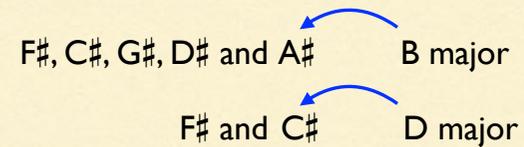


FUNDAMENTAL HARMONY

Dr. Declan Plummer
Lesson 1: The Basics (Keys, Scales & Intervals)

Key Signatures for Major Keys

1. The Sharp Rule
Father - **C**hristmas - **G**ave - **D**ad - **A**n - **E**lectric - **B**lanket
2. Using the Sharp Rule **without a key signature:**
 - Count one **letter back in the musical alphabet** to find the last sharp of the key signature.



Key Signatures for Major Keys

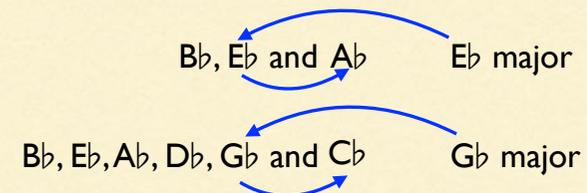
3. The sharp rule (**F**ather - **C**hristmas - **G**ave - **D**ad - **A**n - **E**lectric - **B**lanket) also gives you the order the sharps are written on staves
4. Using the Sharp Rule **with a key signature:**
 - Find the last sharp in the key signature and count one **letter forward in the musical alphabet** to get the major key



F#, C#, G#, **D#** → E major

Key Signatures for Major Keys

3. The Flat Rule
Blanket - **E**xplodes - **A**nd - **D**ad - **G**ets - **C**old - **F**eet
4. Using the Flat Rule **without a key signature:**
 - Find the tonic you're starting with in the flat rule and count one **word forward in the flat rule** to find the last flat of the key signature.



Key Signatures for Major Keys

3. The flat rule (**B**lanket - **E**xplodes - **A**nd - **D**ad - **G**ets - **C**old - **F**eat) also gives you the order the flats are written on staves

4. Using the flat Rule **with a key signature**:

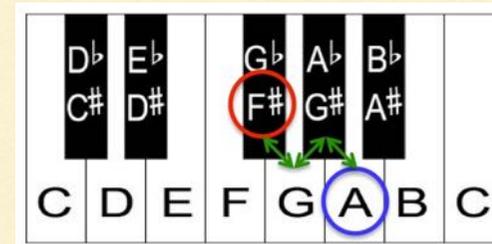
- Find the last flat in the key signature and count one **flat back in the key signature** to get the major key



Bb, Eb, Ab, Db
Ab major

Relative Minors (Minor Keys)

- A key signature is shared by a major key and a minor key! They are described as relative to each other.
- To find the **relative minor**, simply count **DOWN three semitones** from the **major key** and you will find its relative minor, which shares the same key signature.
- To find the **relative major**, simply count **UP three semitones** from the **minor key** and you will find its relative major, which shares the same key signature.



Examples of Using Sharp & Flat Rules

1. What are the major and minor keys for following key signatures?



E major
C# minor



F# major
D# minor



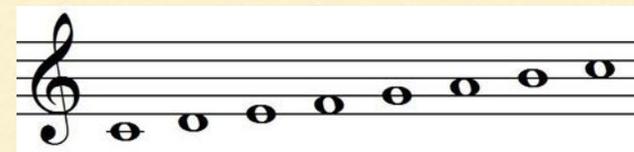
Ab major
F minor



Db major
Bb minor

Scale Degrees

- Each note in any scale is a degree. Degrees can be described using the numeric scale-degree notation to **reflect their positions** in the scale.



1 Tonic
2 Supertonic
3 Mediant
4 Subdominant
5 Dominant
6 Submediant
7 Leading-Note
8 Tonic

- Each degree in any scale also has a special name **to reflect its importance and function** within the scale.

Harmonic & Melodic Minor Scales

- The harmonic minor scale is the **same ascending and descending** and has a **raised leading note** (7̂). For example: the A harmonic minor scale has G# (a raised 7th note) going up and down.



- The melodic minor scale has **raised sub-mediant** (6̂) **and leading-note** (7̂) when **ascending**, but **normal sub-mediant and leading-note** (7̂) when **descending**. For example A melodic minor scale has F# and G# (raised 6th and 7th) going up, but F and G (normal/lowered 6th and 7th) going down.



Intervals

- The distance between any two notes is called an interval.

If two notes are played together they form a **harmonic interval**:



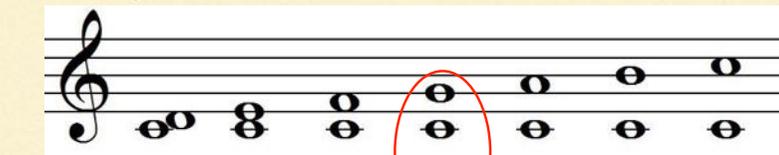
If one comes after the other they form a **melodic interval**:



- The most important things to remember about intervals are:
 - When working out the distance of an interval, **both notes** are **always counted**.
 - Intervals are **always calculated** from the **bottom note**, even if the top note comes first!
 - Harmonic intervals** are the **simplest type of harmony** - intervals are the basis for all harmony (see triads in next class).

How to Calculate Intervals

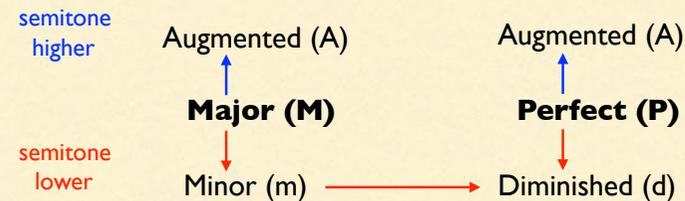
- Start at the **bottom note**
- Count all the notes from the bottom note to the top note (e.g. C1, D2, E3, F4, G5).
- Treat the bottom note as the first note of a **major scale**
- If the top note is in that scale, then we call the intervals by the following names



Major 2nd Major 3rd Perfect 4th **Perfect 5th** Major 6th Major 7th Perfect 8ve

How to Calculate Intervals

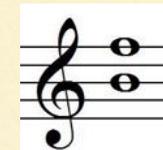
- If the top note is **not part** of the bottom note's **major scale**, then follow these rules



Minor 3rd (m3)



Augmented 4th (A4)



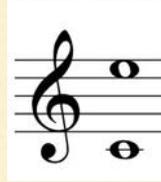
Diminished 5th (d5)

Compound Intervals

1. So far all the intervals discussed have been simple intervals (less than an octave wide). If the interval is greater than an octave it is called a compound interval.
2. Compound intervals are formed by the combination of a perfect 8ve (P8) plus the other interval:



Major 3rd (M3)



Compound
Major 3rd (Compound M3)

can also be described as
a Major 10th (M10)