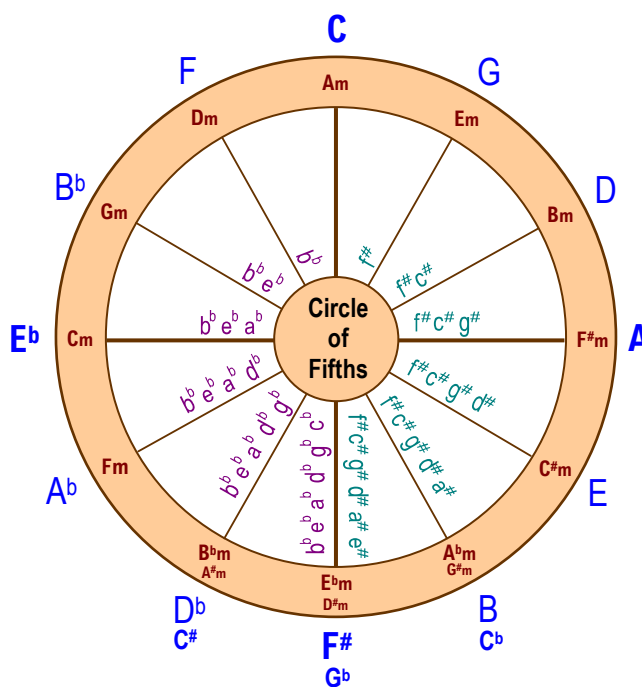


Practical Music Theory

Music theory can be complex. But knowing enough to be able to apply it to practical goals can speed learning, aid improvisation, and give you a sense of empowerment.

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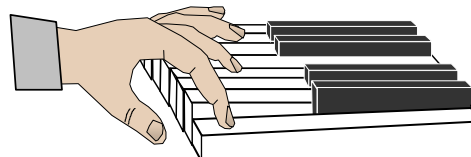


Terms

Musical terms can be confusing when they are used interchangeably.

Key = Lever

A *physical* key is a *lever* that produces a musical tone when pressed.



Key = Lever

Key = Scale

A *musical* Key is the *scale* of a song. For example, many songs are written in the Key of C.

DO RE MI FA SO LA TI DO

Key = Scale

Ambiguity: The *Key* (scale) of C begins on the C *key* (lever).

Tone = Sound

Tones are musical *sounds* (vibrations) produced when you press a key. Tones vary in pitch (frequency).



Tones = Sounds

Note = Symbol

Notes are *symbols* that appear on a musical staff to indicate which keys (levers) are to be pressed.

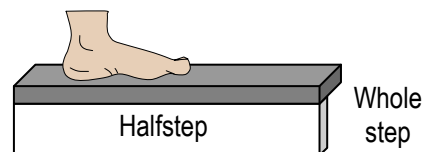


Notes = Symbols

Ambiguity: Technically, notes exist only on paper, but keys (levers) and tones (sounds) are also often referred to as “notes.”

Step = Movement

Steps are *movements* between the tones of a scale. Like walking up a staircase, playing steps on a keyboard requires physical movement.



Step = Movement

Ambiguity: Each *key* (lever) is a *halfstep* which produces a *semitone*. Two *keys* make a *whole step* which produces a *whole tone*.

Scale = Series

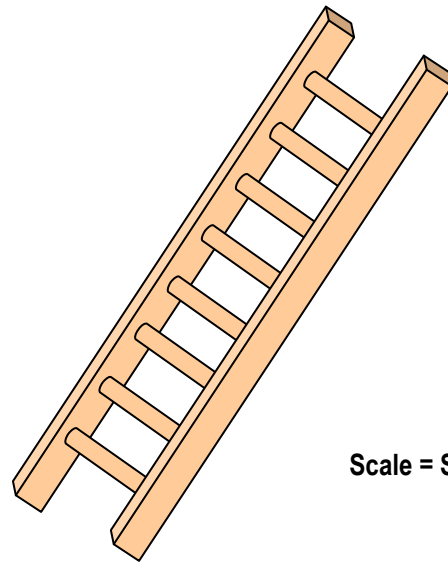
A scale is a named *series* of keys played in a particular sequence of steps and/or halfsteps.

Scale comes from the Italian *scala* which means *ladder*, so imagine climbing a scalar ladder.

The scale determines the pitch (high or low), the general mood (happy, sad, etc.), and the accidentals (flats/sharps) of a song.

The Key of a song is its scale. For example, when someone says to “play it in the Key of E,” they mean the E scale.

The scale is the blueprint for constructing related Intervals and Chords.



Scale = Series

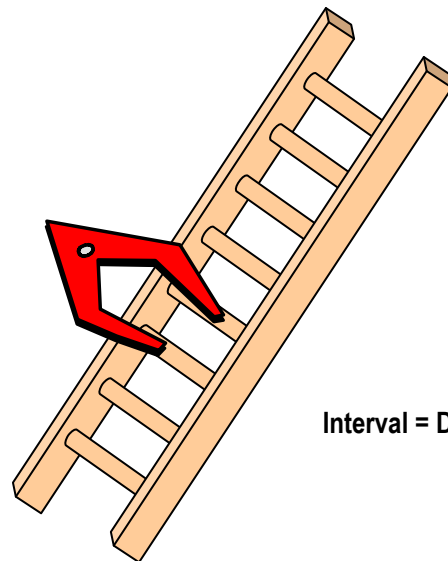
Interval = Distance

An interval is the *distance* from the Root (lowest tone) to a specific key in a scale.

An interval can also be defined as the *difference* in pitch (frequency) between two tones.

A knowledge of intervals can help you sight read (spontaneously play from written music) as you learn to recognize the distances between notes and train your fingers to automatically spread to the corresponding key span.

Also, knowing intervals, you can figure out the best tones to add to a melody to enhance it.



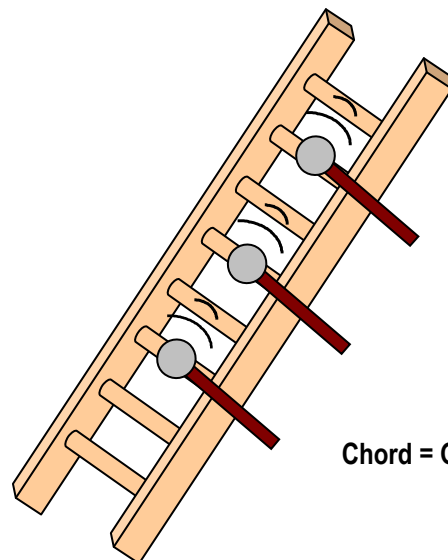
Interval = Distance

Chord = Group

A chord is a named *group* of keys of a scale played together.

Chords add harmony (additional tones, usually pleasant) to a song’s melody (series of single tones, or the tune, that you’d hum or sing).

Memorizing chords can dramatically reduce the time it takes to learn and play songs.



Chord = Group

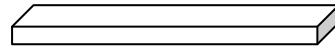
Steps

Steps are the building blocks for the scales, intervals, and chords used to create songs.
Imagine that each piano key is a plank of wood used to build stair steps.

Each Key is *half* a Step

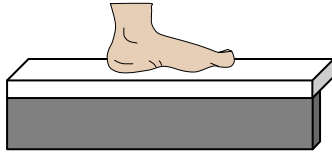


Black-key halfstep

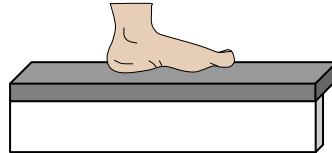


White-key halfstep

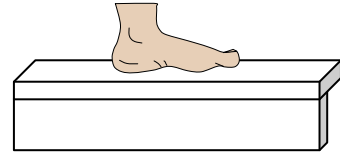
It takes 2 Keys to make a *whole* Step



Black-White Step



White-Black Step



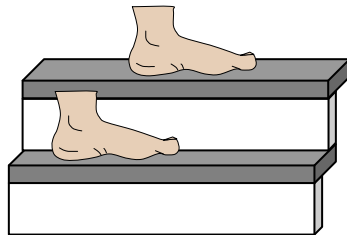
White-White Step

Steps × 2 = Keys

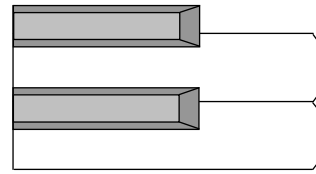
Multiply the numbers of steps by 2 to find how many keys were needed to build them.

Keys / 2 = Steps

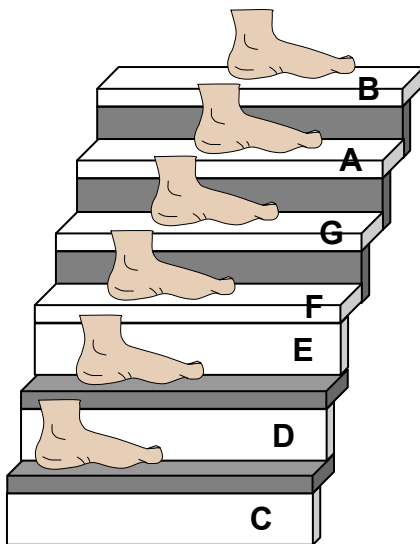
Divide the number of keys by 2 to find how many steps they can build.



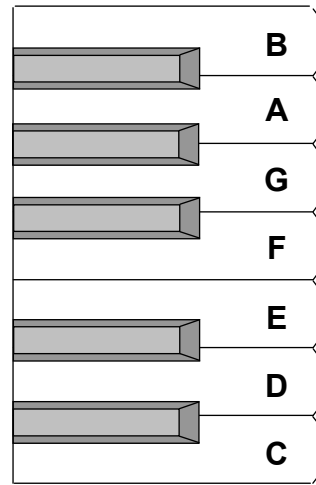
$$2 \text{ Steps} \times 2 = 4 \text{ Keys}$$



$$4 \text{ Keys} / 2 = 2 \text{ Steps}$$



$$6 \text{ Steps} \times 2 = 12 \text{ Keys}$$



$$12 \text{ Keys} / 2 = 6 \text{ Steps}$$

Scales

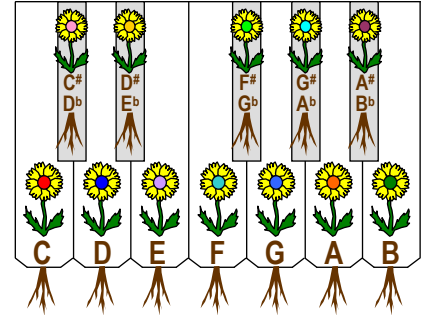
A scale is a named *series* of keys played in a particular sequence of steps and halfsteps. Although *practicing* scales is associated with endless drill and drudgery, a *knowledge* of scales can be invaluable, especially when improvising.

Root of a Scale

A scale begins on and is named after its *Root* key (also called its *keynote*). For example, a C scale (Key of C) begins on the C key (lever).

12 Roots

There are 7 white and 5 black keys for a total of 12 Roots from which to build scales.



12 Roots

Enharmonic Roots

Enharmonic (same tone, different name) Roots are identical. So are their scales. For example, since $C^\# = D^b$, their scales are the same, except the $C^\#$ scale uses sharps and the D^b scale uses the equivalent flats. In any case, there are still only 12 actual roots.

Step Patterns

Over the centuries, numerous scale step patterns have evolved. For example:

- Chromatic Scale: All half steps.
- Whole-Tone Scale: All Whole steps.
- Diatonic [dii-uh-TAW-nik] Scale: Combinations of Whole and half steps.

Scale Types

There are dozens of scales and variations (modes) on playing them. We'll explore three:

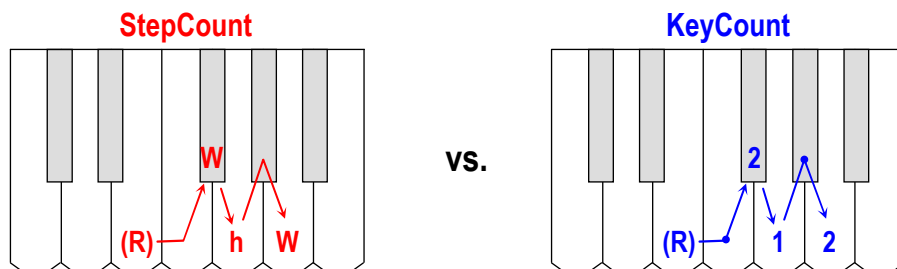
- Major: Follows a specific diatonic step pattern. Most common scale.
- Relative (Natural) Minor: Same Key Signature as Major, but Root = 6th key of the Major scale.
- Harmonic (Parallel) Minor: Same Root as Major, but with flatted 3rd and 6th keys.

StepCount vs. KeyCount

Scales are created by starting at the Root key and counting up a prescribed sequence of Whole and/or half steps. But counting *steps* can be tricky because $\frac{1}{2}$ step = 1 key and 1 step = 2 keys. It's generally easier to remember and count by the *keys* that make up the steps.

Counting A Sequence

(Root) W h W



The StepCount (R) W h W can be more difficult to count than the KeyCount (R) 2 1 2.

Major Scale

The Major Diatonic Scale is the basis of most classical and modern music.

It produces the familiar *Do-Re-Mi-Fa-So-La-Ti-Do* melody by following this specific sequence:

StepCount: (Root) Whole Whole half Whole Whole Whole half = (R) W W h W W W h

KeyCount: (Root) 2keys 2keys 1key 2keys 2keys 2keys 1key = (R) 2 2 1 2 2 2 1

Major scales are used to compose many kinds of songs, including those played by marching bands. To remember the KeyCount of a Major Scale, imagine that it is the phone number of your favorite band leader, *Major Scale*. Memorize the Major's phone number, starting with the area code (R) followed by two groups of 2's that end with 1's.

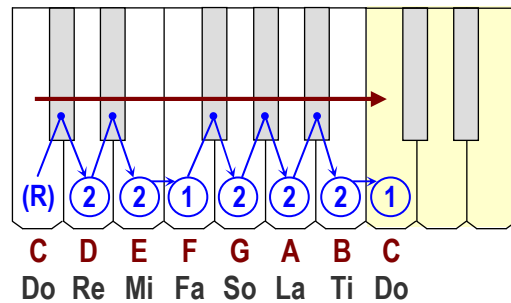
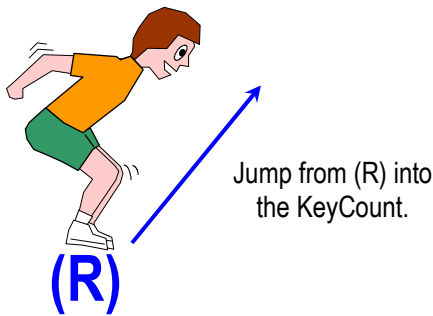


Major Scale

(R) 2 2 1 – 2 2 2 1

C-Major Scale

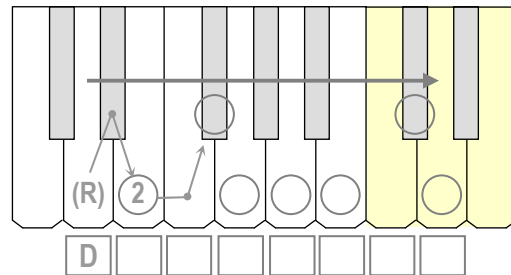
Starting from the (R)oot **C**, the 221-2221 KeyCount sequence shown below creates the C-Major scale. Observe that it consists of all white keys. There are no sharps or flats. Test it on your keyboard to ensure that it follows the standard *Do-Re-Mi-Fa-So-La-Ti-Do* tune.



D-Major Scale

Starting from the Root **D**, count keys, draw arrows, and pencil in the Major's phone number in the circles. Test it with *Do-Re-Mi...*, then write the key names in the boxes beneath. There are 2 sharps.

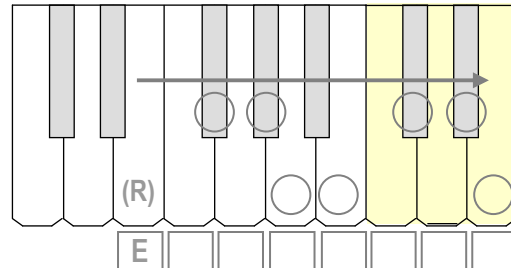
Scale: D E F# G A B C# D



E-Major Scale

Starting from the Root **E**, count keys, draw arrows, and pencil in the Major's phone number in the circles. Test it with *Do-Re-Mi...*, then write the key names in the boxes beneath. There are 4 sharps.

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



You can use this method to derive all 12 Major scales.

Relative Minor Scale

Starts on the 6th key of the Major Scale. Has the same Key Signature.

StepCount: (Root) Whole half Whole Whole half Whole Whole = (R) W h W W h W W

KeyCount: (Root) 2keys 1key 2keys 2keys 1key 2keys 2keys = (R) 2 1 2 2 1 2 2

Imagine that *Major Scale* gave his nephew a Key to his house so he could run errands for him. This relative is an underage minor whose cell phone number reflects his strong desire to be 21 too.

(R) 2 1 2 – 2 1 2 2

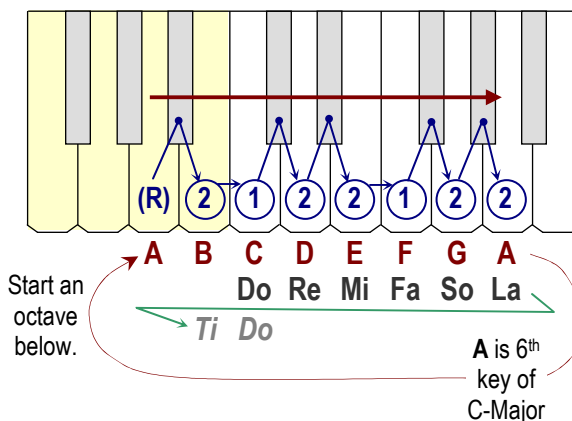
Relative Key



A-minor scale (Relative to C-Major)

The 6th key of the C-Major scale is **A**. We'll start on octave below to keep the new scale in voice range, then apply the 212-2122 KeyCount. This scale has the same Key Signature as C-Major, with no sharps or flats.

Test a Relative scale by starting on its 3rd key, which is the Root of its Major scale. Play *Do-Re-Mi-Fa- So-La*, then drop down to the Relative scale's 2nd key and finish with *Ti-Do* (which completes the tune at a lower pitch).



Harmonic Minor Scale

Starts on the Root of the Major Scale but flats the 3rd & the 6th keys.

StepCount: (Root) Whole half Whole Whole half Whole+half half = (R) W h W W h W h h

KeyCount: (Root) 2keys 1key 2keys 2keys 1key 3keys 1 key = (R) 2 1 2 2 1 3 1

Imagine a harmonica-playing minor band member who begins marching from the same Root as *Major Scale* but plays a couple of flat tones along the way. His phone number starts like the nephew's, but ends with his age: 31.

(R) 2 1 2 – 2 1 3 1

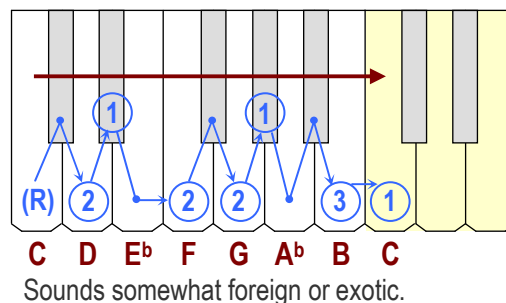
Harmonic
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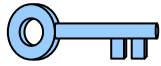


C-minor scale (Harmonic to C-Major)

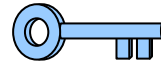
Starting on the Root **C** of the C-Major scale, the (R) 212-2131 KeyCount produces the harmonic C-minor scale. Observe the flatted 3rd and 6th keys.

There is no familiar tune to test this scale, but it will sound somewhat foreign or exotic, like Arabian Nights music.





Keys



You can find the Key (scale) of a song by examining the Key Signature, which consists of any accidentals (sharps, flats) that appear *between* the Clef and the Time Signature. Imagine the Key completing a CKT circuit. These accidentals apply to *every* designated note in a song.

Empty Key Signature

Accidentals	Major (minor*) Key
None	C (Am)



*** Relative Minor Key**
Starts on the 6th key of its Major scale and shares the same Key Signature. In general, if a song ends on a Major chord, it is in the Major Key; if it ends on a minor chord, it is in the Relative Minor Key.

Flat Key Signatures

Accidentals	Major (minor*) Key
-------------	--------------------

B ^b	First Flat = Key of F	F (Dm)
B ^b E ^b		B ^b (Gm)
B ^b E ^b A ^b		E ^b (Cm)
B ^b E ^b A ^b D ^b	Key = 1 flat back	A ^b (Fm)
B ^b E ^b A ^b D ^b G ^b		D ^b (B ^b m)
B ^b E ^b A ^b D ^b G ^b C ^b		G ^b (E ^b m)
B ^b E ^b A ^b D ^b G ^b C ^b F ^b		C ^b (A ^b m)

Flats
B^b E^b A^b D^b G^b C^b F^b
(BEAD Go Cee Flats)^b

Key
F B^b E^b A^b D^b G^b C^b
First (BEAD Go Cee)^b

To Find Key
From the last flat, go one flat back.

Key of E^b
Flat back

Sharp Key Signatures

Sharps	Major (minor*) Key
--------	--------------------

F [#]		G (Em)
F [#] C [#]		D (Bm)
F [#] C [#] G [#]		A (F [#] m)
F [#] C [#] G [#] D [#]	Key = 1 key up	E (C [#] m)
F [#] C [#] G [#] D [#] A [#]		B (G [#] m)
F [#] C [#] G [#] D [#] A [#] E [#]		F [#] (D [#] m)
F [#] C [#] G [#] D [#] A [#] E [#] B [#]		C [#] (A [#] m)

Observe that flat and sharp letters are reversed:
(BEADGCF)^b vs. (FCGDAEB)[#]

Sharps
F[#] C[#] G[#] D[#] A[#] E[#] B[#]
(FanCy G' DAE Be sharp)[#]

Key
G D A E B F[#] C[#]
G' DAE Be (FanCy)[#]

To Find Key
From the last sharp, go one key up.

Key of E
Sharp key up!

Intervals

An interval is the *distance* between keys in a scale or the *difference* between tones in a song.
Scale intervals are numbered by their distance from the Root key.

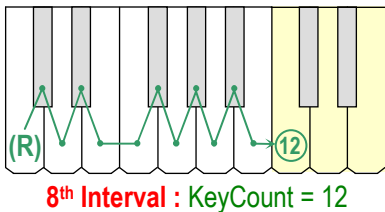
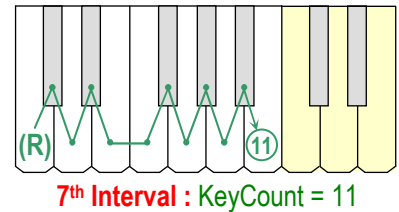
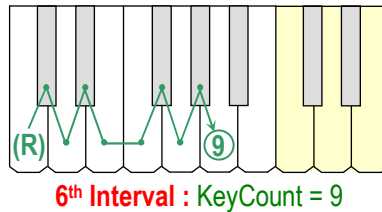
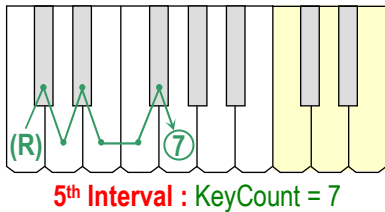
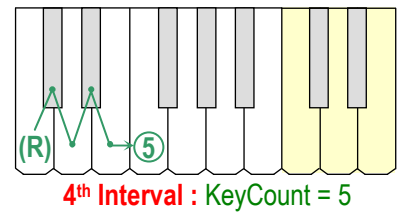
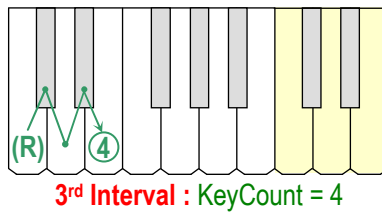
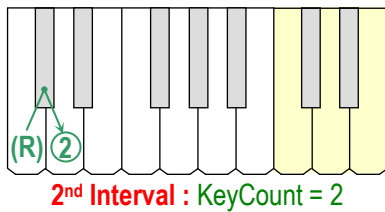
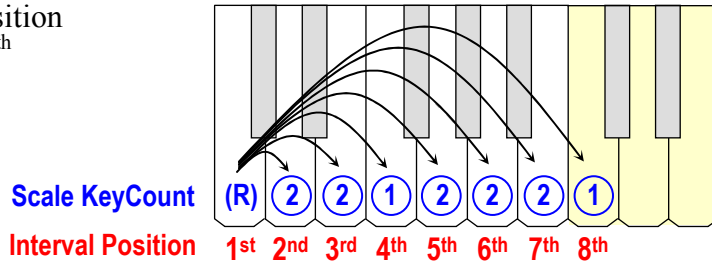
Interval Positions

In a scale, the Root is in the 1st interval position followed by the 2nd, 3rd, 4th, etc. up to the 8th (octave) interval position.

Interval KeyCounts

To find intervals for any Major Scale, count keys from the Root to each key as shown below for the C-Major scale.

C-Major Scale

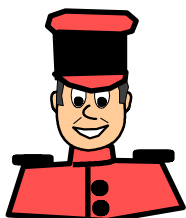


Interval Position:	1st	2nd	3rd	4th	5th	6th	7th	8th
Interval KeyCount	(R)	2	4	5	7	9	11	12
Perfect Intervals	P			P	P			P

Perfect Intervals are considered to be the most *harmonious* or *consonant*.
Other intervals are classified as major, minor, augmented, or diminished.

To remember *Major Scale's* Interval KeyCounts, imagine that (R) = Resident followed by his Social Security Number (SSN):

(R) 245-79-1112



Major Scale

Scale KeyCount

(R) 221-2221

Interval KeyCount

(R) 245-79-1112

1st 2nd 3rd 4th 5th 6th 7th 8th

(R) 2 4 5 7 9 11 12

To Match KeyCount to Interval
Hold 8 fingers up to represent Intervals 1-8, then recite the SSN.

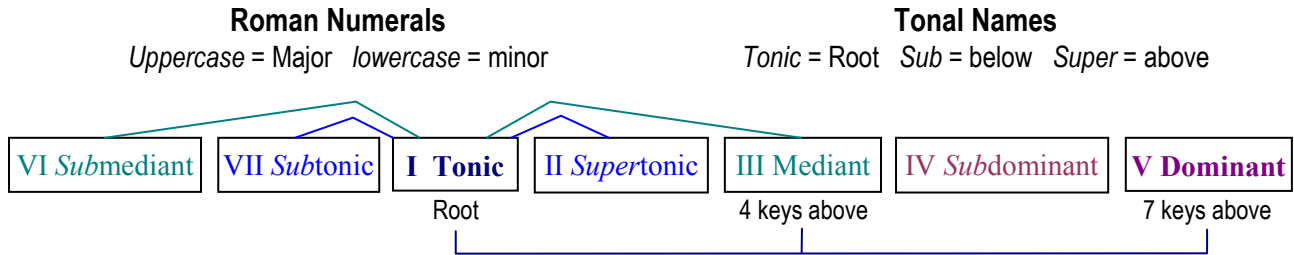
Counting Down

Intervals can also be reached by counting *down* from the 8th.
Since an octave has 12 keys:
UpCount + DownCount = 12

Interval	UpCount	DownCount
1st	0	12
2nd	2	10
3rd	4	8
4th	5	7
5th	7	5
6th	9	3
7th	11	1
8th	12	0

Chords

Chord order defines a song's harmonic structure. This order remains the same even if a song is *transposed* (changed) to a different Key to better match the range of a singer's voice or accompanying instruments. To keep the chord names independent of the Key, composers use either *Roman Numerals* and/or *Tonal Names* for each chord.



- Normally arranged I through VII, the numeral order above better shows the sub/super relationship to the Tonic.
- If tonal naming were consistent, the Mediant would be called the *Supemediant*. But "median" means "middle," and the Mediant is the middle of the Major Triad.

Major Triad

Major Triads (3-key chords) are formed from the 1st, 3rd, and 5th keys of a Major scale which corresponds to the KeyCount (R)-4-7.

To Transpose

- Determine the Key (scale) of the song (from the Key Signature).
- Circle the song's chords on the following chart. (Add *m*, 7, etc. as needed)
- Determine the corresponding Roman Numeral pattern.
- Pick the Key to transpose to.
- Box the new chords in the same Roman Numeral columns and apply the pattern.

Example

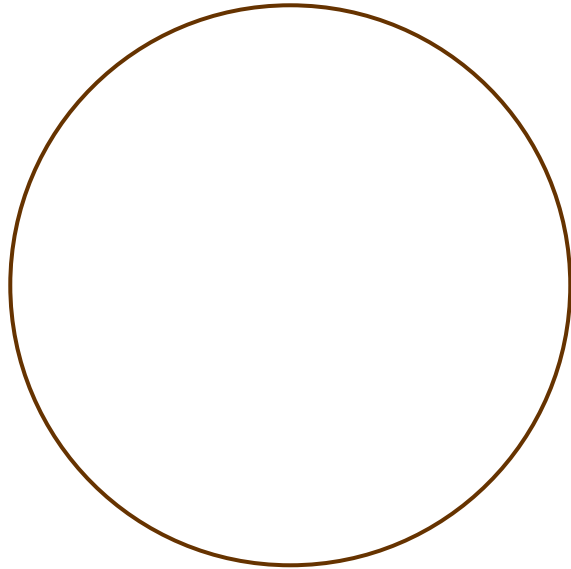
C-Major
C-Am-G7-C
I-vi-V7-I
G-Major
G-Em-D7-G

Major Chord	I	II	III	IV	V	VI	VII	I
minor chord	i	ii	iii	iv	v	vi	vii	i
Interval Number	1st	2nd	3rd	4th	5th	6th	7th	8th
Tonal Name	Tonic	Super-tonic	Mediant	Sub-dominant	Dominant	Sub-mediant	Sub-tonic	Tonic (Octave)
12 Major Scales								
C Major	C	D	E	F	G7	A ^m	B	C
D Major	D	E	F#	G	A	B	C#	D
E Major	E	F#	G#	A	B	C#	D#	E
F Major	F	G	A	Bb	C	D	E	F
G Major	G	A	B	C	D7	E ^m	F#	G
A Major	A	B	C#	D	E	F#	G#	A
B Major	B	C#	D#	E	F#	G#	A#	B
C#/Db Major	C#/Db	D#/Eb	F	F#/Gb	G#/Ab	A#/Bb	C	C#/Db
D#/Eb Major	D#/Eb	F	G	G#/Ab	A#Bb	C	D	D#/Eb
F#/Gb Major	F#/Gb	G#/Ab	A#Bb	B	C#/Db	D#/Eb	F	F#/Gb
G#/Ab Major	G#/Ab	A#/Bb	C	C#/Db	D#/Eb	F	G	G#/Ab
A#/Bb Major	A#/Bb	C	D	D#/Eb	F	G	A	A#/Bb
KeyCounts								
Major Scale	(Root)	2	2	1	2	2	2	1
Major Intervals	(Root)	2	4	5	7	9	11	12
Major Triad	(Root)	---	4	---	7	---	---	---

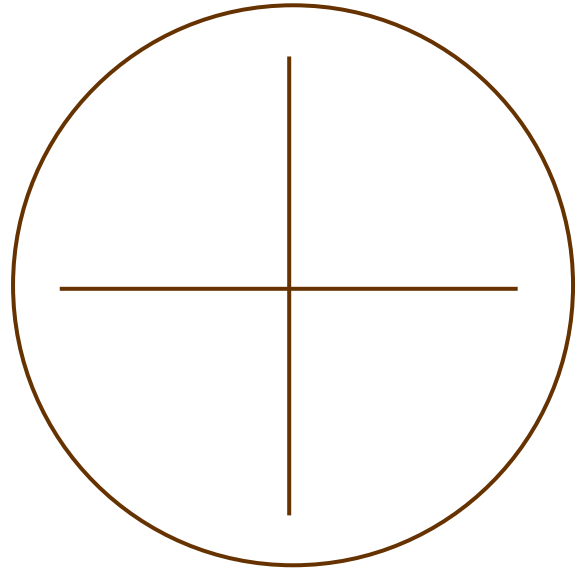
If desired, print the TRANSPOSER chart at the end of this document on cardstock, and laminate it so you can use a dry-erase pen to mark chords.

Creating the Circle

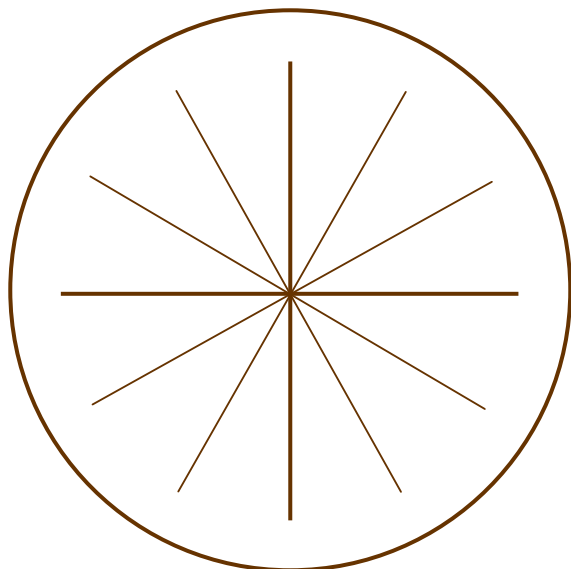
The **Circle of Fifths** is a diagram that composers, arrangers, *and you* can use as an aid to understanding, creating, or modifying a song. It compactly displays all 12 tones of the keyboard and a wealth of useful information. Observing its construction will help you understand its structure. We'll compare the Circle of Fifths to a pie we'll serve at a CAFE we own.



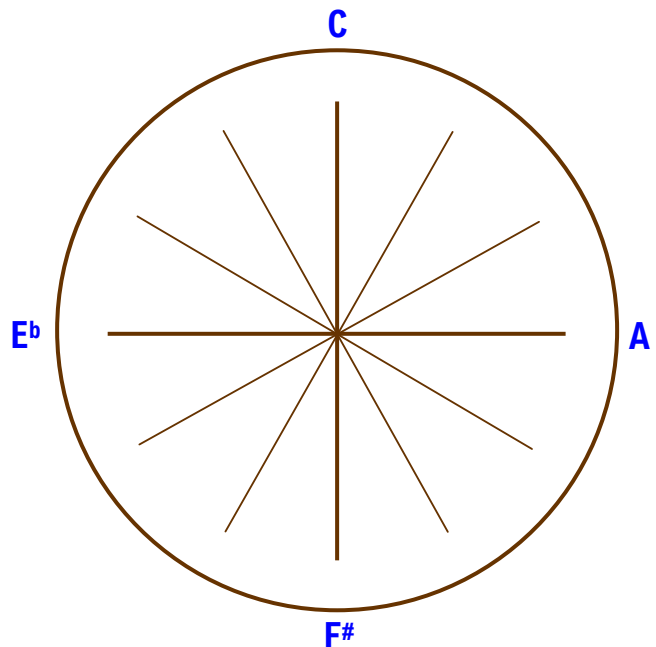
Step 1: Bake the pie.



Step 2: Cut it into four big pieces.



Step 3: Cut the four big pieces into thirds so we can serve 12 customers.

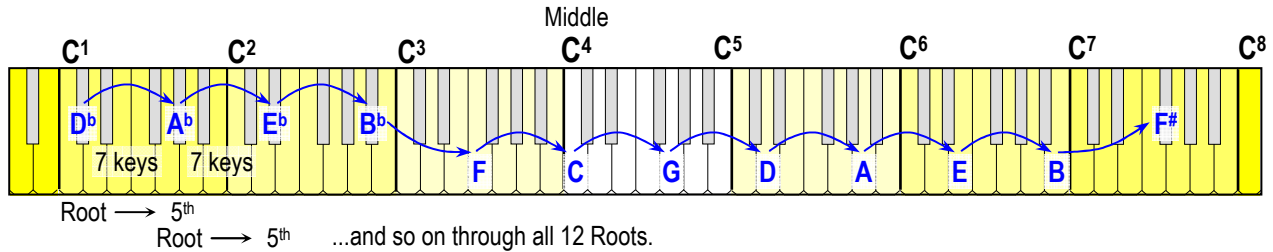


Step 4: Decorate the four big cuts clockwise with candy letters: C A F# E^b.
Customers Always Feel sharp when they Eat flat pies.

Major Scales / Fifths

The Circle of *Fifths* is so named because it displays Major scale/chord/key letters at every *fifth* interval. To reach a 5th interval we start from the Root and count *up* 7 keys [(R) 245-79-1112].

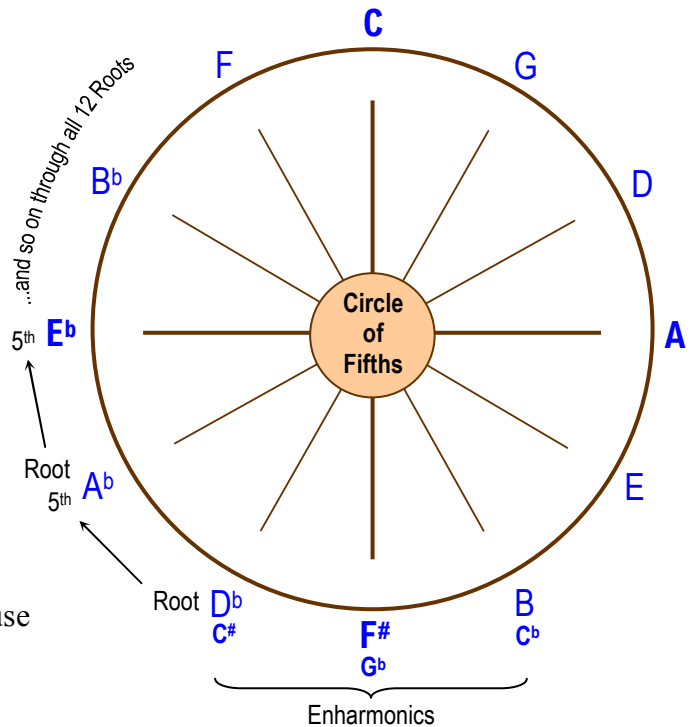
In the following keyboard diagram, we treat **D^b** as a Root and count up 7 keys to its 5th interval **A^b**. Then, treating **A^b** as a Root, we count up another 7 keys to its 5th interval **E^b** and so on until we reach the 12th Root **F[#]**. (If we counted up 7 keys from F[#], the process would begin again with D^b.)



Step 5: Start at the 7 o'clock position with **D^b** and fill in more candy letters clockwise around the pie in the order we derived them above:

D^b A^b E^b B^b F C G D A E B F[#]

Our *flat* **D^bA^bE^b B^b** begins at 7 am. But after a cup of coffee, it's a *FanCy* **G'DAE** Because we *F[#]eel sharp*. We'll then add the (same tone, different name) enharmonics **C[#] G^b C^b** below D^b F[#] B. (Imagine they're heavier so sink to the bottom.)



Fourths

If we treat any letter on the above keyboard as a Root and count *down* 7 to the key below it, it's equivalent to starting at the same Root an octave below and counting *up* 5 keys. This is true because an octave has 12 keys and 7 + 5 = 12.

Counting 5 keys up from the Root yields the 4th interval [(R) 245-79-1112].

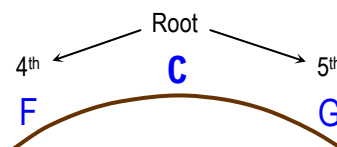
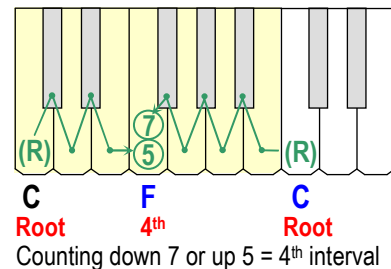
For example, counting down 7 keys from C, or counting up 5 keys from the C below, yields F, which is the 4th interval of the C-Major scale.

Therefore, from any Root on the Circle:

- Counterclockwise = 4th
- Clockwise = 5th

For this reason, the Circle of Fifths is sometimes called the Circle of *Fourths*!

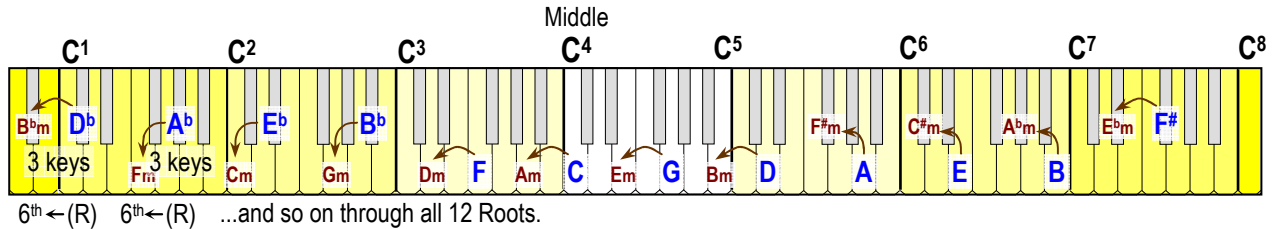
Confused? Each letter on the Circle can be a Root or a 4th or a 5th (or any other interval). It all depends on which other letter you're relating it to.



Relative Minor Scales

The *Relative Minor Scale* starts on the 6th position of its corresponding Major scale. The 6th position is 9 keys up [(R) 245-79-1112] from the Root. But this is the same as 3 keys down (9 + 3 = 12).

In the following keyboard diagram we count 3 keys *down* from each of the 12 Roots to their respective relative minor 6ths. For example, treating **D^b** as a Root and counting 3 keys down yields its 6th interval **B^b** which starts the relative B^bm scale.



Step 6: Starting at **D^b**, we'll decorate an *inner* ring of our pie clockwise with *minor* candy letters in the order we derived them above:

B^bm Fm Cm Gm Dm Am Em Bm F[#]m C[#]m A^bm E^bm

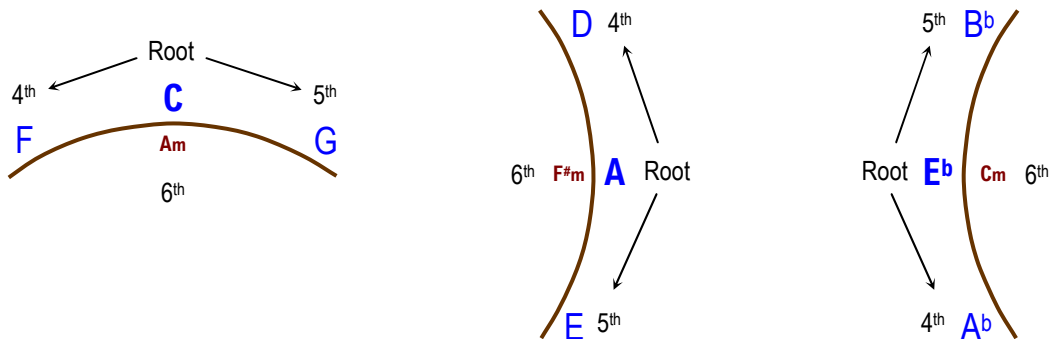
We'll also add enharmonics **A[#]m D[#]m G[#]m** to the three bottom minor letters.

Sixths

Dropping the minor "m" from the letters on the inner ring yields the 6th interval of each Root on the outer ring. For example, moving in from the C Root yields Am. Dropping the "m" yields the 6th interval A.

From any Root on the outer Circle:

- Counterclockwise = 4th
- Clockwise = 5th
- In = 6th (without the "m")



Be sure to shift your orientation as you travel around the Circle.

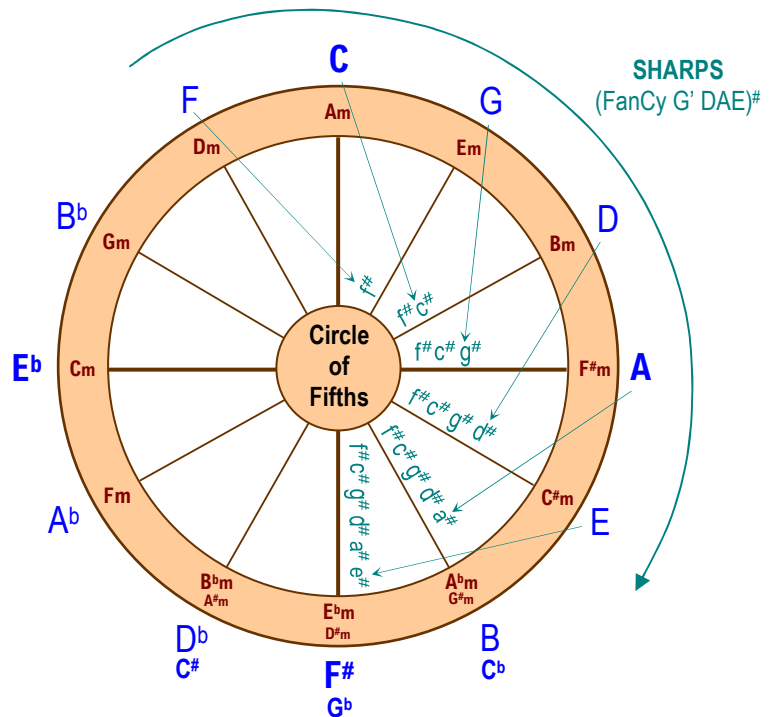
Key Signatures

Along the cuts of the Circle of Fifths are the sharps and flats that make up the Key Signatures shared by the Major and Relative Minor scales. The C / Am scales have no sharps or flats, so their cut is empty.

Sharps

Step 7: Key Signature sharps follow the Major Scale letters clockwise on the outer ring from F to E. Imagine greeting your customers with a (fancy g' dae)# while you decorate the right half of the pie with sharp candy letters.

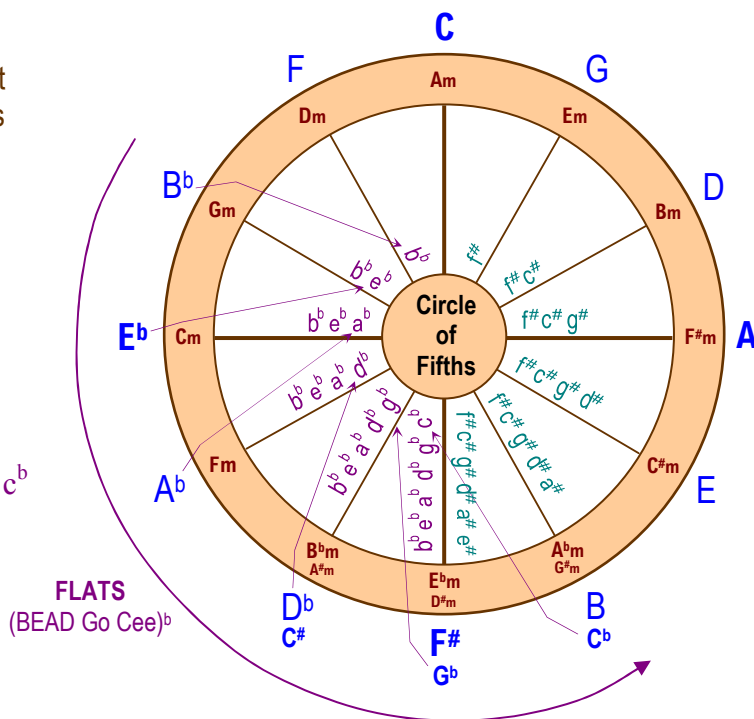
Scale	Key Signature
C / Am	---
G / Em	f#
D / Bm	f# c#
A / F#m	f# c# g#
E / C#m	f# c# g# d#
B(Cb) / A#m(G#m)	f# c# g# d# a#
F#(Gb) / E#m(D#m)	f# c# g# d# a# e#



Flats

Step 8: Key Signature flats follow the Major Scale letters counterclockwise from Bb to Cb. Imagine decorating the left half of the pie with flat candy letter beads and telling your customers to take a look by saying (bead go cee)b.

Scale	Key Signature
F / Dm	b ^b
B ^b / Gm	b ^b e ^b
E ^b / Cm	b ^b e ^b a ^b
A ^b / Fm	b ^b e ^b a ^b d ^b
D ^b (C#) / B ^b m(A#m)	b ^b e ^b a ^b d ^b g ^b
G ^b (F#) / E ^b m(D#m)	b ^b e ^b a ^b d ^b g ^b c ^b



Circle of Fifths

The Swiss Army Knife of Music!

Scales

Outer Ring: 12 Major Scales

Inner Ring: 12 Relative Minor Scales

From any Major Root on the Outer Ring:

- Go counterclockwise to the 4th interval
- Go clockwise to the 5th interval
- Go in to 6th interval (without the “m”)

Chords

Outer Ring: 12 Major I Chords

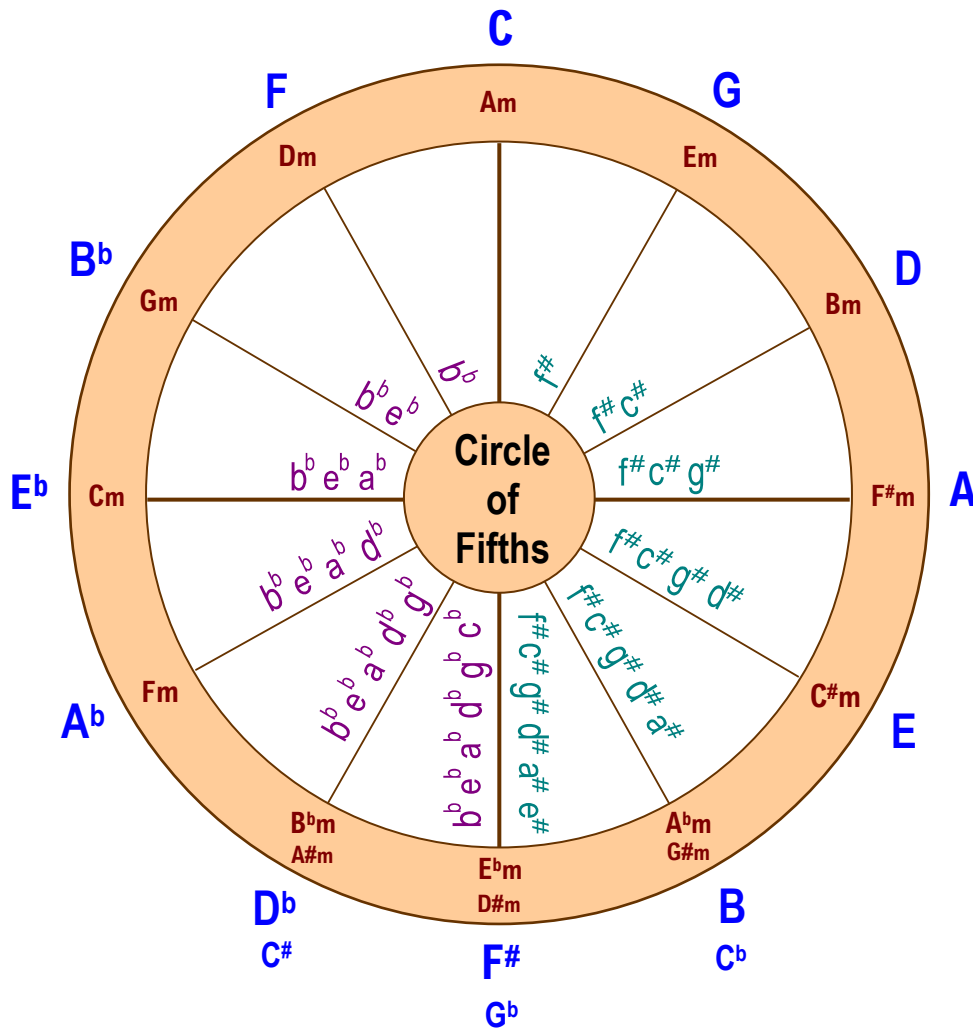
Inner Ring: 12 minor vi Chords

From any Major I chord on the Outer Ring:

- Go counterclockwise to the IV chord
- Go clockwise to the V chord
- Go in to the minor vi chord

Key Signatures

Sharps/flats along inside lines.



If desired, print the 88 & 5th chart at the end of this document, and laminate it so you can use a dry-erase pen to mark scales, intervals, and chords.

Using the Circle

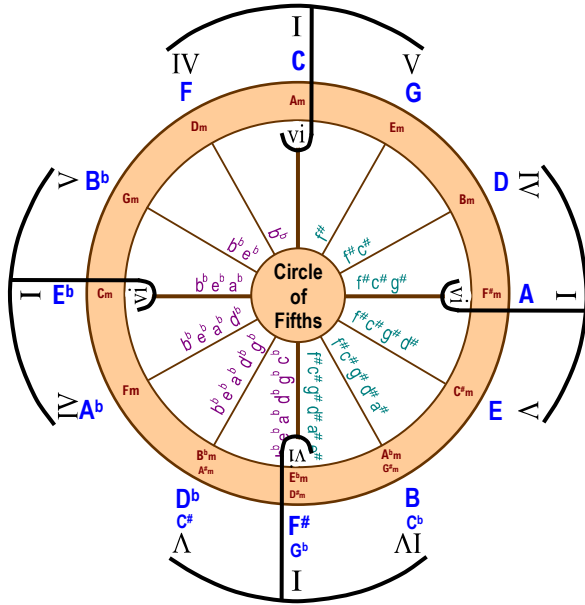
Besides being a compact collection of musical facts, you can use the Circle of Fifths to help you compose songs, develop chord progressions, and transpose.

Umbrella Chords

I-IV-V-vi

These are the most common chords used in most songs.

To find them for any Key, imagine an umbrella covering the desired Tonic I chord on the outer ring.

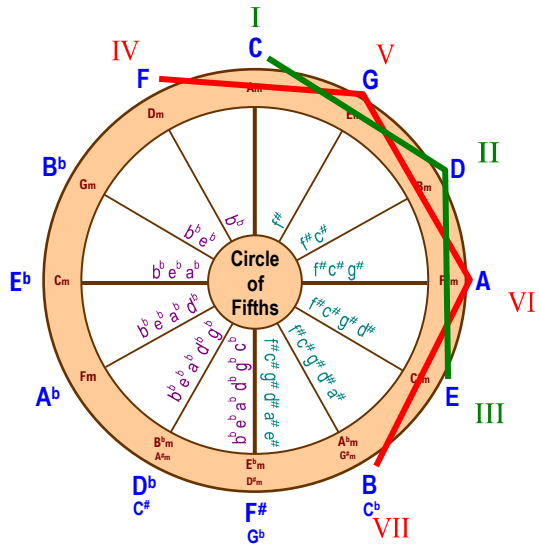


House Chords

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

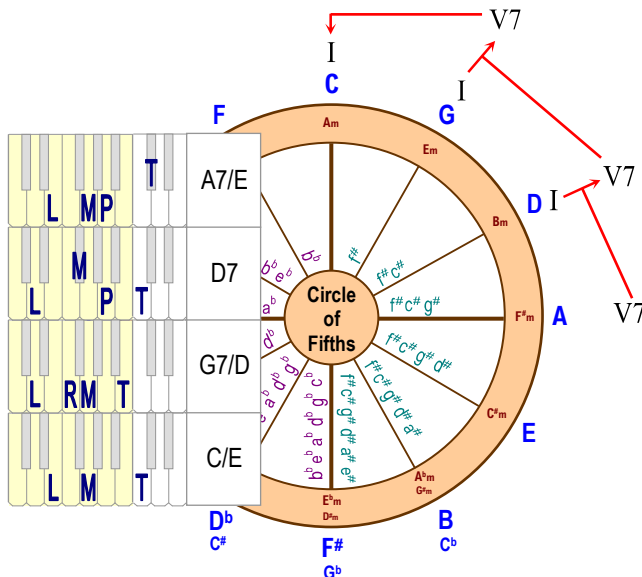
To find all Major Chords for any Key, start with the desired Tonic I chord on the outer ring and imagine a I-II-III roof perched on top of a IV-V-VI-VII house.

Notice how every other chord is connected.



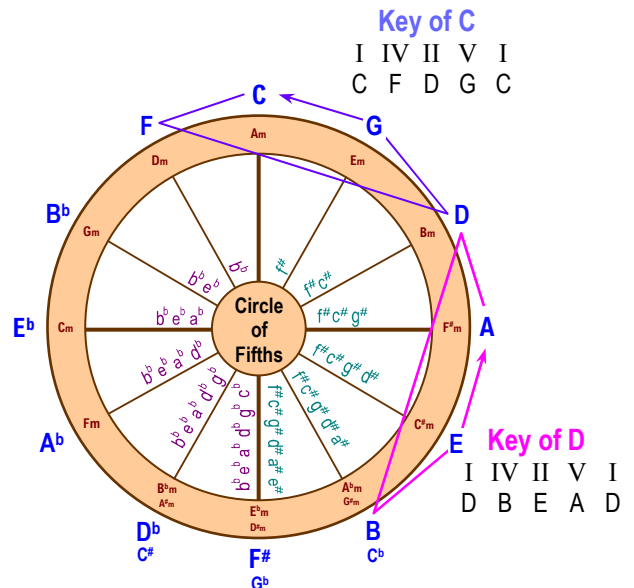
T for Tension

The V7 chord creates a sense of tension that is resolved by playing its I chord. To prolong this tension, play a V7 chord and travel counterclockwise to its I chord, but follow the red "T" and play the I as another V7 chord, and so on, finally resolving to a I chord.



Trace to Transpose

Trace an arrow pattern to match the existing chord pattern. Write out the chord numerals/names if desired. Start with the new beginning chord, and trace an identical pattern to find the equivalent transposed chords.



TRANSPOSER

Print on cardstock and laminate.
Mark with a dry-erase pen.

When expressed in Chord Numerals, a song's harmonic structure is independent of its particular scale (Key), making it easy to transpose to a Key that better matches singing voices or instruments. Start by circling the chords for the existing scale (adding *m* for minor, 7 for sevenths, etc.) and noting the chord-numeral order. Then box the equivalent chords in the desired scale. You can also transpose each *note* of the song this way.

Major Chord	I	II	III	IV	V	VI	VII	I
minor chord	i	ii	iii	iv	v	vi	vii	i
Interval Number	1st	2nd	3rd	4th	5th	6th	7th	8th
Tonal Name	Tonic	Super-tonic	Mediant	Sub-dominant	Dominant	Sub-mediant	Sub-tonic	Tonic (Octave)
12 Major Scales								
C Major	C	D	E	F	G	A	B	C
D Major	D	E	F#	G	A	B	C#	D
E Major	E	F#	G#	A	B	C#	D#	E
F Major	F	G	A	Bb	C	D	E	F
G Major	G	A	B	C	D	E	F#	G
A Major	A	B	C#	D	E	F#	G#	A
B Major	B	C#	D#	E	F#	G#	A#	B
C#/Db Major	C#/Db	D#/Eb	F	F#/Gb	G#/Ab	A#/Bb	C	C#/Db
D#/Eb Major	D#/Eb	F	G	G#/Ab	A#Bb	C	D	D#/Eb
F#/Gb Major	F#/Gb	G#/Ab	A#/Bb	B	C#/Db	D#/Eb	F	F#/Gb
G#/Ab Major	G#/Ab	A#/Bb	C	C#/Db	D#/Eb	F	G	G#/Ab
A#/Bb Major	A#/Bb	C	D	D#/Eb	F	G	A	A#/Bb
KeyCounts								
Major Scale	(Root)	2	2	1	2	2	2	1
Major Intervals	(Root)	2	4	5	7	9	11	12
Major Triad	(Root)	---	4	---	7	---	---	---

- The most common chord progression is **I IV V7 I** (Tonic, Subdominant, Dominant 7th, Tonic). Example: **C F G7 C**.
- The Dominant 7th chord **V7** produces a tension that is resolved by playing its Tonic I chord. Example: **G7** resolves to **C**.
- The 12-Bar Blues progression follows this pattern: **I I I IV IV I I V IV I I**. Example: **CCCC FF CC G F C C**.
- For an alternate sound, the minor sixth **vi** can sometimes be substituted for the Tonic I. Example: **Am** substitutes for **C**.

88 & 5th

Print on cardstock and laminate.
Mark with a dry-erase pen.

Scales

Outer Ring: 12 Major Scales

Inner Ring: 12 Relative Minor Scales

From any Major Root:

- Counterclockwise = 4th interval
- Clockwise = 5th interval
- In = 6th interval (without the "m")

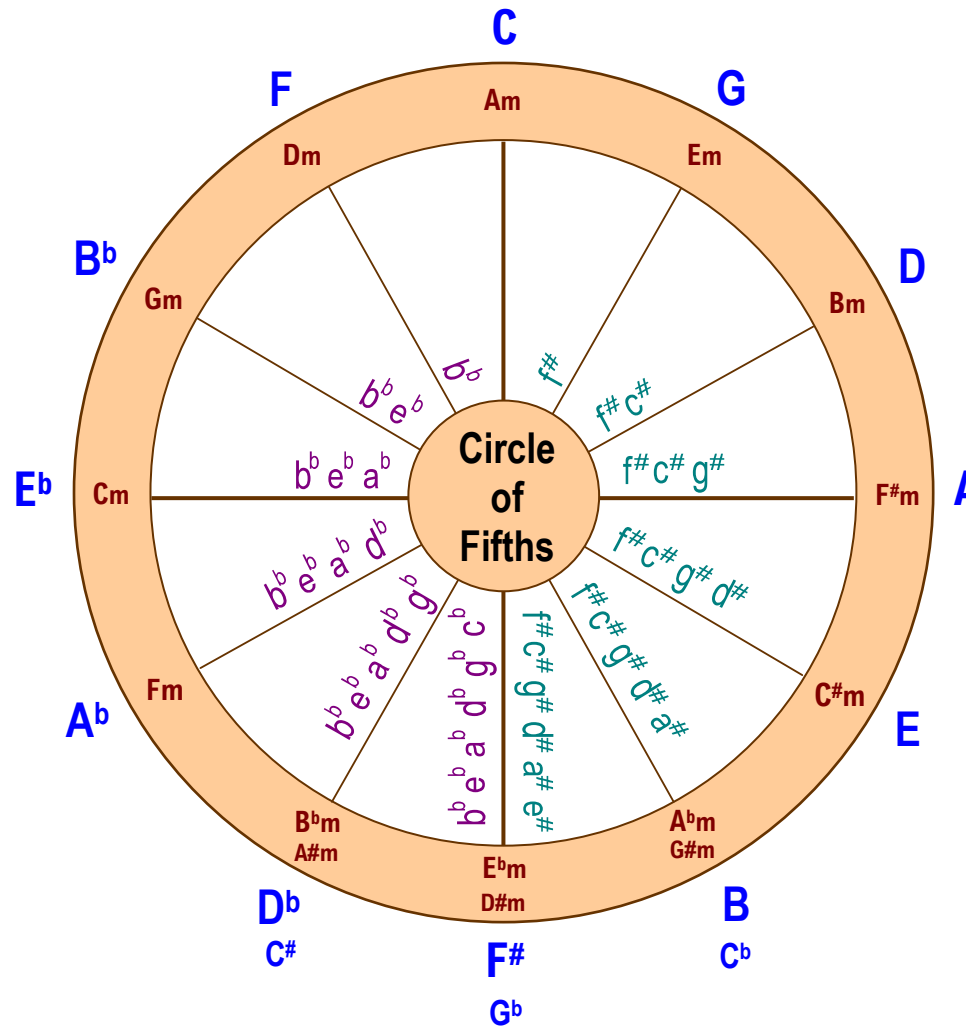
Key Signatures

Sharps/flats along inside lines

Example: b^b = Key of F or Dm

If song ends on Major chord: Major Key

If song ends on minor chord: Minor Key



Chords

Outer Ring: 12 Major I Chords

Inner Ring: 12 minor vi Chords

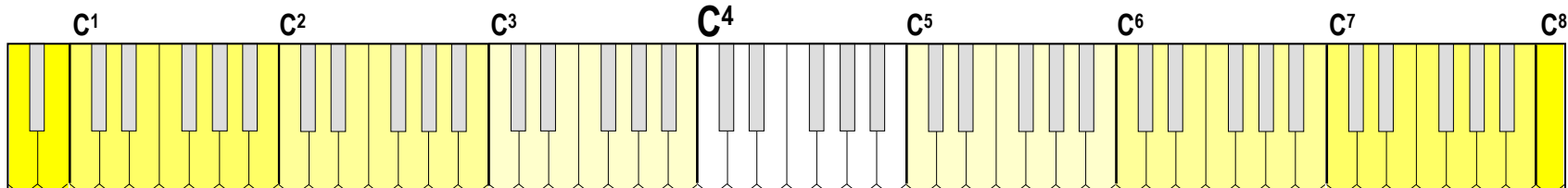
From any Major I chord:

- Counterclockwise = IV chord
- Clockwise = V chord
- In = minor vi chord

Using the Circle

Refer to accompanying page for:

- Umbrella Chords: I IV V vi
- House Chords: I II III IV V VI VII
- T for Tension: V7 to I
- Trace to Transpose



BUILDING SCALES, INTERVALS, CHORDS

Mark the desired (R)oot on the 88-key keyboard diagram above, then follow the KeyCount and mark the remaining keys to build the desired musical structure.

POSITION:

	1 ST	2 ND	3 RD	4 TH	5 TH	6 TH	7 TH	8 TH
Major Scales:	(R)	2	2	1 -	2	2	2	1
Intervals:	(R)	2	4	5 -	7	9	11	12
Major Triads:	(R)		4		7			