

Primo Theory

Level 11

by
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How to Use this Book

Although some of the levels in this series have interactive capabilities, each level was designed to serve perfectly well as a stand-alone text. The interactive web apps are an enhancement, not a requirement for the completion of the exercises. They serve to reinforce and solidify ear training skills.

The Solo Ear Training Exercises

Many of the ear training exercises are designed for solo practice by the student. However, the teacher should first work with the student on these exercises until the student becomes familiar with the procedures. Afterward, the teacher should regularly observe the student perform them to ensure that the student is maintaining correct practice. The student may discontinue any exercise that can be executed easily and consistently. The exercises should be practiced as the student continues working through different sections in the book.

The Dictation Exercises

The rhythmic and melodic dictation exercises are designed so that the student can work through them with an interactive web app or with the teacher playing the dictation melodies. The teacher can fill in the missing measures with materials of his or her choice, or go to www.primotheory.com to find the complete melodies.

The QR Codes

The QR codes found throughout this series can only be read by using a smart phone or pad which has a QR code reader app installed. If you don't have a QR code reader and don't know where to get one, just follow these directions:

Step 1

With your mobile device, open your App Store (iPhone), Market (Android), Marketplace (Windows Mobile), or App World (Blackberry).

Step 2

Search for "QR reader" and download and install any one of the apps available. There are free or paid versions. Read the reviews and star ratings to decide which is best for you. Once installed, it's ready to go.

Step 3

To scan a QR code, activate the app and center the QR code in the viewfinder as if you are going to take a picture of it. Adjust the distance if necessary. Some code readers scan the code automatically when it's in view, and some require you to press a button.

Step 4

The app should load in a few seconds. If you want to bookmark the app in your web browser for later use, follow the instructions on your particular code reader on how to switch to your web browser.

If, after you read these instructions, you are still unsure what to do, don't give up! Just go to www.primotheory.com for a video tutorial or email robert@primopublishing.com

Online Resources

Be sure to visit www.primotheory.com or www.mytheoryapp.com to find links to an ever-growing list of supplemental materials for each level. Throughout the text you will find directions given as follows:

PrimoTheory.com → Resources → Level 7 → Page 10

This means to go to the website "primotheory.com" where you will be taken to a page containing a "Resources" link. From there just follow the links—click on "Resources", which will take you to a menu with all the volume levels; click on "Level 7", which will take you to a page listing Level 7 resources by page number; finally, click on "Page 10" to find the desired resource.

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Section 1

Rhythm and Meter

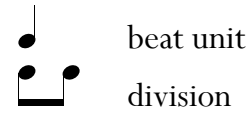
Simple and Compound Time

There are two basic types of beat divisions:

In **simple time** the beat is divided into two equal parts.

A time signature in simple time has **2, 3** or **4** as its top number.

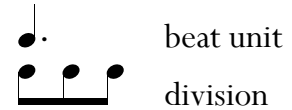
Examples: $\frac{2}{4}$ $\frac{3}{4}$ $\frac{4}{4}$ $\frac{3}{8}$



In **compound time** the beat is divided into three equal parts.

A compound time signature has **6, 9, 12,** or **15** as its top number.

Examples: $\frac{6}{8}$ $\frac{9}{8}$ $\frac{12}{8}$ $\frac{15}{16}$

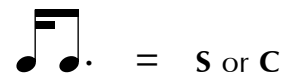
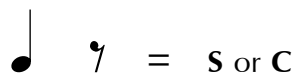
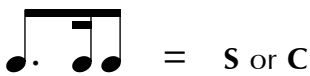
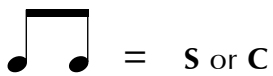
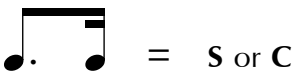
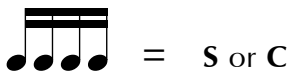
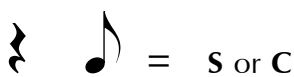
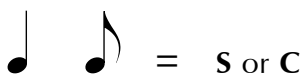
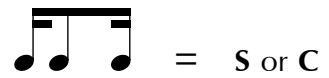
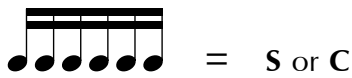
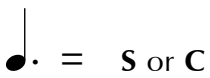
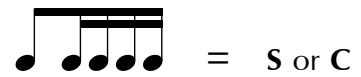
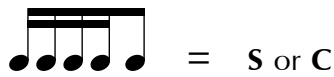
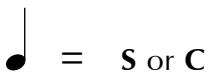


The lower number of a compound time signature represents the largest possible division of the beat. The top number indicates how many of those divisions are in a measure.

For example, in $\frac{6}{8}$ time the dotted quarter note is usually perceived as the beat which is divided by three eighth notes.

1. Each example represents one beat.

Circle the correct description: simple (S) or compound (C) time.



Meter

The **Meter** is the pattern of strong and weak beats in a measure.
Every time signature indicates a certain pattern of strong and weak beats.

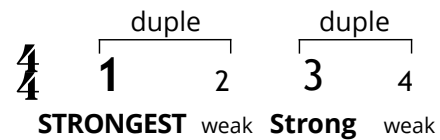
Duple Meter consists of one strong and one weak beat.



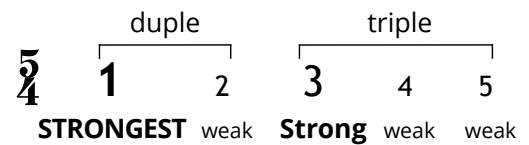
Triple Meter consists of one strong and two weak beats.



Quadruple Meter is a combination of two duple meter patterns in which the first beat is stressed more strongly than the third.

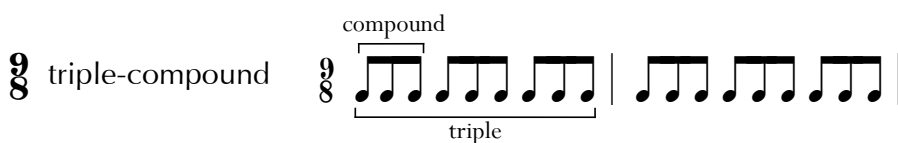
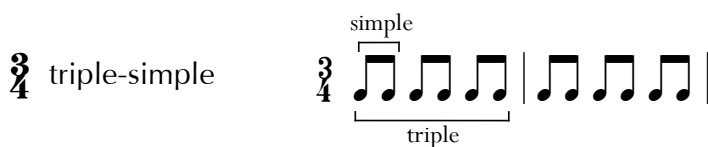
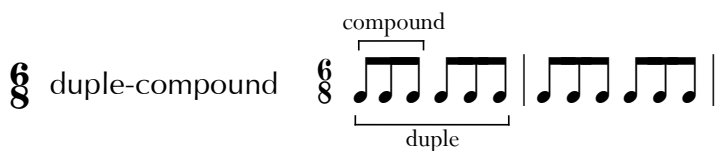
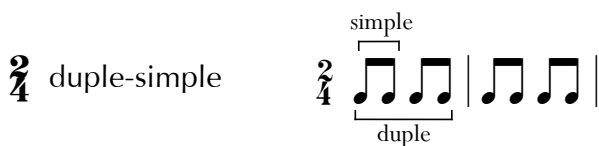


Asymmetrical meter is a combination of duple and triple patterns which create an irregular pulse, such as *quintuple* meter (five beats per measure) or *septuple* meter (seven beats per measure).



A full classification of time signatures includes the following:

- The division of the beat (compound or simple), and
- the number of beats per measure (duple, triple, etc.).



Important Note:

The terms *duple*, *triple*, *quadruple*, and *quintuple* refer to the number of beats per measure. The terms *simple* and *compound* refer to the division of the beat.

2. Classify the following time signatures. Write the complete time classification. Ex. *duple-simple*

$\frac{3}{2}$ *duple-simple* _____

$\frac{3}{8}$ _____

$\frac{6}{8}$ _____

$\frac{5}{4}$ _____

$\frac{3}{2}$ _____

$\frac{6}{4}$ _____

$\frac{4}{4}$ _____

$\frac{12}{8}$ _____

$\frac{9}{8}$ _____

$\frac{7}{4}$ _____

$\frac{3}{4}$ _____

$\frac{12}{16}$ _____

3. At the beginning of each measure, write the correct time signature.

The measures are written in **simple** time, **compound** time or **asymmetrical** meter.

_____ **Simple** _____ **Compound** _____ **Asymmetrical**

_____ **Compound** _____ **Simple** _____ **Asymmetrical**

_____ **Simple** _____ **Compound** _____ **Simple**

Reading Rhythms

4. Clap the rhythms as you count aloud.

1 $\frac{2}{4}$ 

2 $\frac{2}{4}$ 

3 $\frac{3}{4}$ 

4 $\frac{4}{4}$ 

5 $\frac{2}{2}$ 

6 $\frac{3}{2}$ 

7 $\frac{6}{8}$ 

8 $\frac{6}{8}$ 

9 $\frac{9}{8}$ 

10 $\frac{5}{8}$ 

More Rhythm Practice

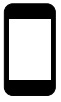


On your PC, take the following route to find more rhythm exercises:

PrimoTheory.com → Resources → Level 11 → Page 7



Ear Training: Rhythmic Dictation



Scan the QR code to access the rhythms to be dictated:



On your PC, take the following route:

MyTheoryApp.com → Level 11 → Rhythmic Dictation: Assignment 5

Rhythmic Dictation

5. Using the web application given above, listen to the rhythms and write the notation on this sheet.

A |-----|-----|-----|-----|

B |-----|-----|-----|-----|

C |-----|-----|-----|-----|

D |-----|-----|-----|-----|

E |-----|-----|-----|-----|

F |-----|-----|-----|-----|

G |-----|-----|-----|-----|

H |-----|-----|-----|-----|

More exercises beyond the assignment on this page are available. Scan the code:



On your PC:

MyTheoryApp.com → Level 11 → Rhythmic Dictation: Extra Rhythms

Section 2

Keys and Scales

The sharps or flats in a **key signature** will always appear in the same order.

Order of Sharps

F C G D A E B

Order of Flats

B E A D G C F

Major SHARP Key Signatures

To find the name of a major key with sharps in the key signature:

- Find the last sharp of the signature.
- Go up a *diatonic* half step from the last sharp to find the tonic (keynote).

Major FLAT Key Signatures

For key signatures with flats, the next-to-last flat in the key signature names the tonic.

The Relative Minor Key

Every major key has a relative minor key which uses the same key signature.

The sixth scale degree of the major scale is the same as the tonic of the relative minor key.

C major and A minor are **relative keys** because they share the same key signature.

Another way to find the relative minor key:

From the tonic of a major key, go down three half steps to find the tonic of its relative minor.

*A diatonic half step is a half step which consists of two different letter names.

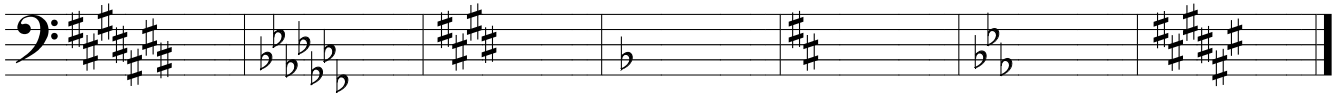
1. For each key signature, name the relative major and minor keys.

Use uppercase letters for major and lowercase letters for minor. Example: G Maj, e \flat min.



Major: _____

minor: _____



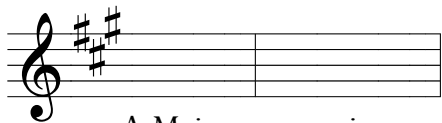
Major: _____

minor: _____

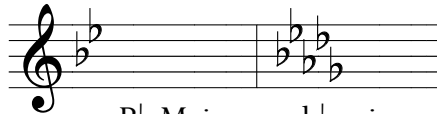
Parallel Major and Minor Keys

Parallel keys are the major and minor keys that share the same tonic, or keynote.

Parallel keys do not share the same key signature. Some examples of parallel keys:

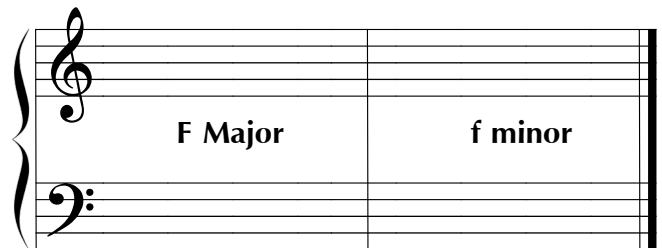
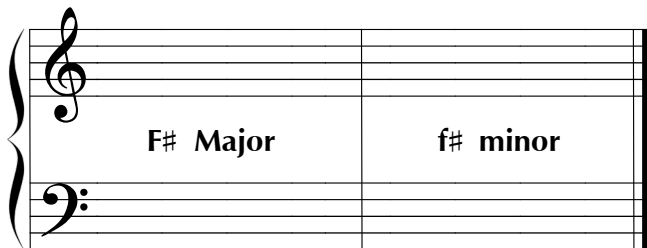
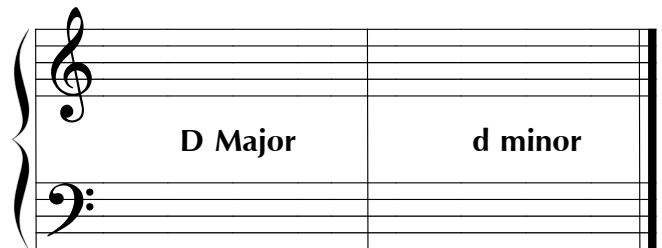
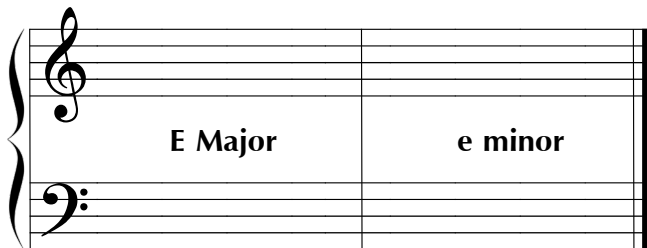
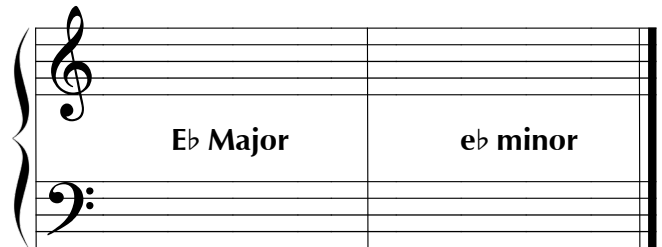
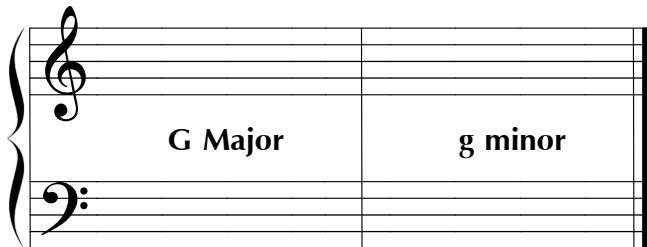


A Major a minor



B \flat Major b \flat minor

2. Write the key signatures for the **parallel** major and minor keys.



The Minor Scales

There are three basic forms of minor scale: natural, harmonic and melodic.

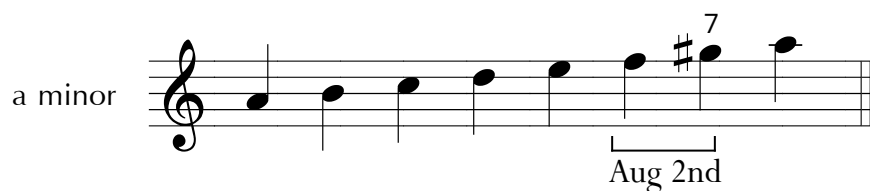
Natural Minor Scale

- Follows the key signature—no altered tones.
- Keeps the same form whether ascending or descending.
- Whole and half step pattern: **W H W W H W W**



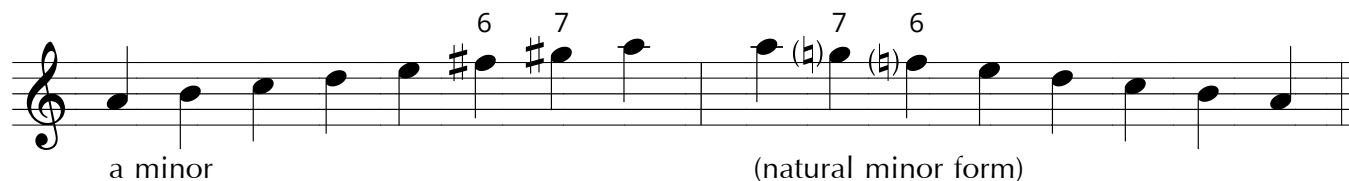
Harmonic Minor Scale

- The seventh scale degree is raised a half step—accidentals are used.
- An augmented 2nd (three half steps) occurs between scale degrees 6 and 7.
- Keeps the same form whether ascending or descending.



Melodic Minor Scale

- In ascending form, scale degrees 6 and 7 are raised a half step—accidentals are used.
- In descending form, the scale reverts to the natural minor form.



Ear Training: Scale Identification



Scan the QR code to practice distinguishing between the three basic forms of minor scale:



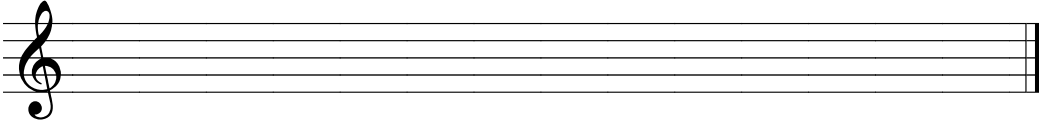
MyTheoryApp.com → Level 11 → Scales

3. For each line, the name of the minor key is given:

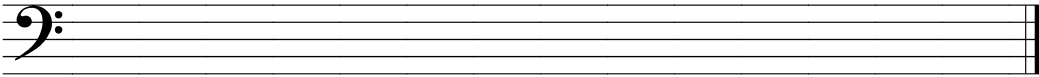
a) Write the **harmonic minor** scale, ascending form only. Use whole notes.

b) Add accidentals where needed.

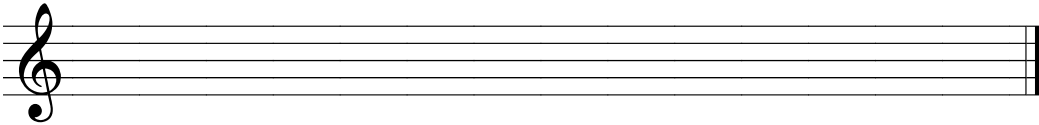
e^b harmonic minor



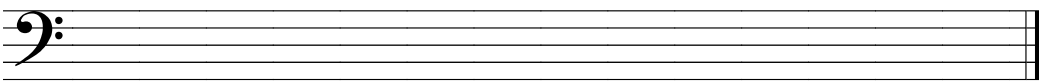
f harmonic minor



f# harmonic minor

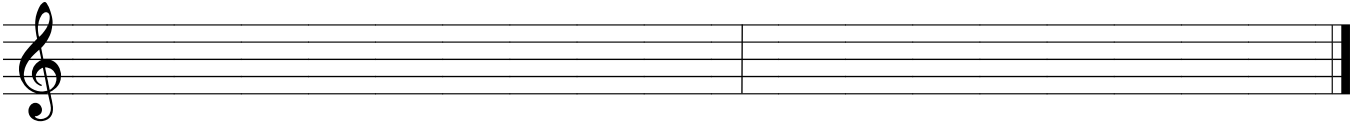


b harmonic minor

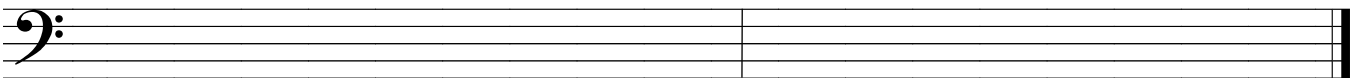


4. Write the **melodic minor** scale, ascending then descending.

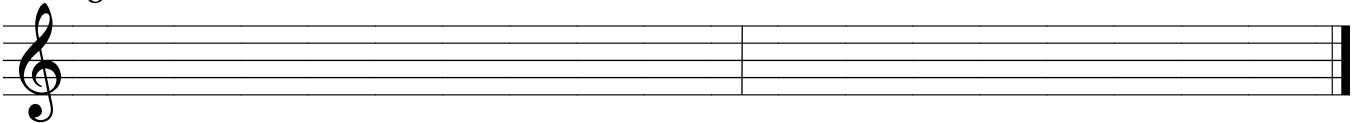
a melodic minor



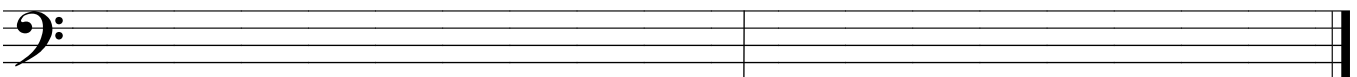
c# melodic minor



g melodic minor

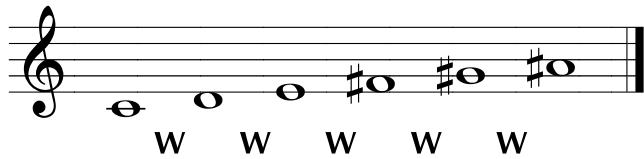


c melodic minor

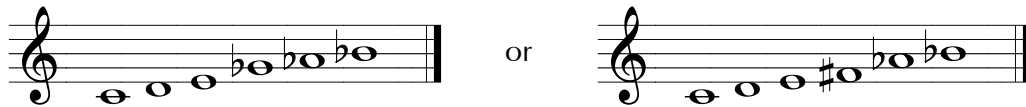


The Whole-Tone Scale

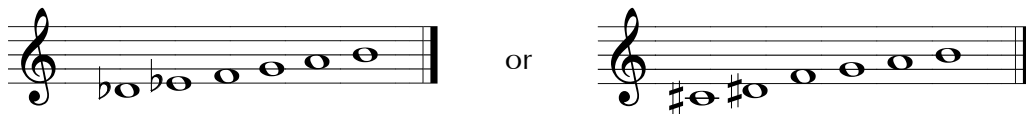
The notes of a whole-tone scale are separated by whole steps (**W**).



A variety of different spellings can be used for the same scale:



When this whole-tone scale is transposed up a half step, you find the second fundamental form of the whole-tone scale, which is also subject to a variety of spellings:



This scale is considered a *synthetic*, or *artificial* scale. All the tones in this scale are the same distance apart; no single tone stands out. As a result of this, a strong sense of tonic is lacking. Some composers, such as Debussy, used this scale to evoke an elusive, floating quality.

7. On each staff, write an **ascending** whole-tone scale from the note given.
End the scale on the note one octave higher than the starting note.

8. On each staff, write a **descending** whole-tone scale from the note given.
End the scale on the note one octave lower than the starting note.

Section 3

Intervals

Intervals are classified by *type* and *size*.

The following abbreviations are sometimes used when describing the *type* of intervals: perfect (**Per**), major (**Maj**), minor (**min**), augmented (**Aug**) and diminished (**dim**).

Intervals of an octave or less are called **simple intervals**.

Major and Perfect Intervals

Using the tones of the major scale, intervals built above the tonic (keynote) form major or perfect intervals.

A musical staff in treble clef showing intervals built above the tonic (C4). The notes are C4, D4, E4, F4, G4, A4, B4, and C5. Below the staff, the intervals are labeled with their type and size.

type:	Per	Maj	Maj	Per	Per	Maj	Maj	Per
size:	Prime (Unison)	2nd	3rd	4th	5th	6th	7th	8ve

Major and Minor Intervals

A major interval becomes a minor interval when decreased in size by a half step.

A musical staff in treble clef showing major and minor intervals. The notes are C4, D4, E4, F4, G4, A4, and B4. Below the staff, the intervals are labeled with their type and size.

Maj 2nd	min 2nd	Maj 3rd	min 3rd	Maj 6th	min 6th	Maj 7th	min 7th
---------	---------	---------	---------	---------	---------	---------	---------

Augmented Intervals

Perfect and major intervals become augmented when increased in size by a half step.

A musical staff in treble clef showing augmented intervals. The notes are C4, D4, E4, F4, G4, A4, and B4. Below the staff, the intervals are labeled with their type and size.

Maj 2nd	Aug 2nd	Per 4th	Aug 4th ¹	Per 5th	Aug 5th	Maj 6th	Aug 6th
---------	---------	---------	----------------------	---------	---------	---------	---------

Diminished Intervals

Perfect and minor intervals become diminished when decreased in size by a half step.

A musical staff in treble clef showing diminished intervals. The notes are C4, D4, E4, F4, G4, A4, and B4. Below the staff, the intervals are labeled with their type and size.

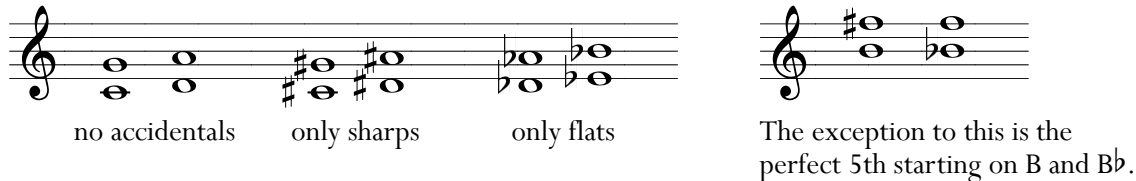
min 3rd	dim 3rd	Per 4th	dim 4th	Per 5th	dim 5th	min 7th	dim 7th
---------	---------	---------	---------	---------	---------	---------	---------

¹The augmented 4th or diminished 5th is also called a **tritone**.

How to build an interval above a given note:

You already know to use the major scale to find perfect and major intervals, and that you can alter these intervals to find minor, augmented, and diminished intervals. This works well when you are working with keys that are familiar to you—just think of the bottom note as tonic and apply the appropriate accidentals according to the key signature. But when the ‘tonic’ tone calls for keys that are not familiar, you can find any interval easily if you know the following three intervals very well: the **perfect 5th**, **major 3rd**, and **major 2nd**. You can use these intervals to piece together other less familiar intervals.

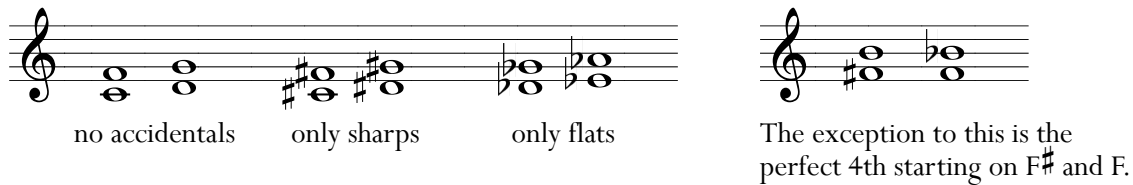
The perfect 5th is the easiest to recognize on the staff.



no accidentals only sharps only flats

The exception to this is the perfect 5th starting on B and B \flat .

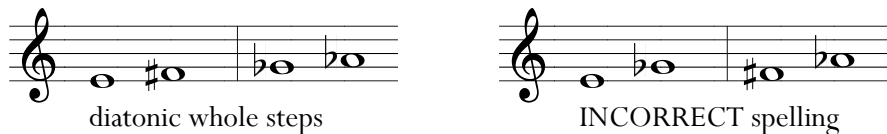
The perfect 4th follows a similar pattern.



no accidentals only sharps only flats

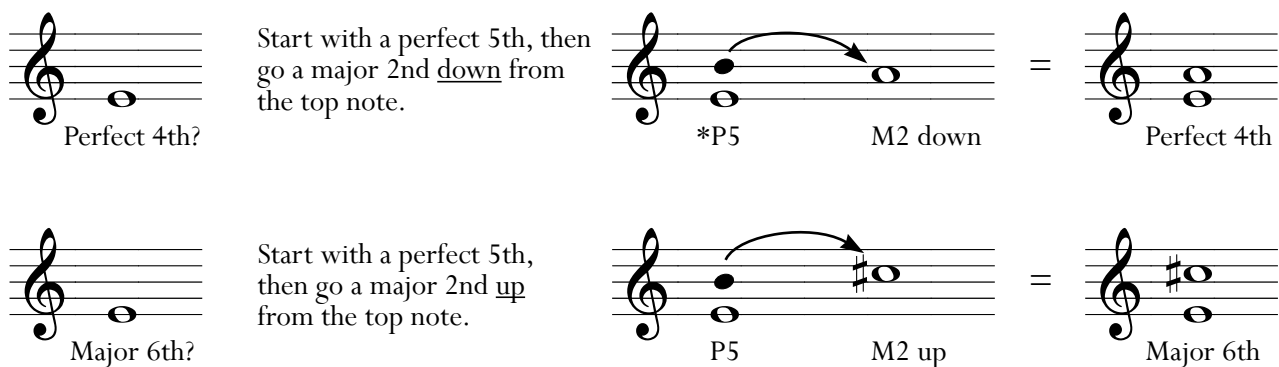
The exception to this is the perfect 4th starting on F \sharp and F.

The major 2nd should always be spelled as a diatonic whole step; the two tones should be spelled as two consecutive letters of the alphabet.



diatonic whole steps INCORRECT spelling

You can combine the perfect 5th and major 2nd to find the perfect 4th or the major 6th.



Perfect 4th? Start with a perfect 5th, then go a major 2nd down from the top note. *P5 M2 down = Perfect 4th

Major 6th? Start with a perfect 5th, then go a major 2nd up from the top note. P5 M2 up = Major 6th

*At times, abbreviations will be used to indicate major and perfect intervals. For example, “M2” indicates a major 2nd, “P4” indicates a perfect 4th, and so on.

1. Build an interval above each note. Watch for double sharps and double flats.

Maj 3rd Aug 3rd min 3rd dim 3rd Per 5th Aug 5th dim 5th min 2nd

Maj 3rd Aug 3rd min 3rd dim 3rd Per 4th Aug 4th dim 4th min 2nd

Maj 7th min 7th dim 7th dim 7th Per 4th Aug 4th dim 4th Maj 6th

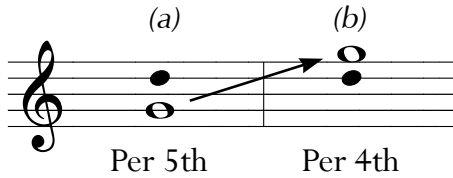
Per 5th Maj 6th Aug 6th min 6th Per 5th Aug 5th dim 5th Maj 2nd



2. Identify the intervals by type and size. Use abbreviations. Example: dim 3rd, Aug 6th.

Complementary Intervals

Simple intervals are intervals spanning an octave or less. Simple intervals can be inverted by taking the lower note and moving it up one octave—the upper note of the original interval (*a*) is now the lower note of the inverted interval (*b*). The original interval and its inversion are called **complementary intervals**.



You get the same result by taking the higher note and moving it down an octave.



Find the inversion of the given intervals:

3. For each pair of measures, take the **bottom note** of the interval in the first measure and write it one **octave higher** in the second measure.

Example: A 3rd interval (C4, E4) is shown in the first measure of a pair. An arrow indicates the bottom note (C4) moving up an octave to C5 in the second measure. The second measure contains C5 and E4.

Three other pairs of measures are provided for practice, each with a 3rd interval in the first measure and blank space in the second measure for the student to write the inverted interval.

Invert each given interval as above. For each example, write both notes of the second interval.

Example: A 4th interval (C4, F4) is shown in the first measure. The second measure contains C5 and F4.

Three other pairs of measures are provided for practice, each with a 4th interval in the first measure and blank space in the second measure for the student to write the inverted interval.

4. For each pair of measures, take the **top note** of the interval in the first measure and write it an **octave lower** in the second measure.

Example: A 3rd interval (C4, E4) is shown in the first measure. An arrow indicates the top note (E4) moving down an octave to E3 in the second measure. The second measure contains C4 and E3.

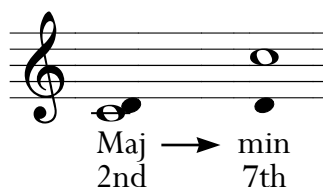
Three other pairs of measures are provided for practice, each with a 3rd interval in the first measure and blank space in the second measure for the student to write the inverted interval.

Invert each given interval by moving the top note down. Write both notes of the second interval.

Three pairs of measures are provided for practice, each with a 4th interval in the first measure and blank space in the second measure for the student to write the inverted interval.

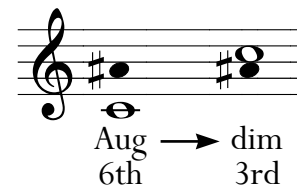
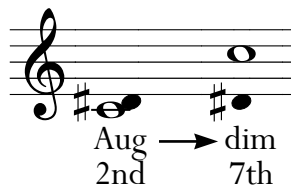
Major and minor complements

- major intervals invert to minor
- minor intervals invert to major

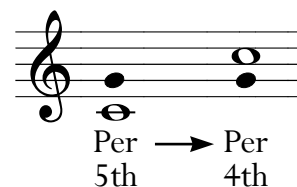
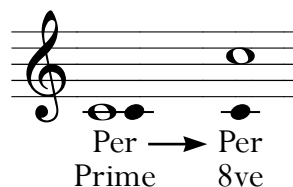


Augmented and diminished complements

- augmented intervals invert to diminished
- diminished intervals invert to augmented



Perfect complements – A perfect interval inverts to another perfect interval.



The Rule of Nine:

The sum of two complementary intervals is always 9.

You can use the 'rule of nine' to find the numerical size of an inverted interval. For example, to find the inversion of a 3rd, subtract 3 from 9 and the answer is 6—a 3rd inverts to a 6th. Now you can find the inversion of any given interval. Just remember, it's a two-part process: First you invert the interval **type** (major to minor or vice-versa, augmented to diminished or vice-versa, and perfect stays perfect), then you invert the **size** using the rule of nine.

$[9 -] 3 = 6$ or $[9 -] 6 = 3$

Maj 3rd min 6th

or

min 6th Maj 3rd

5. Fill in the blanks below to complete each statement.

Major intervals invert to _____ intervals.

Minor intervals invert to _____ intervals.

Augmented intervals invert to _____ intervals.

Diminished intervals invert to _____ intervals.

Perfect intervals invert to _____ intervals.

6. For each interval given, name the inverted interval. Use abbreviations.

- | | | |
|---------------|---------------|-----------------|
| Maj 2nd _____ | Maj 3rd _____ | Maj 6th _____ |
| Maj 7th _____ | Per 5th _____ | Per 4th _____ |
| Per 8ve _____ | min 2nd _____ | min 3rd _____ |
| min 6th _____ | min 7th _____ | Per Prime _____ |
| Aug 2nd _____ | Aug 4th _____ | dim 7th _____ |

7. Complete each interval and invert it:

- In the first measure, write the indicated interval above the given note.
- In the second measure, invert the interval found in the first measure.
- Identify the inverted interval by *type* and *size*.

Per 5th ^{c)} Per 4th min 6th _____ Maj 3rd _____ Aug 6th _____

min 2nd _____ Per 4th _____ min 7th _____ dim 4th _____

min 3rd _____ dim 7th _____ Aug 2nd _____ Per 5th _____

Maj 6th _____ Maj 2nd _____ dim 5th _____ Maj 7th _____

Aug 2nd _____ min 7th _____ min 3rd _____ Aug 6th _____



How to build an interval DOWN from a given note:

So far you have learned how to build an interval up from a given note, but what if you are asked to build an interval down from a given note? If you have a total mastery of all the major and minor keys and scales, you could simply assume that the given note is on the scale degree of the same number as the interval size, then deduce the bottom note of the interval as the 'tonic'.

Or, you can use inverted intervals to find the bottom note. Use the process outlined below to find an interval down from a given note.

Question: What is the note a major 6th down from C#?



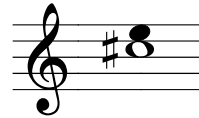
Step 1: Find the inversion of the interval given.

(major inverts to minor)
(Rule of Nine: $9 - 6 = 3$)

The inversion of a major 6th is a minor 3rd.

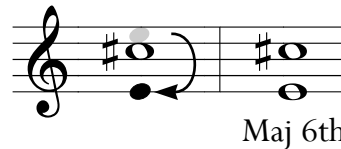
Step 2: Build the inverted interval UP from the given note.

This is familiar territory—a minor 3rd up from C# is E.



Step 3: Take the upper note of this interval down one octave. Now it is the lower note.

And so, a major 6th down from C# is E.



Sometimes all this is not necessary. For example, the perfect 5th or the major 2nd down from a given note should be easy enough to find. You can also use those two intervals in combination to find the major 6th.

8. Construct the named intervals **below** the given notes. Use whole notes.

Per 5th Maj 6th Per 4th Per 5th Maj 6th Per 4th Maj 6th Per 4th

Maj 6th Maj 2nd Per 4th Maj 6th Maj 2nd Per 4th min 6th min 7th

min 6th Maj 3rd Aug 4th min 6th Maj 3rd Aug 4th Aug 2nd Aug 2nd

Interval Reference

List your own song references for recognizing melodic intervals:

Perfect 8ve

_____ ascending

_____ descending

Major 7th

_____ ascending

_____ descending

minor 7th

_____ ascending

_____ descending

Major 6th

_____ ascending

_____ descending

minor 6th

_____ ascending

_____ descending

Perfect 5th

_____ ascending

_____ descending

Tritone

_____ ascending

_____ descending

Perfect 4th

_____ ascending

_____ descending

Major 3rd

_____ ascending

_____ descending

minor 3rd

_____ ascending

_____ descending

Major 2nd

_____ ascending

_____ descending

minor 2nd

_____ ascending

_____ descending

**Perfect
Unison**

Ear Training: Interval Identification



Scan the QR code to practice identifying major, minor, and perfect intervals:



MyTheoryApp.com → Level 11 → Intervals

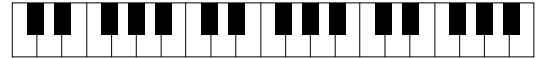
Ear Training Drills: Intervals

The following exercises are designed to develop your skill in recognizing and intoning all simple intervals above or below a given tone. Your singing range should be noted on the keyboard provided on this page.

Solo Drill: Singing Intervals

This drill is designed for solo practice. Check your progress from time to time by recording a session and listening to that recording critically, or by performing this drill in the presence of your teacher. Be sure that you are forming the intervals correctly on the keyboard.

Student's singing range:



- 1) Decide on an interval in your singing range.
Pick from any below:

Maj 2nd	Maj 3rd	Per 4th	Maj 6th	Maj 7th	Per 8ve	tritone
min 2nd	min 3rd	Per 5th	min 6th	min 7th	Unison	

Find and prepare both tones on the piano, but don't play them.

For ascending intervals, start with the lower tone.

For descending intervals, start with the higher tone.

- 2) Play the top or bottom tone of the interval on the piano.
Sing the tone.
Hear the second tone above or below your chosen interval with your *inner ear*.
- 3) Sing the second tone.
Sing both tones of the interval until you are satisfied.
- 4) Test by playing the interval on the piano.
Then, sing the interval as you play it.
Repeat the process using a different interval.

Repeat with different intervals and focus your efforts on the more difficult ones.

Teacher/Student Drill: Recognizing Intervals

Your teacher will play major, minor, or perfect intervals above or below a given note.

All intervals will be an octave or smaller (simple intervals).

Identify and name each interval by **type** and **size**. For example, say "major 3rd".

Or, you may write down the intervals played on a piece of paper.

Your teacher will play six major, minor, or perfect intervals above or below a given note.

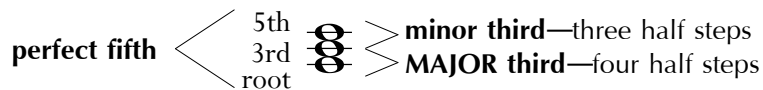
Write the intervals down on a piece of paper.

Classify each interval by **type** and **size**. Use abbreviations (ex., MAJ 6th, PER 5th, min 3rd).

Section 4

Chords

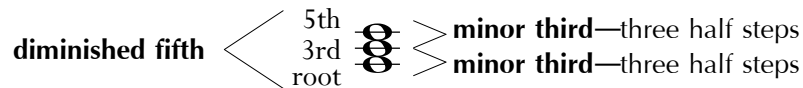
The **MAJOR triad** contains a major third with a minor third stacked above it. The distance from the root to the 5th of the triad is a perfect fifth.



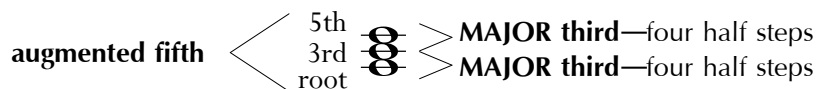
The **MINOR triad** contains a minor third with a major third stacked above it. The distance from the root to the 5th of the triad is a perfect fifth.



The **DIMINISHED triad** consists of two minor thirds. The distance from the root to the 5th of the triad is a diminished fifth.



The **AUGMENTED triad** consists of two major thirds. The distance from the root to the 5th of the triad is an augmented fifth.



1. Build a triad on each note.

Maj Aug min dim min dim Maj

Aug dim Maj min Aug min dim

Aug Maj dim min Maj Aug min

Ear Training Drills: Triads

The following exercises are designed to develop your skill in hearing and producing the tones of the major, minor, augmented and diminished triad. Note your singing range on the keyboard provided on this page.

Solo Drill: Singing Triads

This drill is designed for solo practice. Check your progress from time to time by recording a session and listening to that recording critically, or by performing this drill in the presence of your teacher. Be sure that you are forming the triads correctly.

- 1) Decide on a triad type: **major, minor, augmented, or diminished.**
Pick a starting tone in your singing range.
This tone will be the root of the triad.

Student's singing range:



- 2) Play the root.
Sing the root.
Hear the tones of your chosen triad with your *inner ear*.
- 3) Sing the 3rd and 5th of the triad.
Sing all the tones of the triad until you are satisfied.
- 4) Test by playing the tones of the triad on the piano—one at a time.
Then, sing the tones as you play them.
Repeat the process using a different tone and different triad.

Repeat with different triads as often as is necessary and focus your efforts on the more difficult ones—the augmented and diminished.

Teacher/Student Drills: Recognizing Triads

Your teacher will play major, minor, augmented and diminished triads. Identify and name each interval by **type**. For example, “major” or “diminished”.

Or, you may write down the triad played on a piece of paper.

Your teacher will play five triads played in blocked and arpeggiated form. Write the intervals down on a piece of paper. Identify with abbreviations: major (**MAJ**), minor (**min**), augmented (**AUG**) and diminished (**dim**).



App Drills: Triads



Scan the QR code to practice identifying major, minor, augmented, and diminished triads:



MyTheoryApp.com → Level 11 → Triads

REVIEW: Diatonic Triads

Uppercase roman numerals are used for major and augmented chords; lowercase roman numerals are used for minor and diminished chords. Augmented chords will have a '+' sign to the right of the roman numeral; diminished chords will have a 'o' sign to the right of the roman numeral.

The chords formed by the **major** scale:

C Maj: I ii iii IV V vi vii°

The chords of the **harmonic minor** scale:

a min: i ii° III+ iv V VI vii°

2. On each staff below:
- Write the key signature (the key is given).
 - Write an ascending scale, one scale note per measure.
 - Construct a triad on each note of the scale.
 - Label each triad as **MAJ**, **min**, **AUG**, or **dim**.

E Major

f harmonic minor

3. In each measure, the **major** key signature is given. Write the roman numeral for each triad.

4. In each measure, the **harmonic minor** key signature is given.

Write the roman numeral for each triad.

Exercise 4 shows two staves of musical notation. The top staff is in treble clef and the bottom staff is in bass clef. Each staff contains six measures of music. The key signature is harmonic minor, indicated by a flat on the second line (B-flat) and a sharp on the seventh line (F-sharp). The triads in each measure are:
 Staff 1: Measure 1 (F-sharp, A, C), Measure 2 (A, C, E), Measure 3 (B-flat, D, F), Measure 4 (D, F, A), Measure 5 (F-sharp, A, C), Measure 6 (A, C, E).
 Staff 2: Measure 1 (F-sharp, A, C), Measure 2 (A, C, E), Measure 3 (B-flat, D, F), Measure 4 (D, F, A), Measure 5 (F-sharp, A, C), Measure 6 (A, C, E).

5. For each key, write the key signature and the tonic, subdominant and dominant triads.

E Major

Exercise 5 shows six musical staves. The first two are for E Major and the last two are for A Major. Each staff is divided into three measures labeled I, IV, and V. The key signature for E Major is one sharp (F-sharp).

f minor

Exercise 5 shows six musical staves. The first two are for E Major and the last two are for A Major. Each staff is divided into three measures labeled I, IV, and V. The key signature for f minor is two flats (B-flat and E-flat).

E^b Major

Exercise 5 shows six musical staves. The first two are for E Major and the last two are for A Major. Each staff is divided into three measures labeled I, IV, and V. The key signature for E^b Major is two flats (B-flat and E-flat).

g# minor

Exercise 5 shows six musical staves. The first two are for E Major and the last two are for A Major. Each staff is divided into three measures labeled I, IV, and V. The key signature for g# minor is three sharps (F-sharp, C-sharp, and G-sharp).

A Major

Exercise 5 shows six musical staves. The first two are for E Major and the last two are for A Major. Each staff is divided into three measures labeled I, IV, and V. The key signature for A Major is no sharps or flats.

g minor

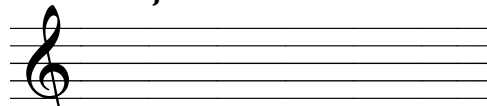
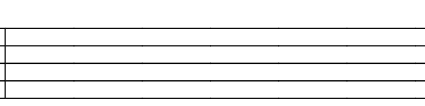
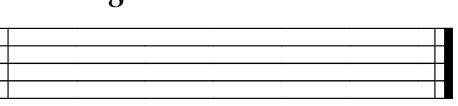
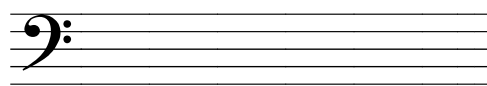
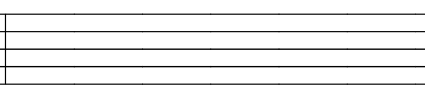
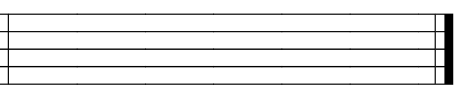
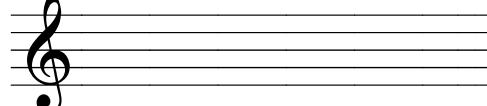
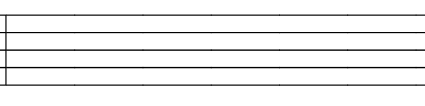
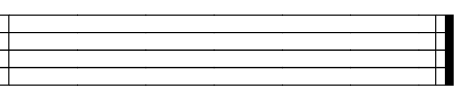
Exercise 5 shows six musical staves. The first two are for E Major and the last two are for A Major. Each staff is divided into three measures labeled I, IV, and V. The key signature for g minor is two flats (B-flat and E-flat).

6. Spell the tonic, subdominant and dominant root position triads of each key given.

	Tonic	Subdominant	Dominant
C Major	___ - ___ - ___	___ - ___ - ___	___ - ___ - ___
e harmonic minor	___ - ___ - ___	___ - ___ - ___	___ - ___ - ___
G Major	___ - ___ - ___	___ - ___ - ___	___ - ___ - ___
c harmonic minor	___ - ___ - ___	___ - ___ - ___	___ - ___ - ___
B Major	___ - ___ - ___	___ - ___ - ___	___ - ___ - ___
f# harmonic minor	___ - ___ - ___	___ - ___ - ___	___ - ___ - ___

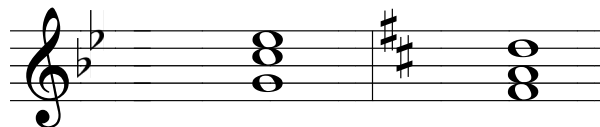

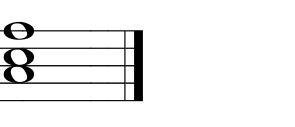
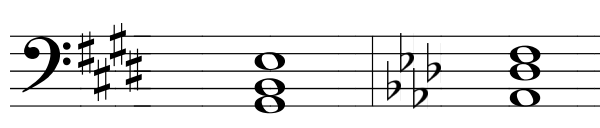
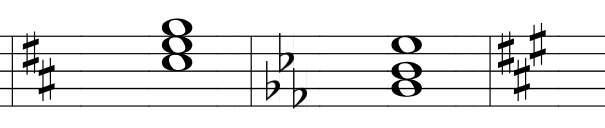
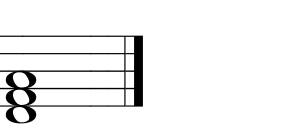


7. Write the indicated triad in root position, first inversion and second inversion in each measure.

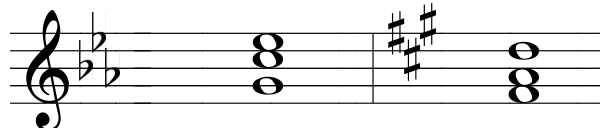
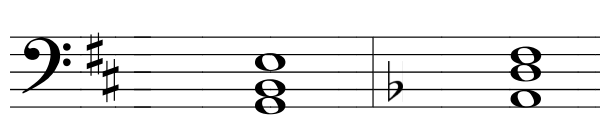
<p>F Major</p>  <p style="text-align: center;">root position first inversion second inversion</p>	<p>d minor</p> 	<p>G Augmented</p> 
<p>f# diminished</p> 	<p>A^b Augmented</p> 	<p>B^b Major</p> 
<p>f minor</p> 	<p>E Major</p> 	<p>g diminished</p> 

8. In each measure, a chord and key are given. Below each chord, write the roman numeral and, if applicable, the arabic numeral(s) indicating the inversion.

Major Keys

					
B ^b : ____	D: ____	F: ____	B: ____	C: ____	E: ____
D: ____	F: ____	B: ____	E ^b : ____	A: ____	D: ____

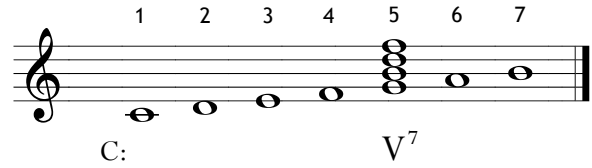
Minor Keys

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

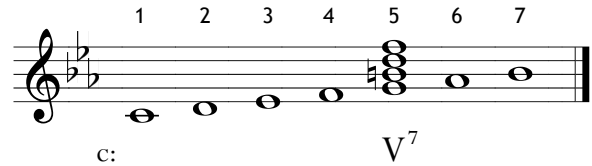
The Dominant Seventh Chord

Seventh chords in root position are indicated by an arabic number '7' placed to the right of the roman numeral. The dominant seventh chord is a type of seventh chord—a major triad plus a minor 7th above the root.

The dominant seventh chord is found on scale degree 5 of a major or minor scale.

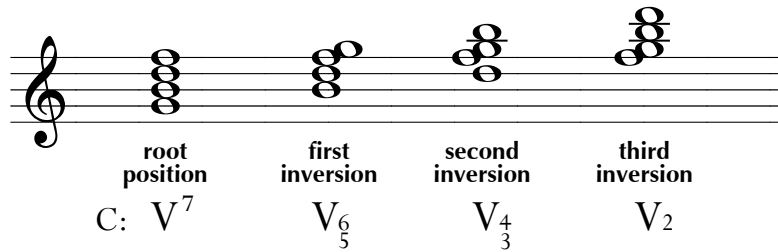


In a minor scale, the third of the dominant chord must be raised to form a V7 chord.

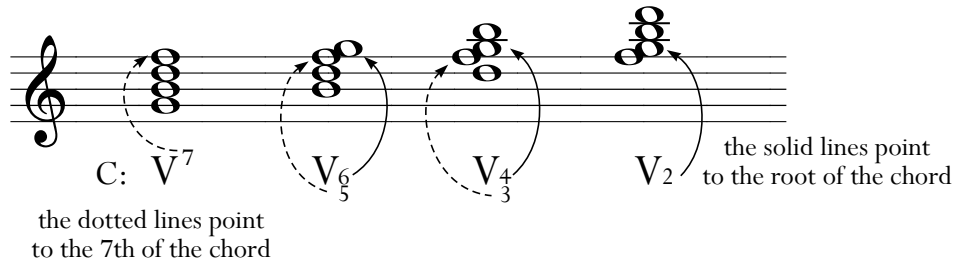


Inversions of the Dominant Seventh Chord

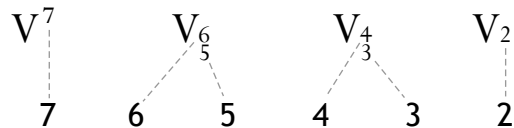
Seventh chords can be arranged in four basic positions: root position, with the root in the bass; first inversion, with the 3rd in the bass; second inversion, with the 5th in the bass; and third inversion, with the 7th in the bass.



The arabic numerals used for these inversions name only those intervals absolutely needed to identify the chord. For example, a first inversion seventh chord really contains a 3rd, 5th and 6th above the bass, but it is not necessary to include the 3rd when labeling the inversion. The only arabic numerals used in labeling inverted seventh chords are those needed to identify the root and 7th above the bass.



The arabic numerals progress in countdown-like fashion from root position to third inversion:



9. For each measure, write the name of the **major key** in the blank. Use an uppercase letter.
Write the dominant seventh chord (V7) in root position.

___ : V⁷ ___ : V⁷ ___ : V⁷ ___ : V⁷ ___ : V⁷

10. For each measure, write the name of the **minor key** in the blank. Use a lowercase letter.
Write the dominant seventh chord (V7) in root position.
(Hint: one note in each chord will require an accidental.)

___ : V⁷ ___ : V⁷ ___ : V⁷ ___ : V⁷ ___ : V⁷

11. The key is given for each staff. Write the V7 chord in root position in the first measure.
Write the three inversions in the remaining measures.

f# minor **root position** **first inversion** **second inversion** **third inversion**

A^b Major

e minor

B^b Major

g minor

Section 5


Sight Singing

Solfege in a Minor Key

There are two ways to sing in minor keys using movable *do*: *la* is tonic in *la*-based solfege and *do* is tonic in *do*-based solfege. The syllables and pronunciations are listed below for the three standard forms of minor.

scale degrees: 1 2 3 4 5 6 7 8

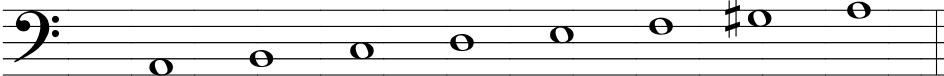
A Natural Minor



Do-based minor: Do Re Me Fa Sol Le Te Do

La-based minor: La Ti Do Re Mi Fa Sol La

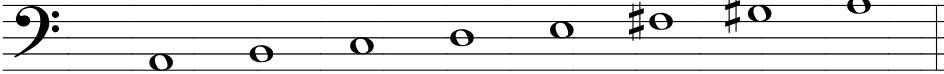
A Harmonic Minor



Do-based minor: Do Re Me Fa Sol Le Ti Do

La-based minor: La Ti Do Re Mi Fa Si La

A Melodic Minor
(ascending only)



Do-based minor: Do Re Me Fa Sol La Ti Do

La-based minor: La Ti Do Re Mi Fi Si La

The pronunciation of the syllables: Re, Me, Le, and Te rhyme with “say”
 Mi, Fi, Si, Li, and Ti rhyme with “tee”
 Fa and La rhyme with “ah”
 Do as in “doh” or “doe”; Sol as in “sohl”

How to Practice These Exercises

The following drills are designed for solo practice. Perform these exercises for your teacher to make sure you are doing them correctly. These exercises should be practiced as you proceed with the other sections of this book. Discontinue these drills only when you can perform them easily and accurately.

The numbers used in the exercises in bold font represent the scale degrees.
 1 is tonic, 2 is scale degree 2, and so on.

Sing using scale degree numbers or solfege, preferably *La*-based minor.

Transpose these exercises to any key in your comfortable singing range.

Boxes are provided that will allow you or your teacher to list these keys.

As you sing the exercises, play a scale or chord figure from time to time to establish the key.

Assignment

Use the procedure for assignment 1 to practice the singing exercises given below. Follow these steps for each exercise:

1. Decide on a key and prepare with an arpeggio or scale.
 - a) Play the starting tone of the exercise on the piano.
 - b) Sing and match the starting tone.
 - c) Sing the exercise as you play it.
 - d) Sing the exercise without playing it.

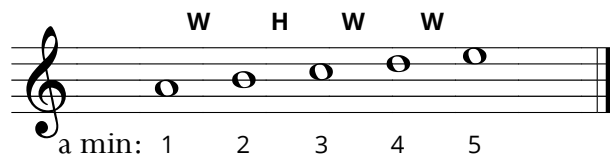
You might find it helpful to play the tonic triad intermittently as you sing the exercises. This will help your intonation when singing the 3rd scale degree in particular. From time to time, you should hold the 3rd scale degree for a few extra moments as you play the tonic triad.

Exercises

Use the following exercises for assignment 1.

Your teacher will notate the appropriate range of keys and note it in the box provided..

In the three standard forms of minor scale, the **minor pentachord** (scale degrees 1 - 5) is the same.



Student's singing range:



List the minor keys to use:

The lower tetrachord (scale degrees 1 - 4)

1 2 3 2 1	1 2 3 4 3 2 1	1 4 3 4 1
1 2 3 2 3 1	1 2 3 4 3 4 1	1 3 2 4 2 3 1
1 3 2 3 1	1 4 3 2 1	1 2 1 3 1 4 1
1 3 1 3 1	1 4 1 4 1	1 4 1 3 1 2 1

The minor pentachord (scale degrees 1 - 5)

1 2 3 4 5 4 3 2 1	3 2 1 3 5 4 3
1 3 5 3 1	3 4 5 3 1 2 3
1 2 3 5 3 2 1	3 2 3 1 4 3 4 2 5 4 3 2 1
1 3 2 1 3 5	5 4 3 2 1 2 3 4 5
1 3 2 4 3 5 1	5 4 3 4 3 2 3 2 1
1 2 3 2 3 4 3 4 5 1	5 3 1 2 3 4 5
1 5 4 5 4 3 2 1	5 3 4 2 3 1 2 - 1

The **upper tetrachord** (scale degrees 5 - 8) changes with each form of minor:

	upper tetrachords								
natural (lower tetrachord)	H W W				H W W				
a: 1 2 3 4	5	6	7	8	5	6	7	8	
harmonic	H A2 H				H A2 H				
a: 1 2 3 4	5	6	7	8	5	6	7	8	
melodic	W W H W W H								
a: 1 2 3 4	5	6	7	8	7	6	5		

The upper tetrachords that occur in the three forms of minor are:

phrygian tetrachord - H W W (natural minor)

harmonic tetrachord - H A2 H (harmonic minor)

major tetrachord - W W H (melodic minor, ascending)

2. Sing the following exercises using the same procedure as assignment 1.

Sing the scale degrees of each exercise *using all three forms of minor*.

Firmly establish the fifth scale degree, the starting tone of the upper tetrachord, by stepping up to it and playing the tonic minor.

List the minor keys to use:

5 6 5

5 6 7 8 7 6 5

5 8 7 6 5 6 7 8

5 8 7 8

5 8 7 6 7 8

5 8 5 6 7 8

8 7 8 5 8

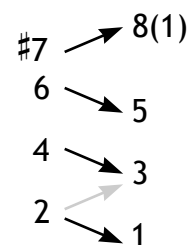
8 5 8 7 8

8 7 6 5 8 7 8

The **stable tones** and **active tones** of the harmonic minor scale are the same as those of the major scale.

The stable tones are scale degrees 1, 3 and 5—the tones of the tonic triad.

The active tones are 2, 4, 6 and #7 and have a tendency to resolve to a neighboring stable tone.



Active and Stable Tone Exercises

Scale degrees 2, 4, and 6 resolve down a step and #7 resolves up to tonic. In the following exercises, a fermata is placed over some *active tones*. Pause on these notes to get the full effect of their active quality. Just as importantly, notice their resolution to the neighboring stable tone. To enhance this effect, play the chords indicated by the roman numerals as you sing.

3. Sing the exercises according to the directions given above.

Avoid playing the melody on the piano as you sing but you may play the tonic triad throughout. Change to another chord only at the points indicated by roman numerals.

d minor range

List the minor keys to use:

iv i V i #V i

iv i V i

iv i iv i

f minor range

List the minor keys to use:

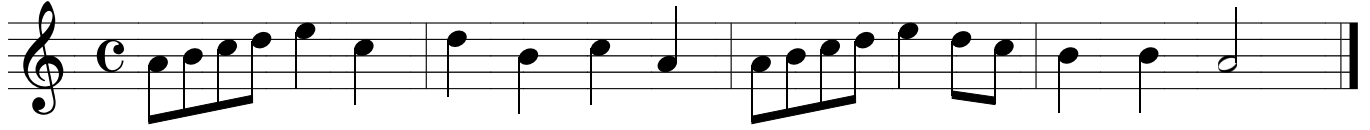
iv i V i V i

iv i V i

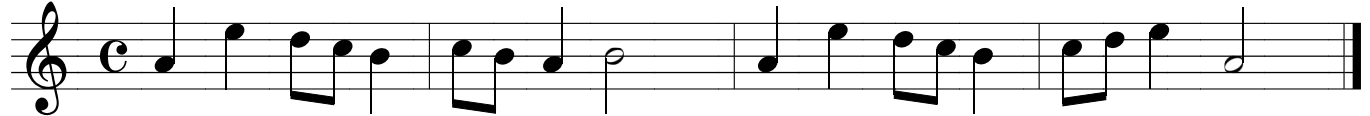
Sight Singing Four-Measure Melodies in Minor Keys

4. Sing each four-measure melody using solfege or scale degree numbers.
Transpose these exercises to any key in your comfortable singing range.

① a minor



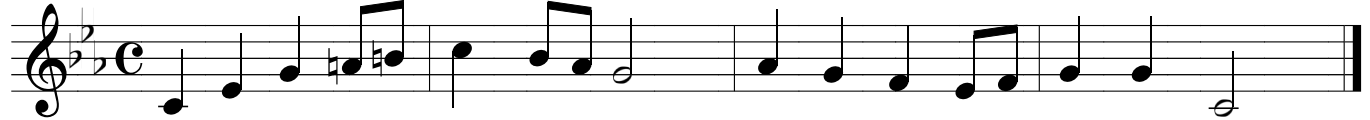
② a minor



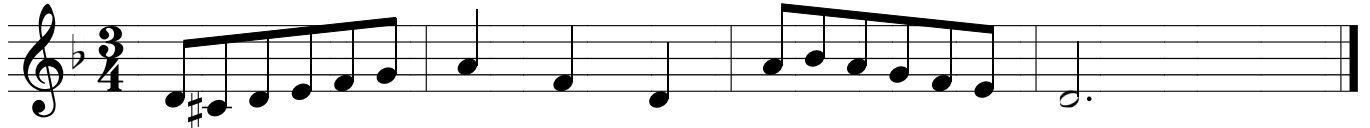
③ c minor



④ c minor



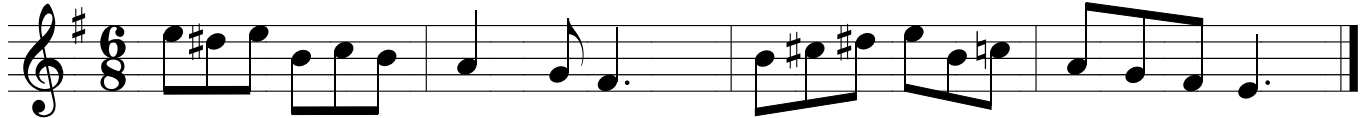
⑤ d minor



⑥ d minor



⑦ e minor



⑧ e minor



Sight Singing Eight-Measure Melodies in Major Keys

The following eight-measure melodies are in major keys and will consist of two distinct phrases: the antecedent, ending in a half cadence, and the consequent, ending in an authentic cadence.

In preparation for this assignment, you may first sing the drills in assignment 4, transposing from minor to parallel major.

5. Sing each four-measure melody using solfege or scale degree numbers.

Transpose these exercises to any key in your comfortable singing range.

① F Major

Musical notation for Exercise 1 in F Major, 4/4 time. The melody consists of two phrases: an antecedent phrase (measures 1-4) and a consequent phrase (measures 5-8). The antecedent phrase ends with a half cadence on F4. The consequent phrase ends with an authentic cadence on F4.

② C Major

Musical notation for Exercise 2 in C Major, 4/4 time. The melody consists of two phrases: an antecedent phrase (measures 1-4) and a consequent phrase (measures 5-8). The antecedent phrase ends with a half cadence on C4. The consequent phrase ends with an authentic cadence on C4.

③ E \flat Major

Musical notation for Exercise 3 in E \flat Major, 3/4 time. The melody consists of two phrases: an antecedent phrase (measures 1-4) and a consequent phrase (measures 5-8). The antecedent phrase ends with a half cadence on E \flat 4. The consequent phrase ends with an authentic cadence on E \flat 4.

④ B \flat Major

Musical notation for Exercise 4 in B \flat Major, 3/4 time. The melody consists of two phrases: an antecedent phrase (measures 1-4) and a consequent phrase (measures 5-8). The antecedent phrase ends with a half cadence on B \flat 4. The consequent phrase ends with an authentic cadence on B \flat 4.

Section 6

Harmonic Analysis

Harmony is the study of chords—how they are formed, how they interact with each other and how they interact with other musical elements such as melody, rhythm and form.

The term **four-part harmony** refers to music written in four parts, or voices, each of which retains its identity as a distinct melodic line to some degree. Such music, which has two or more distinct melodic lines playing a more or less equal role in the creation of the musical expression, is known as **polyphonic music**.

The four parts, from the highest to lowest, are the **soprano, alto, tenor** and **bass**.

In four-part harmony, the voices may be arranged on the grand staff two different ways:

- (a) The bass and tenor are on the bass staff; the alto and soprano are on the treble staff. This arrangement of voices is sometimes referred to as *choral style*.
- (b) The soprano, alto and tenor are on the treble staff; the bass voice is on the bass staff. This arrangement of voices is sometimes referred to as *keyboard style*.

(a) *Choral style*: The grand staff shows four voices. The treble staff contains the soprano and alto parts, and the bass staff contains the tenor and bass parts. The notes are G4 (soprano), A4 (alto), B4 (tenor), and G3 (bass).

(b) *Keyboard style*: The grand staff shows four voices. The treble staff contains the soprano, alto, and tenor parts, and the bass staff contains the bass part. The notes are G4 (soprano), A4 (alto), B4 (tenor), and G3 (bass).

In four-part writing, chords may appear in either open or close harmony, also known as *open position* or *close position*:

Open harmony—the distance between the soprano and tenor part is an octave or more.

Close harmony—the distance between the soprano and tenor part is less than an octave.

A **cadence** is generally defined as the last two chords of a musical phrase. The cadence functions as a musical punctuation—a point of rest, or repose, separating musical phrases.

There are two basic types of cadence. The first type ends on the tonic chord; it closes a phrase with a sense of completion, and creates an effect similar to that of a period at the end of a sentence. The various forms of *authentic cadence* are examples of this type: V–I(i), or vii^o–I(i).

The second type of cadence ends on a chord other than the tonic; it closes a phrase with the sense that more is to come, that the pause is only momentary. The effect of this type of cadence can be likened to that of a comma. The various forms of *half cadence* are examples of this type: I(i)–V, IV(iv)–V, and ii–V.

The V7–I Authentic Cadence

The basic voice-leading for the V7–I cadence:

- The seventh of V7 goes down a step – $\hat{4}$ resolves to $\hat{3}$.¹
- The fifth of V7 moves down to tonic – $\hat{2}$ resolves to $\hat{1}$.
- The third of V7 moves up to tonic – $\hat{7}$ resolves to $\hat{1}$.
- The root of V7 moves to the root of I – $\hat{5}$ to $\hat{1}$.

C: V⁷ I V⁷ I V⁷ I V⁷ I

Use the graphic to the right to easily remember the resolution of the V7 chord. Notice that the fifth of the I chord (G) is omitted. This will be discussed in more detail later in this section.

C: V⁷ I

Writing the V7–I Authentic Cadence

In exercises 1–3, you will be asked to write only one note of the I chord for each example. But if you feel you have sufficient understanding to write all the notes of the I chord, then by all means do so.

- In each example, the top three voices are written on the treble staff.
 - Circle the seventh** of the V7 chord (scale degree 4).
 - Above the roman numeral I, write the **one note** to which the seventh (of V7) resolves. (optional: write all the notes of the I chord.)

C: V⁷ I

D: V⁷ I

Bb: V⁷ I

¹At certain times the scale degrees will be represented by a caret symbol “^” on top of an arabic number. For example, “ $\hat{6}$ ” and “scale degree 6” mean the same thing. So, the phrase, “scale degrees 6 and 7 are raised” can now be expressed as “ $\hat{6}$ and $\hat{7}$ are raised.”

2. In each example, the top three voices are written on the treble staff.
- Circle the fifth** of the V7 chord (scale degree 2).
 - Above the roman numeral I, write the **one note** to which the fifth (of V7) resolves.
(optional: write all the notes of the I chord.)

C: V⁷ I

D: V⁷ I

Bb: V⁷ I

3. Note: in each example, the tenor and bass voices are written on the bass staff.
- Circle the third** of the V7 chord (scale degree 7).
 - Above the roman numeral I, write the **one note** to which the third (of V7) resolves.
(optional: write all the notes of the I chord.)

C: V⁷ I

D: V⁷ I

Bb: V⁷ I

4. The tenor and bass voices in these examples are on the bass staff.
Write **all the notes** of the I chord. Follow the voice-leading procedures.

C: V⁷ I

D: V⁷ I

Bb: V⁷ I

a: V⁷ i

b: V⁷ i

g: V⁷ i

Voice-Leading Exceptions

You might have noticed that, in following the voice-leading procedures outlined, the I chord has no fifth and three tonic notes. This is perfectly acceptable, especially when the leading tone occurs in the soprano.

C: V⁷ I

In some instances when the leading tone is in the alto or tenor, a unison occurs in the I chord (*e*), which should be avoided. In these cases, the leading tone (the third of the V⁷ chord) should move down a skip to the fifth scale degree, as in example (*f*). This will maintain a four-part texture.

(*e*) not good (*f*) GOOD

C: V⁷ I V⁷ I

If the root of the V⁷ chord is doubled, leave out the fifth of the V⁷ chord (scale degree 2) and repeat the common tone when progressing to I.

no fifth (C)

doubled root

Bb: V⁷ I

Writing the V⁷-I with Alternative Voicing

The following examples are written in keyboard style. Be sure to maintain this when you write your chords. Each key signature has two V⁷-I cadences. The V⁷ in each measure is given.

5. For each example, resolve the V⁷ chord to the tonic chord. Write all chords in root position.

Ab: V⁷ I V⁷ I E: V⁷ I V⁷ I

f: V⁷ i V⁷ i c#: V⁷ i V⁷ i
 D: V⁷ I V⁷ I c: V⁷ i V⁷ i

The Plagal Cadence IV–I

The **Plagal Cadence**, commonly referred to as the “Amen” cadence, is the progression **IV–I** (iv–i for minor). This cadence often follows immediately after an authentic cadence and acts as a means of elaborating or prolonging the tonic chord. A typical example of this occurs at the final “Amen” at the end of a hymn in some Christian churches.

The voice-leading rules for the plagal cadence:

- Both chords are in **root position**.
- The root of each chord is doubled in another voice.
- The **common tone** is repeated in the same voice.
- The **remaining voices** move down a step.

common tone

C: IV I

6. Complete the plagal cadences below. The key and chords are given. Use proper voice leading.

A: IV I

E^b: IV I

B^b: IV I

Writing Extended Four-Part Harmonic Progressions

You will now write a complete four-voice harmonic progression of more than two chords in length. The following exercises will be written in *keyboard style*.

You will be given only the notes of the first chord:

G Major: I I vi IV ii V I

First, write the bass line. All the chords will be in root position, so simply write the notes which match the scale degrees indicated by the roman numerals.

Two things to remember when writing the bass part: **don't write intervals larger than a fifth** (*g*), and don't write consecutive leaps such as 4ths (*h*) or 5ths (*i*) going in the same direction. Each example below shows a better way to write the bass line.

So, keeping all that in mind, your bass line should look like the following:

The next step is to complete the upper three voices.

**Root Movement
by 2nd:**

- The bass moves up or down by step.
- The upper voices move in *contrary motion* to the bass to the nearest chord tone.
- Same rules as with the IV to V *half cadence*.

Or the reverse: the bass goes down, the upper voices go up.

G: I ii

G: ii I

9. Complete the second chord: a) The bass voice moves **up**.
b) The top three voices move down to the nearest chord tone.

B \flat : I ii V vi IV V iii IV

10. Complete the second chord: a) The bass voice moves **down**.
b) The top three voices move up to the nearest chord tone.

G: V IV vi V ii I iii ii

11. Complete the second chord. First determine if the bass moves up or down.

C: V vi V IV I ii vii I

**Root Movement
by 3rd:**

- The bass moves up or down a 3rd.
- The fifth of the first chord moves a step in contrary motion to the bass.
- The other two voices repeat the common tones.

G: I vi

Or the reverse: the bass goes up, the upper voices repeating common tones or moving in contrary motion.

G: vi I

12. Complete the second chord. Move the bass **down**.

D: I vi IV ii vi IV iii I

13. Complete the second chord. Move the bass **up**.

F: vi I IV vi ii IV I iii

14. Complete the second chord. Move the bass up or down a 3rd.

G: IV ii vi IV I vi IV vi

Assignment: Writing Progressions in Four-Part Harmony

You are now ready to write extended four-part harmonic progressions in keyboard style. As you might have realized by now, given the constraints created by the guidelines you followed, this type of four-part writing allows for very little flexibility and creativity—the exercises practically write themselves.

17. Write the indicated chord progressions in four-part harmony.

All chords should be written in root position.

F Major

F: I V I vi ii V I

C Major

C: I IV I vi IV V I

G Major

G: I V vi vi ii V⁷ I

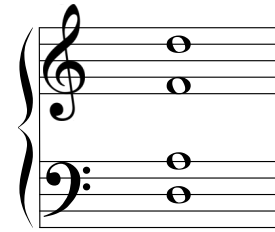
D Major

D: I I ii V vi IV V⁷ I

Analyzing Four-Voice Chords on the Grand Staff

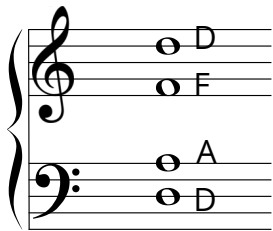
For the following assignment you will analyze chords written in four-part harmony on the grand staff. Now there are four notes for each chord instead of three notes. Also, the notes are spread out between two staves.

Suppose you are asked to identify the following chord with a roman numeral:



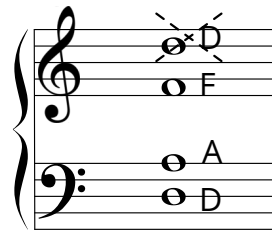
C Maj: ?

First, name the notes,



C Maj:

eliminate one of the doubled notes,



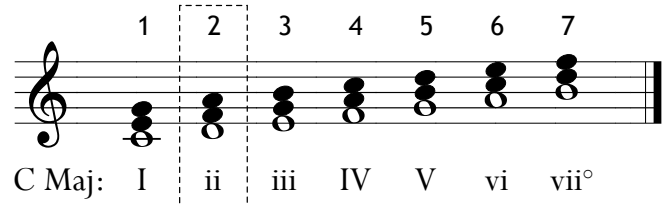
C Maj:

take the three remaining notes and arrange them so that they form a root position triad.

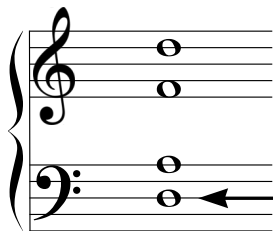


The chord is a D minor chord.

Next, identify which scale degree the triad is built on to find the roman numeral. It is built on scale degree 2 of C major, the ii chord:



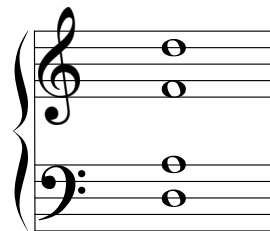
Finally, determine the inversion.



D is the lowest note, which is the root of the D minor chord.

C Maj: ?

And so, the answer:



C Maj: ii

Analyzing Harmonic Progressions

The following harmonic progressions contain any chord of the diatonic major scale and will include inverted chords.

18. Write the appropriate roman numeral under each bass note. Indicate inversions where appropriate.

C Major

D Major

B \flat Major

G Major

Section 7

The Melodic Line

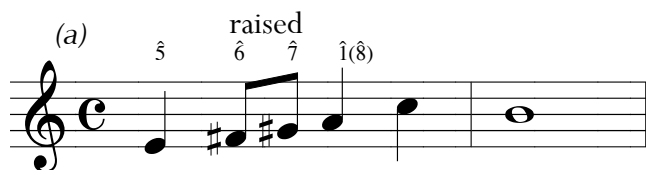
Scale Degree Symbols

It is common among music theorists to use shorthand when discussing scale degrees. The symbol used to denote scale degrees is a caret symbol “^” on top of an arabic number. For example, “ $\hat{6}$ ” and “scale degree 6” mean the same thing. So, the phrase, “scale degrees 6 and 7 are raised” can now be expressed as “ $\hat{6}$ and $\hat{7}$ are raised.”

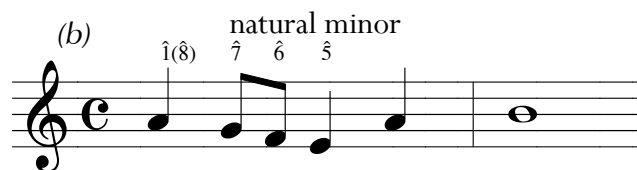
The Minor Melody

When writing melodies in minor keys, special consideration should be given to $\hat{6}$ and $\hat{7}$. Sometimes $\hat{7}$ is raised, sometimes it’s not; sometimes $\hat{6}$ is raised, sometimes it’s not; sometimes $\hat{6}$ and $\hat{7}$ are raised, and so on.

In general, use the **melodic minor scale**—raise $\hat{6}$ and $\hat{7}$ when ascending (a) and use natural $\hat{6}$ and $\hat{7}$ when descending (b).



a minor



This is especially the case when you are writing an unaccompanied melody, a *monophonic* texture.

But there are exceptions to this general guideline if there is an accompaniment, or if there is an underlying harmony to be taken into consideration. For example, if the descending form of melodic minor (natural $\hat{6}$ and $\hat{7}$) were used over a V chord, the natural $\hat{7}$ would clash with the 3rd of the V chord (c). In this situation the ascending form (raised $\hat{6}$ and $\hat{7}$) is used even though the melodic line is descending (d).

(c) natural $\hat{6}$ and $\hat{7}$ (incorrect use)

a: V i

(d) raised $\hat{6}$ and $\hat{7}$ (correct use)

a: V i

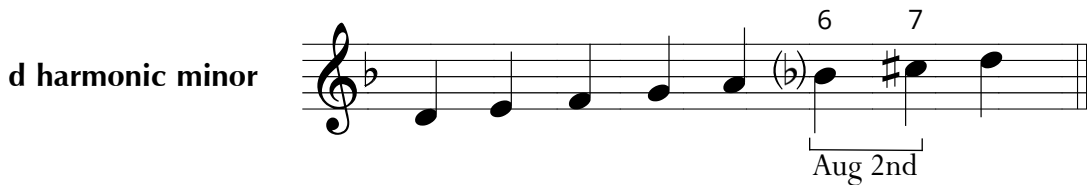
Sometimes the opposite is the case—the natural minor form is better when ascending. For example, the iv chord in the key of A minor is a D minor chord, which contains the natural $\hat{6}$. An ascending melodic line written above the iv chord must contain the lowered $\hat{6}$ in order to agree with iv (e).

(e) natural $\hat{6}$ and $\hat{7}$ (correct use)

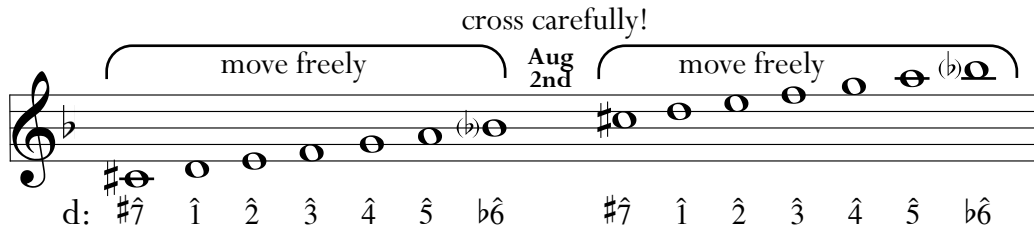
a: iv V

The Use of the Harmonic Minor Scale

The harmonic minor is often used in melody writing as well, but is more problematic because of the augmented 2nd, which occurs between $\hat{6}$ and $\hat{7}$. This interval of three half steps sounds awkward in scale passages.

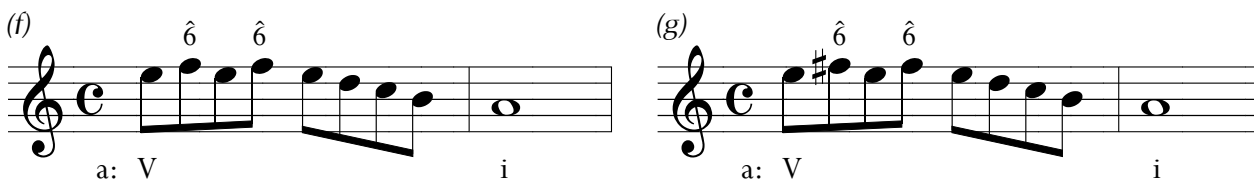


The best practice is to use the section of the scale spanning $\#7-\hat{1}-\hat{2}-\hat{3}-\hat{4}-\hat{5}-b\hat{6}$ as a pocket—a safe area—in which you can freely roam, so long as you do not try to *step* across $\hat{6}$ and $\hat{7}$. However, if you are moving by skips along the tones of a chord, you can safely *skip* past the augmented 2nd between $\hat{6}$ and $\hat{7}$.

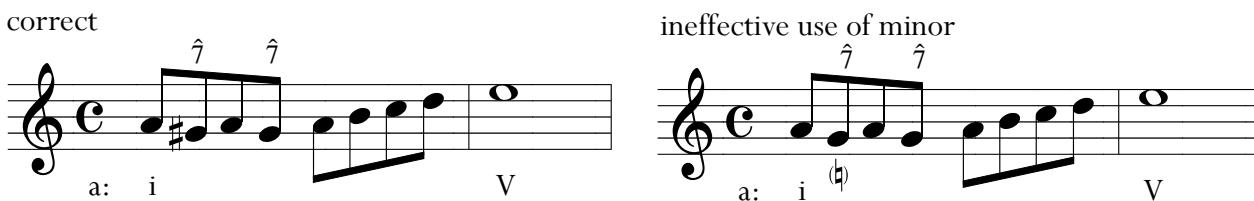


It is only when the scale moves from $\hat{5}-\hat{6}-\hat{7}-\hat{8}$ or $\hat{8}-\hat{7}-\hat{6}-\hat{5}$ that the melodic form of minor is used.

Figure (f) sounds effective if you keep the natural $\hat{6}$ while figure (g) is an ineffective use of minor. Play the indicated chords with each example to hear the difference.



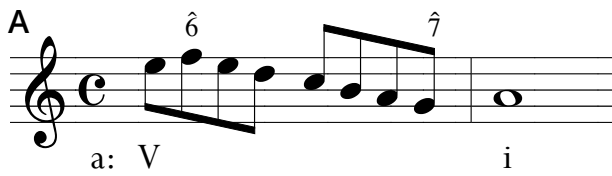
The same principle is involved when $\hat{7}$ is used. In general, always raise $\hat{7}$ unless the melody is going to continue down the scale. Play the indicated chords with each example to hear the difference.



Assignment

1. In each example the 6th and 7th scale degrees are labeled. **Add accidentals** to these tones, if needed, so that the melody is in agreement with the harmonies indicated by the roman numerals. The melodic and harmonic forms of minor are used, sometimes both in the same example.

A



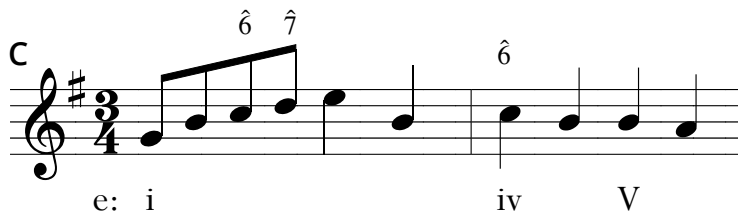
a: V i

B



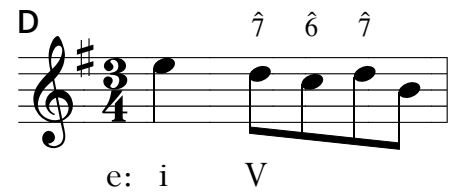
a: V i

C



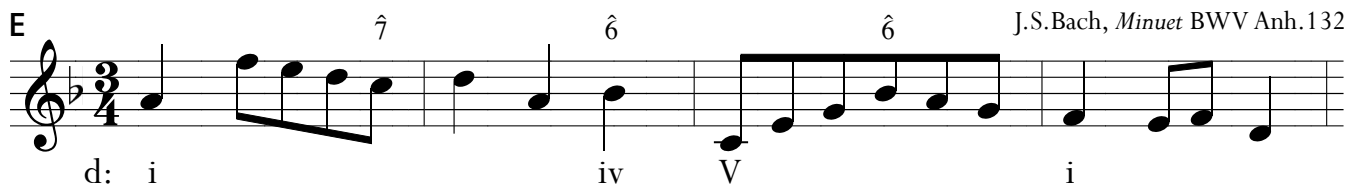
e: i iv V

D



e: i V

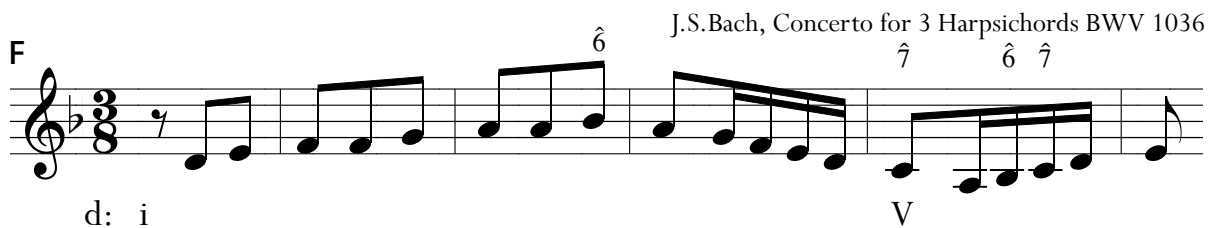
E



J.S.Bach, *Minuet* BWV Anh.132

d: i iv V i

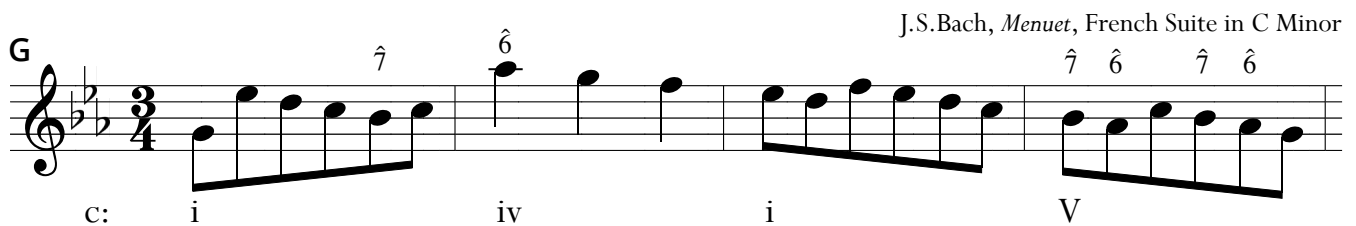
F



J.S.Bach, *Concerto for 3 Harpsichords* BWV 1036

d: i V

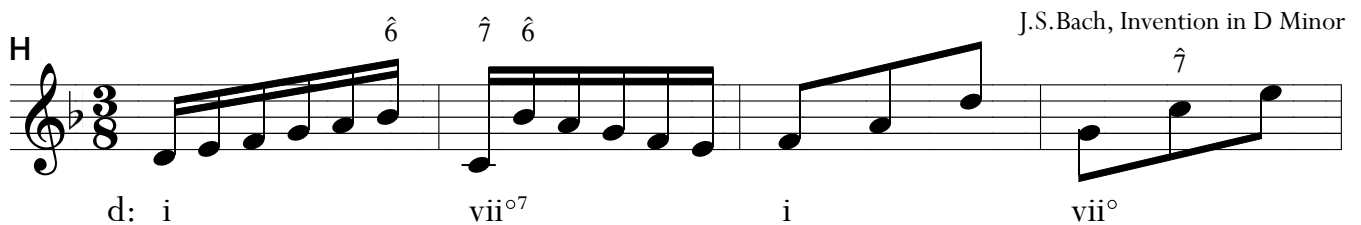
G



J.S.Bach, *Menuet, French Suite in C Minor*

c: i iv i V

H



J.S.Bach, *Invention in D Minor*

d: i vii^{°7} i vii[°]

Assignment: Writing a Four-Measure Antecedent Phrase

In the following exercise, write an antecedent phrase ('question phrase') leading to a half cadence.

2. Complete each phrase by ending with a half cadence. The examples are in B minor.
Demonstrate the use of melodic minor.

- (a) In measure 2, write a *melodic sequence* of measure 1.¹
(b) End the phrase on a note of the dominant chord.

b minor

Writing a Four-Measure Consequent Phrase

The consequent phrase ('answer phrase') continues after the momentary pause of the antecedent phrase and completes the period with an authentic cadence.

3. Complete each four measure phrase in the minor key indicated. You may use the melodic or harmonic form of minor. Demonstrate rhythmic imitation (rhythmic imitation) of measure one.
(a) In measure 2, demonstrate *rhythmic imitation* of measure 1.¹
(b) End the phrase on the tonic note.

e minor

a minor

c minor

¹This is a requirement for certain state tests. Otherwise, you may write a sequence anywhere in the phrase, or use whatever compositional device you prefer.

Writing an Eight-Measure Minor Melody

Finally, you will compose melodies eight measures in length consisting of an antecedent phrase ending on a half cadence (measure 4), followed by a consequent phrase ending on an authentic cadence (measure 8).

4. Complete each eight-measure melody in the minor key indicated.
- In measure 2, write a melodic sequence or rhythmic imitation of measure 1.
 - In measure 4, end the antecedent phrase on a note of the dominant chord.
 - In measure 8, end the consequent phrase on tonic.
 - Demonstrate the ascending and descending form of melodic minor.

d minor

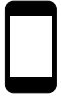
a minor

g minor

Section 8

Melodic Dictation

Complete the melodic dictation exercises in this section by using a web application on your smart device or on your PC.



Scan the QR code and you will be taken to a menu listing all the melodies for Assignment 1:



MyTheoryApp.com → Level 11 → Melodic Dictation: Assignment 1

1. Complete each eight-measure melody. Fill in the blank measures.

① G Major

② F Major

③ A Major

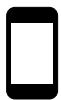
④ E \flat Major

⑤ C Major

⑥ E Major

More Melodic Dictation Practice

To access more melodies for dictation practice:



Scan the QR code:



MyTheoryApp.com → Level 11 → Melodic Dictation: Extra Melodies

Section 9

Definitions

<i>ad libitum</i>	Freedom to improvise or vary the tempo
alto	The second highest voice in four-part harmony
aria	A composition for solo voice
asymmetrical meter	The combination of two simple meters where the pulse cannot be divided into 2, 3 or 4 beats per measure
augmented interval	A perfect or major interval that has been increased by a half step
augmented second	An interval of a second having three half steps (C - D \sharp)
augmented triad	A triad made up of two major thirds
ballet	A theatrical dance
bass	The lowest voice in four-part harmony
bi-tonal	The use of two different keys at the same time
cadenza	A section in a composition that allows the performer to improvise or that is written in the style of an improvisation
chromatic scale	A twelve-tone scale built only of half steps
church modes	Seven diatonic scales comprised of different arrangements of whole and half steps
close harmony	Four-part harmony with less than an octave between the soprano and tenor
compound meter	A meter in which the beat can be subdivided into groups of three
<i>con moto</i>	With motion
counterpoint	The use of two or more melodic lines simultaneously
diatonic scale	A scale with seven different tones
diminished interval	A perfect or minor interval that has been decreased by a half step
diminished triad	A triad made up of two minor thirds
dominant 7th chord	A major triad with a minor 7th added above the root, found on scale degree 5
duet	A musical composition written for two performers.
first inversion triad	A triad that has its third as the lowest pitch
half cadence	Any cadence which ends on the dominant triad (V)
homophonic music	Melodic interest is concentrated in one line supported by an accompaniment.
interval inversion	Turning an interval upside down so that the lower tone becomes the higher tone or the higher tone becomes the lower tone
invention	A short contrapuntal piece based on one theme
meter	The organizing pattern of strong and weak beats
minor interval	An interval which is a half step smaller than the corresponding major interval
monophonic music	A single line of melody without any additional parts or accompaniment
open harmony	Four-part harmony with an octave or more between the soprano and tenor

opera	A theatrical drama that is sung and set to music
oratorio	A sacred theatrical drama that is sung but performed without action, costumes or scenery
overture	An orchestral composition used to introduce a large dramatic work
parallel keys	Major and minor keys that share the same tonic
perfect interval	The set of intervals in the major scale using scale degrees 1-1, 1-4, 1-5, 1-8
phrase	Part of a melody which pauses or ends with a cadence
plagal cadence	A cadence consisting of the subdominant progressing to tonic, IV - I (iv - i)
polyphonic music	Music in which two or more melodies are heard at the same time
prelude	A small composition that is usually followed by a larger composition in the same key
rondo form	A composition in which the first theme returns repeatedly (ABACAD etc.)
second inversion triad	A triad that has its fifth as the lowest pitch
<i>semplice</i>	To play simply, without ornament
<i>sempre</i>	Always
<i>senza</i>	Without
simple meter	A meter in which the beat can be subdivided into groups of two
soprano	The highest voice in four-part harmony
<i>subito</i>	Suddenly
tenor	The second lowest voice in four-part harmony
trio	A musical composition written for three performers.
transposition	The performing or writing of music in a key other than the original key
<i>troppo</i>	Too much
voice leading	The the procedures governing the movement of voices in chord progressions
whole tone scale	A six-tone scale built only of whole steps

Definitions: Online Flash Cards



Scan the QR code:



PrimoTheory.com



Level 11



Definitions
