What is the Circle Of Fifths?

It's a road map to music and a tool to understand the nature of how chords and chord progressions are organised in western music. Basically it's a simple circle with the twelve semitones (half steps) called the chromatic scale spaced evenly around the perimeter exactly a fifth interval apart in the same way as the twelve hours are spaced around a clock face.

If we place the note C at the 12 o'clock position, then the fifth note up the scale of C is the note G (C-D-E-F-G) so we place G at the next position (1 o'clock) like so . . .

We now have two notes a perfect fifth interval apart so let's move on.

Taking the new note of "G", then the fifth note up on the scale of G is the note "D" (G-A-B-C-D) so we place D at the next (2 o'clock) position.

Taking the new note of "D", then the fifth note up on the scale of D is the note "A" (D-E-F#-G-A) so we place A at the next (3 o'clock) position.
Taking the new note of "A", then the fifth note up on the scale of A is the note "E" (A-B-C#-D-E) so we place E at the next (4 o'clock) position.

Taking the new note of "E", then the fifth note up on the scale of E is the note "B" (E-F#-G#-A-B) so we place B at the next (5 o'clock) position.

Taking the new note of "B", then the fifth note up on the scale of B is the note "F#" (B-C#-D#-E-F#) so we place F# at the next (6 o'clock) position.

Note that a sharp (#) is half a tone higher from its natural note and it can also be a flat (b) of its natural note which is a half a tone lower, so F# can also be called Gb depending on the key you are using . . . confused??

Music is a bit like Windows, there's many names for the same thing and many ways to do the same thing.

So finally, proceeding right around the circle using the fifth note in the scale of the previous one, we come full circle back to C at 12 o'clock . . .
So what?

Well this is where it gets interesting.

Whichever note you pick for your key note (we will call it "Home") then the note to the right (clockwise) is obviously the perfect fifth but the note to the left (anti-clockwise) turns out to be **the perfect fourth** as well.

What does that mean?

Well the chords built on the first, fourth and fifth notes of any scale generally form the formula of just about every folk, rock'n'roll, blues, old time or bluegrass tune ever invented.

What's with the Roman numerals?

**ROMAN NUMERAL NOTATION**

Because we are dealing with many different numbers and keys, convention has adopted Roman numerals to avoid confusion with sub sets of numbers.
The Roman numerals are used for the chord numbers 1-2-3-4-5-6-7 and for major chords we use the upper case I-IV-V and for minor chords we use the lower case ii-iii-vi-vii.

That sounds confusing to start with but give it some time to soak in and you will instantly come to recognise if it's a major or minor chord by noticing the upper or lower case used.

For major chords of the first, fourth and fifth we use I, IV and V and for the minor chords of the second, third and sixth we use ii, iii and vi. So the most common chords for most songs will be I, IV, V, ii, iii and vi.

**THE 1-4-5 (I-IV-V) CHORD PROGRESSION**

If you play songs in the key of C, you will no doubt notice that most of them use the chords C, F, & G.

Now look at the circle. Notice where they lie?

F is the perfect fourth on the left and G is the perfect 5th on the right.

But if you play songs in the key of G, you will notice that most of them use the chords G, C, & D. Now look at the circle. Notice where they lie?
C is now the perfect fourth on the left and D is now the perfect 5th on the right.

Similarly, if you play songs in the key of D, you will notice that most of them use the chords D, G, & A. Now look at the circle. Notice where they lie?

G is now the perfect fourth on the left and A is the perfect 5th on the right.

And if you play songs in the key of F, you will no doubt notice that most of them use the chords F, Bb, & C. Now look at the circle. Notice where they lie?

Now Bb is the perfect fourth on the left and C is the perfect 5th on the right.

Can you see the same pattern forming for every key?

So it doesn’t matter what key you are playing in, the fourth is to the left or anti-clockwise and the fifth is to the right or clockwise.

To illustrate this, here’s an example . . .
"You Are My Sunshine" in C uses the chord progression (pattern or formula) of I, IV & V

(Key of C with 4 beats on each)

C - C - C - C
F - F - C - C
F - F - C - C
C - G - C - C

Which as a numbered chord progression is . . .
I  - I  - I - I
IV - IV - I - I
IV - IV - I - I
I  - V  - I - I

So to play it in G using the circle it becomes . . .
G - G - G - G
C - C - G - G
C - C - G - G
G - D - G - G

And in D it becomes . . .
D - D - D - D
G - G - D - D
G - G - D - D
D - A - D - D

And in F it becomes . . .
F  - F  - F - F
Bb - Bb - F - F
Bb - Bb - F - F
F  - C  - F - F

And so on . . .

THE SEVENTH OR "TENSION" CHORD

Another interesting property of this system is that you can quickly find the tension chord to resolve your tune back to "the home" chord. A tension chord I hear you say??? What's that?

It's an unbalanced sounding chord you create by changing the normal fifth chord to a "five-seventh" chord. It is known officially as the "Dominant Seventh" in music but is usually referred to as just "the seventh". It is
used to destabilise the chord sound to emphasise a movement in a given direction. In other words playing a song in the key of C, instead of playing the normal fifth chord G towards the end of the tune, you actually play a G7 chord which introduces some tension and this makes it sound like it wants to resolve back to the key chord or "the home" chord, in this case C.

![Diagram of chord progression in C key]

This works the same in any key . . . the 7th always wants to resolve to the chord to the left (anti-clockwise)

![Diagram of chord progression in other keys]

The classic "Hawaiian Vamp" used to introduce a lot of Hawaiian tunes makes use of this seventh chord resolution to home often by stringing two seventh chords together. An example for this is for the key of C, you start by strumming 4 beats on D7, 4 on G7 then 4 beats on C.

![Diagram of "Hawaiian Vamp" chord progression]
The same goes for other keys . . .

So here's what the full circle of fifths now looks like with the major keys on the outside and the relative minor keys on the inside. Don't worry about the relative minor keys at this stage, that's another story.

Note we've also shown how many sharps or flats are in each key, that's important when you're counting the chords, you must use the correct chord for the key. C has no sharps or flats as all notes in C are natural notes.
G however has one sharp (F#), D has two sharps (C#, F#), A has three sharps (C#, D#, F#), F has one flat (Bb), Bb has two flats (Bb, Eb) and Eb has three flats (Bb, Eb, Ab) and so on.

Here's what the Circle Of Fifths looks like for the most commonly used major keys . . .

(Don't be concerned about the seventh diminished chord just yet, that's another story for more complex songs. We are dealing with the common folk, rock, old time and bluegrass stuff here.)
**THE HANDY CHORD FINDER**

We all have this unique chord counter at our fingertips. It's called your strumming hand and here's how to use it to find the common chords to use for any key.

![Chord Finder Diagram](image)

Note that the upper and lower case tells us that the first is a major chord, the second is a minor, the third is a minor, the fourth is a major, the fifth is a major and the sixth is a minor chord.

So to use it for a two chord song or a three chord song like most folk and old time songs, here's how it generally works for most of the time (but there is always an exception for the more complex tunes).

For a 2 chord song in C you will probably be alternating between C and G7 (I and V7).

For a 2 chord song in G you will probably be alternating between G and D7 (I and V7).

For a 2 chord song in F you will probably be alternating between F and C7 (I and V7).

For a 3 chord song in C you will probably be using C, F and G7 (I, IV and V7).

![Two Chord Song Diagram](image)
For a 3 chord song in G you will probably be using G, C and D7 (I, IV and V7).

For a 3 chord song in F you will probably be using F, Bb and C7 (I, IV and V7).

Following are our "Cheat Sheets" for jamming by ear in the major keys

<table>
<thead>
<tr>
<th>Key of C</th>
<th>(There is no Cb or B#)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Key of D</td>
<td>Key of Db (or C#)</td>
</tr>
<tr>
<td>Key of E</td>
<td>Key of Eb (or D#)</td>
</tr>
<tr>
<td>Key of F</td>
<td>(There is no Fb or E#)</td>
</tr>
<tr>
<td>Key of G</td>
<td>Key of Gb (or F#)</td>
</tr>
<tr>
<td>Key of A</td>
<td>Key of Ab (or G#)</td>
</tr>
<tr>
<td>Key of B</td>
<td>Key of Bb (or A#)</td>
</tr>
</tbody>
</table>

As you can see from the piano keyboard, there is no half note or semitone between B & C or E & F.
The Uke-n-Stringalong
C tuned ukulele
fretboard notes for
“C MAJOR”

COMMON CHORD PROGRESSIONS

MAJORS

I    IV    V    V7

minors

ii    iii    vi

C C C E A

G F

A D B

B G C

E D F

F G E

A D B

4 3 2 1
COMMON CHORD PROGRESSIONS

MAJORS

I    IV    V    V7

minors

ii   iii   vi

D MAJOR notes for "D MAJOR"
COMMON CHORD PROGRESSIONS

MAJORS

I   IV   V   V7

minors

ii  iii  vi
COMMON CHORD PROGRESSIONS

**MAJORS**

I  IV  V  V7

**minors**

ii  iii  vi

---

**Eb MAJOR**

- G
- C
- Eb
- Ab
- F
- Bb
- D
- Bb
- Eb
- G
- C
- Ab
- F
- G
- Ab

- Eb:
- Ab:
- Bb:
- Gm:
- Cm:
- Fm:
- Bb7:
The Uke-n-Stringalong C tuned ukulele fretboard notes for "F MAJOR"

COMMON CHORD PROGRESSIONS

**MAJORS**

- I
- IV
- V
- V7

**MINORS**

- ii
- iii
- vi

Chord Diagrams:

- F
- Bb
- C
- Gm
- Am
- Dm

Fretboard Layout:

- 4th
- 3rd
- 2nd
- 1st
The Uke-n-Stringalong
C tuned ukulele
fretboard notes for
"G MAJOR"

COMMON CHORD PROGRESSIONS

MAJORS

I    IV    V    V7

G    C    D    D7

minors

ii    iii    vi

Am    Bm    Em

Gmaj7
Gb

COMMON CHORD PROGRESSIONS

**MAJORS**

I    IV    V    V7

**minors**

ii    iii    vi

The Uke-n-Stringalong G tuned ukulele fretboard notes for "Gb MAJOR"
COMMON CHORD PROGRESSIONS

MAJORS

I    IV    V    V7

MINORS

ii    iii    vi

The Uke-n-Stringalong
C tuned ukulele
fretboard notes for
“A MAJOR”

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

A  D  E  B  G#  C#  F#  A

G C E A

COMS COMMON CHORD PROGRESSIONS

MAJORS

I IV V V7

MINORS

ii iii vi
COMMON CHORD PROGRESSIONS

MAJORS

I  IV  V  V7

minors

ii  iii  vi

The Uke-n-Stringalong C tuned ukulele fretboard notes for “Ab MAJOR”

Ab  Db  F  Bb

Bb  Eb  G  C

Ab  Db

Eb

F

G

Ab

4  3  2  1
COMMON CHORD PROGRESSIONS

**MAJORS**

<table>
<thead>
<tr>
<th>I</th>
<th>IV</th>
<th>V</th>
<th>V7</th>
</tr>
</thead>
<tbody>
<tr>
<td>B</td>
<td>E</td>
<td>F#</td>
<td>F#7</td>
</tr>
</tbody>
</table>

**minors**

<table>
<thead>
<tr>
<th>ii</th>
<th>iii</th>
<th>vi</th>
</tr>
</thead>
<tbody>
<tr>
<td>C#m</td>
<td>D#m</td>
<td>G#m</td>
</tr>
</tbody>
</table>

The Uke-n-Stringalong C tuned ukulele fretboard notes for “B MAJOR”
COMMON CHORD PROGRESSIONS

MAJORS

I    IV    V    V7

minors

ii   iii   vi
MAJOR KEY NOTES FOR TRANSPOSING

<table>
<thead>
<tr>
<th>MAJOR KEY</th>
<th>Number Of Sharps (#)</th>
<th>Sharp Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>0</td>
<td>-</td>
</tr>
<tr>
<td>G</td>
<td>1</td>
<td>F#</td>
</tr>
<tr>
<td>D</td>
<td>2</td>
<td>F# C#</td>
</tr>
<tr>
<td>A</td>
<td>3</td>
<td>F# C# G#</td>
</tr>
<tr>
<td>E</td>
<td>4</td>
<td>F# C# G# D#</td>
</tr>
<tr>
<td>B</td>
<td>5</td>
<td>F# C# G# D#</td>
</tr>
<tr>
<td>F#</td>
<td>6</td>
<td>F# C# G# D#</td>
</tr>
<tr>
<td>C#</td>
<td>7</td>
<td>F# C# G# D#</td>
</tr>
</tbody>
</table>

Sharps (#) are half a tone higher and flats (b) are half a tone lower so A# and Bb are in fact the same note.

Understanding music key signatures

Here's one way you can look at major music key signatures and know what keys they represent. If the signature has sharps, identify the last sharp and raise that note by a half step. For instance if the last sharp is F#, raise that note by half a step. This takes us to G. The key is G. If the last note in the signature is C sharp, raise it by a half step to D. In this case, the key is D.

How about flat keys? If the signature has flats, simply look at the note before the last. That note tells you the key. For instance, E flat major has three flats. The note before the last is E flat. The key is E flat.

The only exceptions to this rule are C since it has no sharps and flats, and F, since it has one flat.

Key signatures: major and relative minor

<table>
<thead>
<tr>
<th>MAJOR KEY</th>
<th>Number Of Flats (b)</th>
<th>Flat Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>F</td>
<td>1</td>
<td>Bb</td>
</tr>
<tr>
<td>Bb</td>
<td>2</td>
<td>Bb Eb</td>
</tr>
<tr>
<td>Eb</td>
<td>3</td>
<td>Bb Eb Ab</td>
</tr>
<tr>
<td>Ab</td>
<td>4</td>
<td>Bb Eb Ab Db</td>
</tr>
<tr>
<td>Db</td>
<td>5</td>
<td>Bb Eb Ab DbGb</td>
</tr>
<tr>
<td>Gb</td>
<td>6</td>
<td>Bb Eb Ab DbGbCb</td>
</tr>
<tr>
<td>Cb</td>
<td>7</td>
<td>Bb Eb Ab DbGbCb Fb</td>
</tr>
</tbody>
</table>