Key Signatures

- A key signature is a set of sharps and flats typically written at the beginning of a composition.

- Key signatures let musicians know what notes are to be played as sharps or flats throughout the composition or for a specific section.

- If a key signature is placed anywhere else other than at the beginning of the composition, then it signals a key change or modulation to a different key (tonal center) until a new key signature is reached.

- Key signatures simplify notation by allowing the composer to specify a default value for notes without having to write an "accidental" (explicit sharp or a flat symbol) in front of each note.

- For example, in the following illustration, the second and last notes are played as F# because the key signature indicates this with a single sharp on the F line:
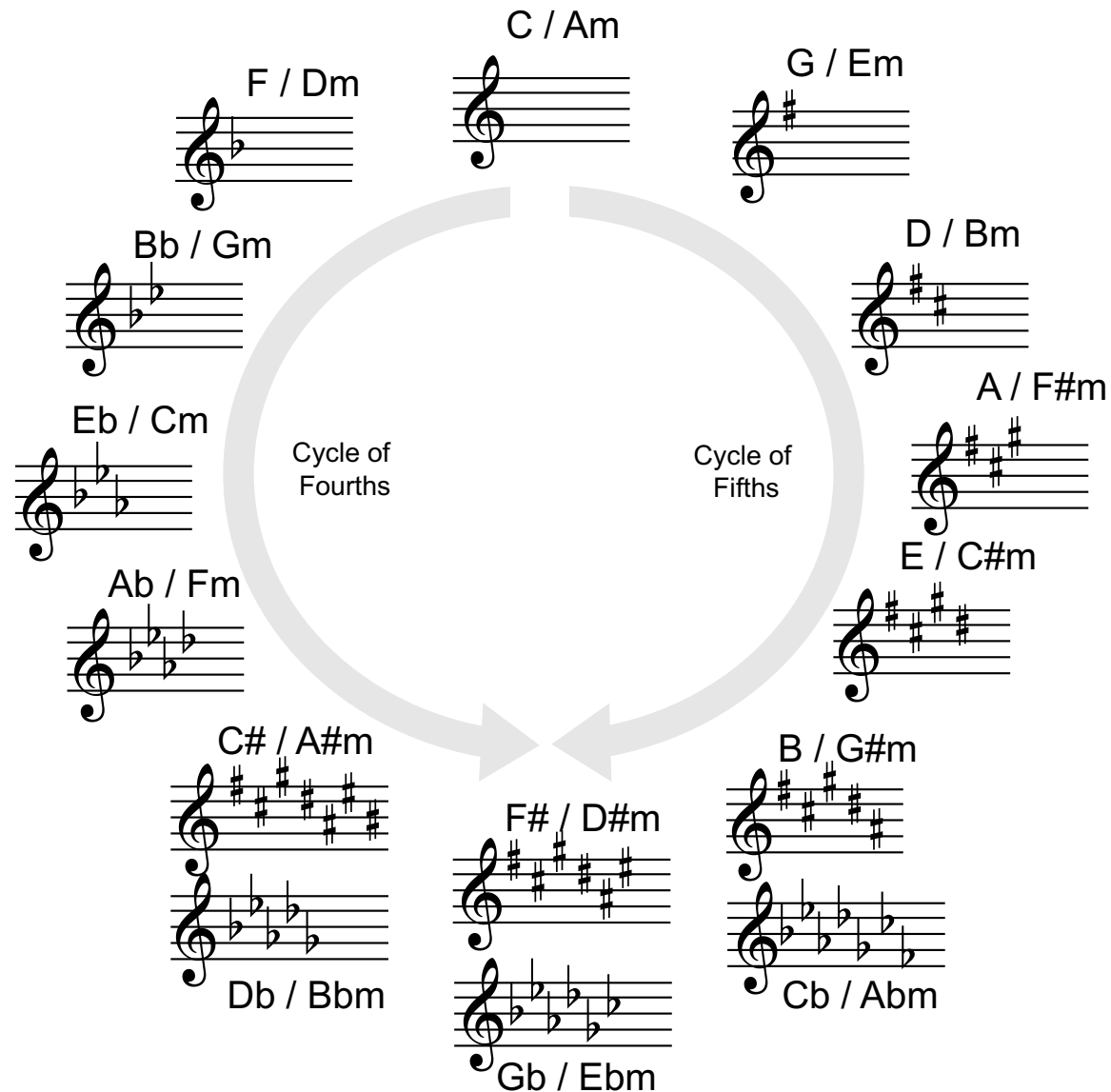

- If the key signature had been omitted, then the composer would need to use a separate sharp in front of each note to represent the same note values:

- Key signatures reduce the amount of symbols that performers have to read and interpret while playing at tempo.

Key Signatures

- The following illustration shows all of the key signatures and the corresponding number of sharps or flats that defines each key.

Accidentals

- An "accidental" is a symbol for a sharp (♯) or a flat (♭) written in front of a note. Its purpose is to temporarily modify the note value specified by the key signature for the rest of the measure.

- A natural is used to cancel a previous accidental within the same measure. In the following example, the first note is a C natural; the second note is raised by a half step because it is preceded by a sharp symbol so it is played as a C sharp (C#). The third note is still played as a C# even though it is not explicitly preceded by a sharp symbol because the previous sharp is still in effect. The fourth note is lowered back to a C natural because the previous sharp symbol is canceled by the natural sign (♮).

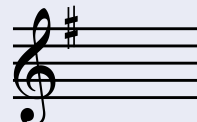- When the end of the measure is reached, then it terminates any accidentals (sharps or flats) contained in that measure. Notation rules do not require that any explicit natural symbols be written to cancel accidentals at the start of a new measure but some composers will include a natural to remind performers that the previous accidentals are no longer in effect. These are sometimes referred to as courtesy or cautionary accidentals and are usually surrounded by parentheses, for example:
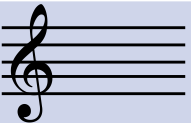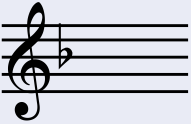

- Other notation symbols for accidentals are the double sharp (𝄪) and the double flat (𝄫). The double sharp is used to raise a note by two half steps and the double flat is used to lower a note by two half steps.
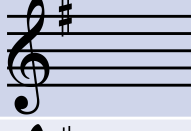
Diatonic chords in each major key (Cycle of 5ths)

Key	Signature	I	ii7	iii7	IV	V7	vii7	vii°
C		Cmaj7	Dm7	Em7	Fmaj7	G7	Am7	B°
G		Gmaj7	Am7	Bm7	Cmaj7	D7	Em7	F#°
D		Dmaj7	Em7	F#m7	Gmaj7	A7	Bm7	C#°
A		Amaj7	Bm7	C#m7	Dmaj7	E7	F#m7	G#°
E		Emaj7	F#m7	G#m7	Amaj7	B7	C#m7	D#°
B		Bmaj7	C#m7	D#m7	Emaj7	F#7	G#m7	A#°
F#		F#maj7	G#m7	A#m7	Bmaj7	C#7	D#m7	E#°
C#		C#maj7	D#m7	E#m7	F#maj7	G#7	A#m7	B#°

Diatonic chords in each major key (Cycle of 4ths)

Key	Signature	I	ii7	iii7	IV	V7	vii7	viiº
C		Cmaj7	Dm7	Em7	Fmaj7	G7	Am7	Bº
F		Fmaj7	Gm7	Am7	Bbmaj7	C7	Dm7	Eº
Bb		Bbmaj7	Cm7	Dm7	Ebmaj7	F7	Gm7	Aº
Eb		Ebmaj7	Fm7	Gm7	Abmaj7	Bb7	Cm7	Dº
Ab		Abmaj7	Bbm7	Cm7	Dbmaj7	Eb7	Fm7	Gº
Db		Dbmaj7	Ebm7	Fm7	Gbmaj7	Ab7	Bbm7	Cº
Gb		Gbmaj7	Abm7	Bbm7	Cbmaj7	Db7	Ebm7	Fº
Cb		Cbmaj7	Dbm7	Ebm7	Fbmaj7	Gb7	Abm7	Bbº

Diatonic chords in each minor key (Cycle of 5ths)

Key	Signature	i7	ii∅	Imaj7	iv	v7	VII	vii7
Cm		Cm7	D∅	Ebmaj7	Fm7	Gm7	Abmaj7	Bb7
Gm		Gm7	A∅	Bbmaj7	Cm7	Dm7	Ebmaj7	F7
Dm		Dm7	E∅	Fmaj7	Gm7	Am7	Bbmaj7	C7
Am		Am7	B∅	Cmaj7	Dm7	Em7	Fmaj7	G7
Em		Em7	F#∅	Gmaj7	Am7	Bm7	Cmaj7	D7
Bm		Bm7	C#∅	Dmaj7	Em7	F#m7	Gmaj7	A7
F#m		F#m7	G#∅	Amaj7	Bm7	C#m7	Dmaj7	E7
C#m		C#m7	D#∅	Emaj7	F#m7	G#m7	Amaj7	B7

Diatonic chords in each major key (Cycle of 4ths)

Key	Signature	i7	ii∅	Imaj7	iv	v7	VII	vii7
Cm		Cm7	D∅	Ebmaj7	Fm7	Gm7	Abmaj7	Bb7
Fm		Fm7	G∅	Abmaj7	Bbm7	Cm7	Dbmaj7	Eb7
Bbm		Bbm7	C∅	Dbmaj7	Ebm7	Fm7	Gbmaj7	Ab7
Ebm		Ebm7	F∅	Gbmaj7	Abm7	Bbm7	Cbmaj7	Db7
Abm		Abm7	Bb∅	Cbmaj7	Dbm7	Ebm7	Fbmaj7	Gb7
Dbm		Dbm7	Eb∅	Emaj7	F#m7	G#m7	Amaj7	B7
Gbm		Gbm7	Ab∅	Amaj7	Bm7	C#m7	Dmaj7	E7
Cbm		Cbm7	Db∅	Dmaj7	Em7	F#m7	Gmaj7	A7