

#### Non-Linear Piano Basic

(selected excerpts and cheat sheets from "Non-Linear Piano Deluxe")







#### **Practice Rules**

Good practicing is simply setting up good habits. Of course, setting up bad habits during practice will actually make you a <u>worse</u> musician! Here are some guidelines to avoid bad habits:



**1. Don't sound good**—once you can play a song (or part of a song) smoothly, it's time to move on and practice something else. Sounding good during practice time is a sign that you're probably "playing" instead of "practicing".



**2. Always count out loud**—if you don't count and you practice with the wrong timing, it's going to be nearly impossible to re-learn the right rhythm!



**3. Sing everything you play**—if there aren't words, sing "la la", but this ear training is nearly as important as anything else you're going to practice.



**4. Always use proper technique**—curving your fingers on the piano, alternating fingers on the bass, proper fingering on any instrument...it's all a matter of habit. If something else feels more natural, that's proof that you need to practice good technique MORE, not less!



**5. Play a song like a song**—it must sound like music! ...not just notes. Care about the song as if you are the one who wrote it. Give it feeling! From "*Mary Had a Little Lamb*" to "*We Are The Champions*", force yourself to care just for the time you're playing, and practice like a rock star every time!



**6. If you're unsure, write it in—**whether it's counting or note names or directions about how to play, no good musician leaves the sheet unmarked



**7. Call**—find a good music mentor, and ask them questions until they tell you to stop! If you're practicing your instrument, they will only become more excited with each question instead of more annoyed.

# **Assignments**



Keep track of your lesson assignments here. After a few months, you should be able to look back and see how much progress you've made!

Date	Assignment

#### Struggle Time Log

Real practice is hard work. Fill in the number of minutes you spend struggling to get just a little bit better at your assignment. Each week, write how many minutes you hope to practice. Fill in the names of the days after your lesson and then record how many minutes you practice each day. At the end of the week, total your time and adjust your goals for the next week.

Goal	Post-lesson	day	day	day	day	day	day	Pre-lesson	Total

# Repertoire: Performing & Recording Log



As you progress, it will usually be important for you to perform—first for small groups, then for larger audiences. Write the dates you perform for different sized groups. Once you've performed them several times, it will be time for you to get help from your teacher to record them.

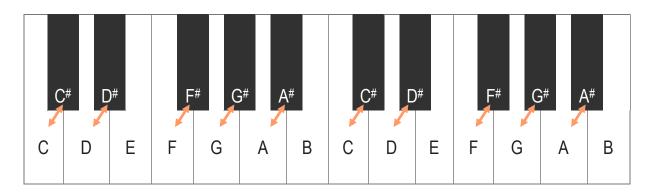
Title	Memorized	Under 5	10-20	Over 20	Recorded

#### The Black Notes: Sharps & Flats

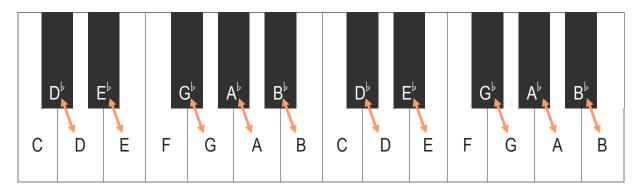
The black notes are known as sharps (using the # symbol, as in  $C^{\#}$ ), or flats (using the  $^{\flat}$  symbol, as in  $D^{\flat}$ ).

The sharps move the note slightly to the right:





...while the flats move the note slightly to the left.



You may have noticed that every black note has 2 names.

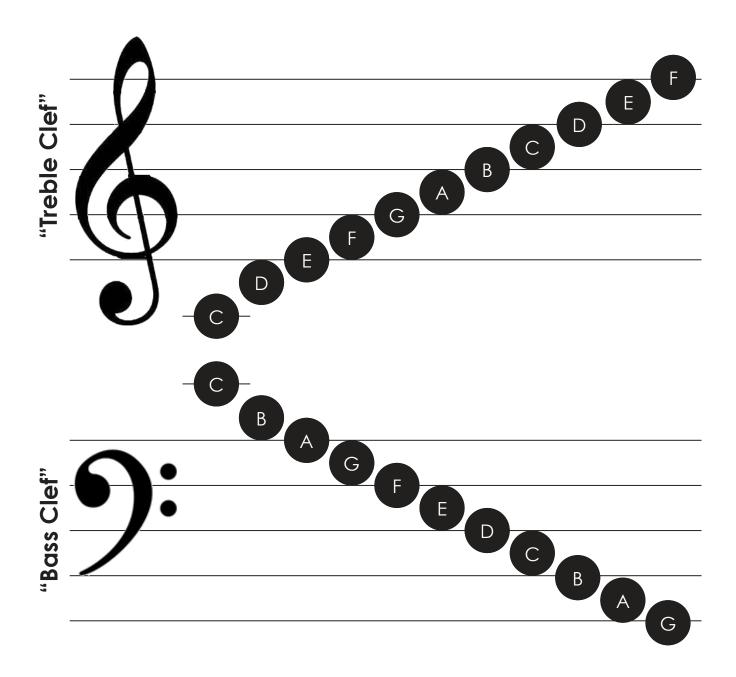
For example, on a group of two black notes,
the left one could be called C# or D\(^\text{.}\)

Both are correct, so we say that C# and D\(^\text{.}\) are
"enharmonic equivalents"
meaning the two names actually refer to the same exact note.

#### Cheat Sheet for Notes on the Staff

Here are all the names of the notes, as you'll see them on the lines and spaces of the musical chart, called the "Staff", which is made up of the treble clef (top) and bass clef (bottom).



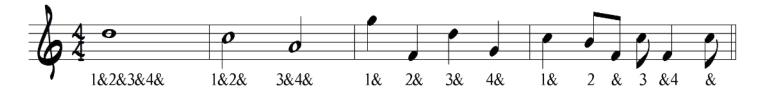


#### Note Types and Values

How do you know <u>when</u> to play each of the notes, especially if you've never heard the song you're playing? If you're reading sheet music, you can tell by the <u>type</u> of note you're looking at. These rhythms are the same on all instruments:

NAME	NOTE	LENGTH OF NOTE (Counted in "beats")	Example of the counts the note would receive
Whole Note	O	4	" <u>1&amp; 2&amp; 3&amp; 4&amp;"</u>
Half Note	o or o	2	" <u>1&amp; 2&amp;</u> " or " <u>3&amp; 4&amp;</u> "
Quarter Note	• or •	1	" <u>1&amp;</u> " or " <u>2&amp;</u> " or " <u>3&amp;</u> " or " <u>4&amp;</u> "
Eighth Note	or or J	1/2	" <u>1</u> " or " <u>&amp;</u> " or " <u>2</u> " or " <u>4</u> "

By counting "1 & 2 & 3 & 4 &" evenly throughout the song, you can put each note exactly in its place, even if you've never heard the song before. Each thing you say is worth half of a beat, so a quarter note, for example (worth one whole beat...or two halves) would be held down while you said "1 &" or "2 &", etc. Here's an example of how you should count sheet music:



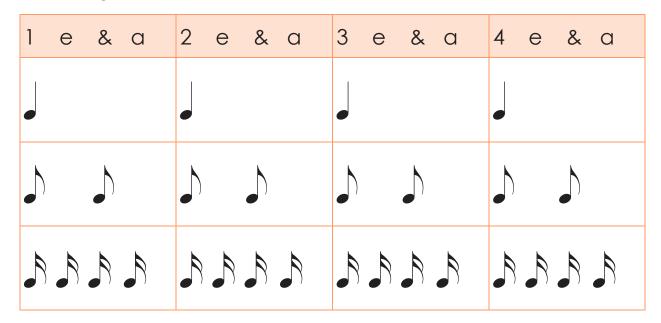
**NOTE**: \*The position of the notes do not affect how you count them. \*\*Most songs get counted "1&2&3&4&"

#### 16th, 32nds, and Infinity

Notes can be very short! Quarter notes have no flag and are worth an entire beat. Each time a flag is added, the note is half as big (twice as fast), and the name is the fraction that is half as big. So, 1 flag is an eighth note, 2 flags is a sixteenth note, 3 flags is a thirty-second note, 4 flags is a sixty-fourth, and so on.

When we count with only quarter notes, we count "1,2,3...". When we add eighth notes, we 'sub-divide' each beat, so each eighth note has its own place by counting "1&2&3&...". With sixteenths, we count "1e&a2e&a..."

We rarely see notes smaller than 16ths, so there is no standard counting for 32nd notes and smaller.

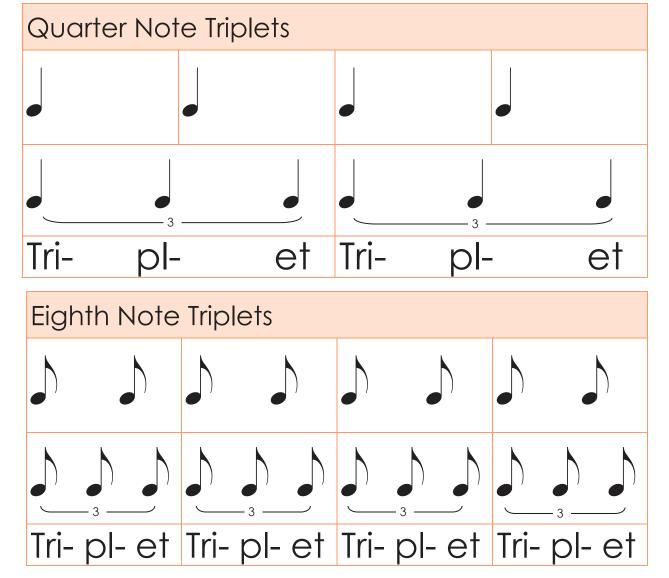


Usually, when several short notes are strung together, bars connect them, replacing the flags. 1 bar = 1 flag, etc. Here's an example of how to count a passage with 16th notes:



#### Triplets\*

There are times when a note's value is not what it appears. When a set of 3 notes has a bracket over them and a "3", you are supposed to cram those three notes into the space that two of them would usually take. Those three notes are called "triplets". We usually count them using some three-syllable word or phrase. Common counting phrases include "one-trip-let" or "bu-bble-gum", or like we used below, plain old "tri-pl-et".



\*Triplets fall into the category of "tuplets", which can be a group of any number of notes, all crammed into a smaller space than normal. Tuplets are determined by the number placed on them. In the case of triplets, that number is a "3", but that number could be anything. There are tuplets with 5 notes or 6 notes or 7 notes or...

#### Rests

The pauses in music are indicated by 'rests'. When you see a rest, you count it just like a regular note, but you play nothing. Just like with the very short notes, you can keep adding flags to the rests to make them shorter and shorter.

Name	Value	Note	Rest
Whole	4	o	
Half	2		
Quarter	1		\$
Eighth	1/2		4
Sixteenth	1/4		7

Here's an example of how to count a passage with 16th rests:

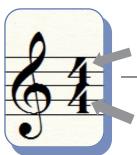


#### Setting Up a Groove (Time Signatures)

The most significant part of the way a song "feels" is the time signature. It tells every musician how they are supposed to count.



The time signature is found at the beginning of the song. It always has two numbers, one on top of the other.



How many The top number is what you're supposed to count to before starting over (or how many beats are in each measure). When it's a 4, you count "1 2 3 4, 1 2 3 4, 1..."

What kind

The bottom number tells what kind of note you're counting (or what kind of note gets 1 beat). When it's a 4, a 1/4 (quarter) note gets one beat; when it's a 2, a 1/2 (half) note gets one beat, etc.

### It always makes more sense with more examples:









This is "4, 4 time" and we can fit 4 (top number) quarter notes (bottom number) in each measure.

This is "3, 4 time" and we can fit 3 (top number) quarter notes (bottom number) in each measure.

This is "6, 8 time" and we can fit 6 (top number) eighth notes (bottom number) in each measure.

This is "2, 2 time" and we can fit 2 (top number) half notes (bottom number) in each measure.

4-4 time is the most common time signature. In fact, it's so common that sometimes, instead of writing two 4's, they just put a big "C" that stands for "common time."

3-4 time is the time signature for all waltzes. It always feels like "oom-pahpah, oom-pah-pah", where beat one is very 'heavy', and beats 2 and 3 just feel like light 'decorations'.

6-8 time can fit the same types of notes as 3-4 time, but 6-8 has a strong emphasis half way through the measure (on beat 4), so the measure feels like it definitely has two distinct halves.

2-2 time, also called "cut time", is usually pretty fast (not because of the time signature, it's just most people's preference). This is frequently used in marches (like a marching band would play).

#### Hearing and Recognizing Intervals

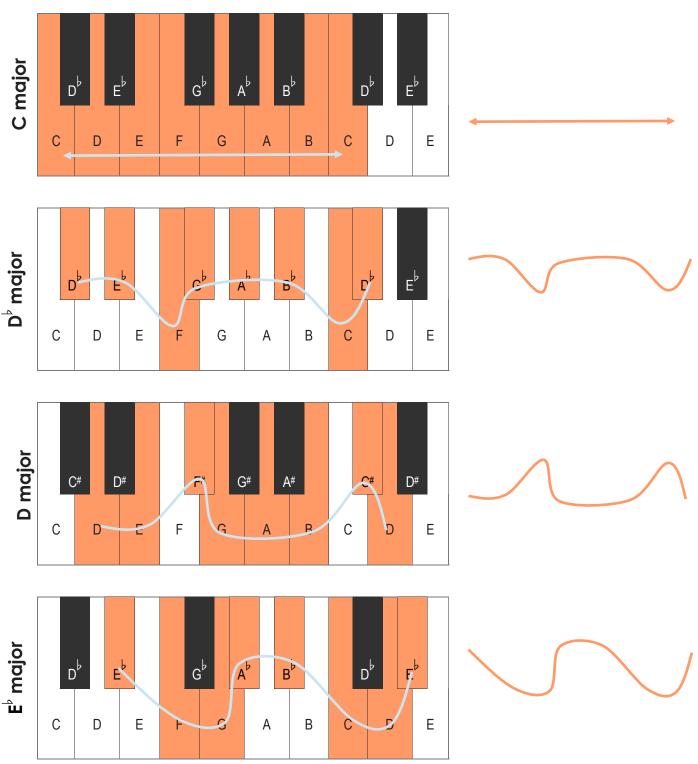
A good musician can hear any two notes and know exactly how far apart they are. (The distance is called an "interval".) One method of developing this skill involves hearing the interval as the beginning of a familiar song. For example, "Amazing Grace" starts with a perfect 4th, so if you hear two notes that sound like "Amazing Grace", you know it's a perfect 4th. With some practice, you can do it too. Here are just a few popular examples:



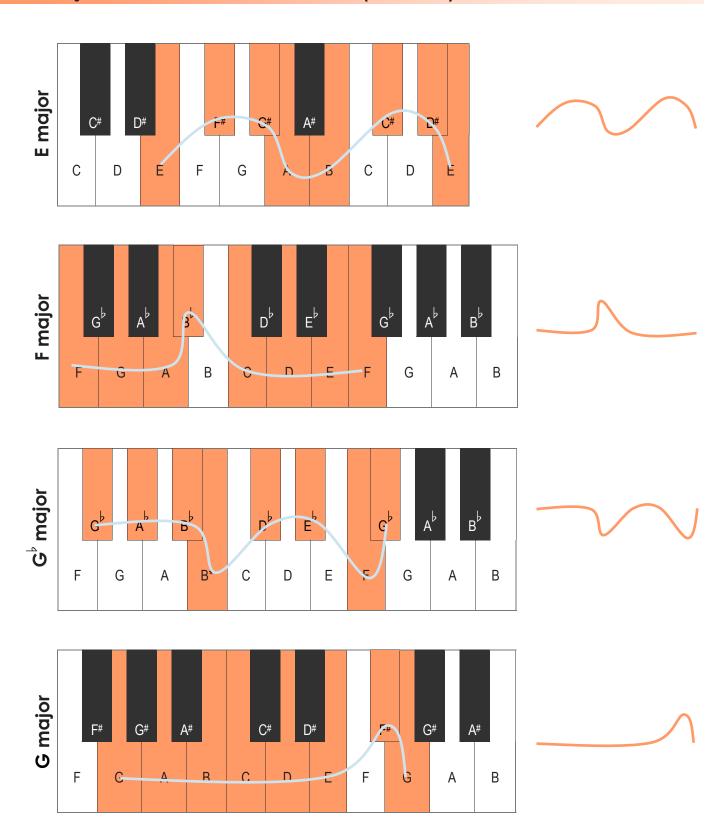
Name	Distance (in half-steps)	Example 1 (Going up)	Example 2 (Going down)
Minor 2nd	1	C up to C# "Jaws" "Pink Panther Theme"	C down to B "Fur Elise" "Joy To The World"
Major 2nd	2	C up to D "Frere Jacques" "Rudolph the Red-Nosed…"	C down to B <sup>b</sup> "Mary Had A Little Lamb" "Deck the Halls"
Minor 3rd	3	C up to E <sup>b</sup> "Greensleeves" "Axel F" Theme Song	C down to A "This Old Man" National Anthem
Major 3rd	4	C up to E "Kumbaya" "Oh When The Saints"	C down to A <sup>b</sup> "Summertime" "Swing Low, Sweet Chariot"
Perfect 4th	5	C up to F "Here Comes The Bride" "Amazing Grace"	C down to G "George of the Jungle" Theme "I've Been Workin' on the Railroad"
Tritone (diminished 5th) (augmented 4th)	6	C up to F# "Simpsons" Theme "Maria" West Side Story	C down to F# "Black Sabbath" "YYZ" (by Rush)
Perfect 5th	7	C up to G "Star Wars" "Raindrops on Roses And"	C down to F "Oompa Loompa" "Flinstones"
Minor 6th	8	C up to A <sup>b</sup> "In My Life" Intro (Beatles) Valse Op. 64 No. 2 (Chopin)	C down to E "Love Story" "You're Everything" (Chick Corea)
Major 6th	9	C up to A "My Bonnie Lies Over" "Dashing Through The Snow"	C down to E <sup>b</sup> "Nobody Knows the Trouble I've Seen" "Music of the Night" Phantom of the Opera
Minor 7th	10	C up to B <sup>b</sup> "Somewhere" West Side Story "Star Trek" (Original)	C down to D "Watermelon Man" "Lady Jane" (Rolling Stones)
Major 7th	11	C up to B "There's a Place For Us" West Side Story "Don't Know Why" (Norah Jones)	C down to C# "I Love You" (Cole Porter)
Perfect 8th (Or octave)	12	C up to C "Somewhere Over The Rainbow" "I'm Singin' in the Rain"	C down to C "Willow Weep For Me"

#### Major Scales Illustrated (1 of 3)

Each scale has its own signature pattern of black and white notes—a trail for your fingers to follow. To play scales quickly, it will help to memorize the trail of each scale so your brain doesn't have to process the name of every sharp and flat along the way. Here are the 12 major scale trail shapes:

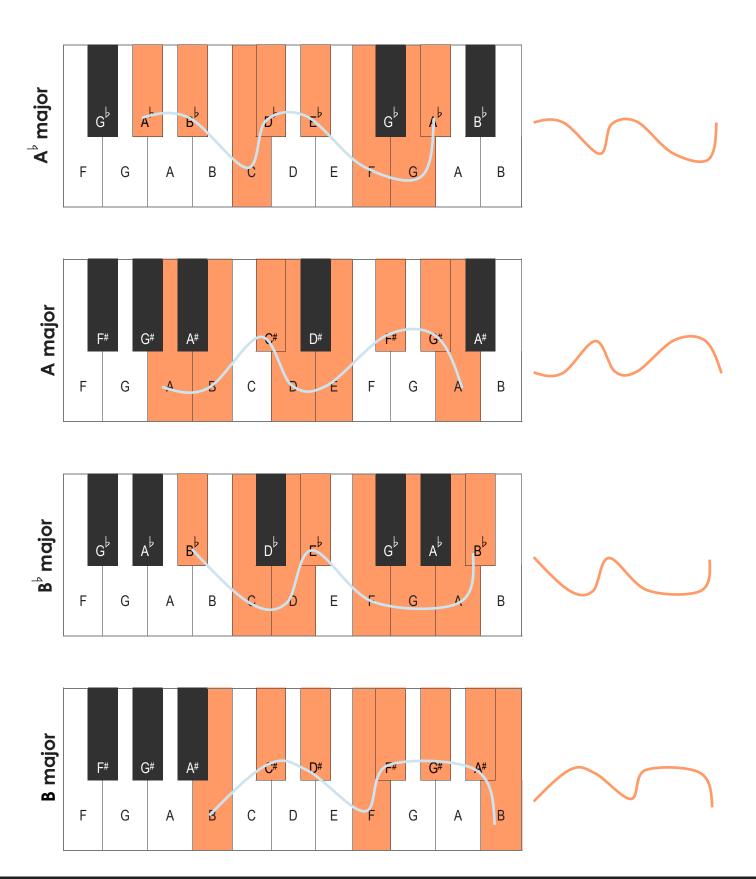


# Major Scales Illustrated (2 of 3)

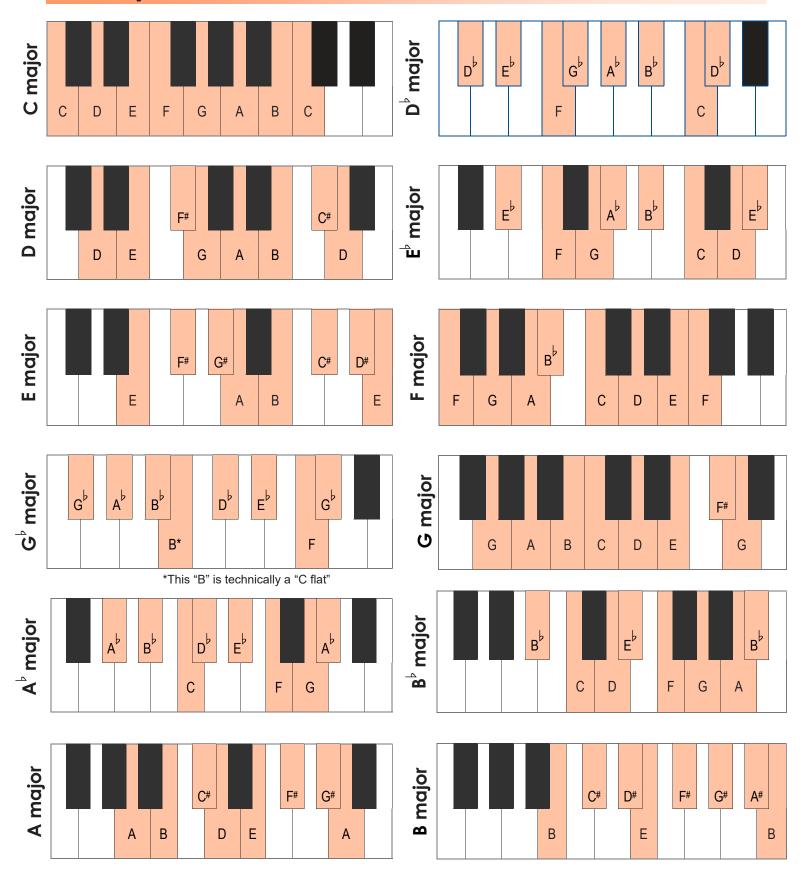


<sup>\* &</sup>quot;B" is actually considered a "C flat" in the key of G flat

# Major Scales Illustrated (3 of 3)



# Major Scales Illustrated



### Major and Minor Scales

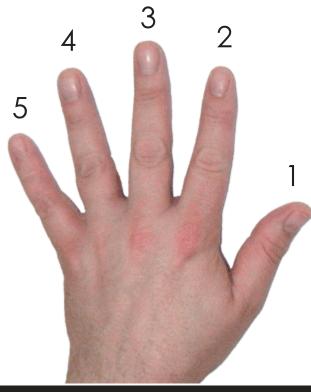
The majority of music is made up by 4 main types of scales: major & 3 kinds of minor (which are just variations of the major scale). The name of the scale will be the first note of the scale. For example, the melodic minor scale that starts on "D" is called "D melodic minor". Use this chart to find scales in any key:

Major	Melodic Minor (Major with lowered 3)	Harmonic Minor (Major with lowered 3 & 6)	Natural Minor (Major with lowered 3, 6, & 7)			
1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7			
C D E F G A B	C D E F G A B	C D E F G A B	C D E F G A B			
D E F G A B C	<b>D</b> <sup>b</sup> E <sup>b</sup> (E) G <sup>b</sup> A <sup>b</sup> B <sup>b</sup> C	$D^{\flat}  E^{\flat}  \stackrel{F^{\flat}}{(E)}  G^{\flat}  A^{\flat}  \stackrel{B^{\flat\flat}}{(A)}  C$	$\mathbf{D}^{\flat}  E^{\flat}  \overset{F}{(E)}  G^{\flat}  A^{\flat}  \overset{B^{\flat\flat}}{(A)}  \overset{C}{(B)}$			
<b>D</b> E F# G A B C#	<b>D</b> E F G A B C#	D E F G A B C#	D E F G A B C			
E F G A B C D	E <sup>b</sup> F G <sup>b</sup> A <sup>b</sup> B <sup>b</sup> C D	<b>E</b> <sup>b</sup> F G <sup>b</sup> A <sup>b</sup> B <sup>b</sup> C <sup>b</sup> D	$\mathbf{E}^{\flat}$ F $\mathbf{G}^{\flat}$ $\mathbf{A}^{\flat}$ $\mathbf{B}^{\flat}$ $\mathbf{C}^{\flat}$ $\mathbf{D}^{\flat}$			
<b>E</b> F# G# A B C# D#	E F# G A B C# D#	<b>E</b> F# G A B C D#	E F# G A B C D			
F G A B C D E	F G A <sup>b</sup> B <sup>b</sup> C D E	F G A <sup>b</sup> B <sup>b</sup> C D <sup>b</sup> E	F G A <sup>b</sup> B <sup>b</sup> C D <sup>b</sup> E <sup>b</sup>			
$\mathbf{G}^{\flat}$ $\mathbf{A}^{\flat}$ $\mathbf{B}^{\flat}$ $\mathbf{C}^{\flat}$ $\mathbf{D}^{\flat}$ $\mathbf{E}^{\flat}$ $\mathbf{F}$	$\mathbf{G}^{\flat}$ $\mathbf{A}^{\flat}$ $\mathbf{B}^{\flat\flat}$ $\mathbf{C}^{\flat}$ $\mathbf{D}^{\flat}$ $\mathbf{E}^{\flat}$ $\mathbf{F}$	$\mathbf{G}^{\flat}$ $\mathbf{A}^{\flat}$ $\mathbf{B}^{\flat\flat}$ $\mathbf{C}^{\flat}$ $\mathbf{D}^{\flat}$ $\mathbf{E}^{\flat\flat}$ $\mathbf{F}$	$\mathbf{G}^{\flat}$ $\mathbf{A}^{\flat}$ $\mathbf{B}^{\flat\flat}$ $\overset{\mathbf{C}}{(B)}$ $\mathbf{D}^{\flat}$ $\overset{\mathbf{E}^{\flat\flat}}{(D)}$ $\overset{\mathbf{F}}{(E)}$			
<b>G</b> A B C D E F#	G A B C D E F#	G A B C D E F#	G A B C D E F			
A B C D E F G	<b>A</b> <sup>b</sup> B <sup>b</sup> (B) D <sup>b</sup> E <sup>b</sup> F G	$A^{\flat}$ $B^{\flat}$ $C^{\flat}$ $D^{\flat}$ $E^{\flat}$ $F^{\flat}$ $G$	<b>A</b> <sup>b</sup> B <sup>b</sup> C <sup>b</sup> D <sup>b</sup> E <sup>b</sup> F <sup>b</sup> G <sup>b</sup>			
<b>A</b> B C# D E F# G#	A B C D E F# G#	A B C D E F G#	A B C D E F G			
B' C D E' F G A	B' C D' E' F G A	B' C D' E' F G' A	Bb C Db Eb F Gb Ab			
<b>B</b> C# D# E F# G# A#	<b>B</b> C# D E F# G# A#	<b>B</b> C# D E F# G A#	<b>B</b> C# D E F# G A			

#### L.H. Finger Trails (Fingerings for Major Scales)

If you want to be able to play quickly, you'll need to practice your scales with these fingerings. The goal is to practice until your fingers can feel the shape of the scale, like it's following its own little trail. Just practice these 12 scales, using the fingers on your left hand, as indicated.

Here are your finger numbers:



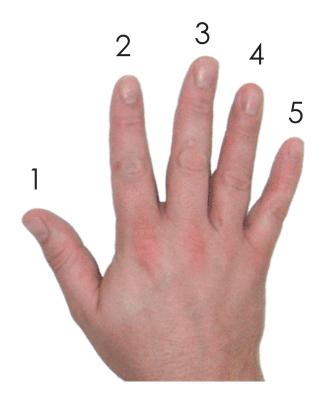
Note	С	D	Е	F	G	Α	В	С
Finger #	1	4	3	2	1	3	2	1
Note	Dþ	E	F	G	A	В	С	Dþ
Finger#	3	2	1	4	3	2	1	3
Note	D	Е	F#	G	Α	В	C#	D
Finger #	1	4	3	2	1	3	2	1
Note	E	F	G	Aþ	В	С	D	Εþ
Finger #	3	1	2	3	4	1	2	3
Note	Е	F#	G#	Α	В	C#	D#	Е
Finger #	1	4	3	2	1	3	2	1
Note	F	G	А	В	С	D	Е	F
Finger #	1	4	3	2	1	3	2	1
Note	G♭	Aþ	В	Cþ	Dþ	Eþ	F	G♭
Finger #	4	3	2	1	3	2	1	4
Note	G	А	В	С	D	Е	F#	G
Finger #	1	4	3	2	1	3	2	1
Note	۸ <sup>þ</sup>	В	С	Dþ	E	F	G	$A^{\flat}$
Finger #	3	2	1	4	3	2	1	3
Note	Α	В	C#	D	Е	F#	G#	Α
Finger #	1	4	3	2	1	3	2	1
Note	В	С	D	E	F	G	А	В
Finger #	3	2	1	4	3	2	1	3
Note	В	C#	D#	Ε	F#	G#	A#	В
Finger #	1	3	2	1	4	3	2	1

#### R.H. Finger Trails (Fingerings for Major Scales)

Note	С	D	Е	F	G	Α	В	С
Finger #	1	2	3	1	2	3	4	1
Note	$D^{\flat}$	E♭	F	G♭	$A^{\flat}$	В	С	$D^{\flat}$
Finger #	2	3	1	2	3	4	1	2
Note	D	Е	F#	G	Α	В	C#	D
Finger #	1	2	3	1	2	3	4	1
Note	E♭	F	G	$A^{\flat}$	В	С	D	$E_{\!\!\!\mid}$
Finger #	3	1	2	3	4	1	2	3
Note	Е	F#	G#	Α	В	C#	D#	Е
Finger #	1	2	3	1	2	3	4	1
Note	F	G	Α	В	С	D	Ε	F
Finger #	1	2	3	4	1	2	3	1
Note	G♭	A	В	Cþ	Dþ	E	F	G <sup>♭</sup>
Finger #	2	3	4	1	2	3	1	2
Note	G	Α	В	С	D	Е	F#	G
Finger #	1	2	3	1	2	3	4	1
Note	$\textbf{A}^{\flat}$	В	С	$D_{\flat}$	Eþ	F	G	$A^{\flat}$
Finger #	3	4	1	2	3	1	2	3
Note	Α	В	C#	D	Е	F#	G#	Α
Finger #	1	2	3	1	2	3	4	1
Note	$B^{\flat}$	С	D	E♭	F	G	Α	$B^{\flat}$
Finger #	4	1	2	3	1	2	3	4
Note	В	C#	D#	Е	F#	G#	A#	В
1					2	3	4	

If you want to be able to play quickly, you'll need to practice your scales with these fingerings. The goal is to practice until your fingers can feel the shape of the scale, like it's following its own little trail. Just practice these 12 scales, using the fingers on your right hand, as indicated.

Here are your finger numbers:



#### Transposing Melodies (2 of 2: Minor)

This page can also be used as a minor scale cheat sheet

Songs in minor keys are a little bit more tricky because the "6" and the "7" can change, depending on which minor scale is being used. This chart shows all the minor scales. Notice that all the notes are exactly the same for each of the types of minor with the exception of the "6" and the "7".

		elo ajor w							Irmo or with							latu r with			<b>or</b> 6, & 7	)
1	2	3	4	5	6	7	1	2	3	4	5	6	7	1	2	3	4	5	6	7
С	D	E♭	F	G	Α	В	С	D	E♭	F	G	Aþ	В	С	D	E♭	F	G	Ab	В♭
Dþ	Eþ	F♭	G۶	A	В	С	Dþ	Εþ	F♭	G	A	В	С	D♭	Εþ	F♭	G	Aþ	В	Cþ
D	Е	F	G	Α	В	C#	D	Е	F	G	Α	В	C#	 D	Е	F	G	Α	В	С
E♭	F	G	Ab	В	С	D	E♭	F	G	Ab	В	Cp	D	 E♭	F	G	Ab	В	Cþ	Dþ
E	F#	G	Α	В	C#	D#	E	F#	G	Α	В	С	D#	Е	F#	G	Α	В	С	D
F	G	Aþ	В	С	D	E	F	G	A♭	В♭	С	Dþ	E	F	G	Aþ	В♭	С	Dþ	E♭
G♭	Ab	ВЫ	Cþ	Dþ	Εþ	F	G♭	Aþ	ВЫ	Cp	Dþ	E	F	 G♭	Α <sup>β</sup>	ВЫ	Cþ	Dþ	Epp	F♭
G	Α	В	С	D	E	F#	G	Α	В	С	D	E♭	F#	 G	Α	B♭	С	D	E♭	F
A	В	Cþ	Dþ	Εþ	F	G	A♭	В	Cþ	Dþ	Εþ	F♭	G	Α <sup>þ</sup>	В	Cþ	Dþ	E♭	F♭	G♭
Α	В	С	D	Е	F#	G#	Α	В	С	D	Е	F	G#	 Α	В	С	D	Е	F	G
B♭	С	Dþ	E♭	F	G	Α	B♭	С	Dþ	E♭	F	G♭	Α	B♭	С	Dþ	E♭	F	G♭	A <sup>þ</sup>
В	C#	D	Е	F#	G#	A#	В	C#	D	E	F#	G	A#	В	C#	D	E	F#	G	Α

### Triads Cheat Sheet

A triad is the most basic kind of chord—just 3 notes. Here is a cheat sheet of all four types of triads:

		Major			Minor	•	Αυ	gmen	ted	Diminished				
	1	3	5	1	3	5	1	3	5	1	3	5		
С	С	Е	G	С	E♭	G	С	Е	G#	С	E♭	G♭		
D <sup>♭</sup> (C#)	Dþ	F	Α <sup>þ</sup>	$D^{\flat}$	F <sup>♭</sup> (E)	A <sup>β</sup>	D♭	F	Α	Dþ	F <sup>♭</sup> (E)	A <sup>♭</sup> (G)		
D	D	F#	Α	D	F	Α	D	F#	A#	D	F	A		
E♭	E♭	G	B♭	E♭	G۶	В	E♭	G	В	E♭	G♭	B <sup>♭♭</sup> (A)		
E	E	G#	В	E	G	В	E	G#	B# ©	E	G	B♭		
F	F	A	С	F	A <sup>β</sup>	С	F	А	C#	F	A <sup>۴</sup>	C <sup>♭</sup>		
G <sup>♭</sup> (F#)	G♭	В	Dþ	G♭	В <sup>Ы</sup> (А)	Dþ	G♭	B♭	D	Gీ	B <sup>Ы</sup> (A)	D <sup>♭♭</sup> (C)		
G	G	В	D	G	B♭	D	G	В	D#	G	B♭	D♭		
A <sup>♭</sup> (G#)	Α <sup>♭</sup>	С	E♭	A♭	C <sup>♭</sup> (B)	E♭	A♭	С	E	A♭	C <sup>♭</sup> (B)	E <sup>♭♭</sup> (D)		
Α	Α	C#	Е	Α	С	Е	A	C#	E# (F)	Α	С	E♭		
B♭	B♭	D	F	B♭	Dþ	F	B♭	D	F#	B♭	Dþ	F <sup>♭</sup> (E)		
В	В	D#	F#	В	D	F#	В	D#	F <sup>X</sup> (G)	В	D	F		

#### Diatonic Triads (2 of 2)

Here is a list of all the diatonic triads in every major and minor key, meaning that the notes in the chords are found inside that scale of that row. So you can use any of the chords in the same row together without sounding wrong.

		Ma	jor						(M			ral Minor lowered 3, 6, & 7)		
Chord Number*	1	2	3	4	5	6	7	1	2	3	4	5	6	7
<b>Classical Notation</b>	I	ii	iii	IV	V	vi	viiº	i	iiº	Ш	iv	V	VI	VI
Chord Quality**	M	m (-)	m (-)	M	M	m (-)	0	m (-)	0	M	m (-)	M	M	M
7th Quality***	Δ7	-7	-7	Δ7	7	-7	Ø	-7	Ø	Δ7	-7	7	Δ7	7
Key of C	С	D-	E-	F	G	A-	Вø	C-	Dø	E♭	F-	G	A♭	B♭
Key of D <sup>♭</sup>	Dþ	E∳-	F-	G♭	A♭	B <mark>♭-</mark>	Cø	Dþ-	E <sub>þ</sub> ø	F <sup>♭</sup>	G <sup>♭</sup> -	Α <sup>þ</sup>	В	Cþ
Key of D	D	E-	F#-	G	Α	B-	C#ø	D-	Eø	F	G-	Α	В	С
Key of E <sup>♭</sup>	E♭	F-	G-	$A^{\flat}$	В	C-	Dø	E <sub>þ</sub> -	Fø	G	A <sup>b</sup> -	В	Cþ	Dþ
Key of E	E	F#-	G#-	Α	В	C#-	D#Ø	E-	F#Ø	G	A-	В	С	D
Key of F	F	G-	A-	В	С	D-	Εø	F-	Gø	A	B <mark>♭-</mark>	С	Dþ	Ε <sub>þ</sub>
Key of G <sup>♭</sup>	G♭	A <sup>b-</sup>	Bþ-	Cþ	Dþ	E♭-	FØ	G <sup>♭</sup>	Ą <sup>♭</sup> ø	ВЫ	C <sub>þ</sub> -	Dþ	E	F♭
Key of G	G	A-	B-	С	D	E-	F#Ø	G-	дø	В	C-	D	E♭	F
Key of A <sup>♭</sup>	A	B♭-	C-	Dþ	E♭	F-	Gø	A <sup>þ</sup> -	B <sup>♭</sup> ø	Cþ	Dþ-	E♭	F♭	G♭
Key of A	Α	B-	C#-	D	Е	F#-	G# <b>ø</b>	A-	Вø	С	D-	Е	F	G
Key of B <sup>♭</sup>	B♭	C-	D-	Eþ	F	G-	Αø	B <sub>þ</sub> -	Cø	Dþ	Eþ-	F	G	A۴
Key of B	В	C#-	D#-	Е	F#	G#-	A#Ø	B-	C#Ø	D	E-	F#	G	Α

<sup>\*</sup>Nashville musicians have to change keys so frequently that most of them just play chords as numbers, and don't even bother chord letter names. This has become known as the "Nashville numbers" system.

Markey at AAtman

<sup>\*\* &</sup>quot;m" or "-" means "minor". In a major key, chord numbers 2, 3, and 6 are minor. "M" means "major". In a major key, chord numbers 1, 4, and 5 are major. "O" means diminished. In a major key, only chord number 7 is diminished. For more help with these chord types, see the triads section. \*\*\* 7th chords are the same as triads, but they have a fourth note on them. For example, a "G" chord would use notes G, B, and D. A "G7" chord would have G, B, D, and F. The "A" symbol means "major 7" and the symbol "O" means half diminished. For more help with 7th chords, see the 7th chords section.

# 7th Chords Cheat Sheet

Here is a cheat sheet of all the most common 7th chords:

	<b>Major 7</b> (maj7) (∆)					Minor-Major 7 (mM7)				<b>Minor 7</b> (m7) (min7) (-7)				Dominant 7 (Dom.) (7)				Fully Diminished (°)				Half Diminished $(\emptyset)$				
	1	3	5	7	1	3	5	7	1	3	5	7		1	3	5	7	1	;	3	5	7	1	3	5	7
С	С	Е	G	В	С	E♭	G	В	С	Εþ	G	B♭		С	Е	G	B♭	C	E	-	G۶	B <sup>♭♭</sup> (A)	С	E♭	G۶	B♭
D <sup>♭</sup> (C#)	D♭	F	A <sup>β</sup>	С	D♭	F <sup>♭</sup> (E)	A <sup>♭</sup>	С	Dþ	F <sup>♭</sup> (E)	A <sup>β</sup>	C <sup>♭</sup>		D♭	F	A <sup>♭</sup>	C <sub>r</sub>	D	, F (E	. <b>▶</b> E)	A <sup>♭♭</sup> (G)	C <sup>♭♭</sup> (B <sup>♭</sup> )	D♭	F <sup>♭</sup> (E)	A <sup>♭♭</sup> (G)	(B)
D	D	F#	Α	C#	D	F	Α	C#	D	F	Α	С		D	F#	Α	С	D	ſ	=	A <sup>β</sup>	Сþ	D	F	A <sup>þ</sup>	С
E♭	E♭	G	B♭	D	E♭	G <sup>þ</sup>	B♭	D	E♭	G <sup>♭</sup>	В♭	Dþ		E♭	G	B♭	D♭	E	' (	} <b>b</b>	B <sup>♭♭</sup> (A)	D <sup>♭♭</sup> (C)	E♭	G <sup>♭</sup>	B <sup>♭♭</sup> (A)	Dþ
E	E	G#	В	D#	E	G	В	D#	Ε	G	В	D		E	G#	В	D	E	(	3	В	D♭	E	G	B♭	D
F	F	Α	С	Е	F	A <sup>β</sup>	С	Е	F	A <sup>þ</sup>	С	E♭		F	Α	С	E♭	F	A	Þ	C <sup>♭</sup> (B)	E <sup>♭♭</sup> (D)	F	A <sup>♭</sup>	C♭ (B)	E♭
G <sup>♭</sup> (F#)	G♭	В	Dþ	F	G♭	B <sup>♭♭</sup> (A)	D♭	F	G♭	B <sup>♭♭</sup> (A)	D♭	F <sup>♭</sup> (E)		G♭	B♭	Dþ	F <sup>♭</sup> (E)	G	, B		D <sup>№</sup> (C)	F <sup>♭♭</sup> (E <sup>♭</sup> )	G♭	B <sup>♭♭</sup> (A)	D <sup>Ы</sup> (C)	F <sup>♭</sup> (E)
G	G	В	D	F#	G	B♭	D	F#	G	В♭	D	F		G	В	D	F	G	E	Þ	D♭	F <sup>♭</sup>	G	B♭	D♭	F
A <sup>♭</sup> (G#)	A♭	С	Ε <sub>γ</sub>	G	A♭	C♭ (B)	Ε <sub>γ</sub>	G	A	C♭ (B)	Ε <sub>γ</sub>	G۶		A۶	С	E♭	G۴	A		; <b>•</b> 3)	E <sup>♭♭</sup> (D)	G <sup>♭♭</sup> (F)	Α <sup>♭</sup>	C♭ (B)	E <sup>♭</sup>	G۶
A	Α	C#	Е	G#	A	С	Е	G#	A	С	Е	G		Α	C#	Е	G	A	. (	)	Ε <sub>γ</sub>	G♭	A		E♭	
B♭	B♭	D	F	Α	B♭	D♭	F	Α	B♭	D♭	F	A <sup>♭</sup>		B♭	D	F	A <sup>β</sup>	В	' [	) <sup>b</sup>	F <sup>♭</sup> (E)	A <sup>♭♭</sup> (G)	B♭	D♭	F <sup>k</sup> (E)	Α <sup>β</sup>
В	В	D#	F#	A#	В	D	F#	A#	В	D	F#	Α		В	D#	F#	Α	В	[	)	F	A <sup>b</sup>	В	D	F	Α

#### **Chord Extensions Cheat Sheet**

#### Legend:

b = b

- = m= minor

o = diminished

"+" means "raised" or "augmented". It is not the same as the word "add".

 $M = major = \Delta$ 

Ø = half diminished

# = sharp

Symbol	Numbers	Example in C	Notes in C		
	1 3 5	С	CEG		
-	1 b3 5	C-	C Eb G		
sus2 OR sus9	125 (159)	Csus2 OR Csus9	CDG		
add9 OR add2	1235 OR 1359	Cadd9 OR Cadd2	CDEG		
sus4	1 4 5	Csus4	CFG		
5	1 5	C5	CG		
+5 OR +	1 3 #5	C+5 OR C+	C E G#		
6	1356	C6	CEGA		
-6	1 b3 5 6	C-6	C Eb G A		
7	1 3 5 b7	C7	C E G Bb		
-7	1 b3 5 b7	C-7	C Eb G Bb		
Δ7	1357	СΔ7	CEGB		
-(Δ7)	1 b3 5 7	C-(Δ7)	C Eb G B		
0	1 b3 b5 bb7	C°	C Eb G Bbb(A)		
-7(b5) OR Ø	1 b3 b5 b7	C-7(b5) OR CØ	C Eb G Bb		
7b9 OR b9	1 3 5 b7 b9	C7b9 OR b9	C E G Bb Db		
7#9	1 3 5 b7 #9	C7#9	C E G Bb D#		
Δ(sus9)	1579	CΔ(sus9)	CGBD		
9	1 3 5 b7 9	C9	C E G Bb D		
-9	1 b3 5 b7 9	C-9	C Eb G Bb D		
Δ9	13579	СД9	CEGBD		
11	1 3 5 b7 9 11	C11	CEGBbDF		
13	1 3 5 b7 9 13	C13	CEGBbDA		
-13	1 b3 5 b7 9 13	C-13	C Eb Gb Bb D A		
Δ13	1 3 5 7 9 13	CΔ13	C E G Bb D A		
13(#11)	1 3 5 b7 9 #11 13	C13(#11)	C E G Bb D F# A		

#### Cadences

Cadences are chord patterns that create a feeling of rest...or at least pause. They are most effective when they are placed at points in the song where the audience is ready to rest. That's why they're often put at the ends of phrases and especially at the end of the song.

Authentic cadences move from the 5 chord to the 1 chord. These are the most convincing, especially when the 5 chord is dominant!

Deceptive cadences go from the 5 chord anywhere besides the 1. They are deceptive because the 5 chord naturally leads 1.

Plagal cadences move from the 4 chord to the 1 chord. This is also known as the "amen" cadence, because older church songs often end with this cadence. The congregation sings "A..." (4 chord) "....men" (on the 1)

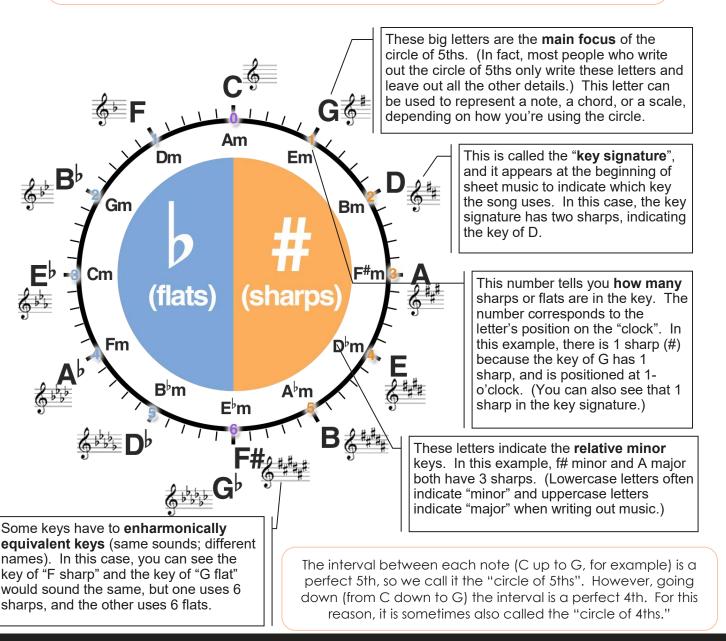
Imperfect cadences move from any chord to the 5 chord. These are horrible for ending a song, but make for a nice pause somewhere in the middle.

	Auth	entic	Pla	gal	Dece	ptive	<b>Imperfect</b>			
	5	1	4	1	5	?		?	5	
In the key of C	G	С	F	С	G	?		?	G	
In the key of D	Α <sup>þ</sup>	$D^{\flat}$	G	$D^{\flat}$	$A^{\flat}$	?		?	$A^{\flat}$	
In the key of D	Α	D	G	D	А	?		?	А	
In the key of E <sup>♭</sup>	B♭	$E^{\flat}$	Α <sup>þ</sup>	$E_{\flat}$	B♭	?		?	В	
In the key of E	В	Е	А	Е	В	?		?	В	
In the key of F	С	F	B♭	F	С	?		?	С	
In the key of G	Dþ	$G^{\flat}$	Cp	$G^{\flat}$	$D^{\flat}$	?		?	Dþ	
In the key of G	D	G	С	G	D	?		?	D	
In the key of A	E♭	$A^{\flat}$	Dþ	$A^{\!$	Εþ	?		?	Εþ	
In the key of A	Е	Α	D	Α	Е	?		?	Е	
In the key of B♭	F	$B^{\flat}$	E♭	$B^{\flat}$	F	?		?	F	
In the key of B	F#	В	E	В	F#	?		?	F#	

### Circle of 5ths (General)

The circle of 5ths is a tool, and there is not just one way to use it. In general, it maps out the relationships between different notes, keys, and chords. Just like any tool, there is no point in having it unless you have a use for it. However, once you start learning how to use it, you will find other uses for it too. The circle of 5ths can be used to find key signatures, 2-5-1's, diatonic triads, intervals, and much more!

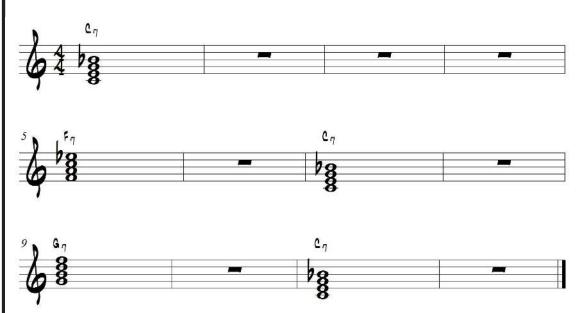
Set up just like a clock, there are 12 positions on the circle. There are two sides: the sharp side (on the right, where there are only sharps) and the flat side (on the left, where there are only flats).



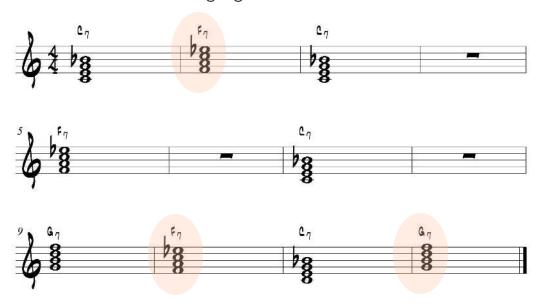
#### Playing the Blues (Blues Format)

The most common blues format is called a "12-bar blues." It's 12 measures long and uses all dominant chords (a type of 7 chord) You can play it in any key, using just the 1 chord, the 4 chord, and the 5 chord.

The example below is in the key of "C", where the C7 is the 1 chord, the F7, is the 4 chord, and the G7 is the 5 chord.



There have been hundreds of variations on the blues form, but they all boil down to that basic one above. Probably the most common variations are the ones highlighted below:



# Playing the Blues (Blues Scale)

		_
		•
	Л	:
	1	2
	7	5
		)
	$\ddot{c}$	Ś
	C	)
	.,	`
•	<u></u>	ŕ
	U	ว
	0	)
	_	5
-	=	_
(	Υ	)
	1	`
	Ā	2
_	C	_
ŀ		-
	•	•
(	Ý	)

Here's a set of notes that will instantly improve your blues solos— it's called the blues scale, and it can be found using the major scale. Here are the steps:

- \*Take out the 2nd note and the 6th note.
- \*Lower the 3 by a half step.
- \*Add the notes that are a half step above the 4, and a 1/2 step below the 7.

The result is a major scale where you play:
1, lowered 3, 4,

1, lowered 3, 4, raised 4, 5, lowered 7, and 7

OR...you can just cheat off of the chart on the right.

	٨	۸ajo	or S	cal	le	Blues Scale								
1	2	3	4	5	6	7	1	<b>⅓</b> 3	4	#4	5	<b>♭</b> 7	7	
С	D	Е	F	G	Α	В	С	E♭	F	F#	G	В	В	
Dþ	Ε <sub>γ</sub>	F	G♭	Α <sup>β</sup>	В	С	Dþ	F <sup> </sup> (E)	G♭	G	Α <sup>þ</sup>	C <sub>p</sub> (B)	С	
D	Е	F#	G	Α	В	C#	D	F	G	G#	Α	С	C#	
E♭	F	G	Α <sup>þ</sup>	В	С	D	E♭	G۶	Α <sup>þ</sup>	Α	В	Dþ	D	
E	F#	G#	Α	В	C#	D#	E	G	Α	A#	В	D	D#	
F	G	Α	В	С	D	Е	F	Α <sup>þ</sup>	В	В	С	Εþ	Е	
G♭	A	В	C <sup>♭</sup>	Dþ	Εþ	F	G♭	B <sup>♭♭</sup> (A)	Cþ	С	Dþ	F <sup>♭</sup>	F	
G	А	В	С	D	Е	F#	G	В	С	C#	D	F	F#	
A	В	С	Dþ	E♭	F	G	A♭	C <sup>♭</sup>	Dþ	D	Εŀ	G♭	G	
Α	В	C#	D	Е	F#	G#	Α	С	D	D#	Е	G	G#	
В	С	D	Εþ	F	G	Α	B♭	Dþ	Εţ	Е	F	Α <sup>þ</sup>	Α	
В	C#	D#	Е	F#	G#	A#	В	D	Е	E# (F)	F#	Α	A#	

#### Pop Songs Explored (The 4-Chord Song)

Pop songs usually only have a few chords in them. In fact, they all use almost the exact same chords: 1, 4, 5, & 6. The keys may change a little, but the chords are almost exclusively those four. Become familiar with the 1, 4, 5, & 6 chords in a key and you'll be ready to play almost any hit from the 1930's on.

Here is a
cheat
sheet of
those
important
chords in
each key...

A complete list would have tens of thousands of songs, but here is a small fraction of the songs that use some repeating combination of 1, 4, 5, & 6...

F G ВØ Key of C A۶ D Eþ-Gb. Bb-Key of D<sup>♭</sup> F-Cø Key of D G C#Ø F#-Α B-Kev of E<sup>♭</sup> E A۶ В DØ C-F-Key of E Е F#-G#-Α В C#-D#Ø B С Key of F F A-D-ΕØ  $D_{\flat}$ G<sup>♭</sup> Bb- $C_{p}$ Eþ-Key of G<sup>♭</sup> Key of G G A-С D F#Ø E-A Bb-Dþ Εþ Key of A<sup>♭</sup> F-GØ Key of A C#-D Ε F#-G#Ø В Εþ Key of B<sup>♭</sup> F ΑØ G-Key of B C#-Ε F# G#-D#-

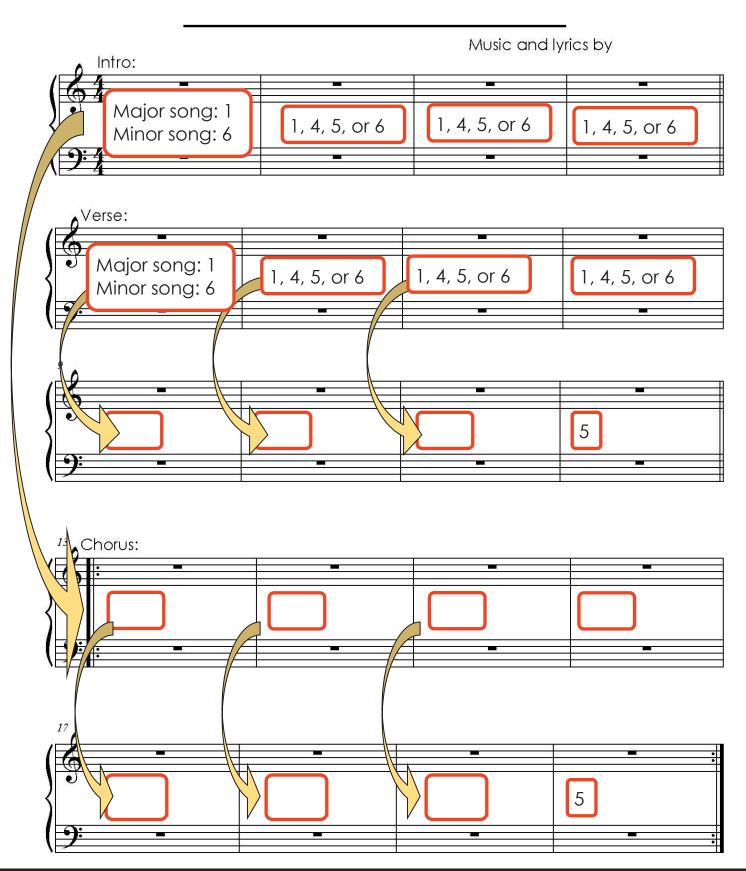
1,6,5,4— Friday (Rebecca Black), How Sweet It Is To Be Loved By You (James Taylor), Purple Rain (Prince)

1,4,6,5— Dynamite (Taio Cruz), Good Life (OneRepublic), Trading Sorrows (Darrel Evans), Hit Me With Your Best Shot (Pat Benatar), More Than A Feeling (Boston)

1,6,4,5— Baby (Justin Beiber), Stand By Me (Benny King), Blue Moon (Richard Rogers), Unchained Melody (Righteous Brothers), I Will Always Love You (Whitney Houston), Love Will Keep Us Alive (Eagles), Heart and Soul (Frank Loesser)

1,5,6,4—Don't Stop Believing
(Journey), Crazy Girl (Eli Young
Band), Apologize (OneRepublic),
Can You Feel the Love Tonight
(Elton John), I'm Yours (Jason Mraz),
She Will Be Loved (Maroon 5), Poker
Face (Lady Gaga), Let It Be (Paul
McCartney), Hey Soul Sister (Train),
Country Roads (John Denver),
Under The Bridge (Red Hot Chili
Peppers), What If God Was One of
Us (Alanis Morissette)

# Song Writing—Structure



#### Improvising With The Melody (1 of 3)

Most famous solos are just variations on the melody of the song. If you want to create a powerful solo quickly, steal a phrase or two from the melody of the song and use a combination of these suggestions on those phrases:

Slow down the notes—change the rhythm so it takes more time than in the original phrase Speed up the notes—play them faster than in the original phrase

Play the same notes in a **higher octave** 

Play the phrase normally, repeating a couple notes in the phrase

Melody-based solo ideas

Wait longer than normal before playing the phrase

Take a few notes from the original melody and play those **few notes repeatedly** 

Reverse the order of the notes—play the phrase backwards **Delete** a note or two from the phrase

**Use the rhythm** from the phrase, but play other notes

Add grace
notes—throw
in an
extremely
short note right
before a note
in the phrase

#### Improvising With The Melody (2 of 3)

Here are some examples of how to use those tools for a solo on a short phrase from "Twinkle Twinkle Little Star":



# Improvising With The Melody (3 of 3)

Here are some more examples of how to use those tools for a solo on a short phrase from "Twinkle Twinkle Little Star":



Deleting notes:

Using rhythm:



Few notes repeated:



#### Improvising Without The Melody (1 of 3)

If you're not using the melody to create a solo, you're probably using the harmony: the chords and the key of the song. Solos that use the harmonies often sound nothing like the original melody. Here are some ideas for creating great solos without the melody:

Use notes from the key of the song.

Use **short patterns**within the
key

Use notes from the chords as they change Use rhythmic "motives" (change the notes & keep the rhythms)

Harmony-based solo ideas

Start or end phrases with notes directly next to other notes from the solo ("neighbor tones")

Use melodic
"motives"
(change the rhythms & keep the same notes)

"Quote" - use the melodies from other songs

#### **Improvising Theory**

There are many theories about how to improvise, but here are some general guidelines to keep in mind when you're creating your killer solo:

Build your vocabulary—You should know what your solo is going to sound like before you play it. You should never be surprised by how good or bad your solo sounded, and you should never be guessing at notes, hoping it doesn't sound horrible. The goal is to be able to express anything you want to "say" on your instrument. You do that by becoming very familiar with small musical "phrases" until you have a huge "vocabulary" at your disposal.

Keep it simple—Beginning and intermediate musicians try to play very complicated solos to prove how good they are. Those people aren't expressing themselves, they're just using the biggest vocabulary they know.

Sing everything you play—if you mess up and it sounds good, add it to your vocabulary so you can say that on purpose. A lot of great licks started out as mistakes.

Play everything you sing—if you've got an idea in your head or you hear it on the radio, spend the time to make it a part of your vocabulary

**Keep adding**—your vocabulary will grow for the rest of your life. "Knowing how to play" your instrument is a sliding scale, not a point you'll reach.

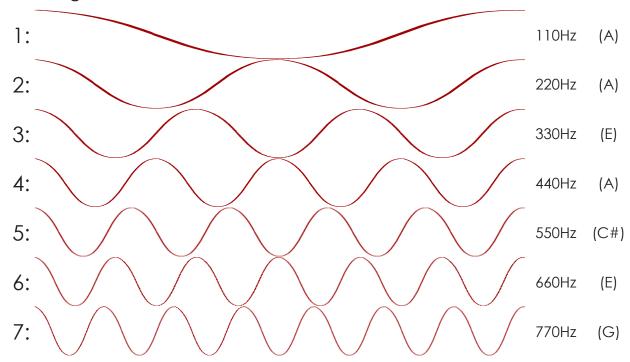
# Improvising theories

Most importantly: **transcribe and steal**.
Other people have great, huge vocabularies. Play their music <u>note-fornote</u>. Then throw away the phrases you don't care for and keep the ones you like. You won't know which ones are which until you learn to play them.

save the best for last—don't start your solo with your best ideas. Pace yourself...you always want the audience to wish you would keep playing.

#### Overtones and Fundamentals

When you think you're hearing a single note, you're usually hearing several notes.



When we strike a string (such as on the piano or guitar), it vibrates from one end to the other, creating a wave, and we hear the note the wave creates. That note is called a "fundamental." The shorter and/or faster the wave, the higher the note.

For example, any string vibrating at a speed of 440 waves (cycles) per second creates the same sound as the "A" above middle C. (That's why the note is known as "A 440".)

However, every string that vibrates from end-to-end also vibrates from the middle to the end. In other words, there is a wave that takes up the whole string but there is another wave <u>at the same</u> time that only takes up half the string, so it can have two full waves on the same string. It may not be a surprise, then that the string is also vibrating with three full waves on the same string...and four...and five...and six...and seven...

These additional, shorter waves (called "overtones") <u>do</u>, in fact, make a sound, but they are usually over powered by the original, largest, lowest-sounding wave. Below is an example of the different waves happening at the same time on the same string playing a low "A".

#### Ranges on the Sound Spectrum

When multiple instruments play the exact same note, the sound can get 'muddy' and the individual sound of each instrument is lost. If you arrange music, you should know the range of the instruments so you don't have all the instruments playing in the same range. This chart also shows vocal ranges, so you can have reasonable expectations when preparing parts for your singers.

