E minor triad" over C, it sort of separates the hands, whereas before everything was ONE solid chord (C+E+G+B).

It's harder to invert (or rearrange) one solid chord, especially when you have to think about 4 notes instead of 3.

That's what I'll talk about next...

INVERSIONS

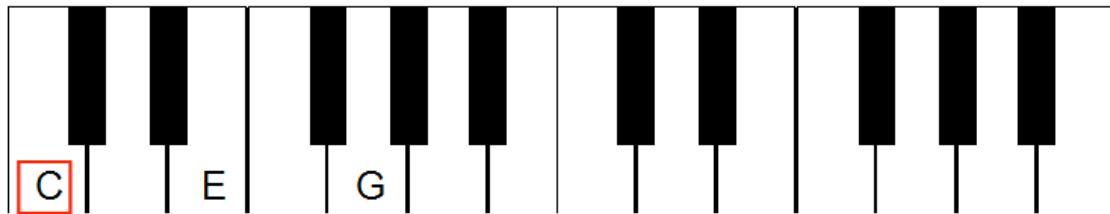
The most basic way to define inversions is a "different way to play a chord."

RULE = The number of notes in the chord determines how many different ways (inversions) you can play it.

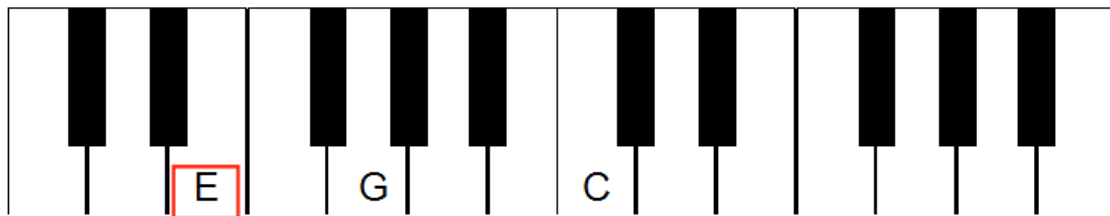
Triads have 3 notes. You can play them 3 different ways.

C major

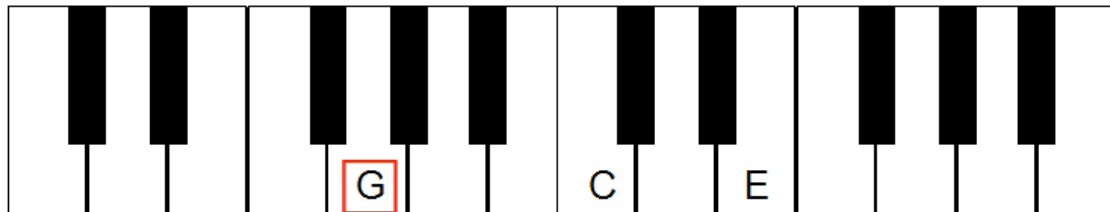
(1 + 3 + 5)



C or 1st degree on bottom



E or 3rd degree on bottom



G or 5th degree on bottom

When the 1st tone/degree of the scale (or root) is on the bottom, we call this “**ROOT POSITION.**”

When the 3rd tone/degree of the scale is on the bottom, we call this “**FIRST INVERSION.**”

When the 5th tone/degree of the scale is on the bottom, we call this “**SECOND INVERSION.**”

Triads are a lot easier to think about than seventh chords. That's why I prefer to think about a C major 7 chord as "*E minor over C bass*" (bass = left hand).

Since seventh chords have 4 notes, you can play them 4 different ways:

ROOT POSITION

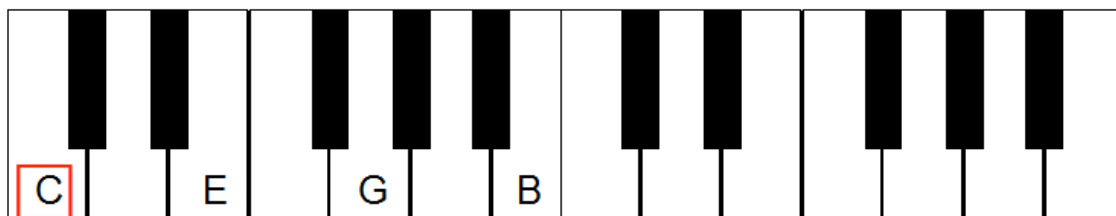
FIRST INVERSION

SECOND INVERSION

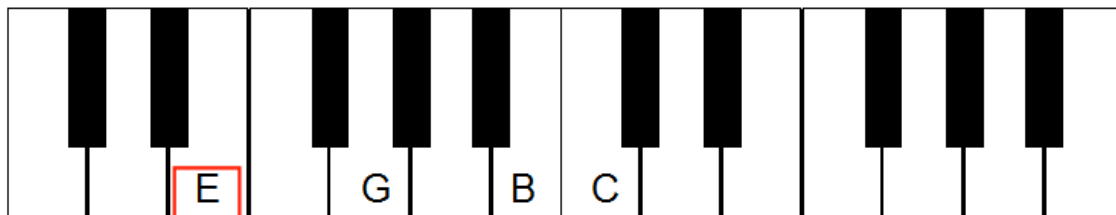
THIRD INVERSION

C major 7

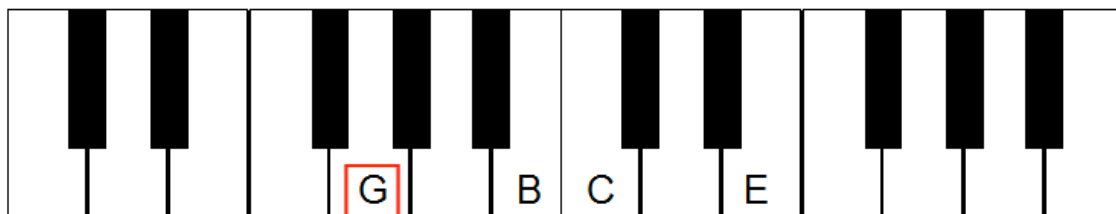
(1 + 3 + 5 + 7)



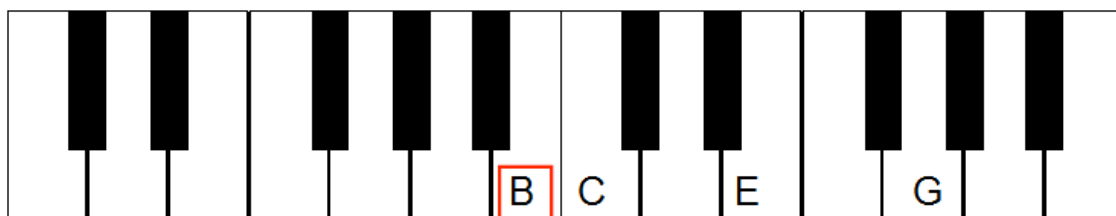
C or 1st degree on bottom



E or 3rd degree on bottom



G or 5th degree on bottom



B or 7th degree on bottom

As you can see, things get a little more complicated.

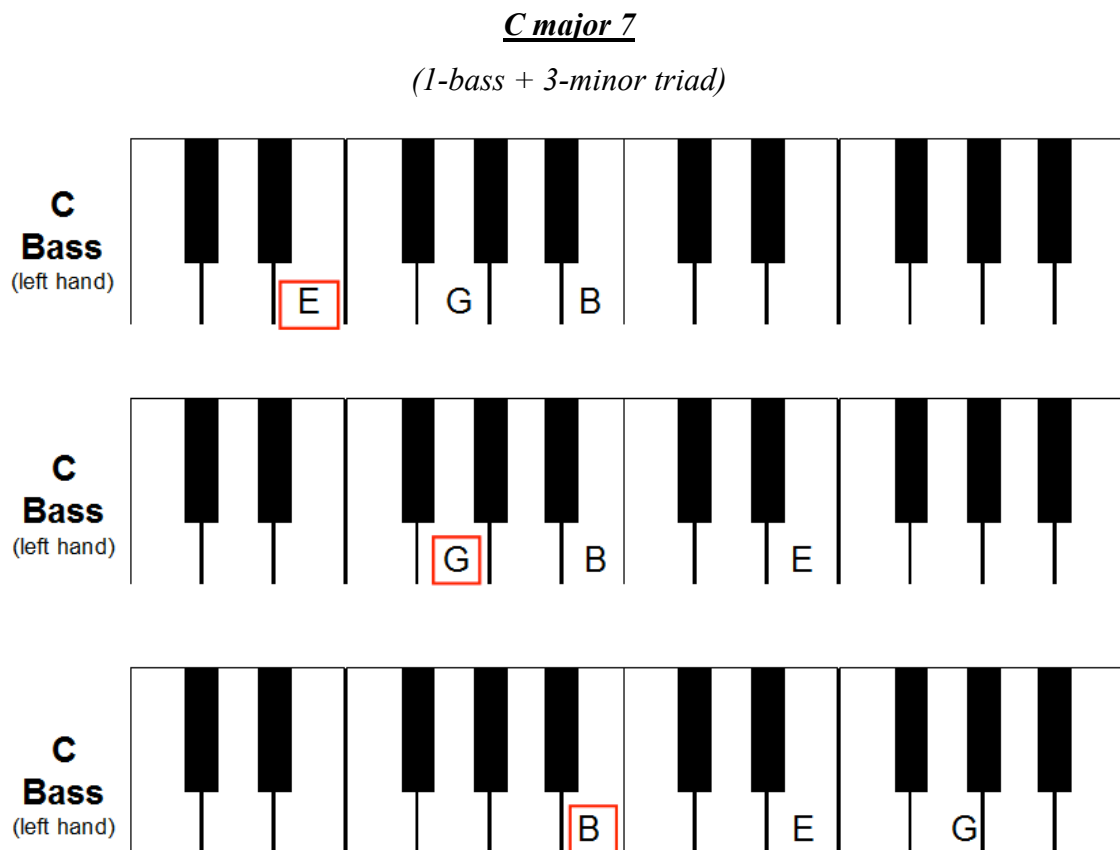
Here's the problem with inverting chords like this (besides the fact that it's harder to invert 4 notes than it is 3).

In contemporary music, you won't find musicians repeating the "keynote" of the chord in their right hands.

In other words, assuming you're playing by yourself without a bass player, you're already going to have "C" in your left-hand bass note. It is often times redundant to put the "C" in your right hand (as illustrated by the inversions above).

Not only is it redundant, it doesn't sound as good as leaving it out of your right hand.

When you take "C" out your right hand, what you're left with is:



Looks like an E minor triad over C to me! And trust me, this sounds much better than taking the WHOLE C major 7 chord and inverting it. Just try playing each of the chords and compare them yourself.

When to use different inversions?

This will depend on the melody of your song. If the melody is “G” and the song calls for a C major 7 chord, you’ll put the inversion that keeps “G” on top so that you’re not sacrificing your melody. In this case, you’ll play C in your bass and “B+E+G” (E minor) on your right. Notice the inversion is “B+E+G.”

How to “FORMULIZE” this...

You can use this method to play any major 7 chord.

STEP 1: Press any keynote

The “keynote” is basically the title of your chord... the note name of the chord you want to form. In all our past examples, the keynote has been “C”.

STEP 2: Go to the third tone of that keynote’s scale

So once you’ve pressed down a keynote, you’ll immediately think of its major scale. If you’ve pressed down “F,” now it’s time to think of the F major scale: F G A Bb C D E F. Lastly, just go to the third tone of that scale: “A.”

STEP 3: Play a minor chord off the third tone

In the previous example, the keynote is F. The third tone of the F major scale is A. By playing an A minor chord over F bass, I’ve just formed an F major 7 chord. I can now invert the simple 3-fingered “A minor” chord as much as I want to form different sounding inversions of this chord. Simple!

With this formula, you can now play this chord (and others once I introduce you to their formulas) in all 12 keys!

TIP: With seventh chords, you'll be using the "3rd" tone of the scale a lot! This is the magic number when it comes to using this technique. You can play 8 other types of seventh chords just by playing one of the FANTASTIC FOUR triads off the third tone of the scale. Once you get good at this, the sky's the limit!

You can play major 7ths, minor 7ths, dominant 7ths, diminished 7ths, augmented 7ths, augmented major 7ths, half diminished 7ths, and minor-major 7ths by using a similar technique.

That's what we're going to cover next.

SEVENTH CHORD FORMULAS

Chord	Formula
Major 7 th	1 + (3-minor chord)
Minor 7 th	1 + (b3-major chord)
Dominant 7 th	1 + (3-diminished chord)
Diminished 7 th	1 + (b3-diminished chord)
Augmented Major 7 th	1 + (3-major chord)
Half Diminished 7 th	1 + (b3-minor chord)
Minor-Major 7 th	1 + (b3-augmented chord)
Augmented 7 th	1 + (3-major chord b5)

Things to note:

1) When I say “**1**,” I’m talking about the keynote, the bass, the root (all different ways to say the same thing).

2) “**b3**” means **flatted 3**. That means to take the 3rd tone of the scale and lower it a half step. In the key of C, the third degree of the scale is E. If I wanted to find the b3, I’d simply take E and flat it a half step to Eb. Very simple. All minor chords start on the b3 since they utilize the “minor 3rd” intervals.

Let’s explore a few of these formulas.

C minor 7th

According to the formula, I press the 1st tone of the scale in my left hand, C.

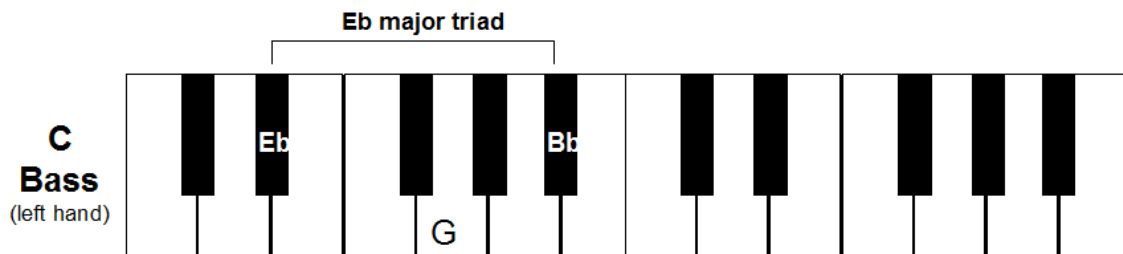
Then I locate the b3 (flatted 3) and simply play a major chord.

The b3 in the key of C is Eb. That means I’ll play an Eb major chord.

$$\text{C} + (\text{Eb major}) = \text{C minor 7 chord}$$

C minor 7

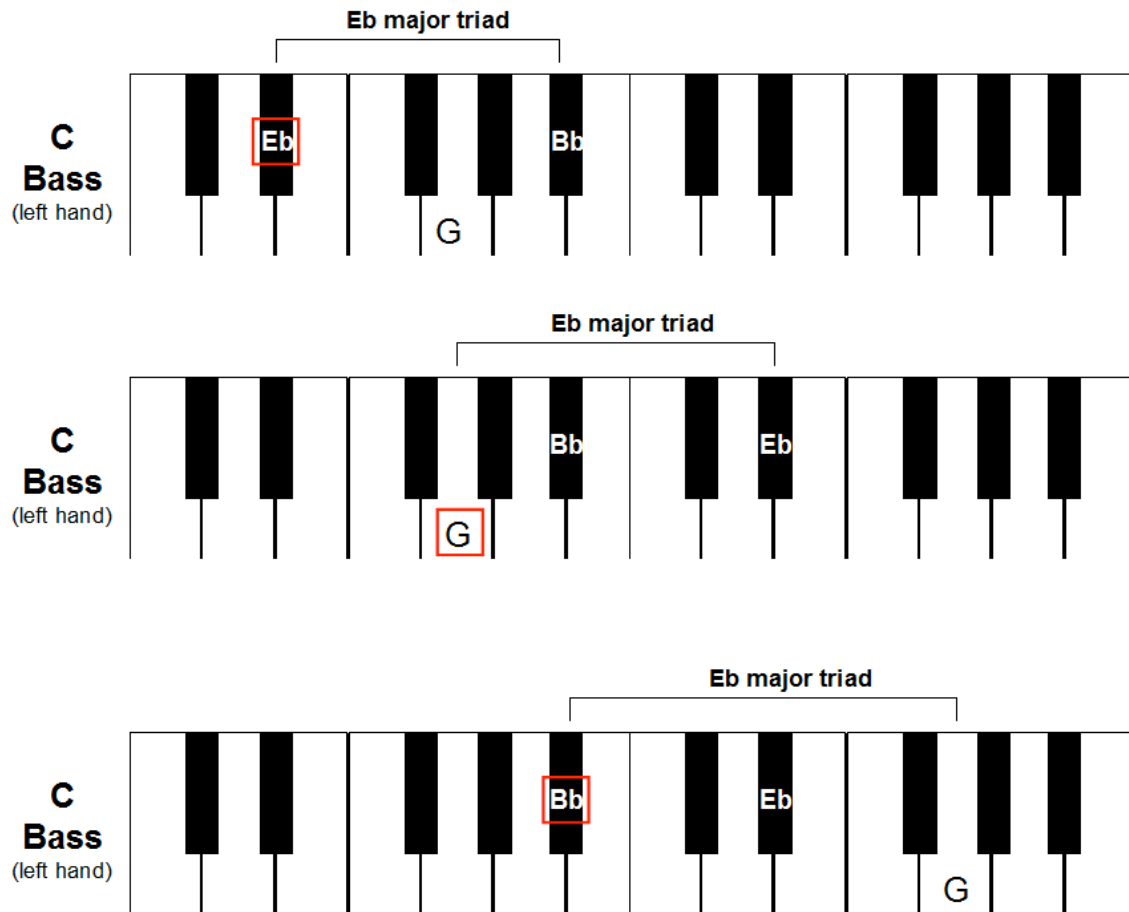
(1-bass + b3-major triad)



Of course, by looking at it this way, you can easily invert this chord by simply changing the order of the “Eb major” chord on your right hand while leaving C in your bass.

C minor 7

(1-bass + b3-major triad)



Let's look at one more before we move on to extended voicings.

C dominant 7th

According to the formula, I press the 1st tone of the scale in my left hand, C.

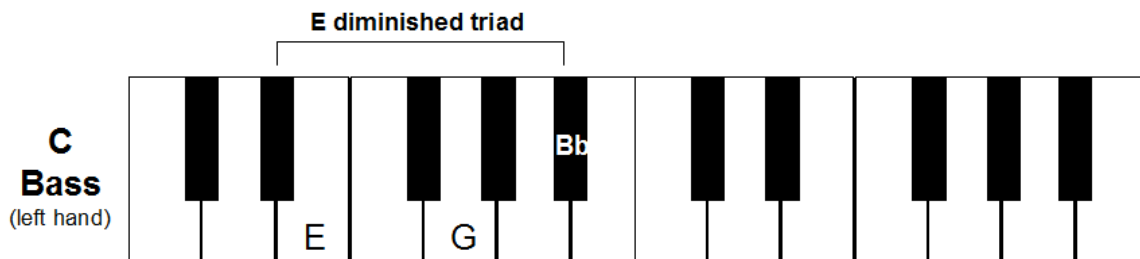
Then I locate the 3rd tone of the scale and simply play a diminished chord (another one of the FANTASTIC FOUR triads).

The 3rd tone in the key of C is E. That means I'll play an E diminished chord.

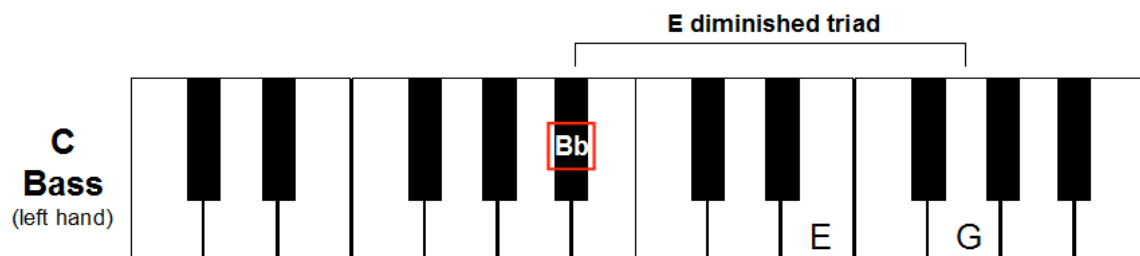
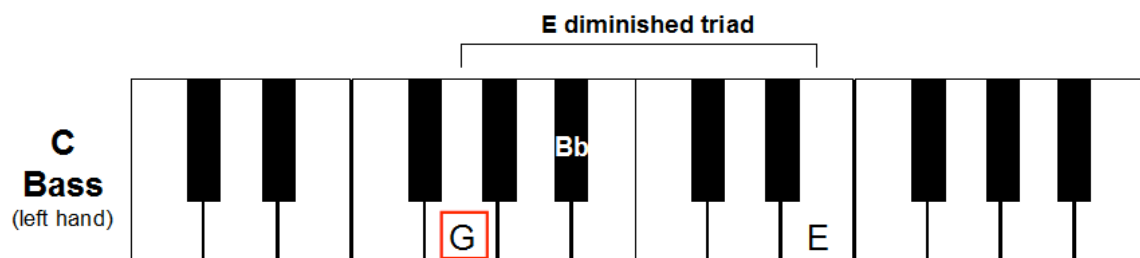
C + (E diminished) = C dominant 7 chord

C dominant 7th (a.k.a. "C7")

(1-bass + 3-diminished triad)



Of course, we can invert the "E diminished triad" to vary the sound of this chord:



Ninth Chords

There are 3 main types of ninth chords you'll see a lot (not including altered chords, etc):

- Major ninths
- Minor ninths
- Dominant ninths

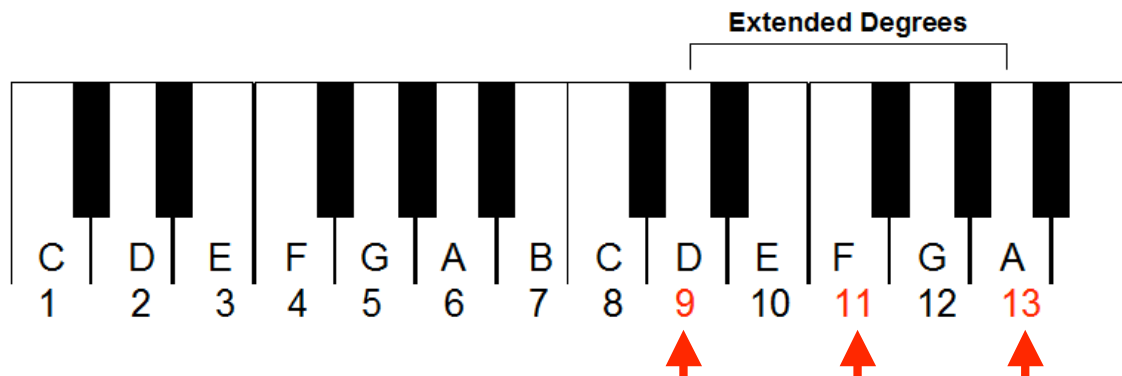
There are three ways to look at these chords.

METHOD #1: Just add the “9!!!” (Easiest)

This is super easy.

Did you know you can basically take any of the major, minor, and dominant 7th chords you learned and simply add the 9th degree?

Check out this diagram:



Essentially, you want to be good at knowing the 9th, 11th, and 13th degree of any scale.

It's really not that hard though.

Just think of the 9th tone as the 2nd tone (but higher of course... in the next octave)

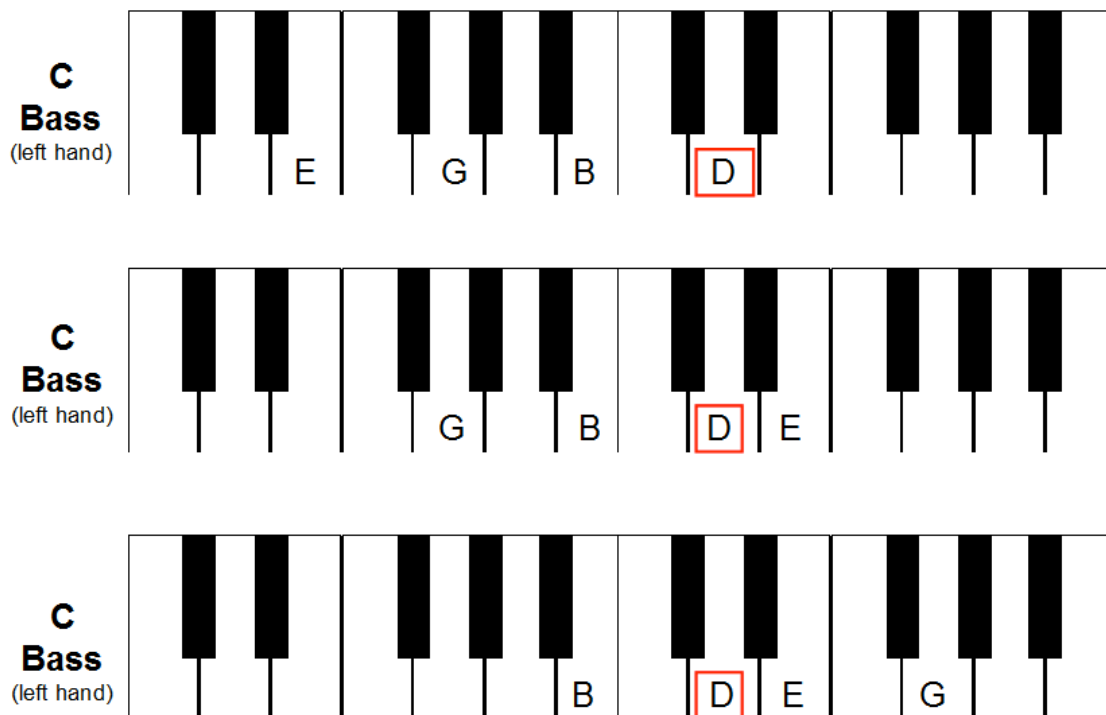
Think of the 11th tone as the 4th tone.

Think of the 13th tone as the 6th tone.

$9 = 2$
$11 = 4$
$13 = 6$

In the key of C major, the 9 is D (which, as you know now, can also be looked at as the “2”... just higher up in the next octave).

C major 9



All I did was take our existing C major 7 chord and add the “9” (in this case, “D”). Pretty simple.

METHOD #2 – Upgrade the formula!

Remember the “Seventh” chord formulas?

Chord	Formula
Major 7 th	1 + (3-minor chord)
Minor 7 th	1 + (b3-major chord)
Dominant 7 th	1 + (3-diminished chord)

What if I said you can play ninth chords by just making the right-hand chord one level bigger? In other words, instead of playing 3-fingered triads on the right hand, play seventh chords.

Yes, I know. It may sound confusing at this point. Let me break it down.

Recall, to play seventh chords, we made these little formulas where we held the bass note on our left hand and we played simple 3-toned triads on our right hand. You should have that much down pat.

Well, to “bump” up this formula to a ninth chord, we just upgrade our right hand. That’s all.

So this chart with triads on right hand:

Chord	Formula
Major 7 th	1 + (3-minor chord)
Minor 7 th	1 + (b3-major chord)
Dominant 7 th	1 + (3-diminished chord)

Becomes this chart with sevenths on right hand:

Chord	Formula
Major 9 th	1 + (3- minor7 chord)
Minor 9 th	1 + (b3- major7 chord)
Dominant 9 th	1 + (3- half diminished 7 chord)

So instead of just playing a minor triad on your right hand, you'll play a minor 7th on your right hand and that automatically makes your chord a Major 9th!

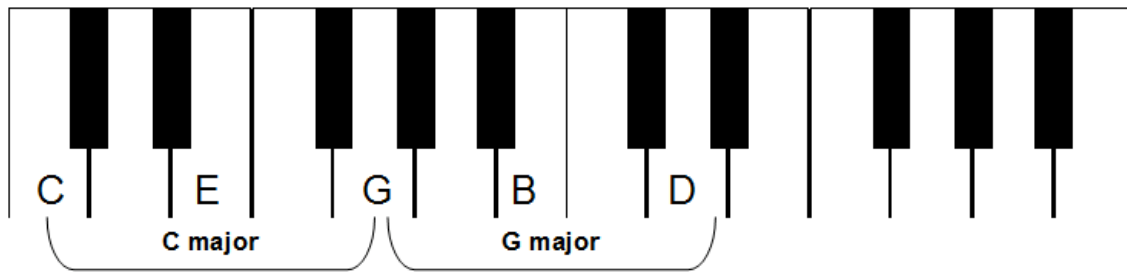
The same applies for minor 9 chords.

For dominant 9th chords, it's a little different but the concept is pretty much the same. Change the regular diminished triad to a half-diminished 7 chord and you've got yourself a dominant ninth chord.

METHOD #3 – Break it up even more!

The third concept is my favorite. Simply put, it involves combining two smaller chords to make a bigger chord. We covered this earlier when we introduced the “polychord” concept.

Here’s a **C major 9** chord:



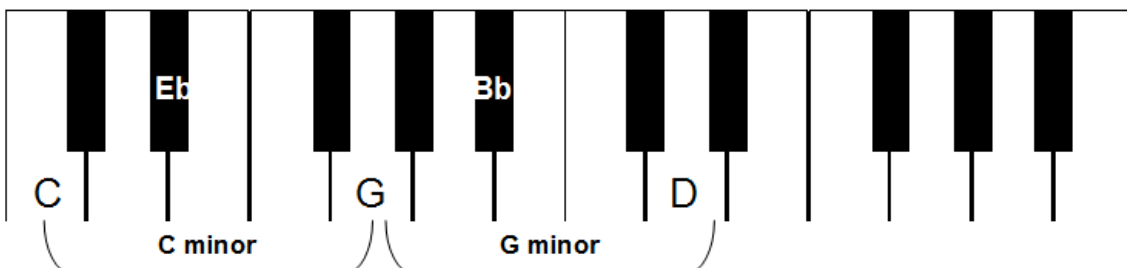
Notice the two smaller chords that make up this one big chord.

$$\text{C major} + \text{G major} = \text{C major 9}$$

Now let’s “formulize” it:

$$\text{1-major} + \text{5-major} = \text{Major 9}$$

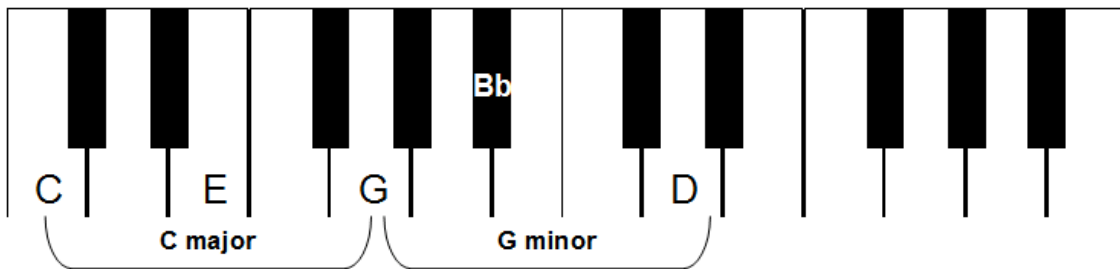
The minor 9 chord is similar:



C minor + G minor = C minor 9

1-minor + 5-minor = Minor 9

And lastly, the dominant 9 chord which is like a mixture of the previous formulas:



C major + G minor = C dominant 9

1-major + 5-minor = Dominant 9

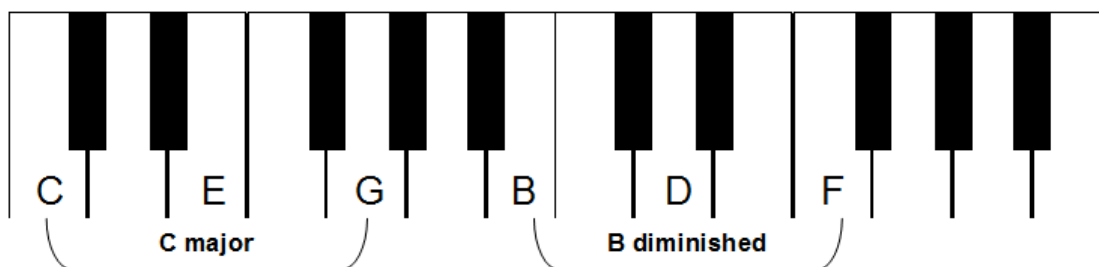
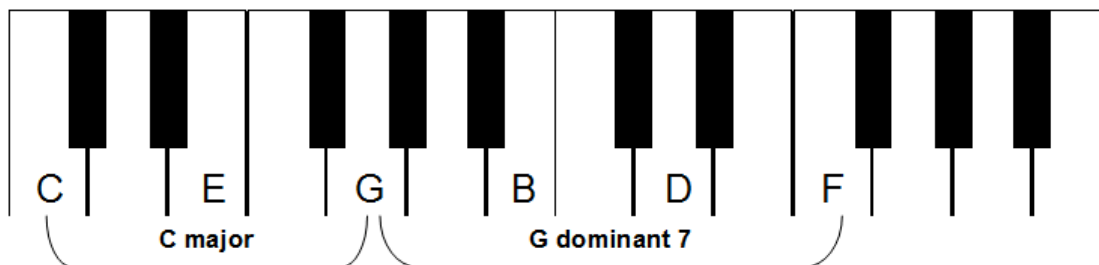
Here's the good news.

With eleventh and thirteenth chords, you follow the same system.

Eleventh Chords

The more complex your chords get, you'll notice multiple ways to "look" at them. Here are a couple ways to look at the C major 11 chord, keeping in mind there are even more!

C major 11



C major + G dominant 7 = C major 11

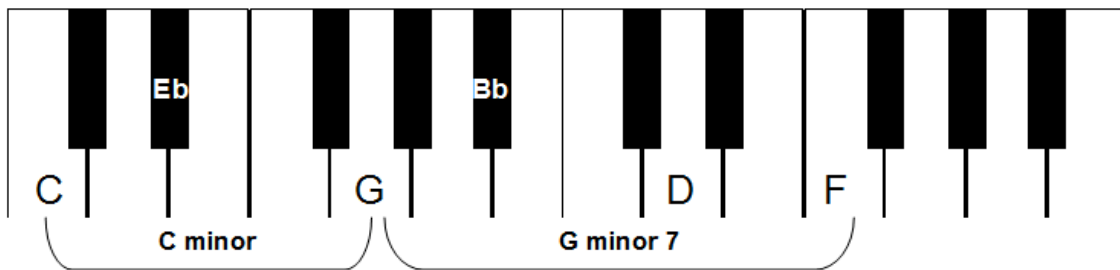
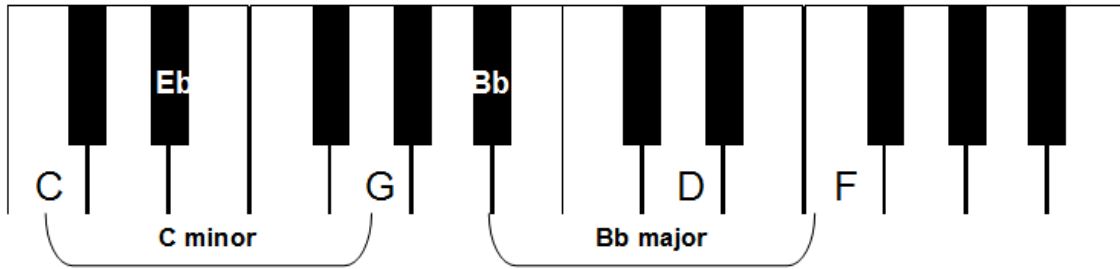
1-major + 5-dominant 7 = Major 11

-OR-

C major + B diminished = C major 11

1-major + 7-diminished = Major 11

C minor 11



C minor + Bb major = C minor 11

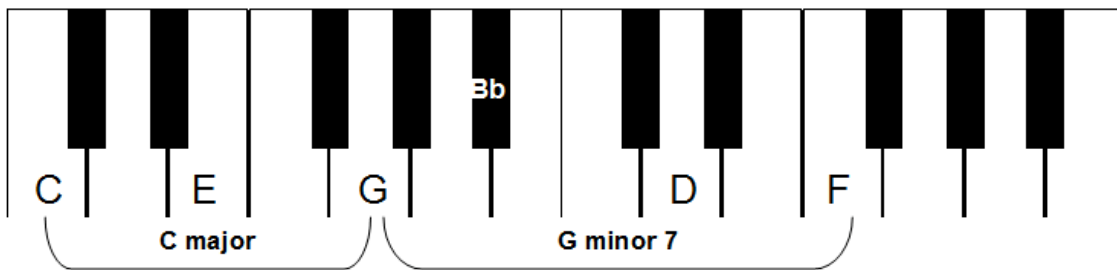
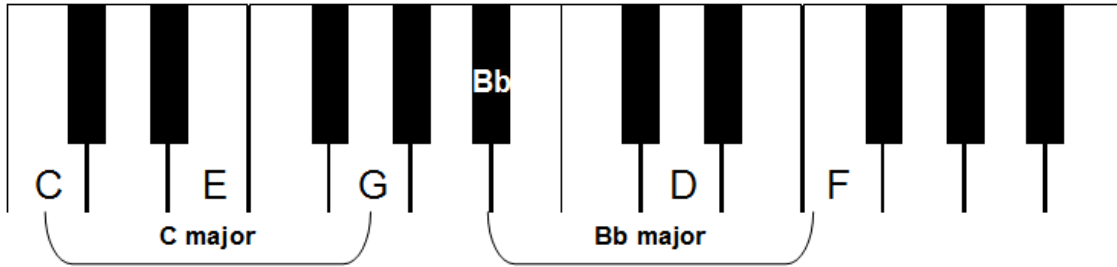
1-minor + b7-major = Minor 11

-OR-

C minor + G minor 7 = C minor 11

1-minor + 5-minor7 = Minor 11

C Dominant 11



C major + Bb major = C dominant 11

1-major + b7-major = Dominant 11

-OR-

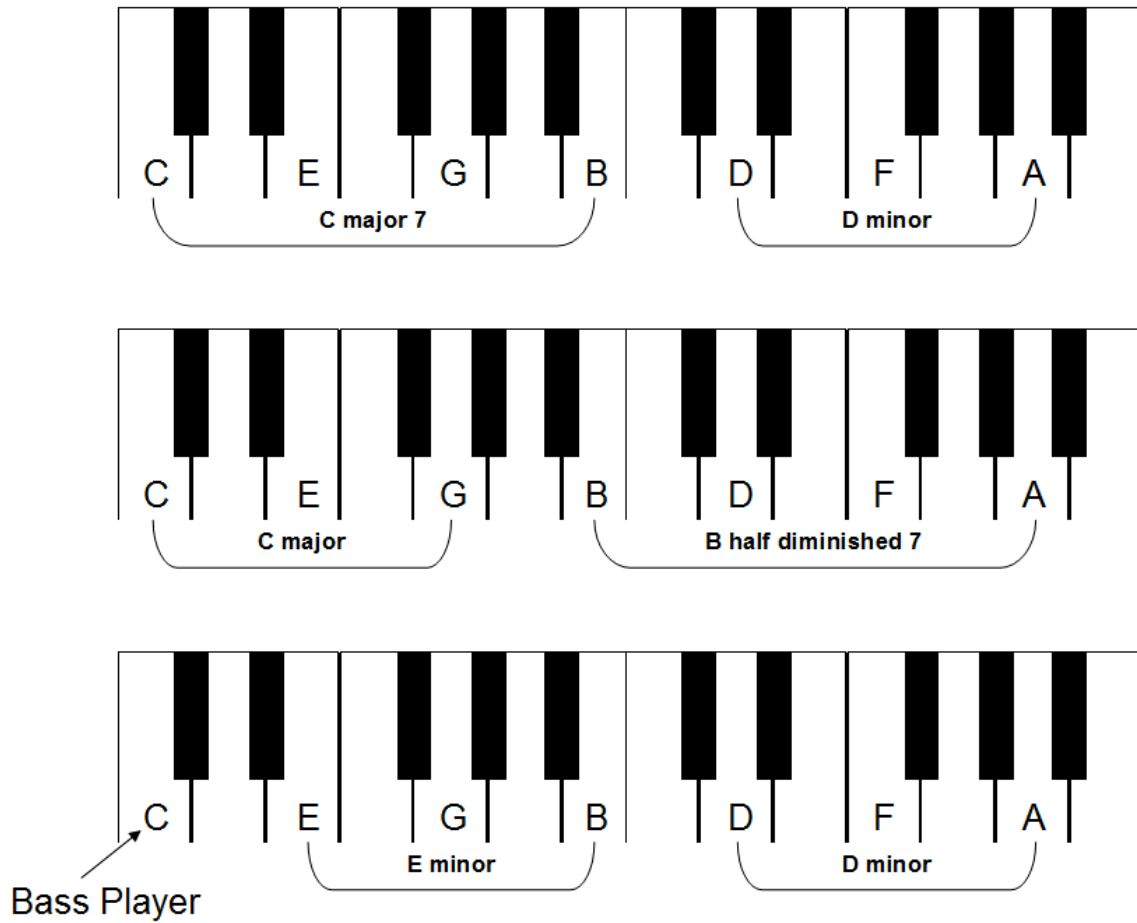
C major + G minor 7 = C dominant 11

1-major + 5-minor7 = Dominant 11

Thirteenth Chords

Similar to ninths and elevenths, there are several ways to form thirteenth chords from the *polychord perspective*.

C major 13



C major 7 + D minor = C major 13

1-major 7 + 9-minor = Major 13

-OR-

C major + B half dim 7 = C major 13

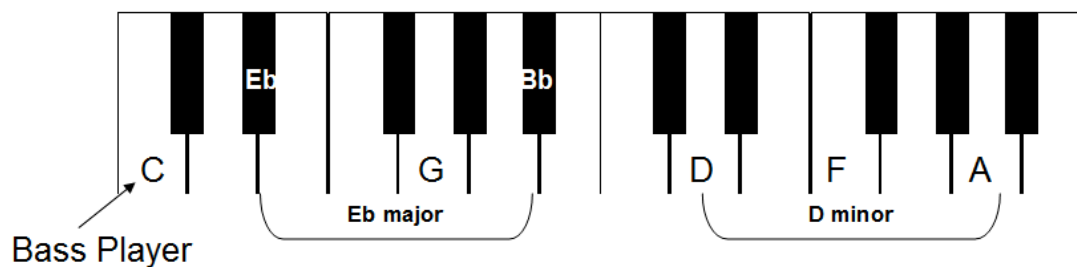
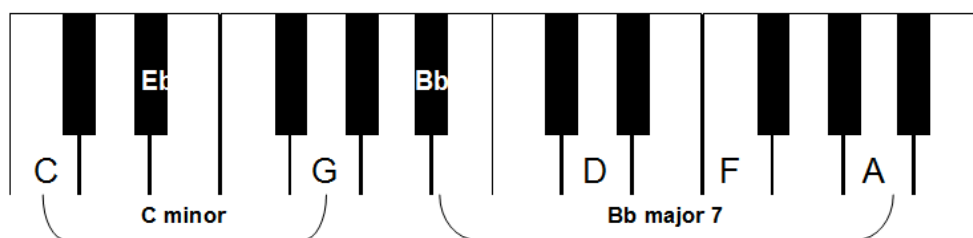
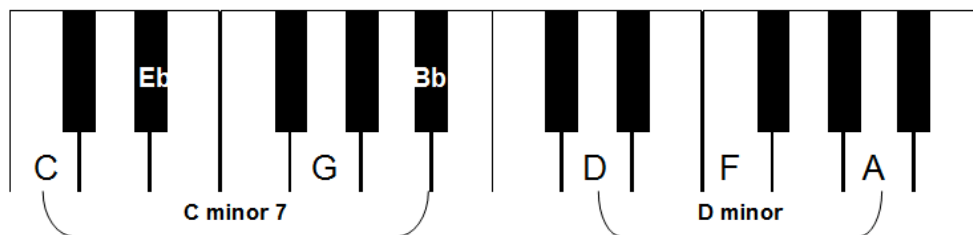
1-major + 7-half dim 7 = Major 13

-OR-

C bass + E minor + D minor = C major 13

1-bass + 3-minor + 9-minor = Major 13

C minor 13



C minor 7 + D minor = C minor 13

1-minor 7 + 9-minor = Minor 13

-OR-

C minor + Bb major 7 = C minor 13

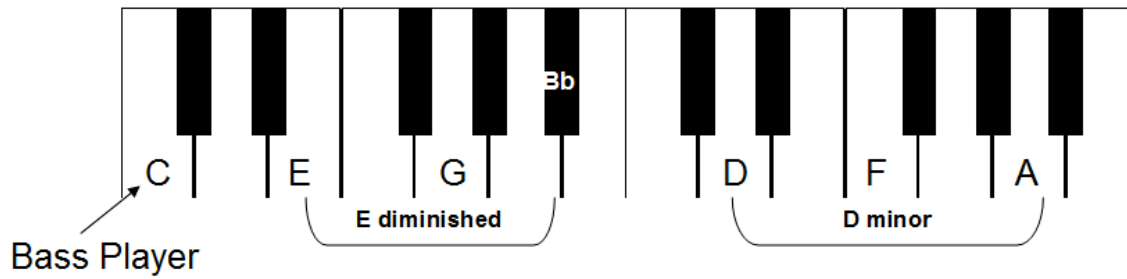
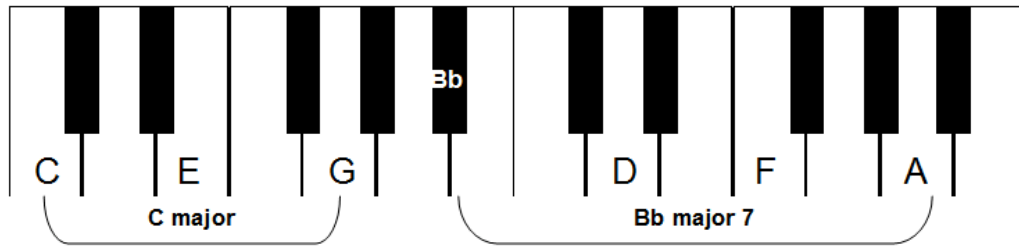
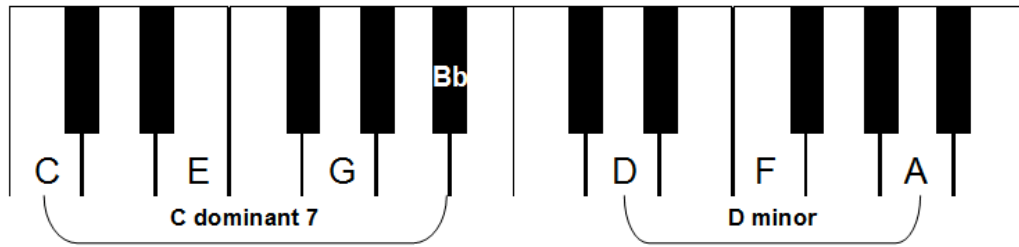
1-minor + b7-major 7 = Minor 13

-OR-

C bass + Eb major + D minor = C minor 13

1-bass + b3-major + 9-minor = Minor 13

C Dominant 13



C Dominant 7 + D minor = C13

1-dominant 7 + 9-minor = Dominant 13

-OR-

C major + Bb major 7 = C13

1-major + b7-major 7 = Dominant 13

-OR-

C bass + E diminished + D minor = C13

1-bass + 3-diminished + 9-minor = Dominant 13

Why go through the hassle of breaking up chords?

Because if you don't think of these huge chords as smaller ones, you'll have a hard time inverting them and coming up with different voicings.

For example, when you think of a chord as a "diminished triad + minor triad," now you automatically have tons of ways to voice this chord. You can invert the diminished triad while choosing to keep the minor triad the same.

You can invert the upper minor triad while choosing to keep the lower diminished triad the same. You can invert both... or any combination thereof.

This is when your chordal arsenal just explodes! You have tons of chords in your toolbox and it's not built from memorization... it's built off a system and is conceptual. Yes, you memorize the formulas but as you're playing, you're picking different inversions and voicings of each smaller chord off the top of your head thus giving you unlimited potential and creative exploration.

STEP FOUR:

PATTERNS

STEP FOUR: PATTERNS

In this section, we'll be starting with the importance of understanding patterns. Then, we'll move on to diatonic chords, scale degrees, circle of fifths, my 3-4 principle, common progressions, and more.

But first, let's talk about common problems musicians face when it comes to understanding patterns.

Common Problems

1. Not knowing patterns even exist or how music works: A lot of "ear" musicians fall into this category. They are in an **unconscious incompetence** state (i.e. - "*don't* know what they *don't* know"). They approach everything randomly. They don't see the connection between one song and another or one major key and another. Every single chord is picked out one by one with no acknowledgement or understanding of chords that precede or follow the current one. This musician stands to gain the most out of understanding patterns.
2. Not understanding pattern relativity and how to think outside of the performed key: Because there are 12 different major keys (or "universes"), we tend to construct mental blocks that hinder us from seeing how two different songs contain the same patterns (because one song may be in the key of "C major" while the other song may be in "F major"). To the naked ear, the songs sound different because they are based in different keys or "universes." But to the musician who understands patterns and the universal and numerical way of looking at music (e.g. "The 1-chord going to the 4-chord")... they are not fooled. The songs sound the same, relatively. And to be able to recognize this is the end goal --- to be able to hear two totally different tunes in two totally different keys with perhaps even two totally different rhythms... and still know that the same

exact patterns are at work nevertheless. To know that, for example, the hit rock song, “Wild Things” uses the same exact patterns as “Lord I Lift Your Name On High” (a 1-4-5 pattern) is the goal.

3. Not understanding the flexible nature of patterns and how they allow for greater level of creativity: When you play by ear, you don’t have to play the same thing the same way every time. In fact, advanced ear players understand their limits and how far they can take a chord progression. Just because the chord progression uses a 1-chord and a 4-chord doesn’t mean you have to stick to that each and every time. Having a deep understanding of patterns lets you know you can slip a “5-1” progression in between the 1 and 4-chords creating a bigger progression or pattern: **1 - (5-1) – 4**. Truth be told, you can take it even further than that! This is something we’ll cover in detail in this guide.

Whether you’re stuck in a “*don’t know what you don’t know*” stage... or confused on how to relate patterns to each other in different keys... or trapped in a box and not able to use your creative juices to come up with different routes and outlets, this section will help you!

Why Understand Patterns?

1) It’s easier to learn songs using patterns versus chord-by-chord

If you train your ear to hear 2, 3, 4, or 5 chords at a time, you won’t have to spend time approaching each chord individually. And because most songs follow predictable, organized patterns, you’ll find that you won’t even have to learn anything new over time. Soon, the same patterns will be appearing over and over again in song after song.

2) You’ll be able to play in all 12 keys a lot faster

If you're looking at a string of chords as "6-2-5-1" in the key of C major rather than an "A minor" going to a "D minor" ... going to a "G major"... going to a "C major," you'll be at more of an advantage. By doing the latter, you're trapping yourself in the key of C major. By grouping these chords together, numbering them (according to the scale), and looking at them as one long chain, you've just freed yourself up to take this chord to any key instantly (assuming you know your "numbers" in all 12 keys and the equivalent chords ---- remember LAW OF 12!)

3) You can compose your own music

If you understand the patterns that govern most songs, what's stopping you from putting them to work for you in your own original music? Nothing! Simply do what every other modern composer does and borrow from the same pool of patterns everyone else uses. No need to reinvent the wheel once you literally understand the "WHEEL" (i.e. – the "circle of fifths"). Don't worry, we'll talk about it later on in this guide.

So let's move on to this first essential concept...

IMPORTANCE OF BASS

When you're listening to a song on the radio or on your favorite album, what you should be listening for is what the bass player is doing... the lowest note... the root note. (All of these names are different ways to say the same thing).

You're basically listening for the keynote of the chord at this point, not necessarily the chord itself.

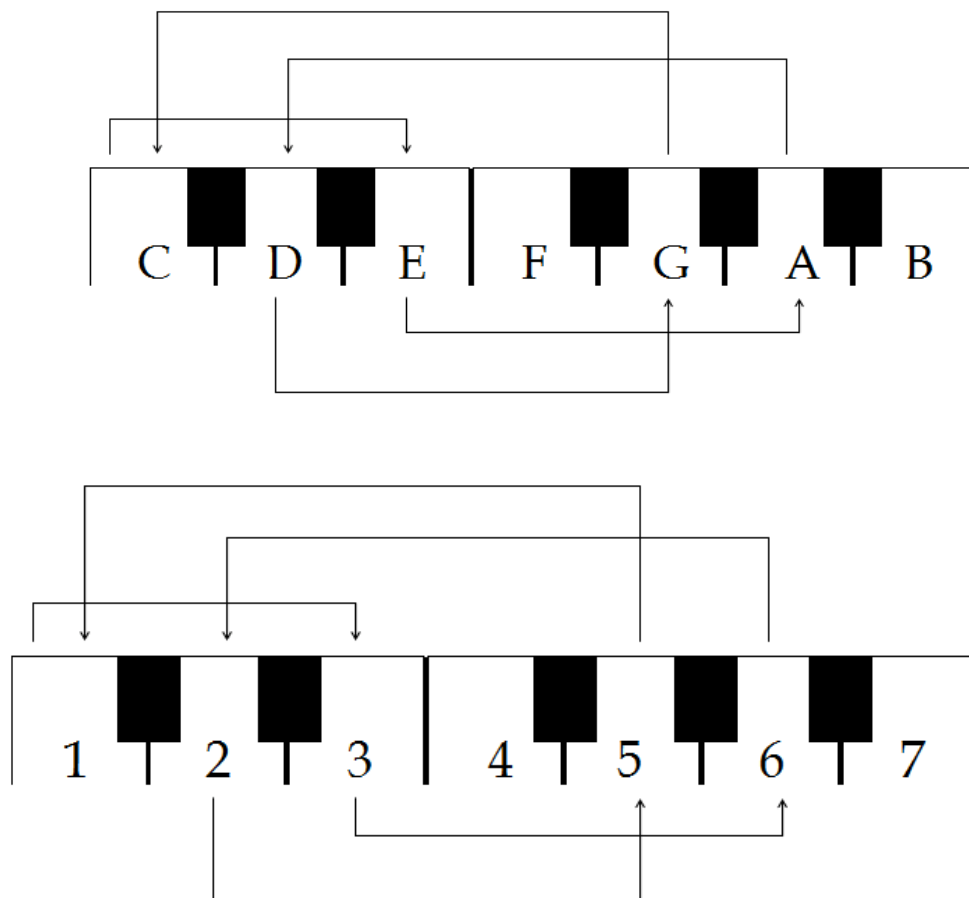
I know this can be difficult with so much going on in the song. There may be multiple keyboards, organ, horns, strings, percussion, etc etc. I totally understand.

But everything is working on top of the bass. It's not important right now what else is going on. Just follow the bass!

If you have to get some really good earphones with “bass boost,” get em’! If you’re a little technical and know how to adjust your EQ to make the bass louder, do it.

Finding the bass will lead to understanding what patterns are at work.

For example, if I hear the bass in a song going from C to E to A to D to G to C, and I’ve determined the song is in the key of *C major*, I’d immediately convert these “letters” into “numbers”: **1 – 3 – 6 – 2 – 5 – 1**. The numbers represent the *universal pattern*... not the letters. Numbers allow you to think of patterns irrespective of any given major key. Letters confine you to one particular key like “C major.”



And I'd probably sing the bass notes out as I play them. Instead of singing "C > E > A > D > G > C," I'd sing "1 > 3 > 6 > 2 > 5 > 1" as I hit those notes. (It is a good idea to make this a habit every time you learn a new pattern.)

Over time, this will get the sound of this pattern in my head so that when it occurs again, I might actually know all the tones without having to pick each one out. And as I get really good, I will even predict where the bass is going even while the song is still on the "3rd tone" of the scale, for example.

(In other words, if I just hear the 1st tone of the scale going to the 3rd tone... I'm already preparing my mind for the 6th tone next... and if the song goes to the "6th tone," because I've heard this movement before, I'm already preparing for the "2nd tone" next...

...Now, it may not always happen this way but more likely than not, it will. And by doing this with song after song, you'll build up a repertoire of patterns that you're able to recognize by ear and play on demand without having to learn anything new).

HOW TO DETERMINE CHORDS TO GO ALONG WITH THE BASS:

This question naturally arises next.

"So once I figure out the bass is using this pattern, '1 > 3 > 6 > 2 > 5 > 1,' what's next Jermaine?"

Great question. This is where we turn to what we call "**Diatonic Chords.**"

DIATONIC CHORDS

What would you say if I told you every tone of the scale naturally creates a chord that is most likely to be played whenever your bass lands on that tone?

In other words, if you've picked out a string of bass notes and one of them is the "2nd tone" of the scale, what if there was a chord you could automatically try first and it would work 80% of the time?

Well, this is no fairy tale. That's how music works.

On every tone of the scale, there is a chord that naturally occurs.

When we say "diatonic," it's just a fancy way to say "*related or created or belong to the major (or minor) scale.*" In our case, we'll stick with major scales for now.

In other words, the chords we'll put on every tone of the scale are derived from the
NOTES OF THE SCALE.

You won't find notes outside of the scale used in these diatonic chords. (That's not to say you won't play chords with notes outside of the scale. You certainly will as you start borrowing chords from other keys and using substitutions).

But whenever you see the term "diatonic," we're talking about tones and chords from the scale you're in.

So how do you find the diatonic chords of any key?

Simple.

We just make triads off each tone of the scale.

And if you remember how triads work, they are just thirds stacked on top of each other.

Major chords = major third + minor third
Minor chords = minor third + major third
Diminished chords = minor third + minor third
Augmented chords = major third + major third

We call chords made up of thirds **tertian chords**.

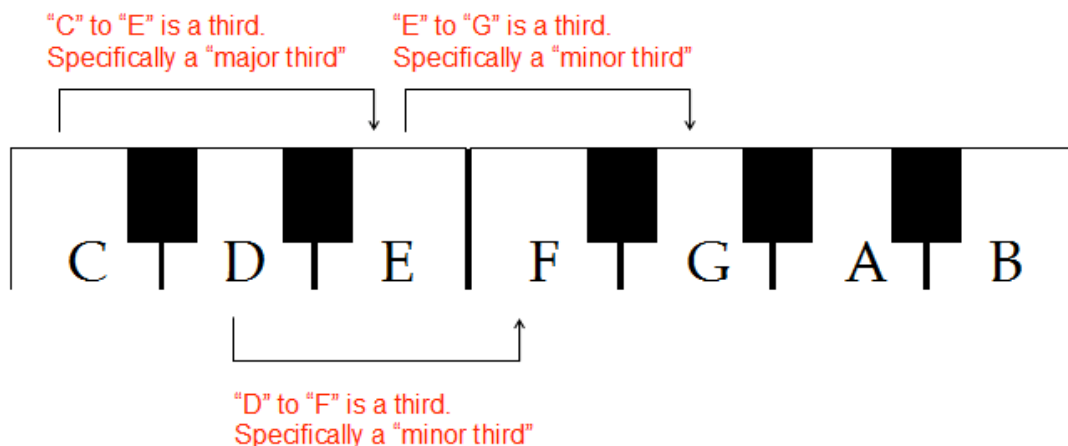
Majority of chords are tertian... or constructed using *thirds*.

Even the big chords... sevenths, ninths, elevenths, thirteenth. They are all third intervals stacked on top of each other.

Now, I could go on and on about generic vs specific intervals but I won't go there in this guide. But here's the shortcut...

TAKING EVERY OTHER NOTE OF THE SCALE WILL GIVE YOU THIRD INTERVALS

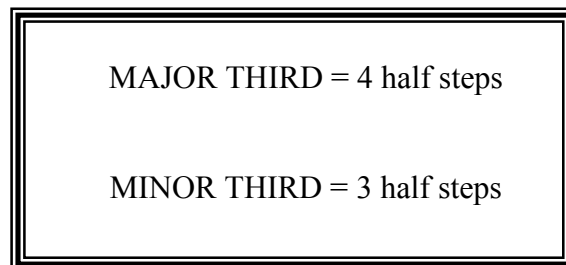
In fact, you can never go wrong using this method if you know your scales correctly.



Two rules to remember:

1) Any “THIRD” interval will always have 3 alphabet letters represented. Notice the distance between “C” and “E” encompasses or represents 3 alphabet letters: C, D, and E. While the “D” isn’t played, it’s still “inside” the interval. This is my quick way of explaining what “generic” intervals are. Just count up alphabet letters and you always know what generic interval you’re playing. In this case, taking every other note of the scale will create *thirds*.

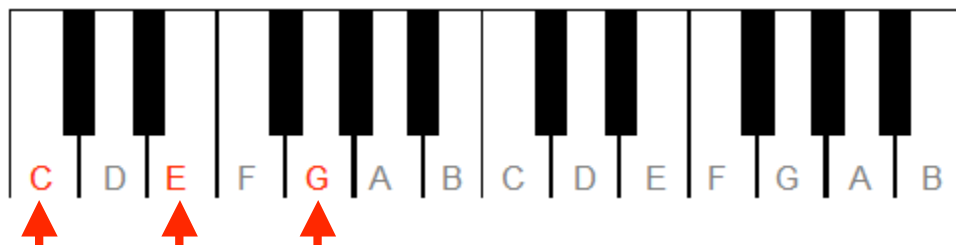
2) To understand what type of third (whether major third or minor third) requires counting half steps. We already know we’re working with a third because “C” to “E” represents 3 alphabet letters as we discussed above. But we still don’t know if it’s a major third or a minor third until we count the exact distance in half steps from “C” to “E.” **If a third interval has 4 half steps, it’s a major third. If it has 3 half steps, it’s a minor third.**



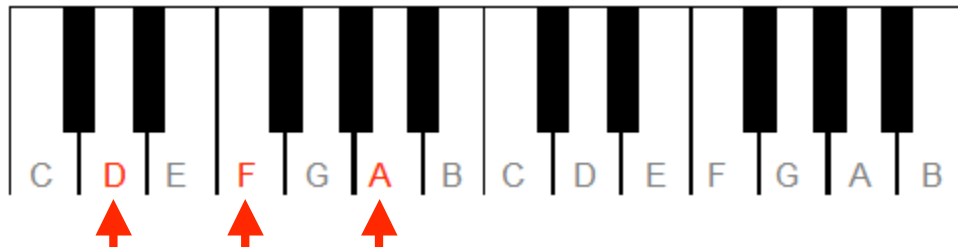
So, what do we get when we form a 3-note triad off every tone of the scale?

Answer: **The diatonic triads**

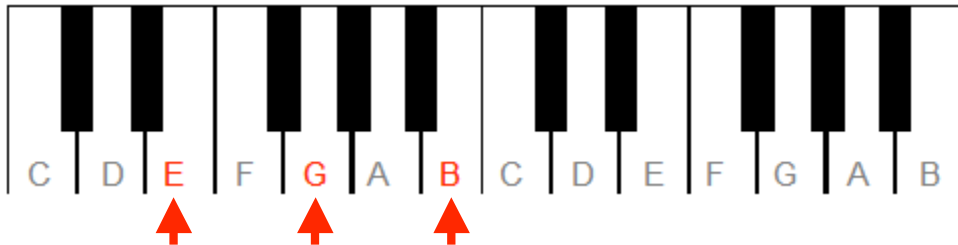
1st tone – Major chord: In the key of C, a “C major” chord is naturally created off the 1st tone of the scale.



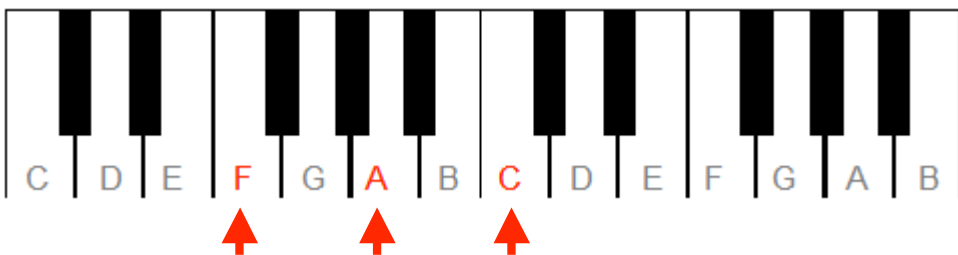
2nd tone – Minor chord: In the key of C, a “D minor” chord is naturally created off the 2nd tone of the scale.



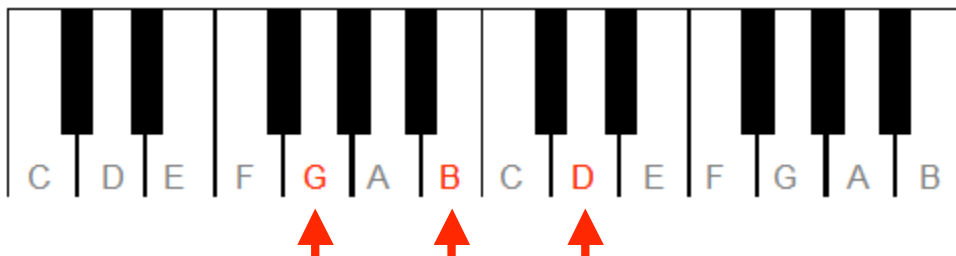
3rd tone – Minor chord: In the key of C, an “E minor” chord is naturally created off the 3rd tone of the scale.



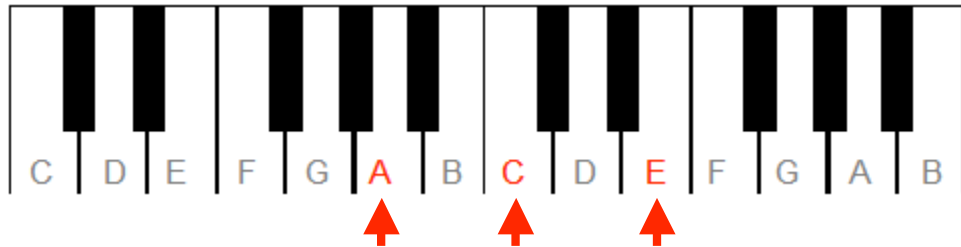
4th tone – Major chord: In the key of C, an “F major” chord is naturally created off the 4th tone of the scale.



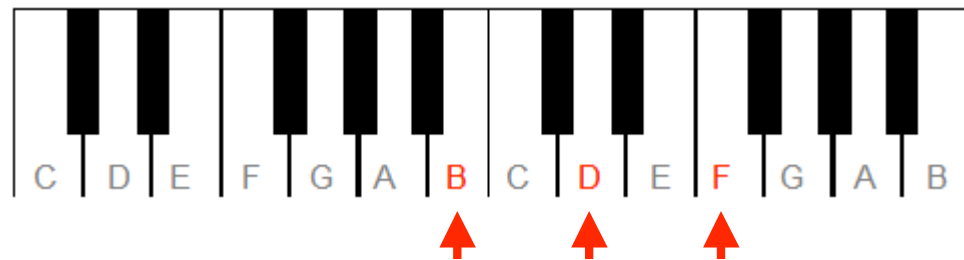
5th tone – Major chord: In the key of C, a “G major” chord is naturally created off the 5th tone of the scale.



6th tone – Minor chord: In the key of C, an “A minor” chord is naturally created off the 6th tone of the scale.



7th tone – Diminished chord: In the key of C, a “B diminished” chord is naturally created off the 7th tone of the scale.



What to do with this information:

Once you picked out your bass notes in any given key, these are the chords you’ll want to be thinking about first. Why?

Because they NATURALLY OCCUR in the major key.

They sound like they belong. In fact, we’ve been conditioned for years to hear diatonic chords. They are the chords that most likely occur on each tone of the scale.

If we’re in the key of C and we hear the bass going to “D” or “A,” chances are the chords on the right hand are going to be “D minor” and “A minor,” respectively... especially if the song sounds “typical” (or predictable).

The more predictable the song sounds, the higher the probability of diatonic chords being used. That's good news for you! Just pull out the right chord for the right tone of the scale and you're much of the way there!

Now, don't get me wrong...

You won't always play a minor chord on the 6th tone of the scale. Sometimes you may play a major chord there... or a dominant 7 chord. Or an altered chord.

The minor chord will work there MOST of the time... but not ALL OF THE TIME.

That's why your ear has to be good at hearing diatonic patterns apart from anything else. And any time a song sounds like it's doing something "different," that should signal a warning that says "try other chords."

And from that point, you'll just go down the list trying other chords like major, dominant, diminished, or whatever else you've accumulated from your studies. The good news is once your ear gets enough practice, much of this will be automatic!

Diatonic Seventh Chords

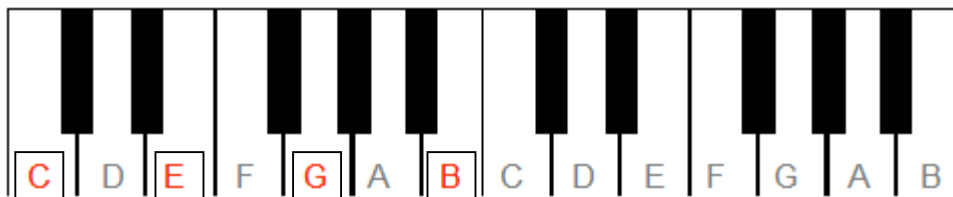
Of course, you can't use triads to play all your songs. Things will sound pretty basic.

So you can also apply the same concept to seventh chords.

What will result if you actually skip every other note just like you did before... but this time, add a 4th note?

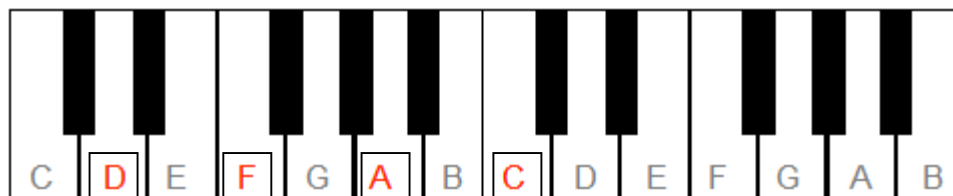
Answer: **You'll get the diatonic seventh chords.**

Note: 5 of the 7 triads we've already figured out will be the same when it comes to playing seventh chords. In other words, if you were playing a minor triad off the 2nd tone of the scale, now you'll simply be playing a minor 7th off the 2nd tone of the scale. The same thing happens with the 3rd tone of the scale. We simply "upgrade" the chord. Same thing with the 6th tone of the scale. In fact, every tone of the scale simply gets upgraded in the same way... **EXCEPT FOR THE 5TH and 7TH TONES.** And you'll clearly see why below:



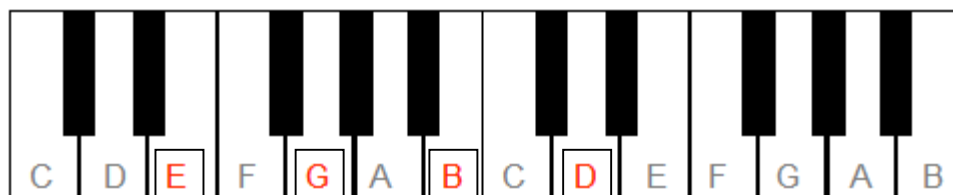
1st tone of any scale:
Major 7th chord

In C major = C major 7



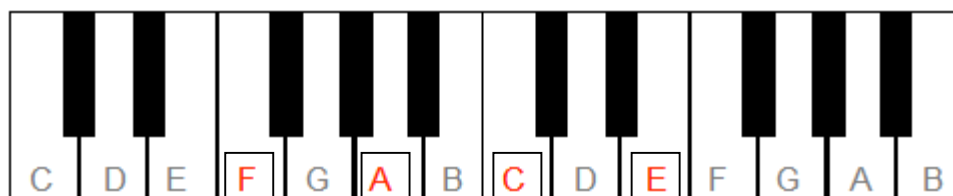
2nd tone of any scale:
Minor 7th chord

In C major = D minor 7



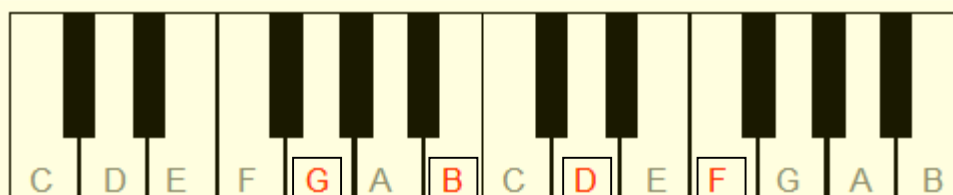
3rd tone of any scale:
Minor 7th chord

In C major = E minor 7



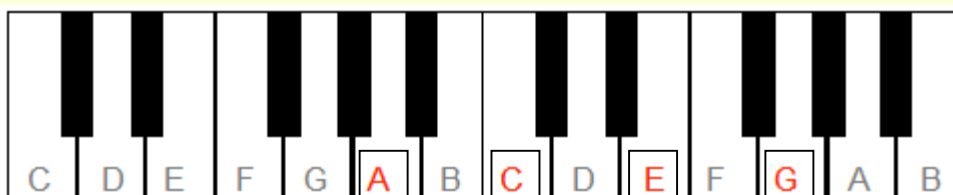
4th tone of any scale:
Major 7th chord

In C major = F major 7



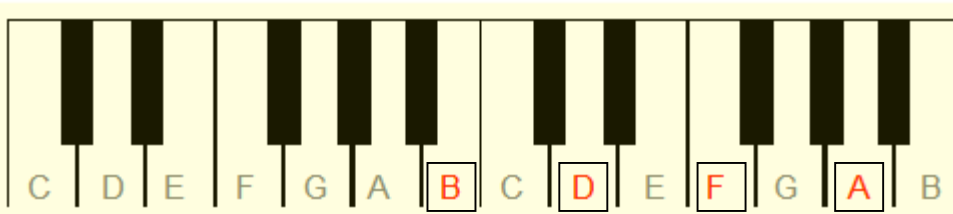
5th tone of any scale:
Dominant 7th chord

In C major = G7



6th tone of any scale:
Minor 7th chord

In C major = A minor 7



7th tone of any scale:
Half Diminished 7th chord

In C major = B half-dim 7

Let's turn our attention to the 5th and 7th tones of the scale.

When these diatonic chords were just 3-fingered triads, the 5th was a major chord and the 7th was a diminished chord.

However, when we added a "4th" note on top, these are the only tones that change qualities. In other words, the 5th tone of the scale is no longer major... it's a dominant 7th. Likewise, the 7th tone of the scale is no longer diminished; it's slightly different... what we call a half-diminished 7th chord. None of these chords should be new as we covered them in the chord section. But just remember to note this small nuance when switching between diatonic triads and seventh chords.

Don't be confused if someone says the 5th tone is commonly major or dominant. This is essentially what they're talking about.

Moving this concept to all 12 keys. Let's try the key of F major:

Scale tone	Diatonic triad	Diatonic seventh
F	Major	Major 7 th
G	Minor	Minor 7 th
A	Minor	Minor 7 th
Bb	Major	Major 7 th
C	Major	Dominant 7 th
D	Minor	Minor 7 th
E	Diminished	Half-Diminished 7th

Step #1 – Memorize the diatonic chord qualities off each tone of the scale:

- 1 – major
- 2- minor
- 3 – minor
- 4 – major
- 5 – major
- 6 – minor
- 7 – diminished

Step #2 – Just replace the numbers with the actual tones of the major key you’re in.

If this were G major, I’d just replace the numbers with the G major scale. G is 1, A is 2, B is 3, and so forth.

- 1 – G major
- 2 – A minor
- 3 – B minor
- 4 – C major
- 5 – D major
- 6 – E minor
- 7 – F# diminished

**Note: The same applies for diatonic seventh chords.*

EXERCISE

1) You hear a song in the key of C major going from the “2” to the “5” to the “1” to the “4”. What seventh chords are you going to consider first?

2-chord: _____

5-chord: _____

1-chord: _____

4-chord: _____

**2) You hear a song in the key of F major going from the “7” to the “3” to the “6”.
What seventh chords are you going to consider first?**

7-chord: _____

3-chord: _____

6-chord: _____

**3) You hear four chords: F major > A minor > Bb major > C7. What key is this song
probably in based on the chords that appear in this progression?**

A) What major keys have “F major?” _____

B) What major keys have “A minor?” _____

C) What major keys have “Bb major?” _____

D) What major keys have “C dominant 7?” _____

Answer: What ONE major key shows up for every single question you just asked yourself? _____

That's the answer!

Pareto "80/20" Principle

There was an economist back in the day who came up with a pretty unique principle. He said 80% of results happen from 20% of causes.

I know that can sound "deep" but let me break it down. Basically, the few "20%" create the 80%!

20% of the food places you probably like to go to 80% of the time.

20% of your clothes you probably wear 80% of the time while the 80% only get worn 20% of the time.

Same with music. 80% of what you play will keep coming back to the few "20%" of chords and patterns. Think of the diatonic chords this way.

They won't always be your answer but you'll get pretty close (80% in my estimation). So get good at picking out bass notes and immediately trying your diatonic chords right after.

Then, let your ear be the final judge of whether that's the right chord to play on that particular bass note.

If not, keep it moving! Try the opposite chord (if you're on the 6th chord and you know it's most likely to be minor... but minor doesn't sound right, try major.. then try dominant... or any of the popular altered substitutions you learned in prior sections).

Answers:
#1 – D minor 7 > G7 > C major 7 > F major 7
#2 – E half diminished 7 > A minor 7 > D minor 7
#3A – F major, C major, Bb major
#3B – C major, G major, F major
#3C – Bb major, F major, Eb major
#3D – F major

1 – MAJOR > 2 – MINOR > 3 – MINOR > 4 – MAJOR > 5 – MAJOR > 6 – MINOR > 7 – DIMINISHED

1 – MAJOR 7 > 2 – MINOR 7 > 3 – MINOR 7 > 4 – MAJOR 7 > 5 – DOM 7 > 6 – MINOR 7 > 7 – HALF-DIM 7

PRIMARY CHORDS AND SECONDARY CHORDS

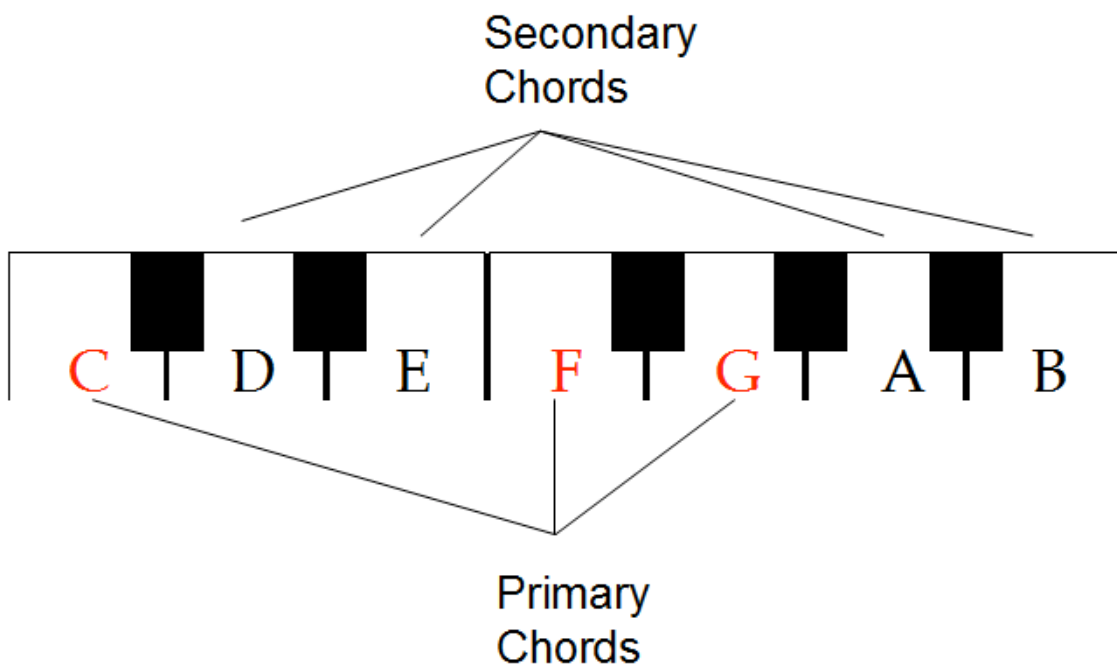
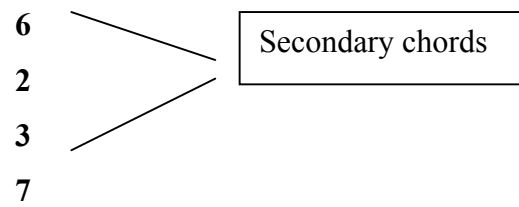
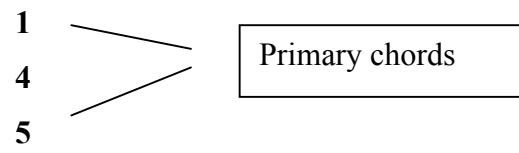
In any given key, all tones and chords are not created equal. Either they're primary chords or secondary chords.

Primary chords occur more often than secondary chords.

In fact, most songs can be played JUST WITH PRIMARY CHORDS (caution: they'll sound pretty basic like most nursery rhymes but the point is, it can be done).

In any key, the 1st, 4th, and 5th tones are primary. All other tones (2nd, 3rd, 6th, 7th) are secondary.

The reason the 1st, 4th, and 5th are primary has to do with *consonance* and *stability* (they carry less tension than the other tones... they sound very good progressing from one to the other... and the other tones are most likely functioning in a way that leads to one of these primary chords with the "1" being the chief at the top of the hierarchy).



SCALE DEGREE NAMES

(Excerpt from 300pg course)

Each tone of a scale can be identified by a name as well as by a **numbered** scale degree. The most important scale degrees are the same as those on which the primary chords are built: 1, 4 and 5. The three most important scale degree names are the **Tonic (I)**, **Subdominant (IV)** and **Dominant (V)**.

TONIC (I)

The keynote of a scale is called the **TONIC**. It is the lowest and highest tone of the scale. Since the tonic is the **1st** degree, it is given the Roman numeral **I**. In C major, C is the tonic note or chord.

DOMINANT (V) and SUBDOMINANT (IV)

The tone a 5th **above** the tonic is called the **DOMINANT**. Since the dominant is the **5th** scale degree, it is given the Roman numeral **V**. In C major, G is the dominant note (or dominant chord).

The tone a 5th **below** the tonic is called the **SUBDOMINANT**. Since the subdominant is the **4th** scale degree, it is given the Roman numeral **IV**. In C major, F is the subdominant note or chord. The prefix "sub" means under or below.

MEDIANT (III) and SUBMEDIANT (VI)

The tone a 3rd degree **above** the tonic (midway between the tonic and the dominant) is called the **MEDIANT** (a Latin word meaning "in the middle"). Since the mediant is the **3rd** scale degree, it is given the Roman numeral **III**. In C major, E is the mediant note or chord.

The tone a 3rd degree **below** the tonic (midway between the tonic and the subdominant) is called the **SUBMEDIANT**. Since the submediant is the **6th** scale degree, it is given the Roman numeral **VI**. In C major, A is the submediant note or chord.

SUPERTONIC (II) and LEADING TONE (VII)

The tone a 2nd degree **above** the tonic is called the **SUPERTONIC**. Since the supertonic is the **2nd** scale degree, it is given the Roman numeral **II**. In C Major, D is the supertonic note or chord. The prefix "super" means over or above.

The tone a 2nd degree **below** the tonic is called the **LEADING TONE** - sometimes called the **SUBTONIC**. Leading tone is most often used since the note has a strong tendency to "lead" to the tonic, as it does in an ascending scale. Since the leading tone is the **7th** scale degree, it is given the Roman numeral **VII**. In C major, B is the leading tone or chord.

In scale degree order, the name and Roman numeral of each scale tone is:

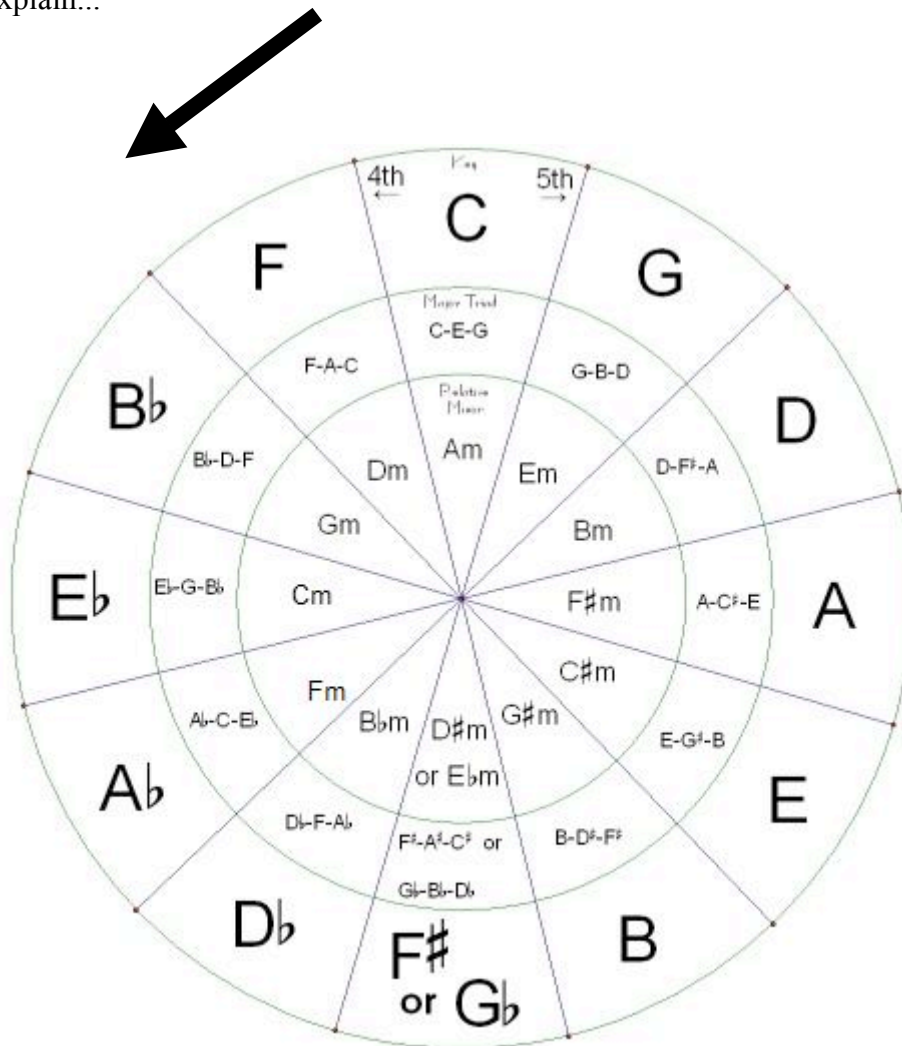


CIRCLE OF FIFTHS

This is the real secret to playing patterns by ear...

It's called the “**CIRCLE OF FIFTHS**” and if you use it, you'll notice most of the songs you play follow it.

Let me explain...



This chart is probably one of the most important things you'll ever learn when it comes to playing and recognizing patterns.

This chart basically organizes keys in **4ths and 5ths**.

For example, you'll see C at the very top. If you look to the right, you'll see G, which is a 5th up from C. (You can also simply look at this as G being the 5th of C major).

And it keeps going... ***D is the 5th of G major... A is the 5th of D...*** and so forth.

The REAL magic happens, however, when you go the OTHER DIRECTION. That is, from C to F to Bb to Eb and so on (like I illustrated above with the arrow).

THIS IS THE REAL FLOW OF MUSIC.

And I guarantee you, if you compare some of the songs you know, you'll find a lot of movement in accordance with this **circle of fifths** chart.

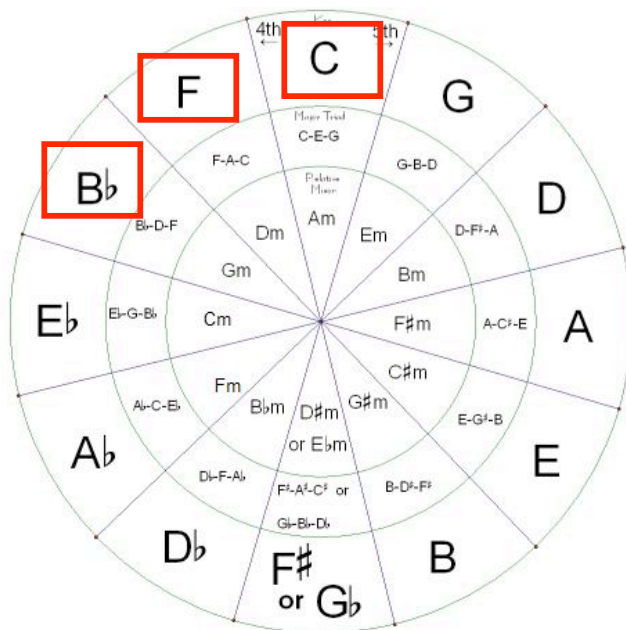
For example, a "2-5-1" is a common progression to end a song. You'll find it at the end of almost EVERY song you play. (It's that popular). In the key of C major, a "2-5-1" progression will use these bass notes: **D > G > C**.

Well... circle any three notes that are neighbors on this circle and there's your 2-5-1!

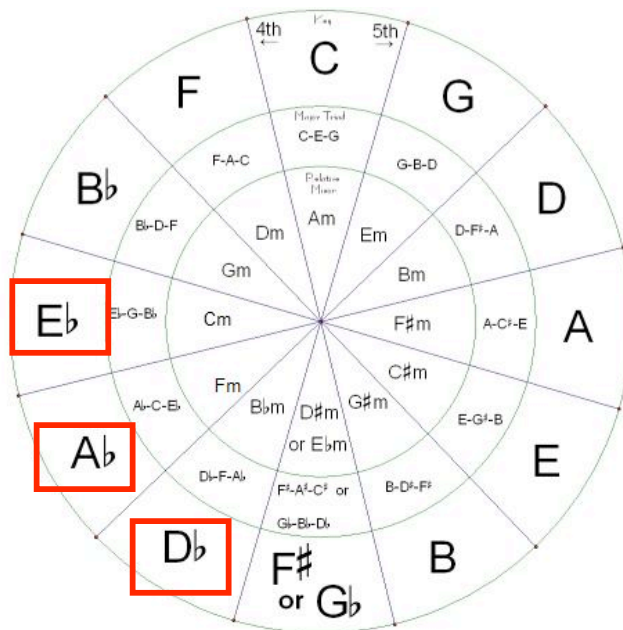
Go ahead! Try it!

Circle the keys of C, F, and Bb on the circle (remember... we're going COUNTER-CLOCKWISE... the opposite direction of how a clock would tick).

C, F, and Bb make up the keynotes of a "2-5-1" in the key of Bb major.



Circle another 3 notes... how about **Eb, Ab, Db**.



Those three notes make up a “2-5-1” chord pattern in the key of Db major. I mean, isn’t “**Eb**” the 2nd tone of the Db major scale? Isn’t “**Ab**” the 5th tone? Isn’t “**Db**” the 1st tone?

The circle of fifths simply does the work *FOR YOU*.

And this ties right into the previous section where we studied what chords work on each tone of the scale because once you figure out the keynotes for your “2-5-1,” just apply the right chords.

For example, when I circled Eb, Ab, and Db, that gave me a “2-5-1” in the key of Db major.

Eb _____ chord >>> **Ab** _____ chord >>> **Db** _____ chord

Using the information you just learned, ask yourself:

What chord is most likely to occur on the 2nd tone of the scale? According to what we just learned, a “**minor**” chord.

Ask the same question for the 5th tone. Answer = **major or dominant 7 chord**.

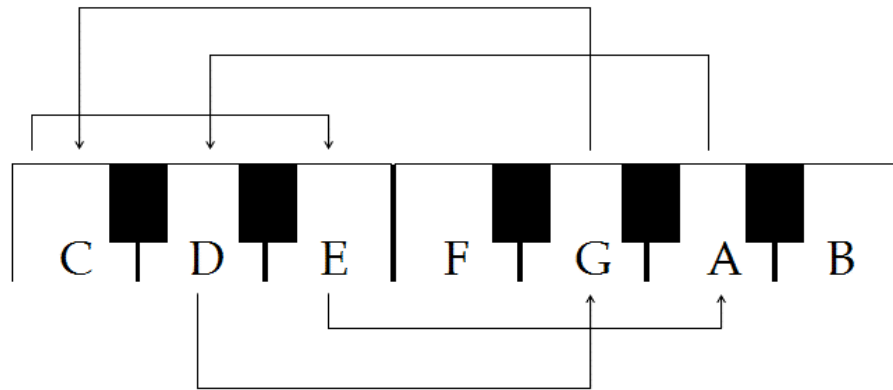
And ask the same question for the 1st tone of the scale (which is really easy because those are mostly ALWAYS *major chords*).

Eb minor or Eb minor7 >>> Ab major or Ab 7 >>> Db major or Db major 7
--

And the cool part is... if these chords don’t work, you can always change them around until you find the right chords that do.

For example, if the Eb minor chord doesn't sound right, I would probably try an Eb dominant 7 chord next as this would produce a more “bluesy” sound and sometimes you'll find that occurring on the 2nd tone of the scale.

At the end of the day, your ear is the final judge.

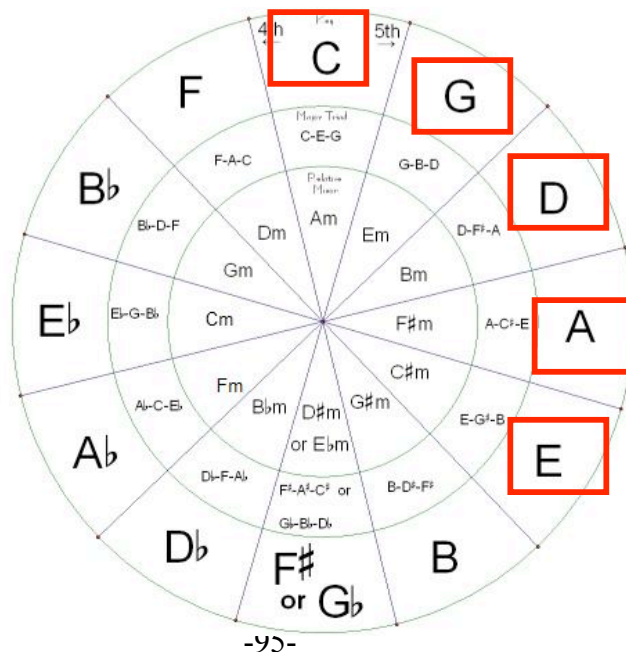


Remember this pattern we studied earlier? C > E > A > D > G > C.

Guess what? It's “circular.”

That is, most of it follows the *circle of fifths* pattern.

Just pop out your circle and find where these notes appear.

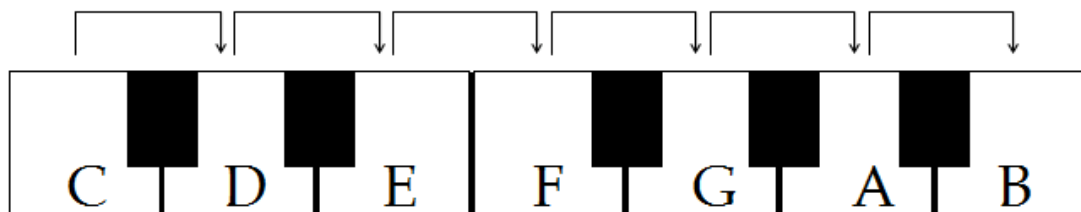


Amazing! They are all next door neighbors!

What if I told you most songs move in this same way? Again, we're back to pareto principle. I can't tell you if it's exactly 80% of songs but I'll estimate that majority of songs move in this SAME way --- circularly --- especially if they sound predictable and like *you've heard them before*.

In fact, I think it's more valuable to rearrange the notes of a major scale in fourths since songs are most likely to move in that direction.

So instead of thinking of the key of **C major** as:

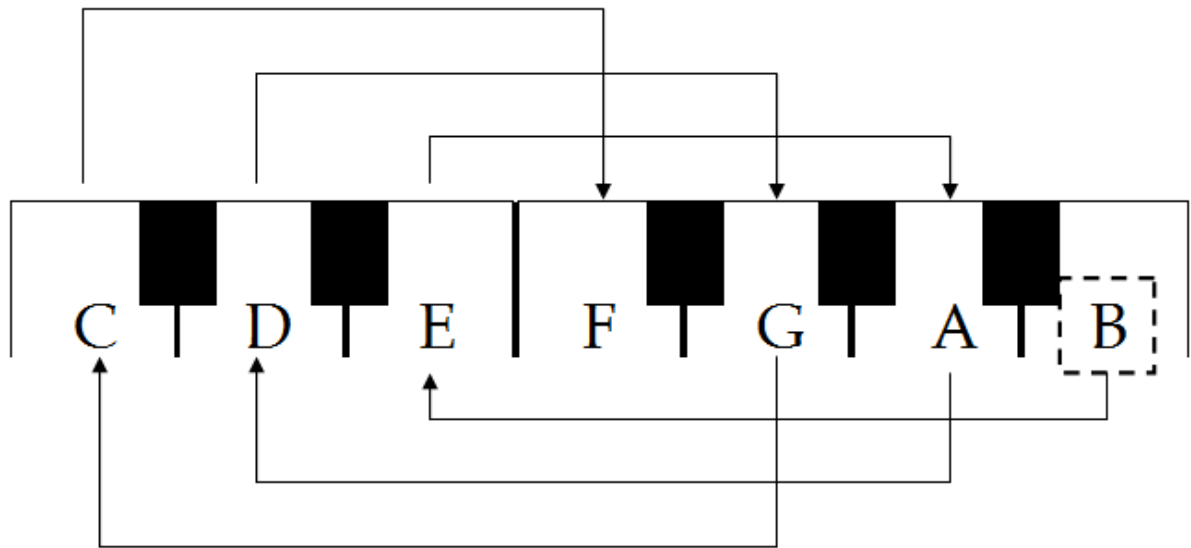


From **C** to **D**... **D** to **E**... **E** to **F** (basically the normal way of playing it: **C D E F G A B C**)

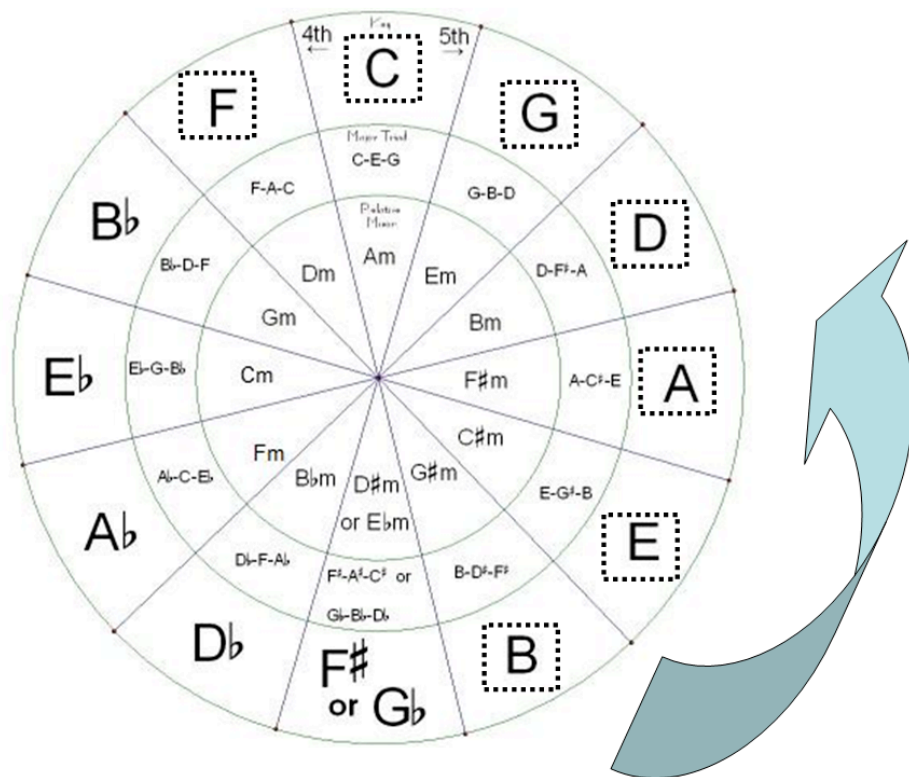
Here's another way to look at the major scale --- BUT THIS TIME, in the actual way most songs flow:

The "**C Circular Major Scale**" (my own term)...

$B > E > A > D > G > C > F$
$7 > 3 > 6 > 2 > 5 > 1 > 4$



I know this is way different than you're used to thinking about the scale... but basically, it's the EXACT NOTES (nothing left out) but simply played in the same order as the *circle of fifths*:



But here's the amazing part...

When you learn every major scale this way (which isn't hard because they all overlap), you're already training your brain to think in this new musical direction.

And since I estimate majority of songs move "CIRCULARLY" (in the same direction shown above), you are tapped into something that few musicians know or understand.

EXERCISE: *Predicting what chord or bass movement might occur next*

Based on what you know about the circle of fifths and how common this movement is, predict the "missing" notes of the progressions below:

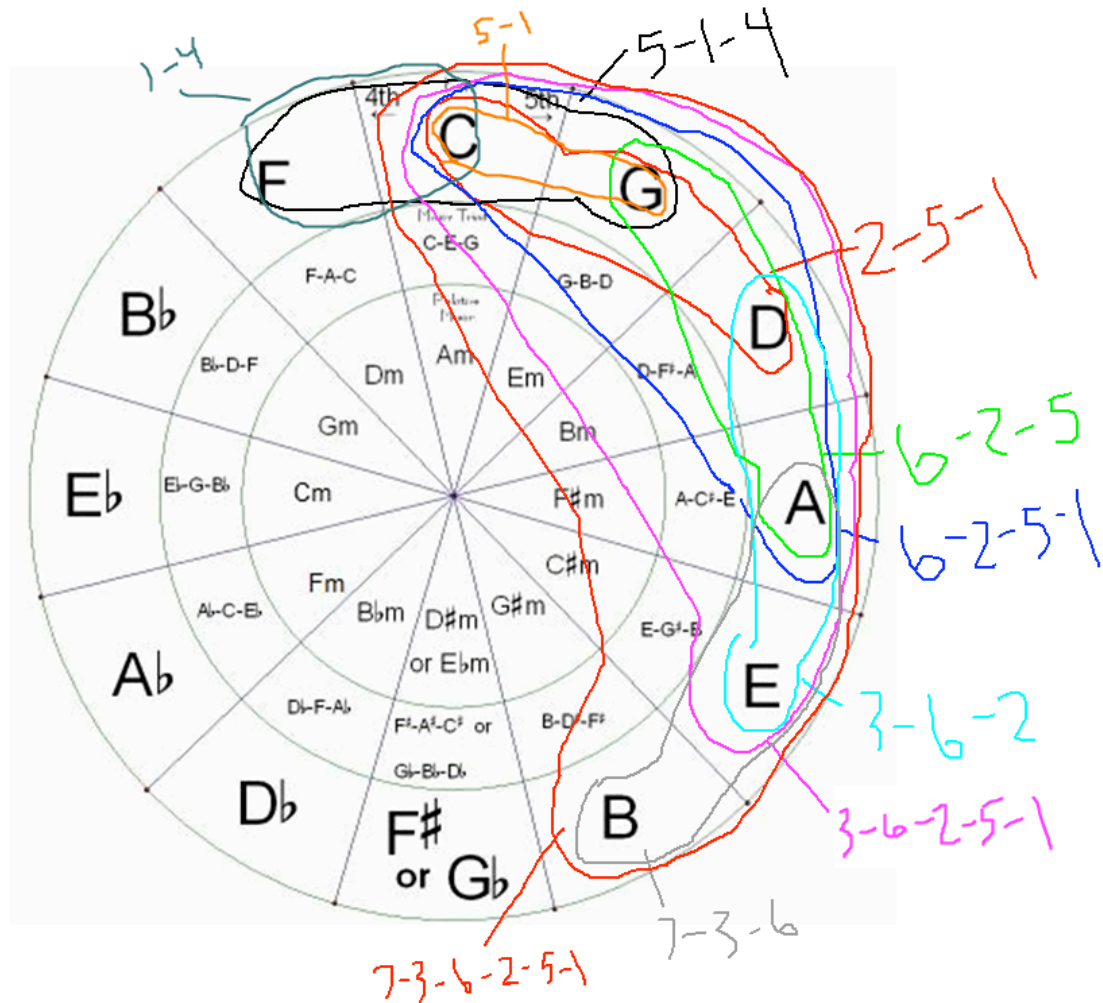
- 1) C > F > _____
- 2) A > D > G > _____
- 3) Bb > Eb > _____
- 4) Ab > Db > Gb > _____
- 5) D > G > C > _____
- 6) F > Bb > Eb > Ab > Db > _____
- 7) E > A > D > _____
- 8) B > _____ > A > _____
- 9) G > _____ > F > _____ > Eb > Ab > _____
- 10) Eb > Ab > _____

Answers:
1) C > F > **Bb**
2) A > D > G > C
3) Bb > Eb > **Ab**
4) Ab > Db > Gb > **B**
5) D > G > C > F
6) F > Bb > Eb > Ab > Db > **Gb**
7) E > A > D > G
8) B > **E** > A > **D**
9) G > C > F > **Bb** > Eb > Ab > **Db**
10) Eb > Ab > **Db**

COMMON CIRCULAR PROGRESSIONS

Here are the most common ones, demonstrated in C major.

(Sorry for the crazy pic. I'll explain...)



Basically, what I've handwritten (only for you... only for you) are all the major “circular patterns” that occur.

Of course there are more but these are the main ones:

- 1-4 (and 4-1)
- 5-1 (and 1-5)
- 5-1-4
- 2-5-1
- 6-2-5-1
- 6-2-5
- 3-6-2

- 3-6-2-5-1
- 7-3-6
- 7-3-6-2-5-1

Since this example is in the key of C major, here are the bass notes (keynotes) of these patterns:

- **1-4:** C > F
- **5-1:** G > C
- **5-1-4:** G > C > F
- **2-5-1:** D > G > C
- **6-2-5-1:** A > D > G > C
- **6-2-5:** A > D > G
- **3-6-2:** E > A > D
- **3-6-2-5-1:** E > A > D > G > C
- **7-3-6:** B > E > A
- **7-3-6-2-5-1:** B > E > A > D > G > C

Now, just apply the diatonic chords from above, keeping in mind that they work MOST of the time but not ALL the time. Use your ear to hear if other chords are more appropriate (see first section where I expounded on this).

- **1-4:** C major > F major
- **5-1:** G major > C major
- **5-1-4:** G major > C major > F major
- **2-5-1:** D minor > G major > C major
- **6-2-5-1:** A minor > D minor > G major > C major
- **6-2-5:** A minor > D minor > G major
- **3-6-2:** E minor > A minor > D minor
- **3-6-2-5-1:** E minor > A minor > D minor > G major > C major
- **7-3-6:** B diminished > E minor > A minor

- **7-3-6-2-5-1:** B diminished > E minor > A minor > D minor > G major > C major

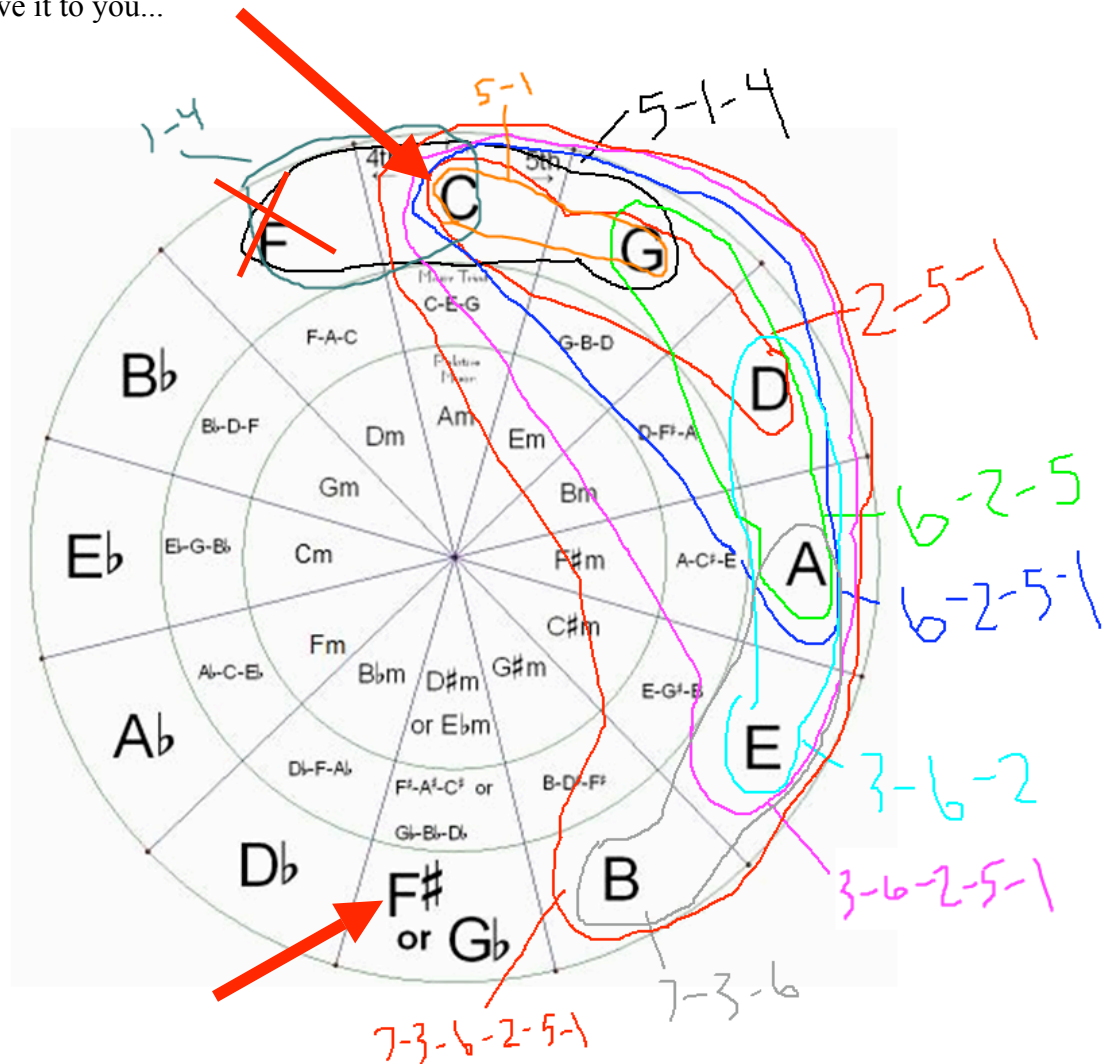
Here's the big secret:

If you just memorize the circle:

C > F > B \flat > E \flat > A \flat > D \flat > G \flat > B > E > A > D > G > C (repeat)

**THIS FLOW WILL ALWAYS BE THE SAME NO MATTER
WHAT KEY YOU'RE IN...**

Let me prove it to you...



Now I can't redraw this illustration (cuz it took long enough just to do this AND IT'S SLOPPY AS HECK!)... but if you want to find the same patterns in G major, which is directly to the right of C major, all you gotta do is shift everything I've done over to the right. In other words, instead of "B" being the last key circled, it will extend over to F#. And on the other side, the "F" will be kicked off since it's not in the key of G.

You get it? We've just redistributed things. If you do this on your own (just make your own chart or print one of my clean ones out), you'll notice that the patterns still look familiar. YES, they have different numbers now because we're in a new key but the FLOW is the same. B is still going to E... E is still going to A... A is still going to D... D is still going to G... and so on. We're just in a DIFFERENT WORLD with different roles.

Like myself --- I wear multiple roles... father, husband, son, grandson, nephew, teacher, etc. But I'm still Jermaine Griggs.

This flow never changes... C always leads to F... *don't matter what key you're in*. F always has a tendency to lead to Bb... no matter what key.

FOURTHS are powerful. They keep their bonds in every key. Yes, they change roles. A "2-5-1" in one key is a "3-6-2" in another... but the flow is the same. And as you practice these patterns more and more, it will CLICK for you. And when it does, you better watch out! You'll be a force to be reckoned with!

To be honest, if you just focused on circular progressions, it will keep you busy for a while. But when you're ready, move on to stepwise motion patterns (which we'll talk about next after this exercise below)...

ANOTHER EXERCISE: Answer the following questions concerning the multiple roles "circular progressions" play in various keys.

1) A “2-5-1” in C major will be what type of progression in F major?

2) A “1-4” in Ab major will be what type of progression in Db major?

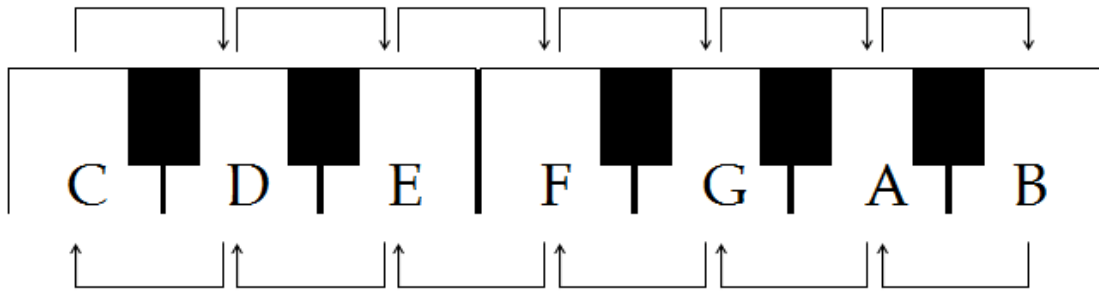
3) A “6-2-5-1” in A major will be what type of progression in D major?

4) A “7-3-6” in F major will be what type of progression in G major?

Answers:
1) D - G - C (2-5-1) in C major would be a 6-2-5 in F major
2) Ab - Db (1-4) in Ab major would be a 5-1 in Db major
3) F# - B - E - A (6-2-5-1) in A major would be a 3-6-2-5 in D major
4) E - A - D (7-3-6) in F major would be a 6-2-5 in G major

STEPWISE MOTION

Whereas circular progressions move in accordance with the circular of fifths, stepwise motion simply moves up and down the major scale, step-for-step (which ends up being either whole steps or half steps).



Example: “*Lean on Me*” in C major (bass notes)

“When – you’re – not – strong. I’ll – be – your – friend”

C D E F F E D C

See how the bass notes moved in steps?

Eventually, your job is tackle those too... IN EVERY KEY.

- Focus on dissensions. Like 1-7, 7-6, 6-5, 5-4, 4-3, 3-2, 2-1.
- Then on ascensions. Like 1-2, 2-3, 3-4, 4-5, 5-6, 6-7, 7-1
- Then on combinations. Like ballads: 1-7-6-5-4-3-2-5-1 (Believe it or not, just this string of bass notes work for “Jesus is the Answer,” “No Weapon,” “Jesus is Love,” and many more. HINT: Use diatonic chords on these tones and you’ll be able to play all these songs).

MIXING STEPWISE MOTION AND CIRCULAR PATTERNS

Say you've picked out the bass to a song in the key of C.

Say your bass is:

C > B > A

That means it starts on some type of chord on **C**... then moves to some type of chord on **B**... then finally to some type of chord on **A**. That's clearly stepwise motion. C moving right next door to B... and B moving right next door to the next tone of the scale, A.

Knowing what you know about circular movements and how great they sound, you can insert chords into this progression and it would sound even better!

Why don't we add "**E**" after the "**B**?"

Why?

Because if you look at the circle of fifths, "**E**" is actually in between "**B**" and "**A**."

B > E > A > D > G > C > F
--

At the moment, the song is going from B to A, which is fine. It's just moving down the C major scale, which happens a lot too (i.e. "stepwise motion").

But if we wanted to make this progression more appealing, we could insert some type of "**E**" chord after the B chord and it will give us an even stronger connection to the A chord.

C > B > E > A

This is exactly how gospel songs like “*Thank You Lord*” work.

Keep in mind that we are just talking about bass notes. We haven’t established any specific chords yet.

But if we wanted to establish chords, we would simply ask our self: “*Self, what chords are most likely to occur on these tones of the scale?*”

And based on previous training (see P.P. – “*Pattern Proficiency*”), you’d know that these chords could work:

C major 7 > B half-diminished 7 > E minor 7 > A minor 7

Note: I’m just using the chords that naturally occur on these tones of the scale.

If I wanted to change things up a little bit, I’d probably change the “E minor 7” chord to a dominant-sounding chord.

When you use dominant “bluesy” sounding chords, they always **STRENGTHEN** the connection between whatever chord comes next in the circular pattern.

When you substitute dominant chords for minor chords (that would normally occur on the 2nd, 3rd, or 6th tones), we call them **SECONDARY DOMINANTS**.

So by changing this to “E7” (E dominant 7), now we have an even stronger push to the next chord:

C major 7 > B half-diminished 7 > E 7 > A minor 7

So that’s all the “knowledge” part of the equation.

It takes the ear to actually hear that the “E7” works better than the “E minor 7.” And if both can work, simply use one the first time around and use the other option when you repeat the song...

PLAYING BY EAR IS ALL ABOUT HAVING OPTIONS.

EXERCISE: Answer the following questions:

1) In the key of C, if the bass was going from C to G and you wanted to add a chord in between, what would be your best choice (remember the circle of fifths)?

2) In the key of F, if the bass was going from F to E to D, what could you insert between the “E” and “D” to make the progression more interesting?

3) In the key of Bb, if the bass was going from Bb to G, what could you insert between these two chords to make the progression more interesting?

Answers:
1) Some type of chord on D ... like D minor or possibly substitute D major or D7
2) Some type of chord on A ... like A minor or possibly substitute A major or A7 or an altered chord.
3) Some type of chord on D ... like D minor or possibly substitute D major or D7

3-4 PRINCIPLE

This was a concept I first introduced in GospelKeys 202.

At the end of the day, it gets you the same result as the circle of fifths.

RULE: If you're on a particular tone of the major scale and you want to know what tone will commonly come after your current one, either go UP 3 scale tones or DOWN 4 scale tones. That's why I call it 3-4 principle.

CAUTION: Don't count the tone you're on... just the "movement." So if you're in the key of C major and you want to know what tone C is most likely to progress to (or which tone it has the strongest connection to), just count UP 3 scale tones.

C >> D (+1) >> E (+2) >> **F (+3)**



F is the answer.

Likewise, you can get the same answer going DOWN 4. It's up to you which way you wanna go.

F (-4) << G (-3) << A (-2) << B (-1) << C



You can also use math.

If you're on the 1st tone of the scale. Just add 3.

$$1 + 3 = 4$$

In plain English, the 1 is most likely to move to the "4."

If you're on the 6th tone of the scale, you can add 3 or subtract 4.

(My rule: When doing it this way, I typically don't want my answer to go above 7, since there are 7 unique tones in the scale. So that's when I'll subtract 4. Either way, you'll get the same result... as $6+3 = 9$... which is the same as the 2nd tone of the scale... $6-4 = 2$).

Just another way to look at things. Again, if you understand and memorize the circle of fifths, you don't even have to think about the 3-4 principles. But, on the other hand, there are some cool insights that may result from looking at patterns from this perspective.

CONCLUSION

Now, here's one last tip...

When a collection of chords sound really good and are almost predictable even before you hear them (there are many songs like this), chances are it's moving in a **circular fashion**.

When it sounds like something you've heard before... when the pattern is just very familiar to you... then it's probably circular.

You can probably pick out the bass notes by literally taking out a few chunks of the circle. Seriously.

Now, of course, the circle doesn't ALWAYS work. Notes skip around. Passing chords are injected between "main" movements.

But it's usually at work under the hood and at least if you take the time to understand it, the "ear" part of playing will come a lot easier.

In tennis, I'm told a lot has to do with mental strategy.

Yeah, you may be able to hit the ball hard by brute strength.

But the best players are strategic.

The same thing is true when playing by ear. You can kill yourself trying to pick out every little thing, note for note, bass for bass, chord for chord... but you'll become exhausted and discouraged.

Pattern Proficiency is all about focusing on and building your pattern recognition skills.

When you combine these four steps (Finding the key, number system, chords, and patterns), there's no way you can't succeed in playing by ear.