

MUT 1001
FUNDAMENTALS OF MUSIC

Federico Bonacossa, Instructor
fbonacos@fiu.edu

Shira Amiel, Learning Assistant
samie001@fiu.edu

UNIT 6
MINOR KEYS AND SCALES

MAJOR TO MINOR

The simplest way to generate a minor scale is to start with a major scale and lower the third note ($\hat{3}$). You may think of a minor scale as an inflected major scale. The lowered third is the basic and most important difference between major and minor scales.

C major



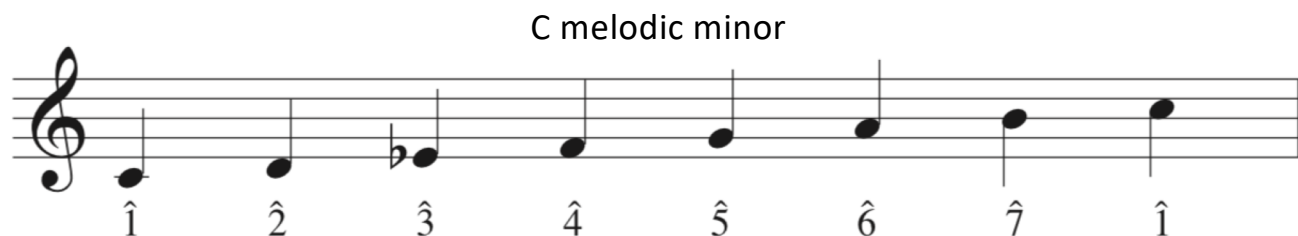
C minor



Ex. 6-1

MAJOR TO MINOR

Another important difference between major and minor scales is that while there is only one major scale, there are three common types of minor scales. The scale we obtain by simply lowering the third of a major scale is called **melodic minor** scale. The other two are **harmonic** and **natural**.



Note that while each of these scales has a different name, in practice, a composition in a minor key will often contain fragments of all three. When we describe a piece as being in a *minor key*, we do not need to specify the scale (in most cases this would not be possible anyway). We simply say that it is in *minor* instead of *major*.

Ex. 6-2

PARALLEL MINOR

There are two methods for constructing minor scales: **parallel** and **relative**. The parallel method consists of altering a major scale to derive a minor scale. We constructed our first scale (Ex. 6-1) using this method. The term *parallel* refers to the fact that the starting note of the scale (known as *tonic*) is the same for both the major scale and the minor scale derived from it (i.e. C major/C minor). The example below shows all three minor scales constructed using this method. The scales are arranged in order of how many notes are altered with respect to the major scale. Note that all three minor scales have a lowered $\hat{3}$. Notice also that $\hat{1}$, $\hat{4}$, and $\hat{5}$ are the same for all four scales.

The image displays four musical scales on a single staff, each with its name above it: C major, C melodic minor, C harmonic minor, and C natural minor. The scales are written in treble clef. Below each scale, the notes are labeled with solfège syllables: $\hat{1}$, $\hat{2}$, $\hat{3}$, $\hat{4}$, $\hat{5}$, $\hat{6}$, $\hat{7}$, and $\hat{1}$ (octave). The C major scale consists of natural notes. The C melodic minor scale has a lowered $\hat{3}$ and $\hat{7}$. The C harmonic minor scale has a lowered $\hat{3}$ and $\hat{7}$. The C natural minor scale has a lowered $\hat{3}$, $\hat{4}$, and $\hat{7}$.

Ex. 6-3

PARALLEL MINOR

Before discussing the relative method let's summarize the parallel method:

Parallel Method Summary

1 2 3 4 5 6 7 = major scale

1 2 $\flat$ 3 4 5 6 7 = melodic minor

1 2 $\flat$ 3 4 5 $\flat$ 6 7 = harmonic minor

1 2 $\flat$ 3 4 5 $\flat$ 6 $\flat$ 7 = natural minor

Try spelling the following scales using the parallel method:

D harmonic minor

E melodic minor

G natural minor

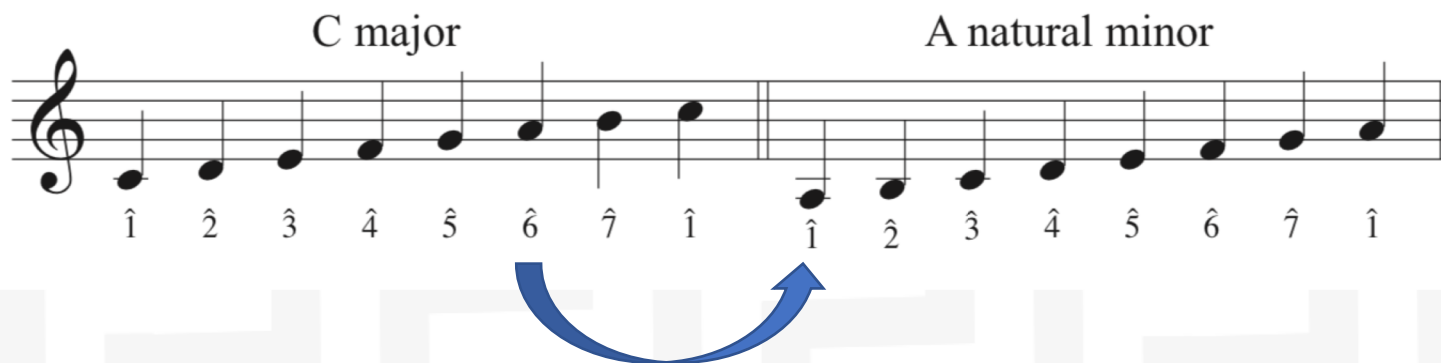
A harmonic minor

Ex. 6-4

RELATIVE MINOR

Minor and major scales also share another interesting relationship:

A major scale starting from $\hat{6}$ becomes a natural minor scale.



The A ($\hat{6}$ of the C major scale) becomes $\hat{1}$ in the A natural minor scale. Note that both scales have the same accidentals (in this case none).

Ex. 6-5

RELATIVE MINOR

Based on the previous example we can state the following:

- 1) All major scales have a relative minor
- 2) A major scale and its relative minor have the same accidentals and therefore the same key signature
- 3) When we move from a major scale to the relative minor, we shift the tonic from $\hat{1}$ to $\hat{6}$ of the major scale. $\hat{6}$ then becomes $\hat{1}$ of the minor scale. This scale will be a **natural minor** scale.

Once we construct our natural minor scale we can alter it to derive the harmonic and melodic versions.

C major A natural minor A harmonic minor A melodic minor

$\hat{1}$ $\hat{2}$ $\hat{3}$ $\hat{4}$ $\hat{5}$ $\hat{6}$ $\hat{7}$ $\hat{1}$ $\hat{1}$ $\hat{2}$ $\hat{3}$ $\hat{4}$ $\hat{5}$ $\hat{6}$ $\hat{7}$ $\hat{1}$ $\hat{1}$ $\hat{2}$ $\hat{3}$ $\hat{4}$ $\hat{5}$ $\hat{6}$ $\hat{7}$ $\hat{1}$ $\hat{1}$ $\hat{2}$ $\hat{3}$ $\hat{4}$ $\hat{5}$ $\hat{6}$ $\hat{7}$ $\hat{1}$

You may have noticed that the scales are arranged in different order here than Ex. 6-3. This is because the natural minor has the most notes in common with the relative major.

Ex. 6-5

RELATIVE MINOR

Relative Method Summary

Natural minor = major scale starting from $\hat{6}$ ($\hat{6}$ becomes $\hat{1}$)

Harmonic minor = natural minor with raised $\hat{7}$

Melodic minor = natural minor with raised $\hat{6}$ and $\hat{7}$

Note that the accidental used to raise a note will depend on the spelling of the starting notes.
Here is a quick reference:

If the starting note is natural use a sharp sign (#)

If the starting note is flat use a natural sign (♮)

If the starting note is sharp use a double sharp sign (x)

Ex. 6-6

RELATIVE MINOR

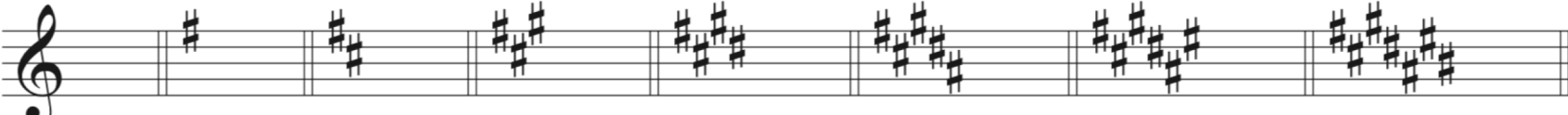
Now try spelling the following scales using the relative method:

- B natural minor
- D melodic minor
- G harmonic minor
- F# natural minor

On the next slide you will find a key signature reference that you may find helpful.

MAJOR AND MINOR KEY SIGNATURES

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



minor: a e b f# c# g# d# a#

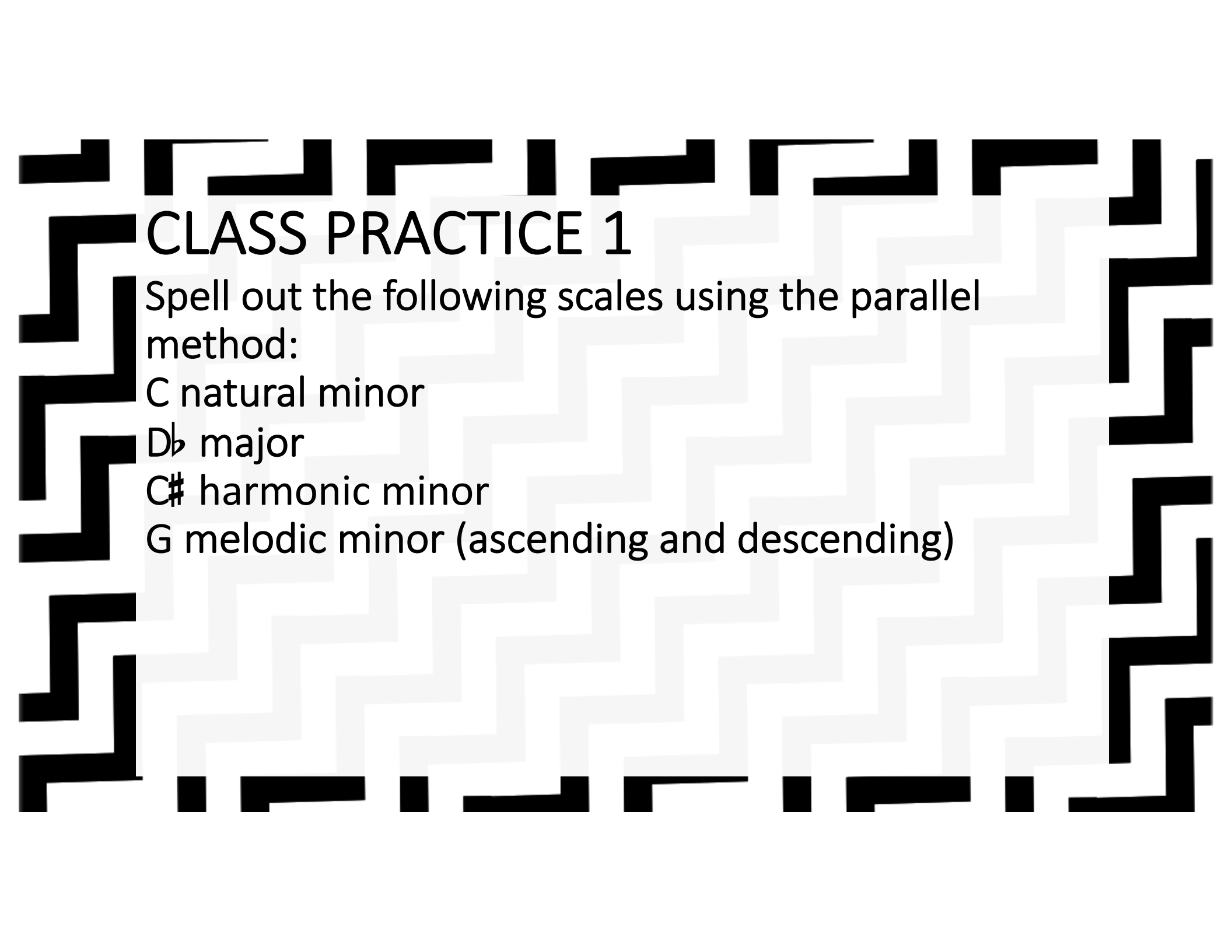
This block displays the major and minor key signatures for the first seven keys. The major keys are C, G, D, A, E, B, and C# (F#), each represented by a musical staff with a treble clef and a key signature of sharps. The minor keys are a, e, b, f#, c#, g#, and a#, each represented by a musical staff with a treble clef and a key signature of sharps. The notes are written in a sequence that corresponds to the key signature.

major: C F Bb Eb Ab Db Gb Cb



minor: a d g c f bb eb ab

This block displays the major and minor key signatures for the next seven keys. The major keys are C, F, Bb, Eb, Ab, Db, and Gb (Cb), each represented by a musical staff with a treble clef and a key signature of flats. The minor keys are a, d, g, c, f, bb, eb, and ab, each represented by a musical staff with a treble clef and a key signature of flats. The notes are written in a sequence that corresponds to the key signature.



CLASS PRACTICE 1

Spell out the following scales using the parallel method:

C natural minor

D $\flat$ major

C $\sharp$ harmonic minor

G melodic minor (ascending and descending)

CLASS PRACTICE 2

Given the following majors scales, derive the relative minor scale, then write the harmonic and melodic minor version:

D major, B major, F major, G major

Example:

The example shows four scales on a single staff, each with fingerings indicated below the notes:

- C major:** C4, D4, E4, F4, G4, A4, B4, C5. Fingerings: 1, 2, 3, 4, 5, 6, 7, 1.
- A natural minor:** A3, B3, C4, D4, E4, F4, G4, A4. Fingerings: 1, 2, 3, 4, 5, 6, 7, 1.
- A harmonic minor:** A3, B3, C4, D4, E4, F4, G#4, A4. Fingerings: 1, 2, 3, 4, 5, 6, 7, 1.
- A melodic minor:** A3, B3, C4, D4, E4, F#4, G#4, A4. Fingerings: 1, 2, 3, 4, 5, 6, 7, 1.