

Primo Theory

Level 9

by

Robert Centeno

How to Use This Book

This is a unique workbook. From these pages, the student can directly access learning materials available on the internet with the simple swipe of a mobile device. The revised Primo Music Theory Series now offers this interactive capability in all grade levels. These online supplementary materials include interactive web applications, walkthroughs, videos, and downloadable exercises. This workbook series utilizes the advantages of modern technology to enhance and accelerate the student's learning experience.

The Ear-Training Exercises

There are various ear-training exercises provided in the appendix which can be practiced with the teacher or by the student alone. These exercises largely consist of singing drills aimed at sharpening the listening skills of the student. The teacher should first work with the student on these exercises until the student becomes familiar with the procedures. Afterward, the teacher should periodically observe as the student performs them to ensure that the student is maintaining correct practice. The student may discontinue any exercise that can be executed easily.

The Dictation Exercises

The rhythmic and melodic dictation exercises are designed so that the student can work through them alone using interactive web applications or work through them with the teacher playing the dictation melodies. The teacher can fill in the missing measures with materials of his or her choice or use the materials provided at www.primotheory.com.

The QR Codes

The QR codes found throughout this series can only be read using a smart mobile device which has a QR code reader app installed. If you don't have a QR code reader and don't know how to get one, follow these instructions:

Step 1: With your mobile device, open your app marketplace (App Store, Google Marketplace, etc.).

Step 2: Search for "QR reader" and download and install any one of the apps available. You can choose between free or paid versions. Do a bit of research to decide which app 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 will scan the code automatically when it's in view.

If you are still unsure what to do, go to the www.primotheory.com "Help" page or email info@primopublishing.com.

Online Resources

Throughout the text of this series 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, 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. But please note that, while this workbook cannot continue to grow once printed, the resources found online will continue to grow. All added resources will be listed with references to the workbook page numbers.

Be sure to visit www.primotheory.com to find links to an ever-growing list of supplemental materials for each level.

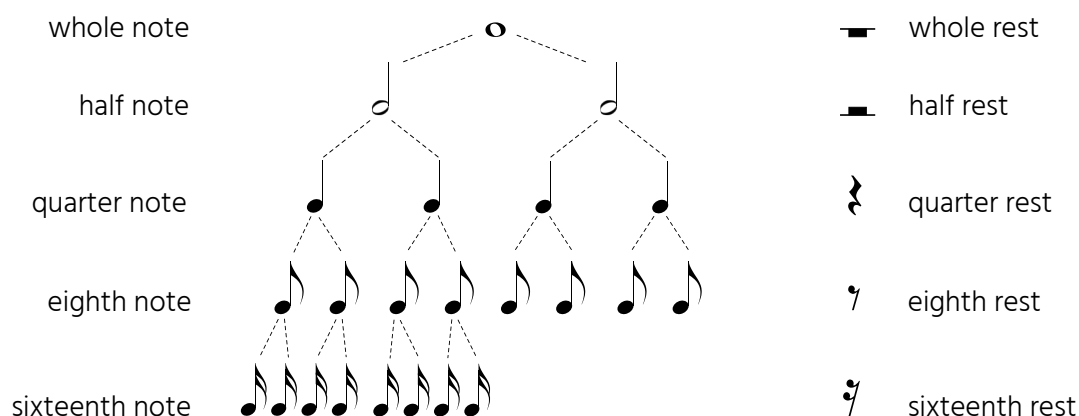
Contents

Section 1	Rhythm and Meter	<i>page</i> 4
Section 2	Keys and Scales	9
Section 3	Intervals	18
Section 4	Chords	28
Section 5	Harmonic Analysis	33
Section 6	The Cadence	40
Section 7	Composition: The Melodic Line	46
Section 8	Transposition	51
Section 9	Lead Sheet Symbols	52
Appendix I	Ear-Training Exercises	54
Appendix II	Online Ear-Training Assignments	62

Section 1 Rhythm and Meter

Note and Rest Values

The graphic below shows a hierarchy of note values. Each note or rest divides naturally into two equal parts called **divisions**. The whole note divides into two half notes, the half note divides into two quarter notes, and so on. Rests are divided the same way.



A dot placed after a note or rest increases the length of the note or rest by one-half of its original value. A dotted note or rest can divide into three equal parts.



① Write the correct number on each blank.

A O note equals _____ C notes.

A $\text{O}.$ note equals _____ D notes.

A D note equals _____ C notes.

A $\text{D}.$ note equals _____ C notes.

A C note equals _____ G notes.

A $\text{C}.$ note equals _____ G notes.

An C note equals _____ G notes.

A $\text{C}!$ note equals _____ G notes.

A $\text{C}.$ rest equals _____ G rests.

A $\text{C}!$ note equals _____ G notes.

An G rest equals _____ F rests.

A D rest equals _____ C rests.

An $\text{G}.$ rest equals _____ F rests.

A $\text{D}.$ rest equals _____ C rests.

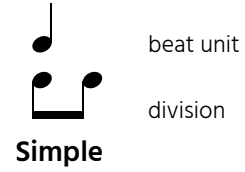
Simple and Compound Time

There are two basic types of beat divisions:

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

The top number of a time signature in simple time is **2, 3, or 4**.

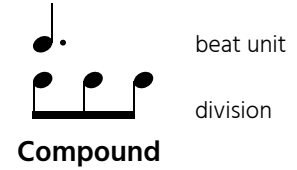
Examples: $\square \frac{2}{4} \frac{3}{4} \frac{4}{4}$



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

The top number of a time signature in compound time is **6, 9, or 12**.

Examples: $\square \frac{6}{8} \frac{9}{8} \frac{12}{8} \frac{6}{4}$



In compound time, the numbers of the time signature are usually interpreted differently than those of the simple time signature.
















The **upper number** of a compound time signature does not directly indicate the number of beats per measure. To find the number of beats per measure, divide the upper number by three.

$$\frac{6}{8} \div 3 = 2 \text{ beats per measure with the } \text{♩} \text{ note as the beat.}$$

The **lower number** of a compound time signature represents the largest possible division of the beat.

$$\frac{6}{8} \text{ The eighth note } \text{♩} \text{ is the division of the beat.}$$

- ② Each example represents one beat.
Circle the correct description: simple (S) or compound (C) time.

 = S or C	 = S or C	 = S or C
 = S or C	 = S or C	 = S or C
 = S or C	 = S or C	 = S or C
 = S or C	 = S or C	 = S or C
 = S or C	 = S or C	 = S or C

Meter refers to the pattern of strong and weak beats in a measure.

Every time signature indicates a certain pattern of strong and weak beats.

Duple meter has two beats per measure; one strong beat and one weak beat. Example: $\frac{2}{4}$

Triple meter has three beats per measure; one strong beat and two weak beats. Example: $\frac{3}{4}$

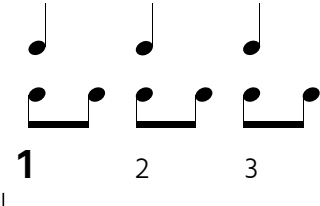
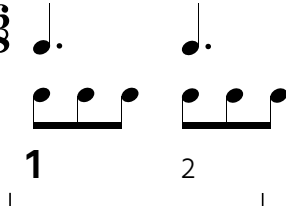
Quadruple meter has four beats per measure; two duple meter patterns with the first and third beat as the strong beats. Example: $\frac{4}{4}$

Duple Meter	Triple Meter	Quadruple Meter
$\frac{2}{4}$ 1 2 strong weak	$\frac{3}{4}$ 1 2 3 strong weak weak	$\frac{4}{4}$ 1 2 3 4 STRONGEST weak strong weak <small>duple duple</small>

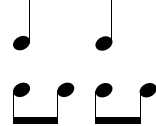
Asymmetrical meter is a combination of duple and triple patterns which create an irregular pulse such as **quintuple meter** (five beats per measure) or **septuple meter** (seven beats per measure).

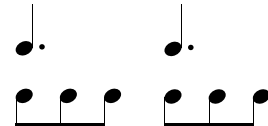
Two common asymmetrical meters are those with 5 or 7 as the top number. Examples: $\frac{5}{4}$ $\frac{7}{8}$

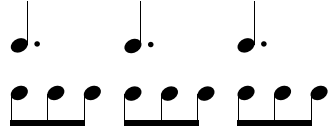
The combination of meter and beat divisions is shown here:



$\frac{3}{4}$  beat unit divided by 2 Simple time 1 2 3 Triple meter	$\frac{6}{8}$  beat unit divided by 3 Compound time 1 2 Duple meter
---	--



③ Write the correct answer on each blank.

$\frac{2}{4}$ 	Duple (D), triple (T), quadruple (Q), or asymmetrical meter (A)? _____
	Simple (S) or compound (C) time? _____

$\frac{6}{8}$ 	Duple (D), triple (T), quadruple (Q), or asymmetrical meter (A)? _____
	Simple (S) or compound (C) time? _____


$\frac{9}{8}$ 	Duple (D), triple (T), quadruple (Q), or asymmetrical meter (A)? _____
	Simple (S) or compound (C) time? _____

$\frac{5}{4}$  Duple (D), triple (T), quadruple (Q), or asymmetrical meter (A)? _____
 Simple (S) or compound (C) time? _____

$\frac{3}{4}$  Duple (D), triple (T), quadruple (Q), or asymmetrical meter (A)? _____
 Simple (S) or compound (C) time? _____

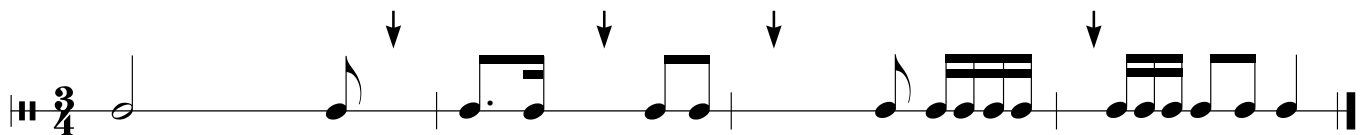
- ④ At the beginning of each measure, write the correct time signature.
 The measures are written in simple time, compound time or asymmetrical meter.

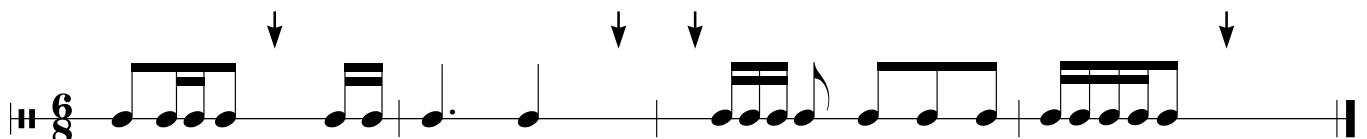

 Simple Compound Simple Simple

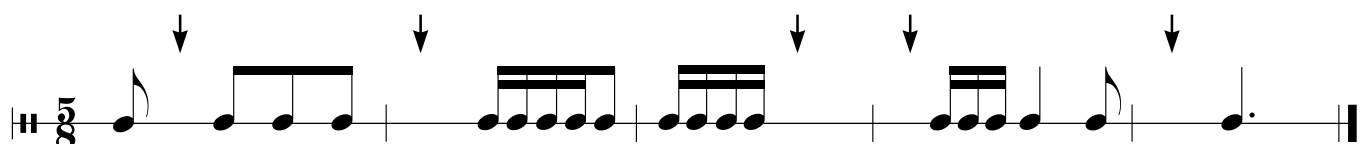

 Compound Asymmetrical Simple Compound


 Asymmetrical Compound Simple Simple

- ⑤ Below each arrow, write the **one note** that completes the measure.

$\frac{3}{4}$ 

$\frac{6}{8}$ 

$\frac{3}{8}$ 

The Thirty-Second (32nd) Note and Rest

A **thirty-second note** is $1/32$ the value of a whole note.

It consists of a note head, stem, and three flags or beams.



The **thirty-second rest** denotes silence for the same duration.



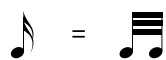
Listed here are some common thirty-second note groupings and their single-note equivalents:



Eight 32nd notes are in one quarter note.





Four 32nd notes are in one eighth note.



Two 32nd notes are in one sixteenth note.



⑥ Write the correct number on each blank.



An  note equals _____  notes.

A  note equals _____  notes.

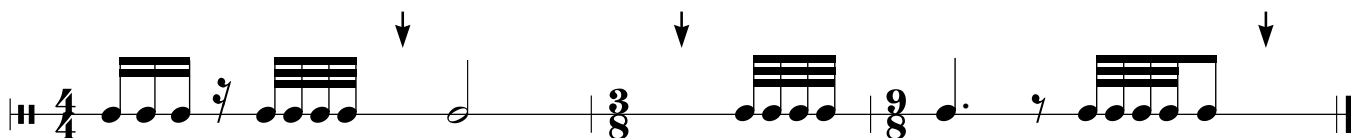
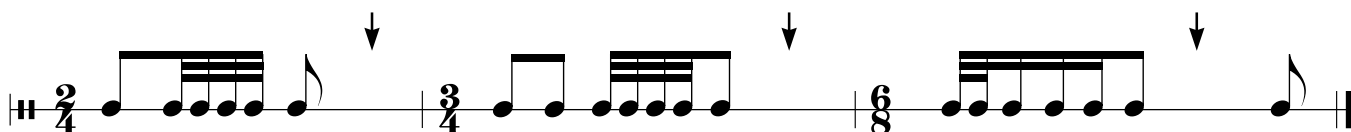
A  note equals _____  notes.

A  note equals _____  notes.

A  note equals _____  notes.

A  note equals _____  notes.

⑦ Under each arrow, write the **one note** needed to complete the measure.



⑧ Under each measure of Exercise 7, label the meter as **simple**, **compound**, or **asymmetrical**.

Section 2 Scales and Keys

The **major scale** is a series of eight successive tones arranged in the following ascending order of whole steps (**W**) and half steps (**H**):

1 2 3 4 5 6 7 8 (1)
 tonic —————
 C Major: W W H W W W H

The tone that begins and names the scale—the first scale degree—is called the **tonic** or **keynote**.

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

Order of Sharps	Order of Flats
<p>F C G D A E B</p>	<p>B E A D G C F</p>

Major SHARP Key Signatures

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

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

E (tonic)
E Major

Major FLAT Key Signatures

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

Ab-(tonic)
Ab Major

① Name the major key for each key signature (e.g. A Maj, Bb Maj).

*A diatonic half step is a half step which is spelled using two neighboring letter names.

The Relative Minor

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.

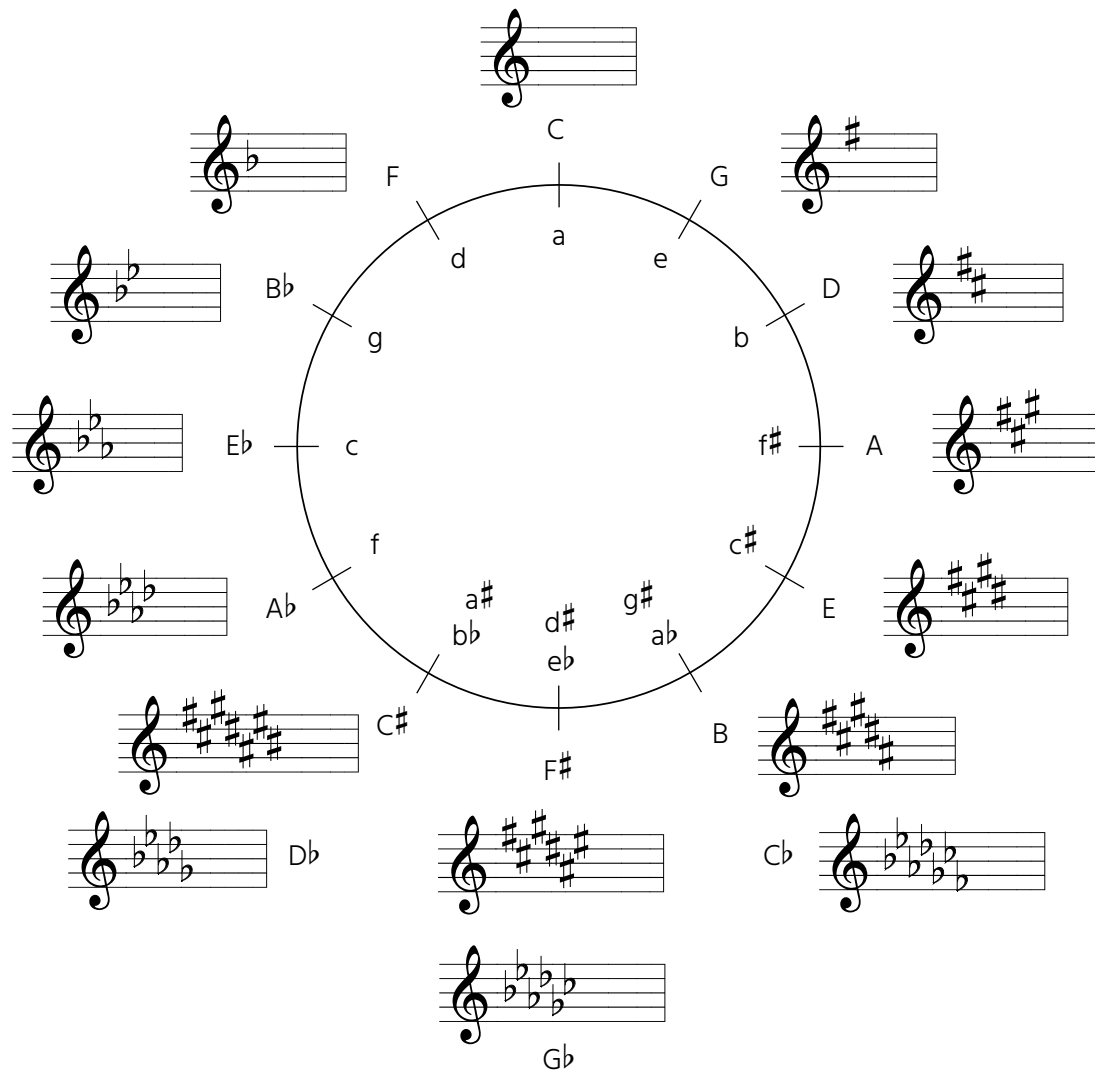
For example:

- ② Name the minor key represented by each key signature.
Use abbreviations and lowercase letters (e.g. e min, bb min).

e min _____

The Circle of Fifths

The **Circle of Fifths** is a schematic representation used to illustrate the relationships among various key signatures and the major and minor keys associated with them. In the illustration below, the major keys are represented by the uppercase letters outside the circle (C, B \flat , etc.). The minor keys are represented by the lowercase letters inside the circle (a, f \sharp , etc.).



Moving **clockwise** around the circle of fifths, notice that: (1) sharps are added to the key signature one at a time; and (2) each new key begins a **perfect 5th higher** than the previous key.

Moving **counterclockwise** around the circle of fifths, notice that: (1) flats are added to the key signature one at a time; and (2) each new key begins a **perfect 5th lower** than the previous key.

Some sharp and flat keys will overlap at the bottom of the circle. These keys share the same tonic tone spelled as a sharp and as a flat. These are called **enharmonic keys**.

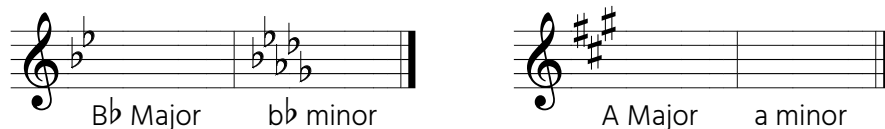
Parallel Major and Minor Keys

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

For example, C major is the parallel major of C minor.

Parallel keys do not share the same key signature.

Examples of parallel major and minor key signatures:



The Three Accidental Rule:

In the above examples, notice that there is a difference of three accidentals between parallel keys.

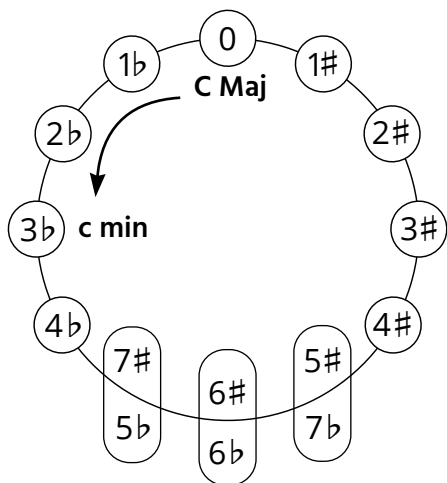
The key of Bb major has two flats; Bb minor has five flats—a difference of three flats.

The key of A major has three sharps; A minor has no sharps—a difference of three sharps.

Use the circle of fifths to find a parallel key of a major or minor key:

MAJOR to minor

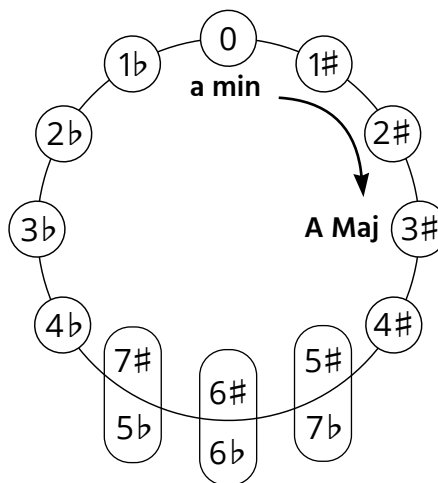
Starting from a major key, move three key signatures **counterclockwise** to find the parallel minor.



In this example, start at C major and move three keys counterclockwise to find its parallel minor, which is C minor.

minor to MAJOR

Starting from a minor key, move three key signatures **clockwise** to find the parallel major.



In this example, start at A minor and move three keys clockwise to find its parallel major, which is A major.

At times you will cross over from sharps to flats and vice versa.

For example, G major (one sharp) and G minor (two flats) are parallel keys.

③ Write the key signatures for the parallel major and minor keys.

A Major a minor

A grand staff with treble and bass clefs, divided into two sections. The left section is labeled 'A Major' and the right section is labeled 'a minor'.

B \flat Major b \flat minor

A grand staff with treble and bass clefs, divided into two sections. The left section is labeled 'B \flat Major' and the right section is labeled 'b \flat minor'.

B Major b minor

A grand staff with treble and bass clefs, divided into two sections. The left section is labeled 'B Major' and the right section is labeled 'b minor'.

C Major c minor

A grand staff with treble and bass clefs, divided into two sections. The left section is labeled 'C Major' and the right section is labeled 'c minor'.

C \sharp Major c \sharp minor

A grand staff with treble and bass clefs, divided into two sections. The left section is labeled 'C \sharp Major' and the right section is labeled 'c \sharp minor'.

D Major d minor

A grand staff with treble and bass clefs, divided into two sections. The left section is labeled 'D Major' and the right section is labeled 'd minor'.

E \flat Major e \flat minor

A grand staff with treble and bass clefs, divided into two sections. The left section is labeled 'E \flat Major' and the right section is labeled 'e \flat minor'.

E Major e minor

A grand staff with treble and bass clefs, divided into two sections. The left section is labeled 'E Major' and the right section is labeled 'e minor'.

F Major f minor

A grand staff with treble and bass clefs, divided into two sections. The left section is labeled 'F Major' and the right section is labeled 'f minor'.

F \sharp Major f \sharp minor

A grand staff with treble and bass clefs, divided into two sections. The left section is labeled 'F \sharp Major' and the right section is labeled 'f \sharp minor'.

G Major g minor

A grand staff with treble and bass clefs, divided into two sections. The left section is labeled 'G Major' and the right section is labeled 'g minor'.

A \flat Major a \flat minor

A grand staff with treble and bass clefs, divided into two sections. The left section is labeled 'A \flat Major' and the right section is labeled 'a \flat minor'.

The Minor Scales

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

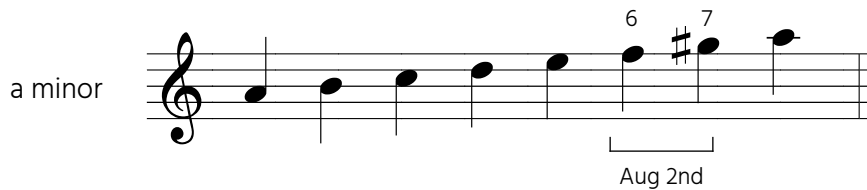
Natural Minor Scale

- Whole step/half step pattern: **W H W W H W W**
- No altered tones—follows its key signature
- Keeps the same form whether ascending or descending



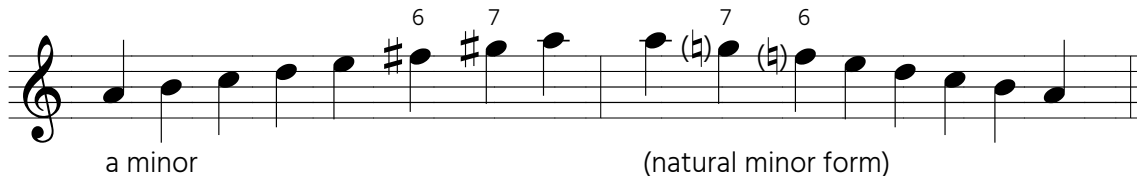
Harmonic Minor Scale

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

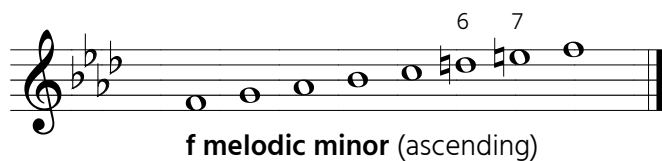


Melodic Minor Scale

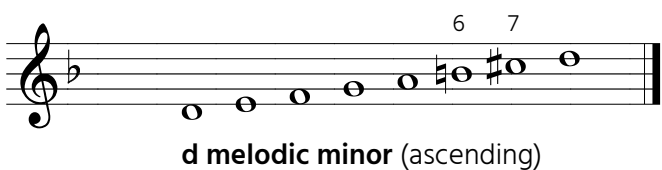
- When ascending, scale degrees 6 and 7 are raised a half step
- When descending, the scale reverts to the natural minor form



Important note: When altering the 6th or 7th scale degrees, natural signs are used when raising flatted notes a half step.



Some ascending melodic minor scales will have a natural sign and a sharp sign.



How to Find the Sharps or Flats Used in Any Natural Minor Scale

You can use your knowledge of major scales to find the sharps or flats used in any natural minor scale.

Note that the difference between the A Major scale and A natural minor scale is found in the 3rd, 6th, and 7th scale degrees:

A Major

a natural minor

scale degrees: 1 2 3 4 5 6 7 8 (1)

So, simply lower the 3rd, 6th, and 7th scale degrees of the major scale by one half step to find the natural minor.

The following shows how to change a scale from C Major to C natural minor by lowering the 3rd, 6th, and 7th scale degrees.

C Major

c minor

scale degrees: 1 2 3 4 5 6 7 8 (1)

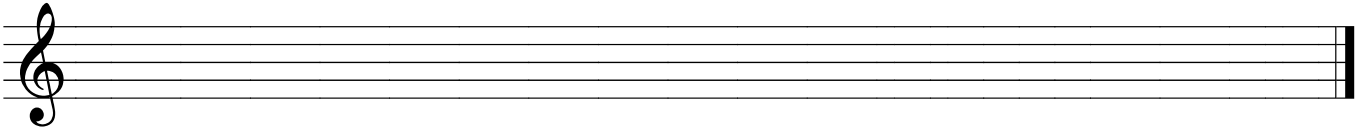
The following shows how to derive the D natural minor scale from its parallel major.

D Major

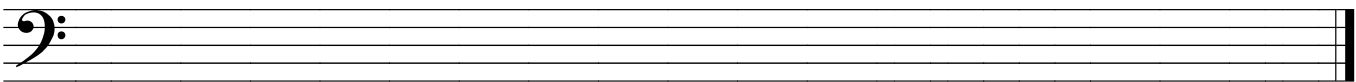
d minor

④ On each staff construct an ascending **natural minor scale**. Add sharps or flats as needed.

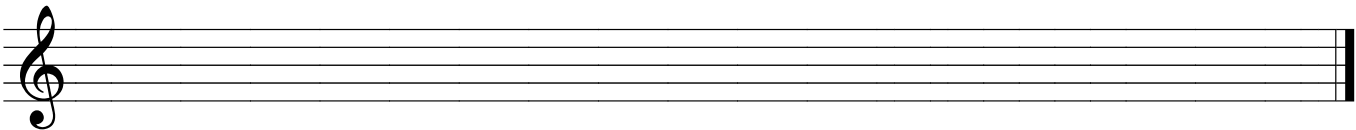
b minor



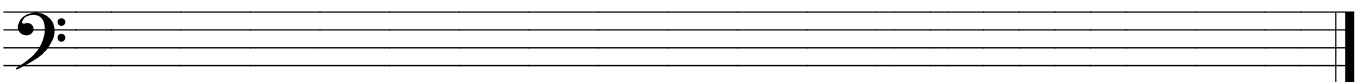
b \flat minor



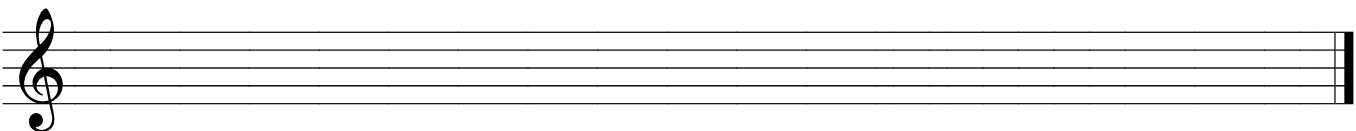
f minor



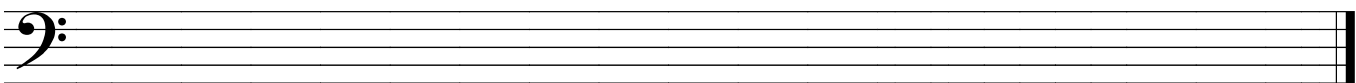
f \sharp minor



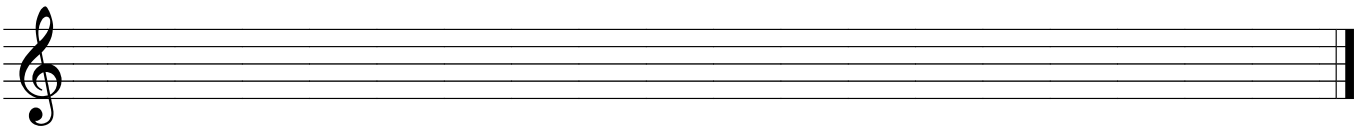
c \sharp minor



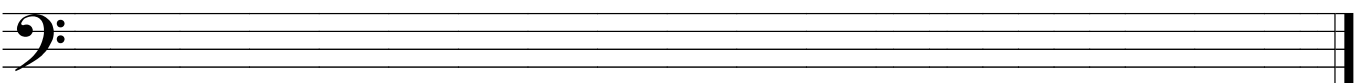
c minor



e minor

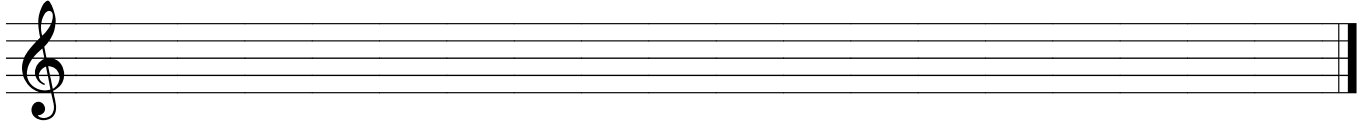


e \flat minor

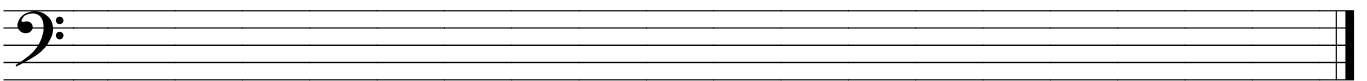


- ⑤ On each staff: a) Write the key signature for the minor scale given.
 b) Construct the named **harmonic minor** scale, ascending only.
 Add accidentals as needed.

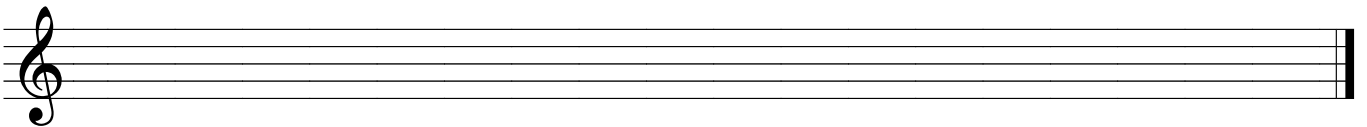
c harmonic minor



g# harmonic minor

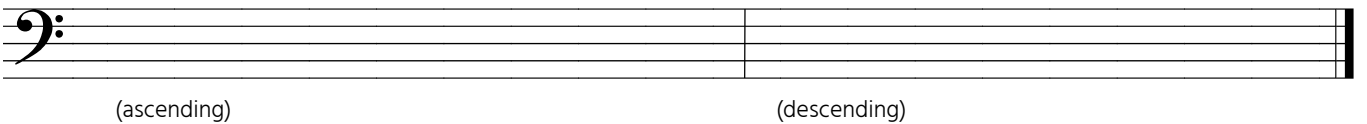


d# harmonic minor

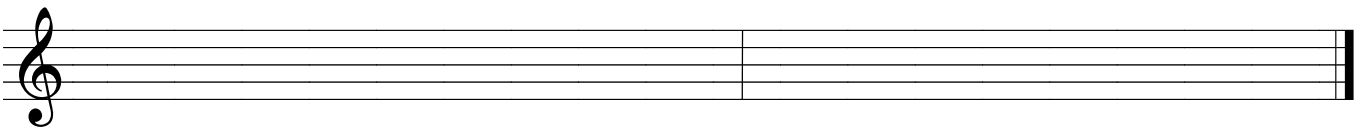


- ⑥ On each staff: a) Write the key signature for the minor scale given.
 b) Construct the named **melodic minor** scale, ascending then descending.
 Add accidentals as needed.

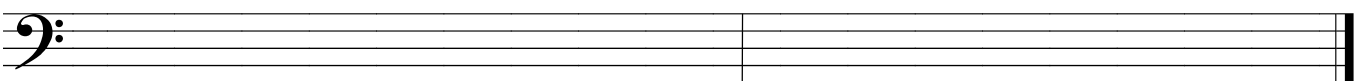
b melodic minor



d melodic minor



g melodic minor

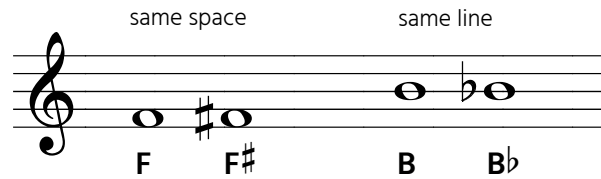


Section 3

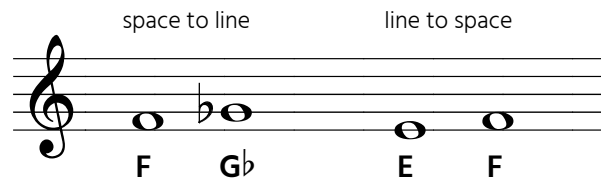
Intervals

Chromatic and Diatonic Half Steps

The two tones of a **chromatic half step** are spelled with the *same letter name*.
On the staff, the notes will appear on the same line or space.



The **diatonic half step** consists of *two different letter names*.
On the staff, the two notes appear as space-to-line or line-to-space.



① Name the pitch a chromatic half step **down** from each given pitch.

A — ____ B — ____ C — ____ D — ____ E — ____ F — ____

② Name the pitch a chromatic half step **up** from each given pitch.

A — ____ B — ____ C — ____ D — ____ E — ____ F — ____

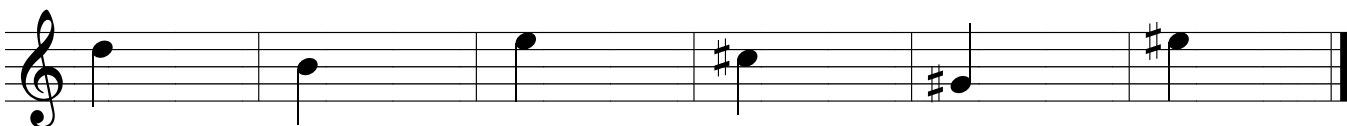
③ Write a chromatic half step **up** from each given note. Use eighth notes.

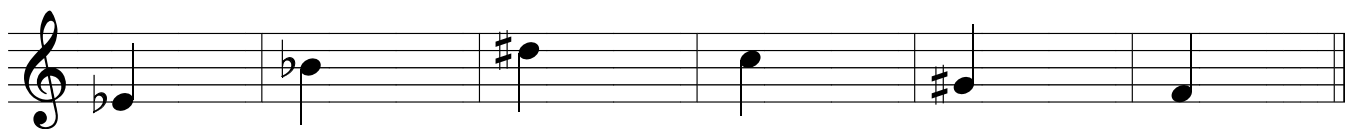


④ Write a chromatic half step **down** from each given note. Use eighth notes.

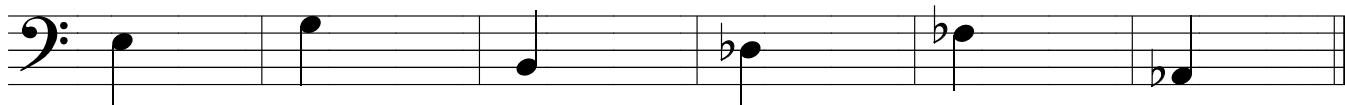


⑤ Write a diatonic half step **up** from each given note. Use quarter notes.



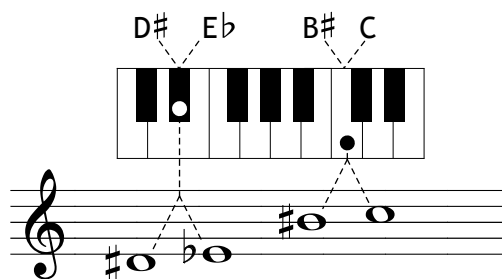


⑥ Write a diatonic half step **down** from each given note. Use quarter notes.

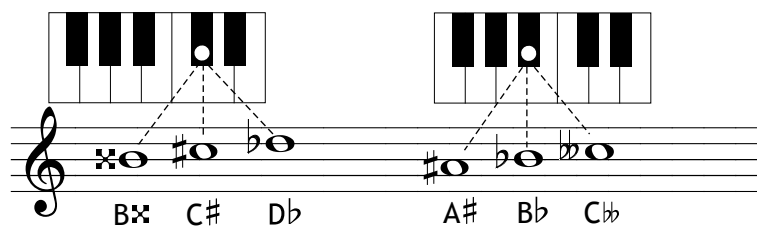


When two notes share the same pitch but are spelled differently, they are **enharmonic**.

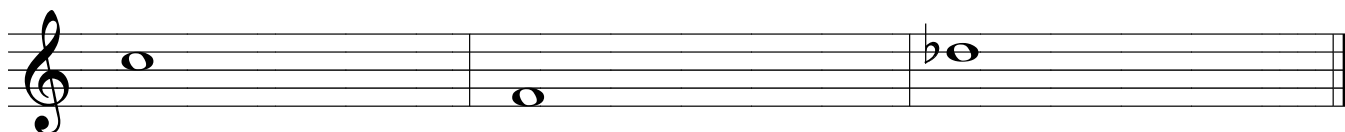
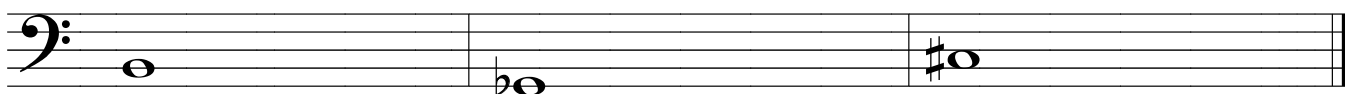
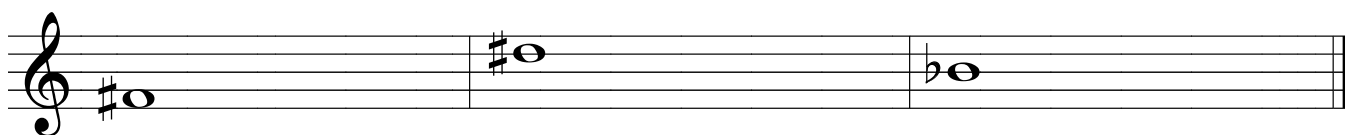
Every pitch has at least two different spellings.



On the keyboard, a given key can sometimes have three different spellings when double sharps or double flats are used:



⑦ In each measure, write **two** enharmonic equivalents of the given note.



Major and Perfect Intervals

Intervals built above the tonic tone of a major scale are either major intervals or perfect intervals.

All intervals are classified by *type* and *size*.

type:	Perfect	Major	Major	Perfect	Perfect	Major	Major	Perfect
size:	Unison	2nd	3rd	4th	5th	6th	7th	8ve

(also Perfect Prime)

The term **diatonic** refers to the major scale, natural minor scale or any scale comprised of five whole steps and two half steps. So, a *diatonic half step* is a half step which is found in any of these scales—spelled as a 2nd; likewise, a *diatonic whole step* is spelled as a 2nd.

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 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. However, 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 spellings

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

Start with a perfect 5th, then go a major 2nd down from the top note.



Perfect 4th? P5* M2 down = Perfect 4th

Start with a perfect 5th, then go a major 2nd up from the top note.



Major 6th? P5 M2 up = Major 6th

⑧ Construct the named intervals **above** the given notes.



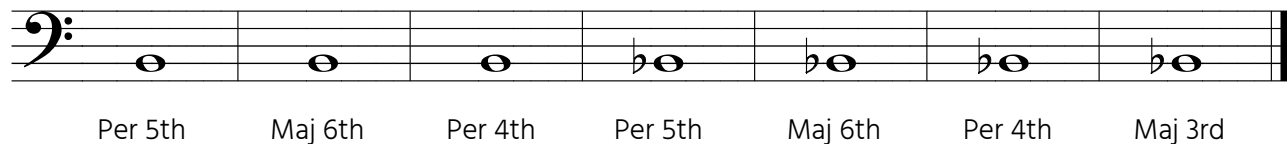
Per 5th Maj 6th Per 4th Per 5th Maj 6th Per 4th Maj 3rd



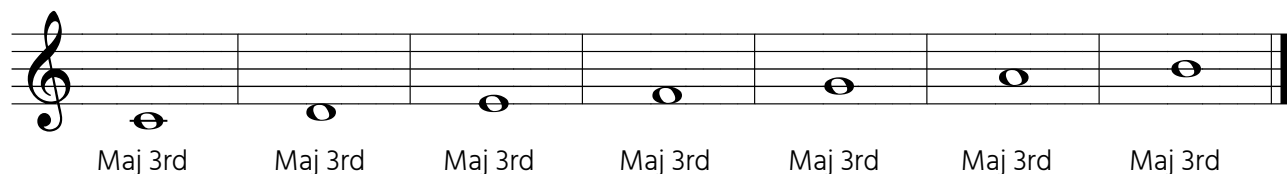
Per 5th Maj 6th Per 4th Per 5th Maj 6th Per 4th Maj 3rd



Per 5th Maj 6th Per 4th Per 5th Maj 6th Per 4th Maj 3rd



Per 5th Maj 6th Per 4th Per 5th Maj 6th Per 4th Maj 3rd



Maj 3rd Maj 3rd Maj 3rd Maj 3rd Maj 3rd Maj 3rd Maj 3rd

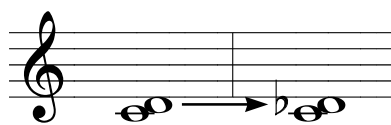


* At times, abbreviations will be used to indicate major and perfect intervals. For example, "M2" or "Maj 2nd" indicates a major 2nd, "P4" or "Per 4th" indicates a perfect 4th, and so on.

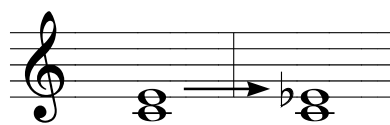
Minor Intervals

A major interval made one half step smaller becomes a minor interval.

The minor intervals are as follows: minor 2nd, minor 3rd, minor 6th, and minor 7th.



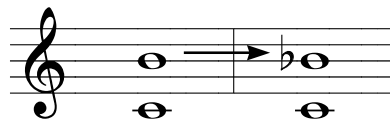
Major 2nd minor 2nd



Major 3rd minor 3rd



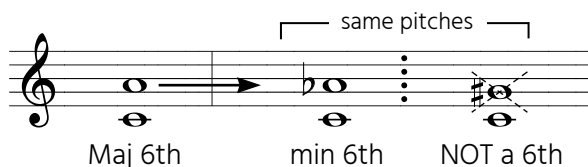
Major 6th minor 6th



Major 7th minor 7th

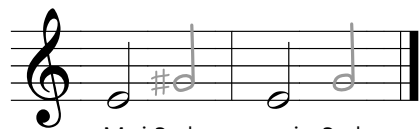
Be sure to use the correct spelling—a minor 6th should be spelled as a 6th.

For example, a minor 6th above C is A \flat , not G \sharp (even though they are the exact same pitch).

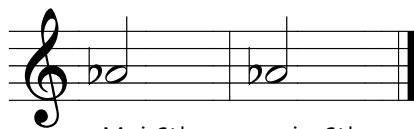


Maj 6th min 6th NOT a 6th

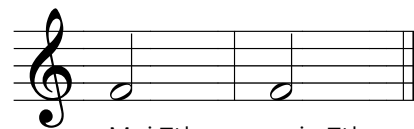
⑨ In each measure, construct the indicated interval **up** from the given pitch. Use half notes.



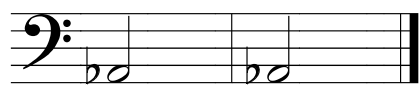
Maj 3rd min 3rd



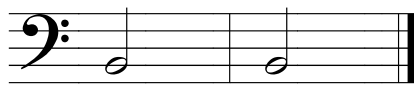
Maj 6th min 6th



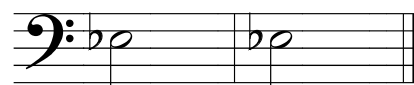
Maj 7th min 7th



Maj 3rd min 3rd



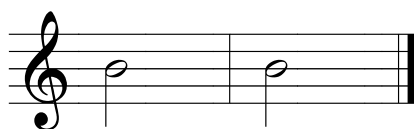
Maj 6th min 6th



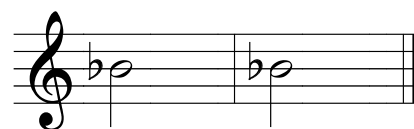
Maj 2nd min 2nd



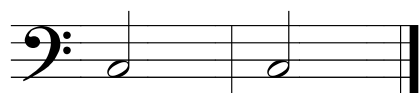
Maj 3rd min 3rd



Maj 2nd min 2nd



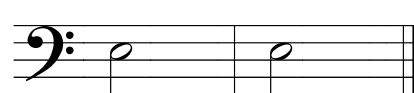
Maj 7th min 7th



Maj 7th min 7th



Maj 3rd min 3rd



Maj 6th min 6th



Diminished Intervals

Perfect and minor intervals become diminished when decreased in size by a half step. When labeling diminished intervals, the abbreviation "dim" will sometimes be used.

minor 3rd diminished 3rd

Perfect 4th diminished 4th

Perfect 5th diminished 5th

minor 7th diminished 7th

When a perfect or minor interval becomes diminished the interval *size* (2nd, 3rd, etc.) will remain the same, but the interval *type* (major, augmented, etc.) will be different. Sometimes this requires the use of a **double sharp** (X), which raises a pitch a whole step, or a **double flat** (bb), which lowers a pitch a whole step.

min 3rd dim 3rd NOT a 3rd

- ⑩ Construct diminished intervals **up** from the given pitches. Use half notes.

dim 7th dim 4th dim 3rd dim 5th dim 4th dim 3rd

dim 3rd dim 5th dim 7th dim 3rd dim 4th dim 5th

dim 7th dim 5th dim 4th dim 3rd dim 7th dim 4th



Augmented Intervals

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

When labeling augmented intervals, the abbreviation "Aug" will sometimes be used.

Major 2nd Augmented 2nd

Perfect 4th Augmented 4th

Perfect 5th Augmented 5th

Major 6th Augmented 6th

The *augmented prime* is a half step between two notes of the same letter name. For example, C-C# is an augmented prime but C-D \flat is not.

Perfect Prime Augmented Prime

When a perfect or major interval becomes augmented the interval *size* (2nd, 3rd, etc.) will remain the same, but the interval *type* (major, augmented, etc.) will be different.

⑪ Construct augmented intervals **up** from the given pitches. Use half notes.

Aug 6th Aug 4th Aug 2nd Aug 5th Aug 2nd Aug 3rd

Aug 4th Aug 5th Aug 6th Aug 2nd Aug Prime Aug 5th

Aug 6th Aug 5th Aug 4th Aug 2nd Aug 3rd Aug 4th



REVIEW: Sections 2 and 3

- ① Name the **major key** for each key signature. Use abbreviations (e.g. A Maj, B \flat Maj).



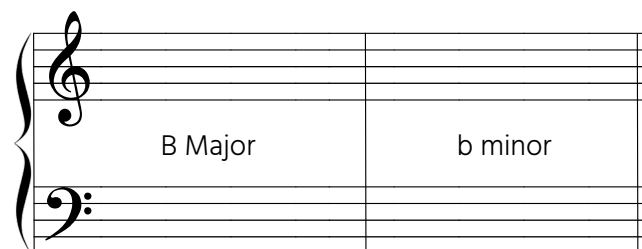
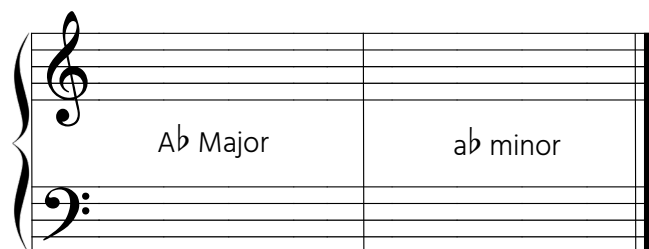
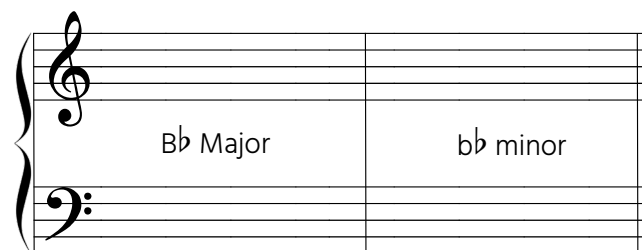
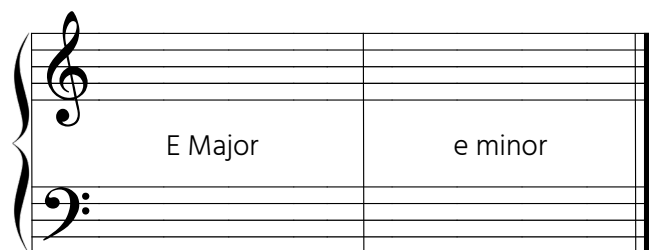


- ② Name the **minor key** for each key signature. Use abbreviations (e.g. a min, f \sharp min).



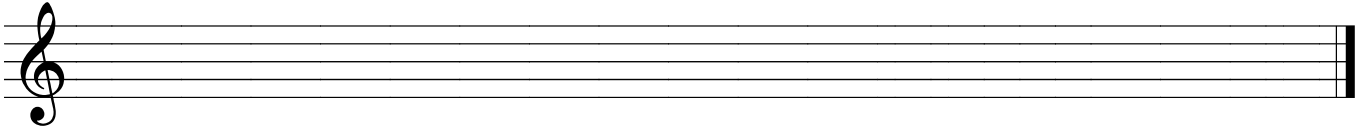


- ③ Write the key signatures for the **parallel** major and minor keys.

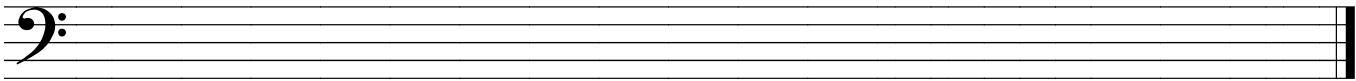


- ④ On each staff construct an ascending **natural minor scale**. Add sharps or flats as needed.

f natural minor

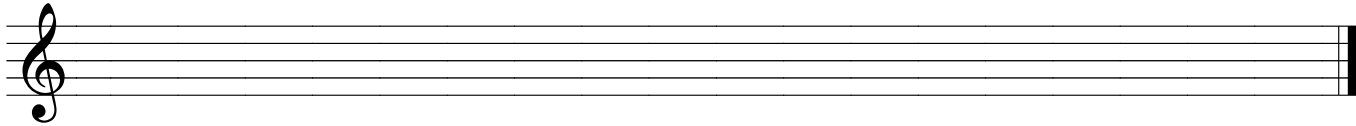


f# natural minor

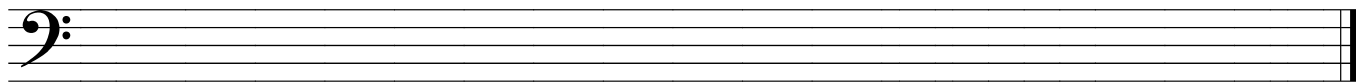


- ⑤ On each staff: a) Write the key signature for the minor scale given.
b) Write the named **harmonic minor** scale, ascending only.
Add accidentals as needed.

d# harmonic minor

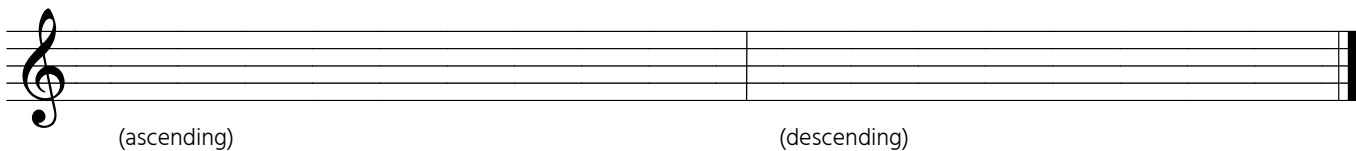


e♭ harmonic minor

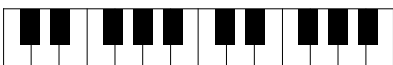
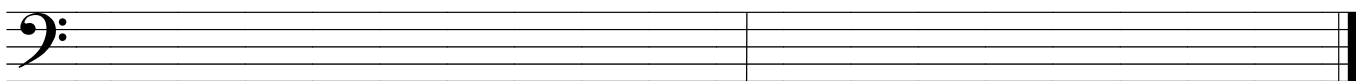


- ⑥ On each staff: a) Write the key signature for the minor scale given.
b) Write the named **melodic minor** scale, ascending then descending.
Add accidentals as needed.

c melodic minor



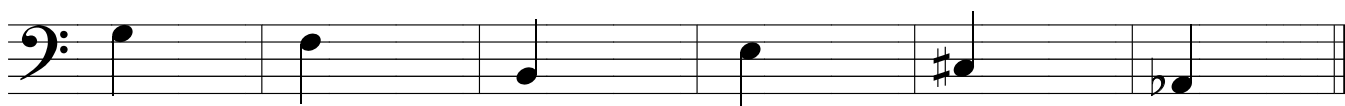
g# melodic minor



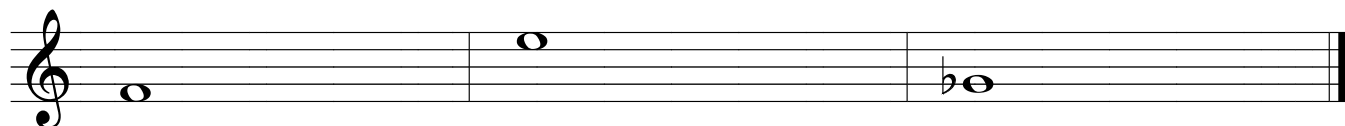
- ⑦ Write a chromatic half step **up** from each given note. Use eighth notes.



- ⑧ Write a diatonic half step **down** from each given note. Use quarter notes.



- ⑨ In each measure, write **two** enharmonic equivalents of the given note.



- ⑩ In each measure, construct the named interval **above** the given pitch. Use whole notes.

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

Per 5th min 6th min 7th Per 4th min 7th min 2nd Per 4th

dim 4th dim 3rd dim 5th dim 7th dim 5th dim 4th dim 7th

Aug 5th Aug 4th Aug 5th Aug 6th Aug 4th Aug 6th Aug 5th

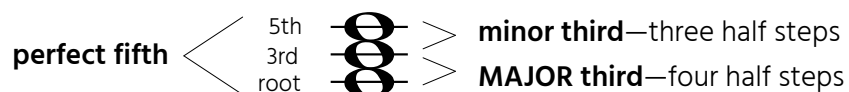


Section 4

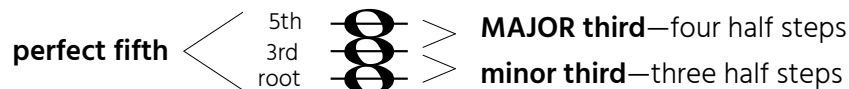
Chords

A **chord** is made up of three or more different tones sounded simultaneously. Chords may be implied when the tones are sounded one at a time ('broken chord'). A **triad** is a type of chord that has only three tones stacked in thirds (skips).

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 difference between a major and minor triad is found in the 3rd of the chord.

G Major
g minor
D Major
d minor

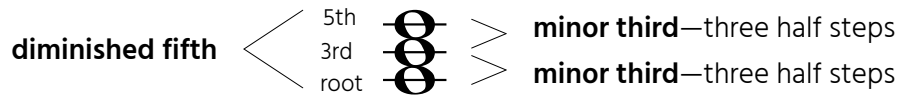
① Construct a **major** triad from each note.

② Construct a **minor** triad from each note.

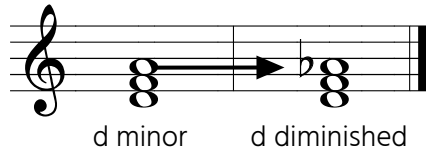


The **DIMINISHED triad** consists of two minor thirds.

The distance from the root to the 5th of this triad is a diminished fifth.



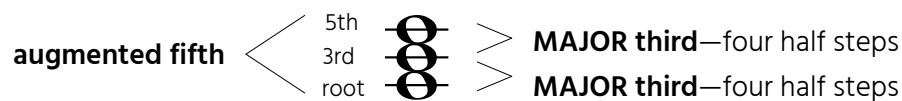
If you lower the 5th of a minor triad by a half step, the triad becomes diminished.



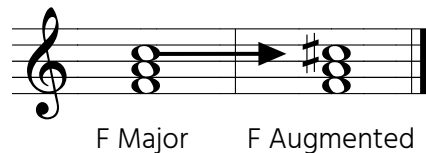
③ Construct a diminished triad from each note.

The **AUGMENTED triad** consists of two major thirds.

The distance from the root to the 5th of this triad is an augmented fifth.



If you raise the 5th of a major triad by a half step, the triad becomes augmented.



④ Construct an augmented triad from each note.





⑤ Spell **major** triads from each given root. Use uppercase letters (e.g. G–B–D).

F# - ____ - ____ A^b - ____ - ____ B - ____ - ____ D^b - ____ - ____

⑥ Spell **minor** triads from each given root. Use lowercase letters (e.g. g–bb–d).

f - ____ - ____ f# - ____ - ____ e^b - ____ - ____ b - ____ - ____

⑦ Spell **diminished** triads from each given root. Use lowercase letters (e.g. g–bb–db).

a - ____ - ____ f# - ____ - ____ g - ____ - ____ c - ____ - ____
 e - ____ - ____ g# - ____ - ____ b - ____ - ____ d^b - ____ - ____

⑧ Spell **augmented** triads from each given root. Use uppercase letters (e.g. G–B–D#).

F - ____ - ____ A^b - ____ - ____ E - ____ - ____ E^b - ____ - ____
 A - ____ - ____ B^b - ____ - ____ B - ____ - ____ G^b - ____ - ____

⑨ Which major triads can be spelled without any sharps or flats? _____

⑩ Which minor triads can be spelled without any sharps or flats? _____

⑪ Which diminished triad can be spelled without any sharps or flats? _____

⑫ Fill in the blanks below with one of the following: major, minor, augmented, or diminished

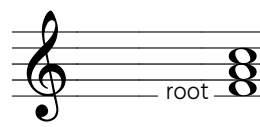
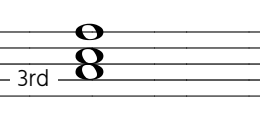
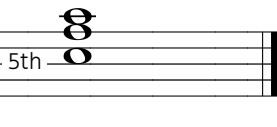
a) When the 5th of a major triad is raised by a half step, the triad becomes

b) When the 5th of a minor triad is lowered by a half step, the triad becomes

Chord Inversions

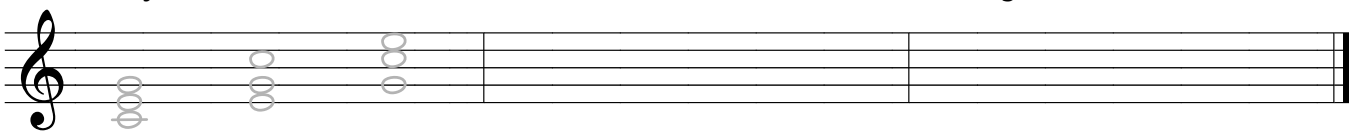
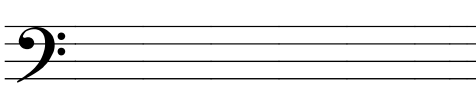
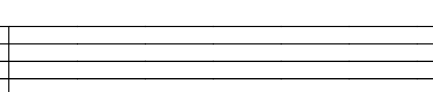
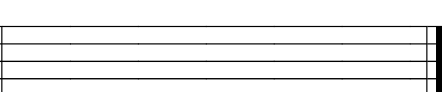
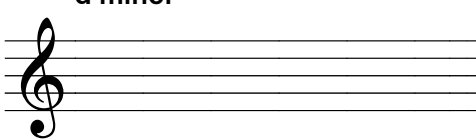
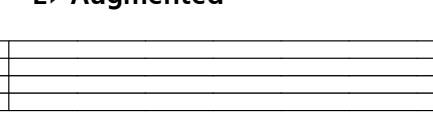
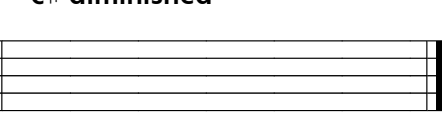
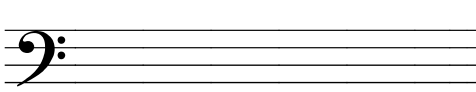
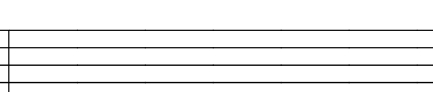
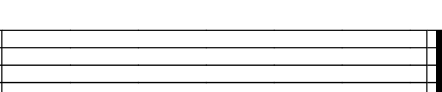
A chord is in root position when the root of the chord is the lowest tone.
 A chord is **inverted** if the root is not the lowest tone.

A chord may appear in the following positions:

Root position	First inversion	Second inversion
		
The root is the lowest tone.	The 3rd is the lowest tone.	The 5th is the lowest tone.

The chords shown above are all F major chords. As long as the tones F-A-C are used, they can be arranged in any order and the name of the chord will remain F major.

⑬ In each measure, write the named triad in root position, first inversion, and second inversion.

C Major	e minor	D Augmented
		
root position	first inversion	second inversion
a diminished	b^b minor	G^b Major
		
d minor	E^b Augmented	c[#] diminished
		
A Major	e diminished	f[#] minor
		

How to find the root of an inverted chord:

A triad in root position will appear as a stack of thirds.

An inverted chord will contain the interval of a 4th.

The top note of the interval of the fourth is the root of the chord.

- ⑭ Name the root note of each chord.

- ⑮ The following chords are in root position, first inversion, or second inversion. Identify each chord by name and type. Use abbreviations (e.g. C Maj, a min, f dim, E Aug).



Section 5 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. Our study of harmony will focus on the practice of composers of Western Europe between the years 1600 and 1900. This period encompasses the Baroque, Classical and Romantic periods of music, and is referred to as the *common practice period*.

A **diatonic scale** is a seven-note scale made up of five whole steps and two half steps for each octave. The standard major and minor scale are examples of diatonic scales. A chord may be built on any tone of the major or minor scale.

When analyzing the chord of a major or minor key, **roman numerals** are used to identify: (1) the scale degree the chord is built on, and (2) the quality of the chord. Uppercase roman numerals are used for major and augmented chords; lowercase roman numerals are used for minor and diminished chords.

- Major chord—uppercase roman numeral (I, V)
- Minor chord—lowercase roman numeral (i, iv)
- Augmented chord—uppercase roman numeral with “+” sign (III+)
- Diminished chord—lowercase roman numeral with “°” sign (vii°)

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

1 2 3 4 5 6 7

C Maj: I ii iii IV V vi vii°

How to Find the Roman Numeral of a Chord

When analyzing a chord on a single staff, use the following checklist to find the roman numeral of that chord. Make it a habit to go down this list in order:

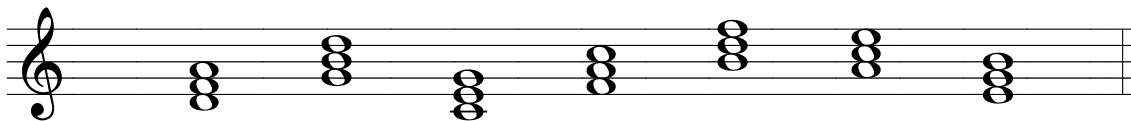
- 1) Identify the key.
- 2) Identify the root of the chord in question. If the chord is inverted, find the root note.
- 3) Identify scale degree of the root note.
- 4) Identify the chord type (major, minor, etc.).

How to Write Roman Numerals

For uppercase roman numerals, draw a border along the top and bottom — I III+ IV

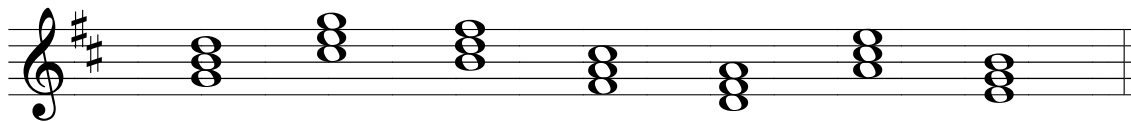
For lowercase roman numerals — i iii iv vii°

① For each line a major key is given. Write the correct roman numeral under each triad.

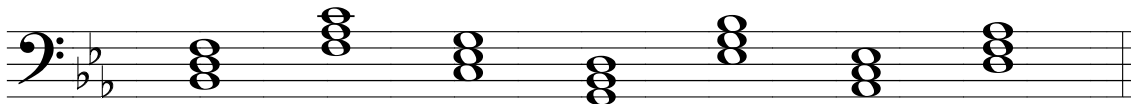


C Major:

ii _____



D Major:

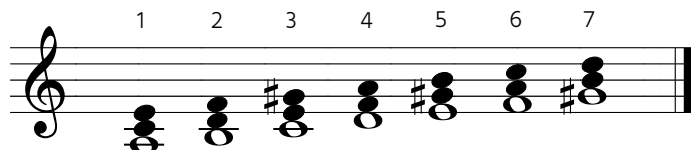


E^b Major:

The Roman Numerals for Harmonic Minor

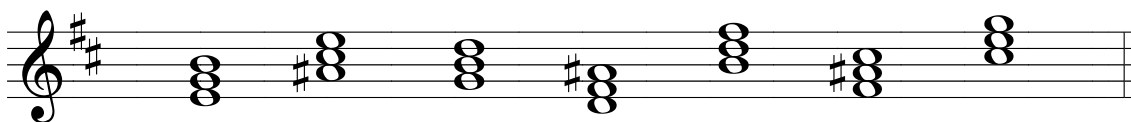
In minor keys, the roman numerals vary according to the form of minor used.

The triads formed by the **harmonic minor** scale are shown here.

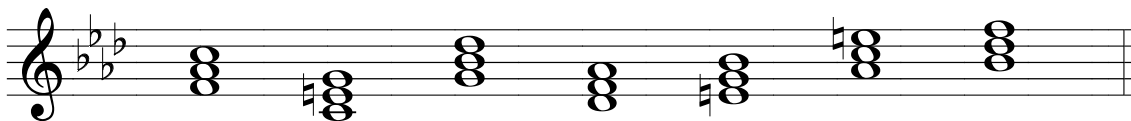


a min: i ii^o III+ iv V VI vii^o

② For each line a minor key is given. Write the correct roman numeral under each triad.



b minor:



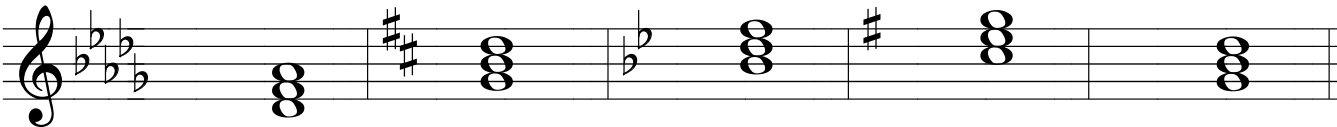
f minor:



c minor:


- ③ Each measure contains a **major** key signature and a triad.
Name the key and identify the roman numeral of each triad according to the key.

Major key: _____



roman numeral: _____

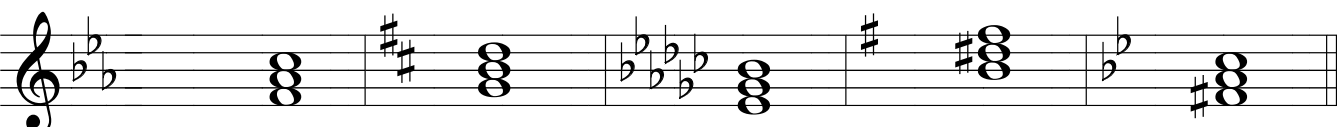
Major key: _____



roman numeral: _____


- ④ Each measure contains a **minor** key signature and a triad.
Name the key and identify the roman numeral of each triad according to the key.

Minor key: _____




roman numeral: _____

Minor key: _____

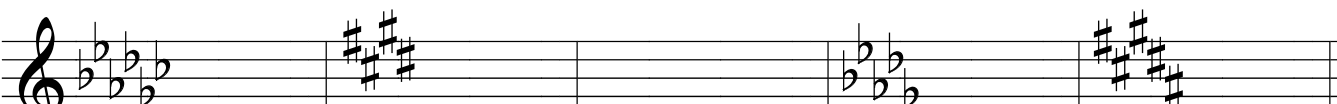


roman numeral: _____

- ⑤ In each measure, a key is identified and a roman numeral is given.
Write the appropriate triad above every roman numeral.



B \flat Maj: I G Maj: ii A \flat Maj: IV D Maj: V F Maj: vi



e \flat min: i c \sharp min: iv a min: ii $^\circ$ b \flat min: V g \sharp min: VI

Inversions and Arabic Numerals

In harmonic analysis, **chord inversions** are indicated by numbers placed to the right of the roman numerals (for example, I₆). The arabic numerals represent some or all of the intervals found above the *bass* (lowest chord tone) in the most compressed possible arrangement of the chord.

I
I₆
I₆₄

F Maj: root position
first inversion
second inversion

⑥ In each measure, a different major or minor key signature is given.

a) Below each chord, write the appropriate roman numeral.

b) Write the arabic numeral(s), if applicable, indicating the inversion.

E^b Maj: V₄ f[#] min: _____ A^b Maj: _____ c[#] min: _____ C Maj: _____

D Maj: _____ d min: _____ B Maj: _____ g min: _____ G Maj: _____

c min: _____ b min: _____ f min: _____ E Maj: _____ a min: _____

b min: _____ F Maj: _____ g[#] min: _____ B^b Maj: _____ e min: _____

Four-Part Harmony

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. In its simplest form, the voices all move with the same rhythm, such as you would find with a simple church hymn. However, in the more advanced compositions in this style, such as the chorales of J.S. Bach, there is a considerable variety of rhythm and melodic contour among the voices. 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 in two different ways:

- a) **Open position**—bass and tenor are on the bass staff; alto and soprano on the treble staff.
- b) **Close position**—soprano, alto and tenor are on the treble staff; bass voice only on the bass staff.

(a) **Open position**—bass and tenor are on the bass staff; alto and soprano on the treble staff.

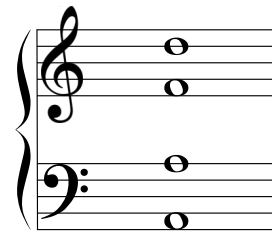
(b) **Close position**—soprano, alto and tenor are on the treble staff; bass voice only on the bass staff.

- ⑦ Under each chord indicate which voice has the black note head (soprano, alto, tenor, bass).

Analyzing Four-Voice Chords on the Grand Staff

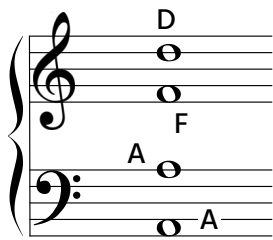
For the following assignment you will analyze chords written in four-part harmony on the grand staff. Now there are four notes for each chord instead of three notes. The notes are also spread out between the two staves.

Suppose you are asked to identify the following chord, occurring in the key of C major, with a roman numeral:



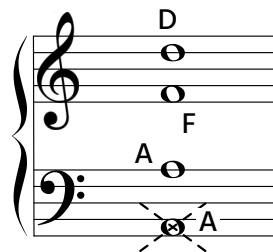
C Maj: ?

1) name the notes,



C Maj:

2) eliminate any duplicate note names, and



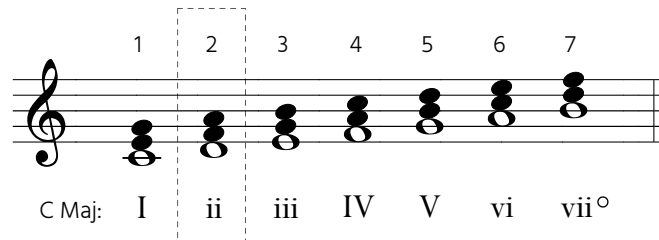
C Maj:

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



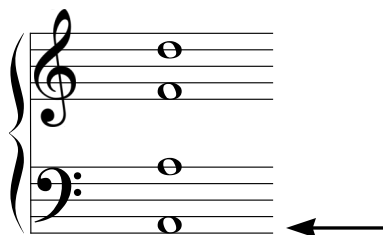
The chord is a D minor chord.

Next, identify the scale degree on which the triad is built to find the roman numeral:



It is built on scale degree 2 of C major, the ii chord:

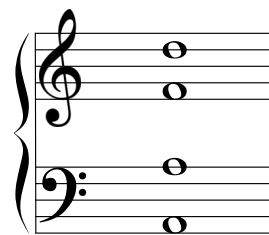
Finally, if not in root position, determine the inversion.



C Maj: ii

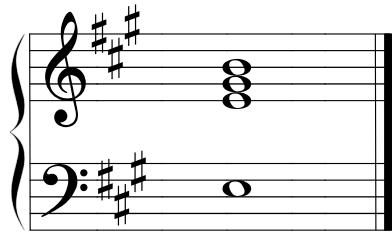
A is the lowest note, which is the 5th of the D minor chord.

And so, the answer:

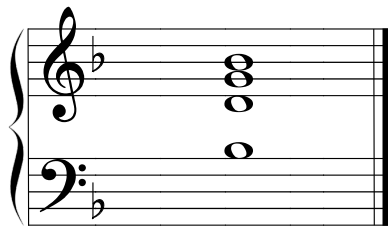


C Maj: ii₆₄

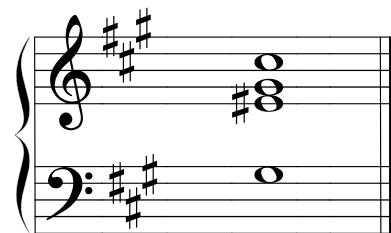
- ⑧ The key is given for each example. Identify each chord by roman numeral. Indicate inversions where applicable.



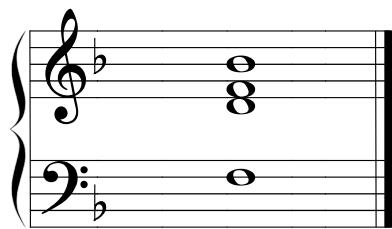
A Maj: _____



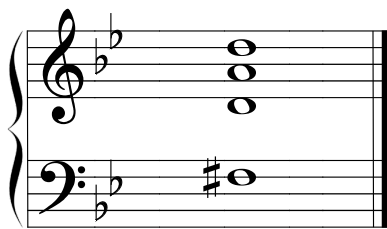
d min: _____



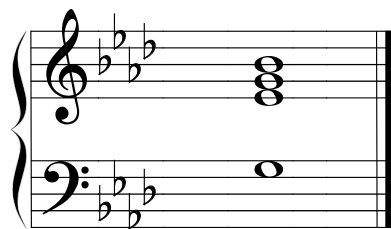
f# min: _____



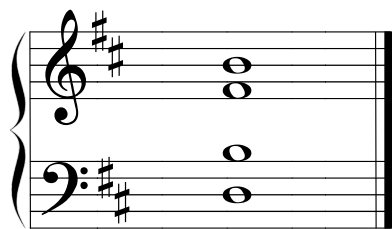
F Maj: _____



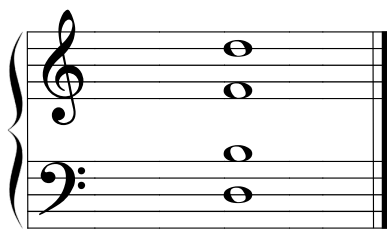
g min: _____



Ab Maj: _____



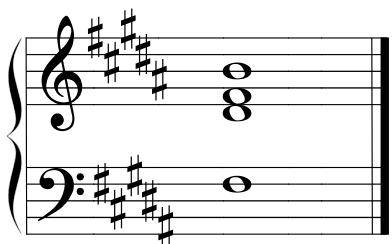
b min: _____



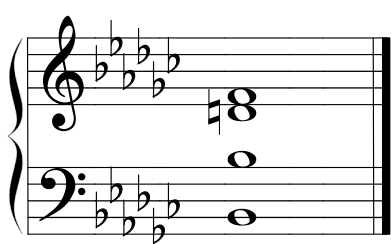
C Maj: _____



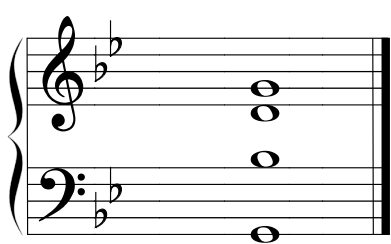
e min: _____



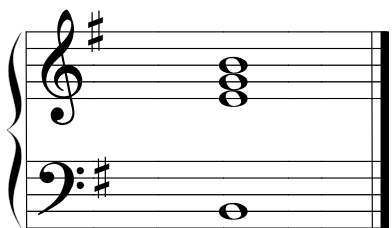
B Maj: _____



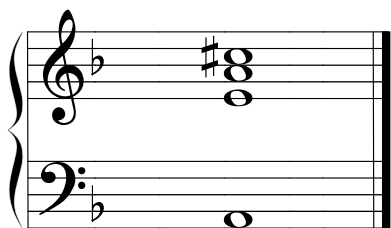
eb min: _____



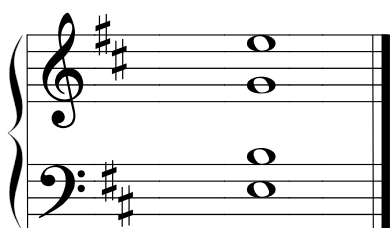
Bb Maj: _____



G Maj: _____



d min: _____



D Maj: _____

Section 6 The Cadence

A **cadence** is generally defined as the last two chords of a musical phrase. The cadence functions as 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 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.

How do we know that a phrase has reached a cadence point? Play these two phrases from *Frolicking* by Berens. As you play the melody with the right hand, play the chords indicated by the roman numerals with the left hand.

C Maj: I V I V temporary pause

I V I V I conclusive ending

The first phrase comes to a short pause in measure four, but the pause is only temporary—there is a sense that more is to come. It is not until the end of the second phrase in measure eight that we sense that we have reached a definite end to the melody.

In this section you will study harmonic cadences and learn how to write them.

A Quick Note...

Interchangeable Chord Symbols

When using roman numerals, figures such as “I(i)” or “iv(IV)” will be used from time to time to indicate that a major or minor chord can be used interchangeably in the chord progression being discussed. For example, “I(i)—V” means the same as “I—V or i—V.”

Shorthand for Key Indications

For the sake of brevity, sometimes major and minor keys will be indicated by the following shorthand: “C Maj:” indicates the key of C major; “c min:” indicates the key of C minor. At times, a symbol such as “C:” indicates the key of C Major (“c:” for minor).

The Authentic Cadence V–I

The term **authentic cadence** encompasses all varieties of the V–I or V–i progression occurring at the end of a musical unit such as a phrase, section, or composition.

Voice-Leading Principles for the Authentic Cadence

In four-part harmony, the aim is to create a texture in which each voice forms a distinct melodic line that blends in good harmony with the other voices. The musical and logical progression of each voice from one chord to the next is known as **voice leading**.

The following voice-leading principles should serve as a good starting point when writing and analyzing authentic cadences:

- bass voice proceeds from the root of V to the root of I
- soprano, alto, or tenor repeats the common tone
- soprano, alto, or tenor moves up a step from scale degree 2 to scale degree 3
- soprano, alto, or tenor moves up a step from scale degree 7 (leading tone) to the tonic tone

C Major: V I V I V I V I

The V–I authentic cadence will occur in a variety of voicings. Once the voicing of the V chord is determined, the I chord practically writes itself when the voice-leading principles are followed:

V I

These voice-leading principles will also apply to four-part harmony in **close position**.

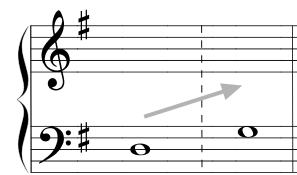
V I

Preliminary Voice-Leading Exercises

The following assignments focus on the movement of a particular voice in an authentic cadence according to the voice-leading principles outlined on the previous page. The ability to quickly recognize the scale degrees in any given key is very important in the study of cadences.

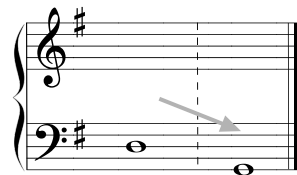
Bass Movement

When moving from V to I in root position, the bass voice may move up a 4th —



G Maj: V I

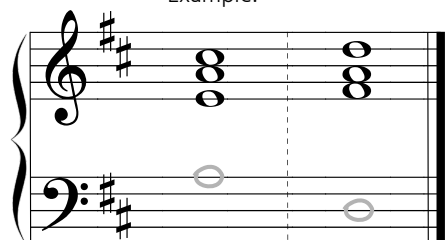
or the bass voice may move down a 5th —



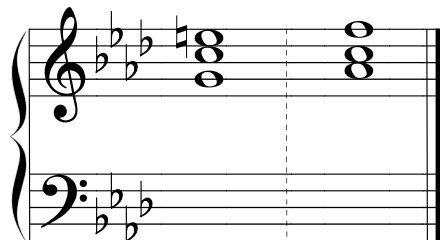
G Maj: V I

① For each example a major or minor key is given. Write the root notes for each I and V chord on the bass staff.

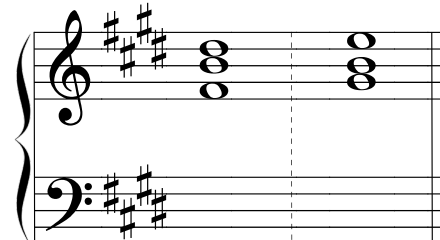
Example:



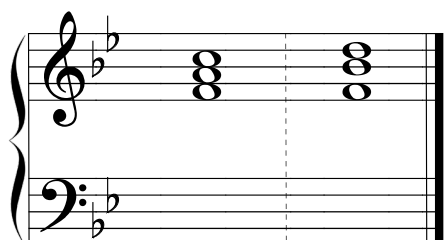
D Maj: V I



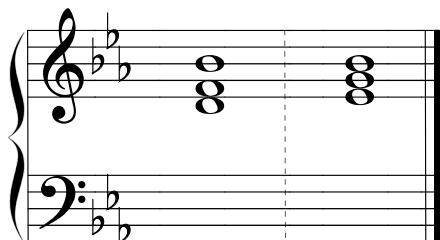
f min: V i



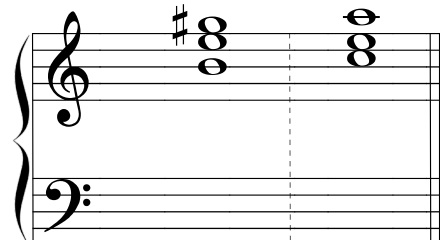
E Maj: V I



B \flat Maj: V I



E \flat Maj: V I



a min: V i

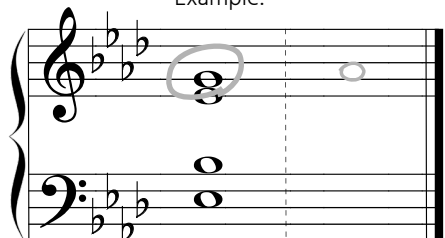
Scale Degree 7 (Leading Tone) Moves Up a Step to Tonic

② For each example a major or minor key is given:

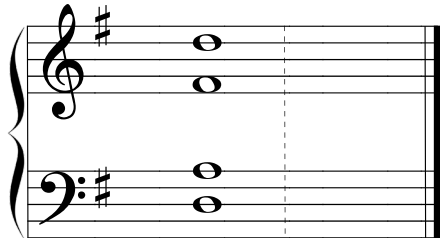
a) Circle the **leading tone** of the V chord.

b) Above roman numeral I (or i for minor keys), write the resolution note that follows the leading tone.

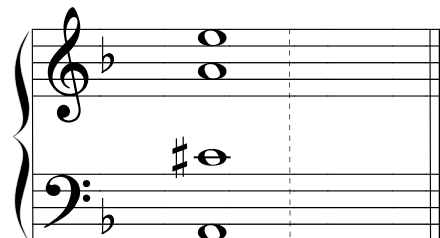
Example:



A \flat Maj: V I



G Maj: V I



d min: V i

Three musical examples showing V and I chords for different keys. Each example consists of a grand staff with a treble and bass clef. A vertical dashed line separates the V chord on the left from the I chord on the right.

- Example 1: a min: V i. The V chord is a minor triad (A2, C3, E3) and the I chord is a minor triad (A2, C3, E3).
- Example 2: Eb Maj: V I. The V chord is a major triad (Eb3, Gb3, Bb3) and the I chord is a major triad (Eb3, Gb3, Bb3).
- Example 3: A Maj: V I. The V chord is a major triad (A2, C#3, E3) and the I chord is a major triad (A2, C#3, E3).

Scale Degree 2 Moves Up a Step to Scale Degree 3

③ For each example a major or minor key is given:

- In the V chord, circle the note representing scale degree 2.
- Above roman numeral I (or i for minor keys), write the resolution note that follows scale degree 2.

Example:

The example shows G minor: V i. The V chord (Bb3, D4, F4) has the D4 note circled. The I chord (G3, Bb3, D4) has a blank space above it for the resolution note.

Three musical examples showing V and I chords for different keys. Each example consists of a grand staff with a treble and bass clef. A vertical dashed line separates the V chord on the left from the I chord on the right.

- Example 1: g min: V i. The V chord is a minor triad (Bb3, D4, F4) and the I chord is a minor triad (G3, Bb3, D4).
- Example 2: C Maj: V I. The V chord is a major triad (E4, G4, Bb4) and the I chord is a major triad (C4, E4, G4).
- Example 3: Db Maj: V I. The V chord is a major triad (Fb4, Ab4, Cb5) and the I chord is a major triad (Db3, Fb4, Ab4).
- Example 4: b min: V i. The V chord is a minor triad (D#3, F#3, A#3) and the I chord is a minor triad (B2, D#3, F#3).
- Example 5: F Maj: V I. The V chord is a major triad (Ab3, C4, Eb4) and the I chord is a major triad (F3, Ab3, C4).
- Example 6: e min: V i. The V chord is a minor triad (G#3, B3, D#4) and the I chord is a minor triad (E3, G#3, B3).

Common Tones

④ Draw a circle around both notes that make up the "common tone" between V and I (or i).

Example:

The example shows Bb major: V I. The V chord (Fb4, Ab4, Cb5) and the I chord (Bb3, Db4, Fb4) have the Fb4 and Cb5 notes circled, indicating they are common tones.

Three musical examples showing V and I chords for different keys. Each example consists of a grand staff with a treble and bass clef. A vertical dashed line separates the V chord on the left from the I chord on the right.

- Example 1: Bb Maj: V I. The V chord is a major triad (Fb4, Ab4, Cb5) and the I chord is a major triad (Bb3, Db4, Fb4).
- Example 2: D Maj: V I. The V chord is a major triad (F#4, A#4, C#5) and the I chord is a major triad (D4, F#4, A#4).
- Example 3: c min: V i. The V chord is a minor triad (Eb3, Gb3, Bb3) and the I chord is a minor triad (c3, Eb3, Gb3).

Note: The student may go back to assignments 2 and 3 of this section and complete the other voices for the I chord of each example.

The Perfect and Imperfect Authentic Cadence

There are two types of authentic cadence—the *perfect authentic cadence* and the *imperfect authentic cadence*.

The **perfect authentic cadence** is a V–I cadence that must fulfill the following:

- The root of V and I is in the bass
- The tonic tone of the final I chord is in the soprano

The **imperfect authentic cadence** is a V–I cadence that is not considered a perfect authentic cadence because (1) the I or the V chord is NOT in root position, or (2) in the final I chord, the tonic tone is NOT in the soprano.

For the following assignment, all chords will be in root position. So, when determining if an authentic cadence is perfect or imperfect, focus your attention on the soprano voice.

⑤ Complete the **authentic cadences**. The key and chords are identified.

- Write the root of each chord in the bass.
- Write the upper three notes of the I (or i) chord on the treble staff.
- Above each example, indicate whether the cadence is **perfect** or **imperfect**.

Example: *imperfect*

A Maj: V I

d min: V i

f# min: V i

F Maj: V I

g min: V i

Ab Maj: V I

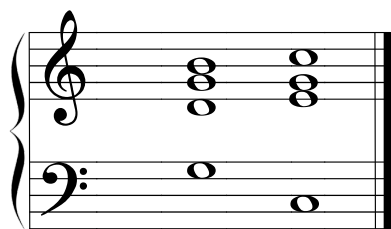
b min: V i

Eb Maj: V I

e min: V i

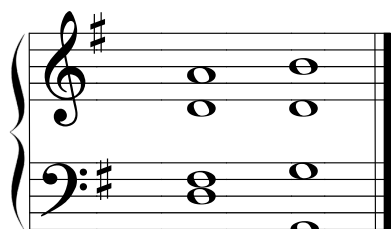
⑥ The key is given for each authentic cadence below. Complete questions A, B, C, and D.

For A and B, answer **soprano**, **alto**, **tenor**, or **bass**.



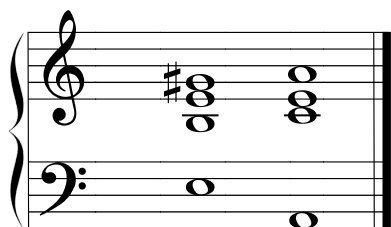
C Maj: V I

- A) The common tone is in the _____.
- B) The leading tone and its resolution are in the _____.
- C) The leading tone proceeds to _____ (name of note).
- D) This authentic cadence is: **perfect** or **imperfect** (circle one).



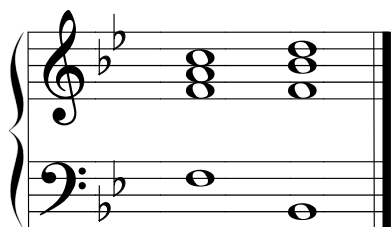
G Maj: V I

- A) The common tone is in the _____.
- B) The leading tone and its resolution are in the _____.
- C) The leading tone proceeds to _____ (name of note).
- D) This authentic cadence is: **perfect** or **imperfect** (circle one).



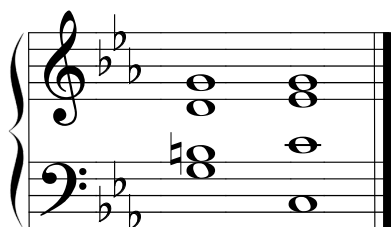
a min: V i

- A) The common tone is in the _____.
- B) The leading tone and its resolution are in the _____.
- C) The leading tone proceeds to _____ (name of note).
- D) This authentic cadence is: **perfect** or **imperfect** (circle one).



B \flat Maj: V I

- A) The common tone is in the _____.
- B) The leading tone and its resolution are in the _____.
- C) The leading tone proceeds to _____ (name of note).
- D) This authentic cadence is: **perfect** or **imperfect** (circle one).



c min: V i

- A) The common tone is in the _____.
- B) The leading tone and its resolution are in the _____.
- C) The leading tone proceeds to _____ (name of note).
- D) This authentic cadence is: **perfect** or **imperfect** (circle one).

Section 7 **Composition: The Melodic Line**

A **motive** (or *motif*) is the smallest type of melodic unit that forms a distinct musical idea.

A motive may repeat itself in various forms within a melody. For example, J. S. Bach's *Brandenburg Concerto* no. 3 begins with a three-note motive that appears five times on changing scale degrees.



A **phrase** is a larger melodic unit, typically at least a few measures in length, which conveys a complete musical thought. Think of a phrase as a complete musical sentence. Two phrases may combine to form a **period**. The motive, phrase and period are all different types of *form*.

In the following section you will learn to write an eight-measure melody consisting of two phrases which will work together in 'question and answer' fashion. You have learned about authentic cadences. Now you will see how melody and harmony are inextricably entwined—they move together along the same plan, reinforcing each other.

The Antecedent and Consequent Phrase

The **antecedent phrase**—the 'question' phrase—typically ends on a *half cadence* (I–V). The essential character of the half cadence is that of inconclusiveness with an expectation that more is to come.

The **consequent phrase**—the 'answer' phrase—continues after the momentary pause of the first phrase and completes the *period* with a decisive authentic cadence.

Once again play the following melody by Berens with the right hand and the chords indicated by the roman numerals with the left hand. Notice the 'question' effect at the end of the antecedent phrase and the 'answer' which concludes the consequent phrase.

antecedent phrase

half cadence

C Maj: I V I V

consequent phrase

authentic cadence

I V I V I

Some General Principles of Melodic Writing

A well-written phrase should strike a balance between the elements of **variety** and **repetition**. The key here is **balance**—if there is too much repetition the result tends toward dullness; if there is too much variety the result might sound like a confused, aimless jumble. So, always aim to balance these two opposing elements in a natural way.

A melody should have a sense of **direction**, which can be easily achieved by rising to a high note,

Christ is Alive, T. Williams



or by descending to a low note.

Joy to the World, Handel



It is common for a melody to have a high point, or apex, usually the highest note (circled), after which the notes fall to conclude the phrase.

Judas Maccabaeus, Handel

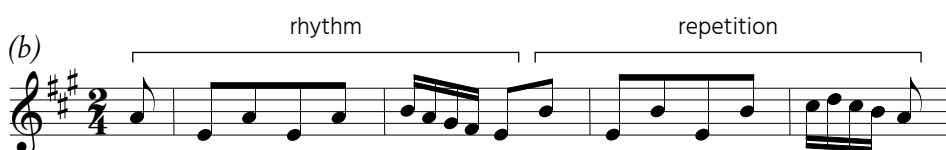
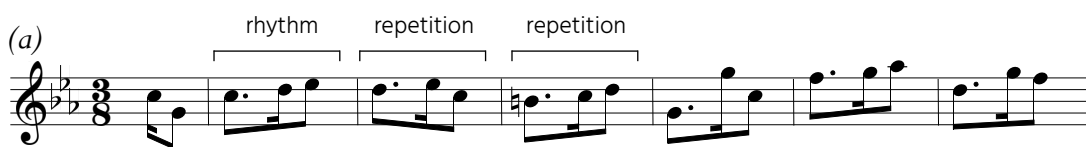


A **melodic sequence** is the repetition of a melodic idea, or motive, repeated at different pitch levels, often in a stepwise progression.

Angels We Have Heard on High, French Carol

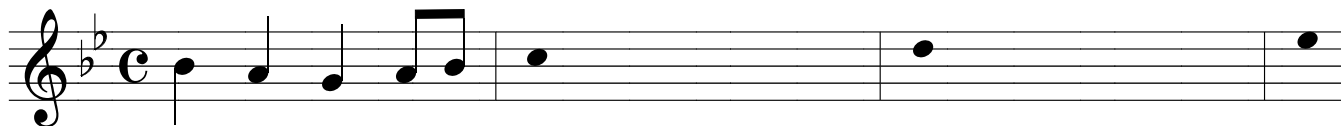


Rhythmic imitation, or rhythmic repetition, occurs when a rhythm is repeated but the melodic material does not sequence. For example, the dotted rhythm in (a) is repeated in every measure while the melodic line runs free in no repeating pattern. The rhythmic imitation may involve longer fragments of a few measures each, such as in (b).

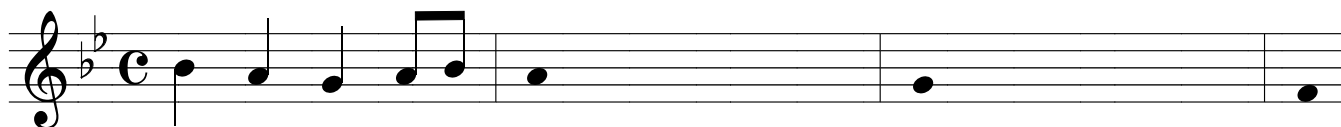


Assignment: Writing Melodic Sequences

- ① Write an **ascending** melodic sequence three measures in length. The motive is given.
Repeat the motive in each measure beginning on the black note head.

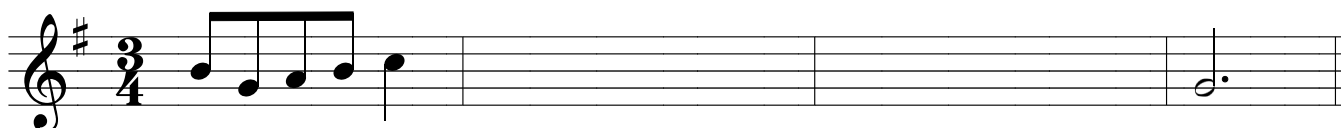


- ② Write a **descending** melodic sequence three measures in length. The motive is given.
Repeat the motive in each measure beginning on the black note head.

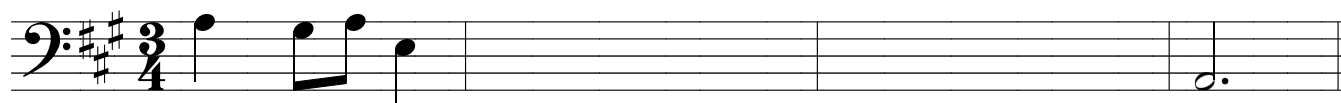


In Exercises 3 and 4, write a sequence at any interval that seems appropriate.
Check what you have written by singing or playing it.

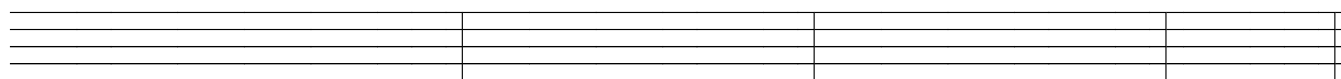
- ③ Write an **ascending** two-measure melodic sequence. The motive is given in the first measure.
In measure 3, write a passage which leads smoothly to the dotted half note in the last measure.



- ④ Write a **descending** two-measure melodic sequence. The motive is given in the first measure.
In measure 3, write a passage which leads smoothly to the dotted half note in the last measure.



- ⑤ Write a sequence on an original motive. Choose your own key and time signature.



The Antecedent Phrase: Leading to a Half Cadence

- ⑥ Write a four-measure phrase which includes a **melodic sequence**.

End each phrase on the **dominant note** (scale degree 5).*

Play each finished phrase. How does it sound? Does it lead to the dominant note smoothly?

E \flat Major

G Major

C Major

B \flat Major

The Consequent Phrase: Leading to an Authentic Cadence

- ⑦ Write a four-measure phrase which includes a **rhythmic imitation**.

End the phrase on the **tonic note** (scale degree 1).

Play each finished phrase. How does it sound? Does it lead to the tonic note smoothly?

D Major

F Major

C Major

*These phrases may also end on the second scale degree or any member of the dominant chord.

The Eight-Measure Melody

You will now compose an eight-measure melody consisting of an antecedent and consequent phrase.

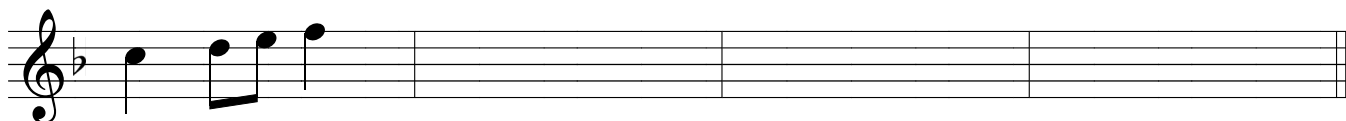
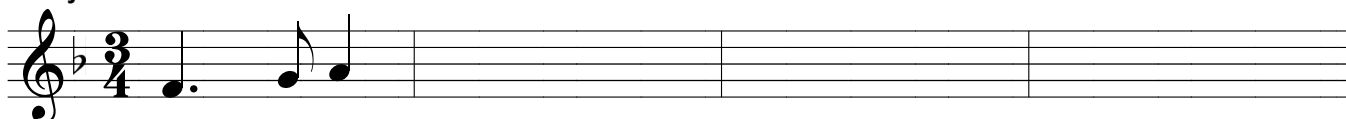
- ⑧ Complete each eight-measure melody. The major key is indicated. The first and fifth measure is given. Use a melodic sequence and/or rhythmic imitation.

a) End the first phrase on the **dominant note** (scale degree 5).*

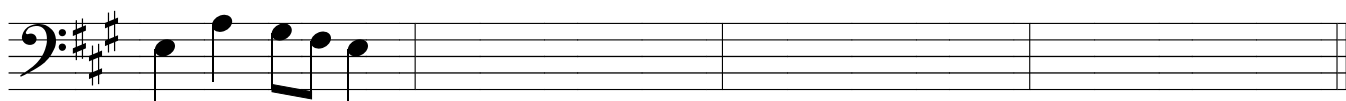
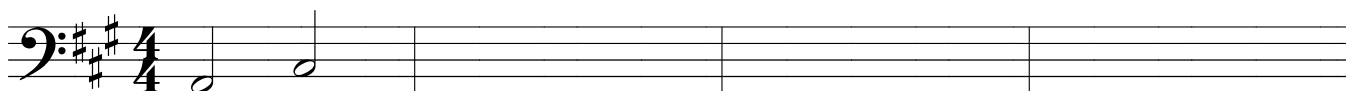
b) End the second phrase on the **tonic note** (scale degree 1).

c) End each phrase on a strong beat.

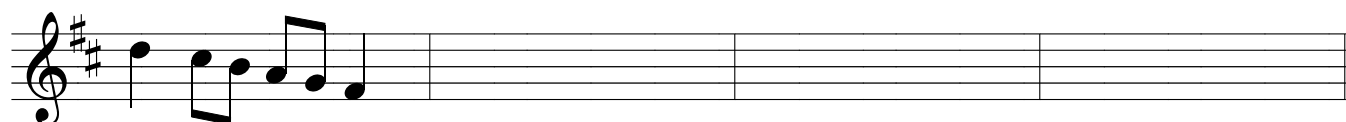
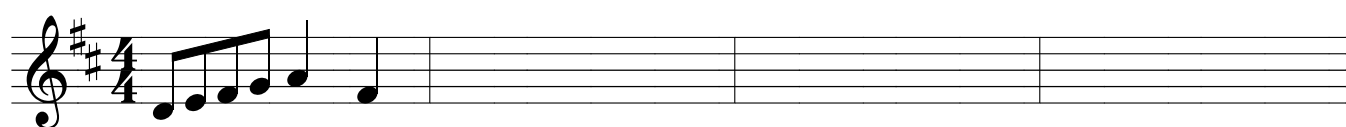
F Major



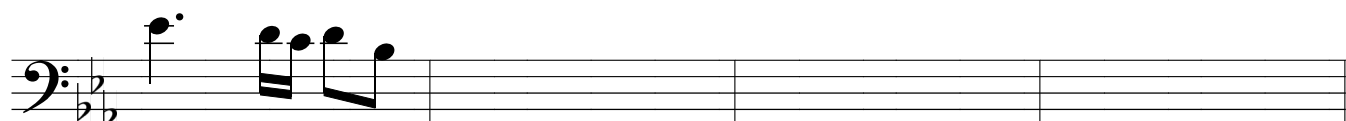
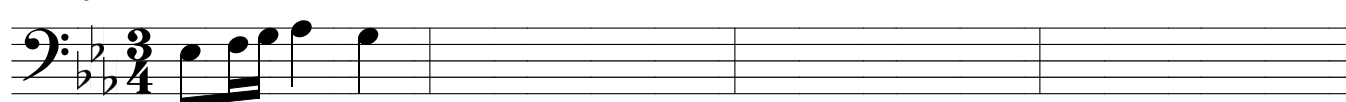
A Major



D Major



E \flat Major



* These phrases may also end on the second scale degree or any member of the dominant chord.

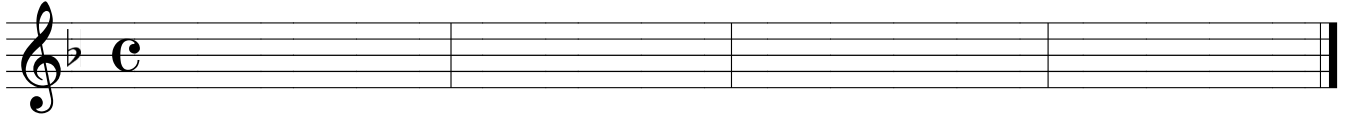
Section 8 Transposition

Transposition is the playing or rewriting of music in a key that is different from the original key. When music is transposed, all of the intervals in the music will remain the same.

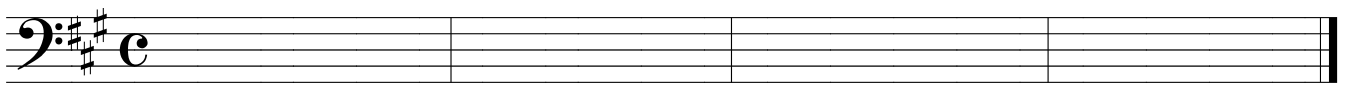
- ① Transpose the melody in C Major to the keys of F Major and A Major.



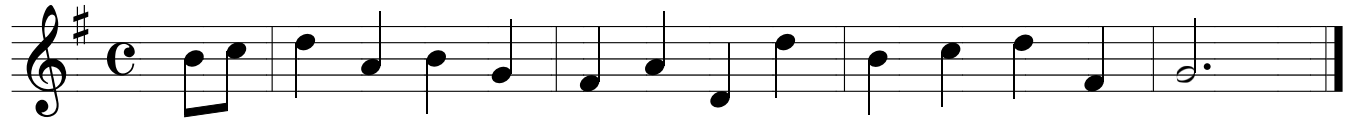
F Major



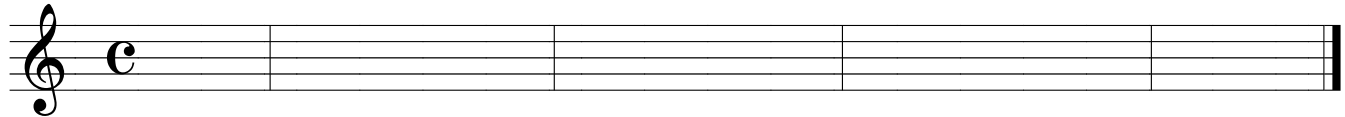
A Major



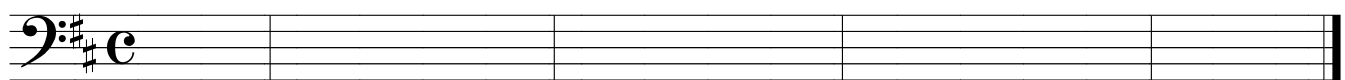
- ② Transpose the melody in G Major to the keys of C Major and D Major.



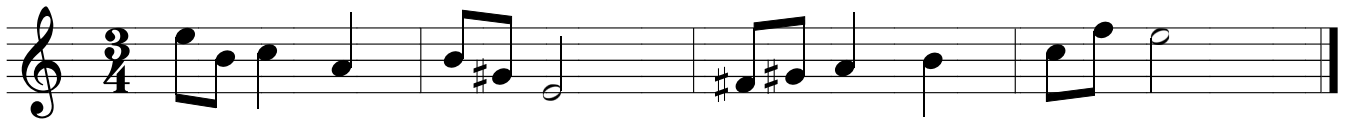
C Major



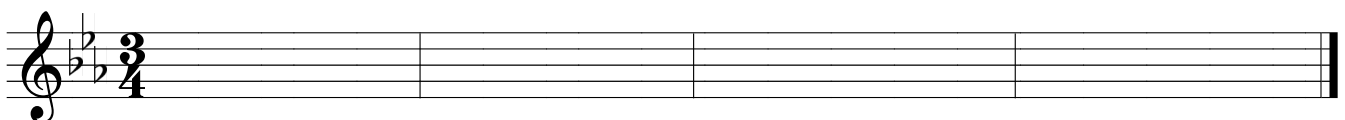
D Major



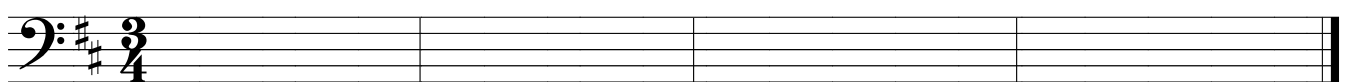
- ③ Transpose the melody in A minor to the keys of C minor and B minor.



c minor



b minor



Section 9 Lead Sheet Symbols

In some modern styles of music different symbols are used to identify chords. These symbols are sometimes referred to as **lead sheet** symbols.

The various symbols used for the four basic chord types:

- a) **Major**—upper case letter
- b) **Minor**—uppercase letter followed by any of these symbols: min, mi, m, -
- c) **Diminished**—uppercase letter followed by any of these symbols: dim, °, min $\flat 5$
- d) **Augmented**—uppercase letter followed by any of these symbols: aug, +

	Major		Minor		Diminished		Augmented
a)	F	b)	F^{min}	c)	F^{dim}	d)	F⁺

(also **Fm** or **F-**) (also **Fmin $\flat 5$**) (also **Faug**)

All of the two-stave chords shown above are in root position—the lowest note of the chord, given in the bass staff, is the root.

- ① Write the lead sheet symbol for each chord.

② For each measure, a chord symbol is given:

- On the **treble staff**, construct a triad as indicated. Use whole notes.
- On the **bass staff**, draw the root note according to the symbol given.

D G min E \flat B \flat ⁺ E dim

Chord Inversions Using Lead Sheet Symbols

Chord inversions are indicated by a slash followed by another capital letter that names the bass note. For example, **C/E** indicates a C major chord with an E in the bass (first inversion).

C/E G min/B \flat D \sharp dim/A F⁺/C \sharp

C major chord with the 3rd of the chord, E, in the bass.

G minor chord with the 3rd of the chord, B \flat , in the bass.

D \sharp diminished chord with the 5th of the chord, A, in the bass.

F augmented chord with the 5th of the chord, C \sharp , in the bass.

③ For each measure, a chord symbol is given:

- On the **treble staff**, construct a triad as indicated. Use whole notes.
- On the **bass staff**, draw the correct bass note according to the symbol given.

B min/D F \sharp dim/A E \flat ⁺/G B \flat min/F A/E

APPENDIX I

Ear-Training Exercises

Interval Identification

The formulas for perfect and major intervals are summarized below:

Perfect Unison — same pitch

Major 2nd — two half steps

Major 3rd — four half steps; two whole steps

Perfect 4th — five half steps

Perfect 5th — seven half steps

Major 6th — nine half steps; a perfect 5th + a major 2nd

Major 7th — eleven half steps; one half step short of an octave

Perfect Octave — twelve half steps

Practice identifying major and perfect intervals:



primotheory.com → Level 9 → Interval Identification



Triad Identification

The student should be able to differentiate between the major, minor, augmented, and diminished triad.

The student will benefit greatly by singing the tones of the triad while playing the triads on the piano.

The formulas for the four basic triad types are summarized here:

Major 3 half steps
4 half steps

Diminished 3 half steps
3 half steps

Minor 4 half steps
3 half steps

Augmented 4 half steps
4 half steps

Practice identifying the four basic triads:



primotheory.com → Level 9 → Triad Identification



Sight Singing and Melodic Dictation

Sight singing is the singing of a melody from the score on seeing it for the first time. The exercises in this section serve as preparation for the singing of melodies written on the staff. The ultimate goal of all sight-singing practice is to (1) develop the ability to look at a score and hear it inwardly, with the *inner ear*, without the aid of an instrument, and (2) develop the ability to hear a melody and notate it without the aid of an instrument (melodic dictation).

Scale Degrees

The exercises in the following section can be practiced by the student alone or with a teacher. The numbers used in the exercises in bold font represent the scale degrees—**1** is scale degree 1 (tonic), **2** is scale degree 2, and so on.

Solfège in a Major Key

If you are using solfège, it is recommended that you use movable-*Do*, in which the tonic of any key is always *Do*, the second scale degree is always *Re*, and so on.

scale degrees:	1	2	3	4	5	6	7	8
<i>Do</i> -based Major:	Do	Re	Mi	Fa	So (Sol)	La	Ti	Do

The pronunciation of the syllables:

- Re* rhymes with “say”
- Mi* and *Ti* rhyme with “tee”
- Fa* and *La* rhyme with “ah”
- Do* as in “doh” or “doe”; *So* as in “sohl”

How to Sing the Exercises

The following exercises should be sung using scale degree numbers or solfège (preferably movable-*Do*) and can be performed in any key, depending on the student’s comfortable singing range. A dash after a scale degree means to hold that scale degree an extra beat.

A triad or scale figure should be played from time to time as the student sings these exercises so that the key center (tonic) is kept firmly in mind.

Dictation and Sight-Singing Exercises

The melodic phrases found in the following exercises can be used to practice dictation or sight-singing. The student may practice singing the phrases by following these steps for each phrase:

- ① Decide on a key and prepare with an arpeggio or scale.
 - a) Play the starting tone of the phrase on the piano.
 - b) Sing and match the starting tone.
 - c) Hear the phrase with your *inner ear*.
 - d) Sing the phrase as you play it on the piano.

When the phrases are easy to sing with the aid of the piano, use this alternative for step d).

- d) Sing the phrase without the piano.
 Test accuracy by playing the phrase on the piano after you sing.
 If necessary, play the tones as you sing them.

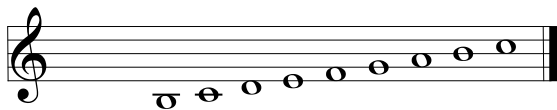
Melodic Phrases

Use the following melodic phrases for Assignment 1.

Note the appropriate range of keys in the space provided.

Transpose the phrases to any comfortable key.

Note range of the phrases:

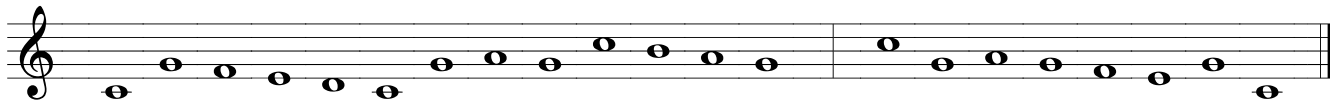
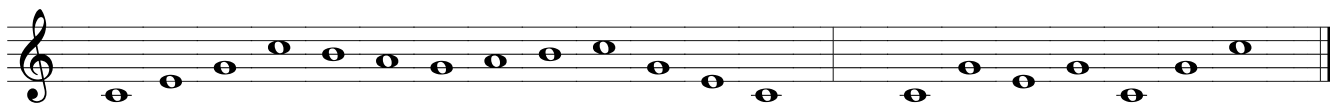
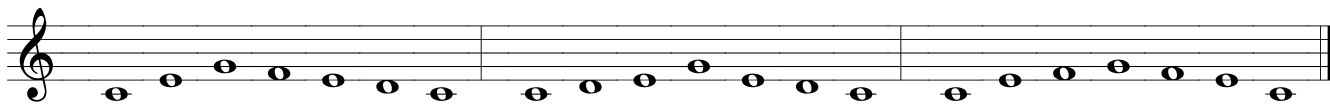
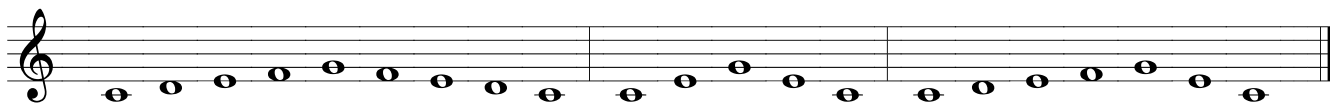


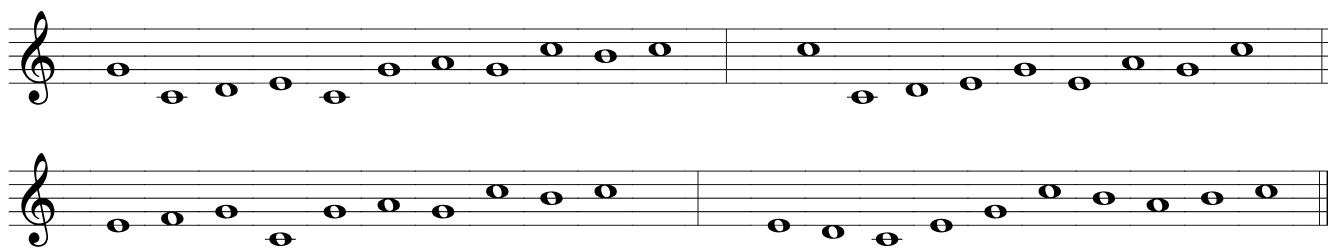
C Maj: 7 1 2 3 4 5 6 7 8

Student's singing range:



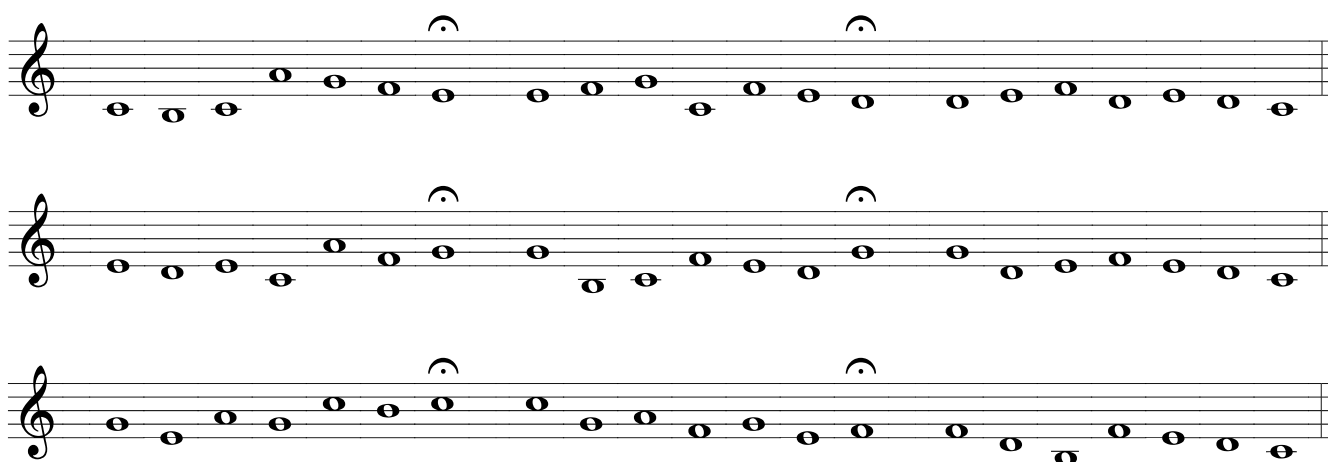
List the major keys to use: _____





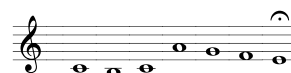
Singing and Writing Exercises

- ② Each line in the following exercise is divided into three phrases separated by a fermata. Sing each phrase, pausing for an extra beat at each fermata so that the rhythm of each line might sound something like this —

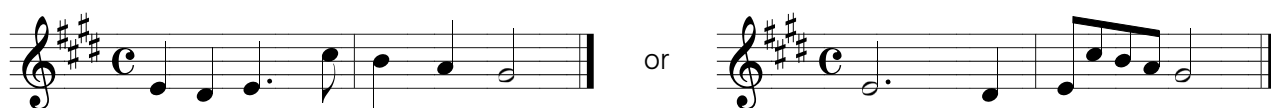


- ③ Take any phrase from the exercise 2 and use it for the following exercises:
- On a separate sheet of staff paper, transpose the notes (originally in C major) to two other keys. Repeat this with other seven-note groups. Use only whole notes.
 - Write the notes out in rhythms under a time signature. See if you can make each phrase fit in the space of two measures. Use any time signature.

Here is an example of how b) might be done. The first phrase —



when transposed and treated with different rhythms, might look like —



(E Major)

Melodic Dictation Practice

Melodic dictation involves hearing a piece of music and writing down the notes on the staff.

When listening to a melody in a dictation exercise, the student should keep the following in mind:

- The ear should be sufficiently prepared; the key and tonic tone should be firmly established.
- The tonic tone should always be kept in mind and used as a reference point when needed.
- The student should not begin to write immediately. At first, it is best to just listen carefully.
- The student should try to memorize what is heard so as to develop a strong musical memory.

To complete the following assignments, scan the QR code on the right or take the following route:



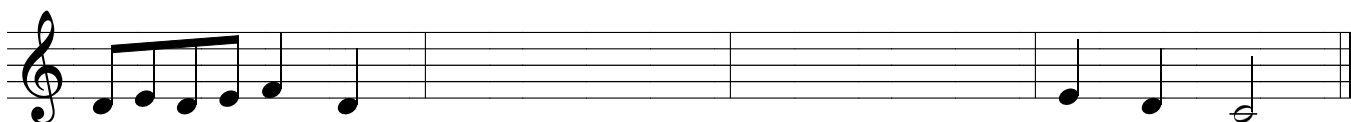
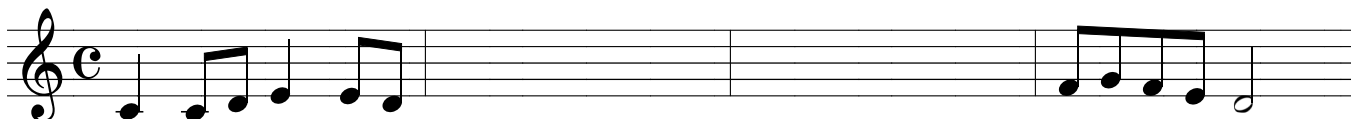
primotheory.com → Level 9 → Melodic Dictation Practice



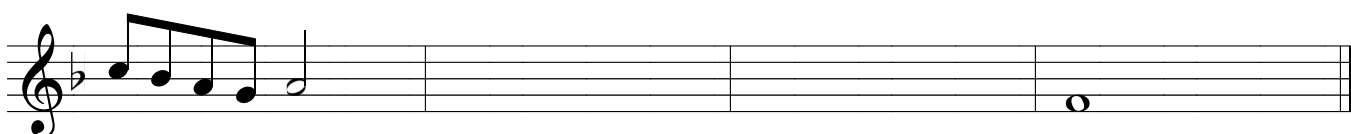
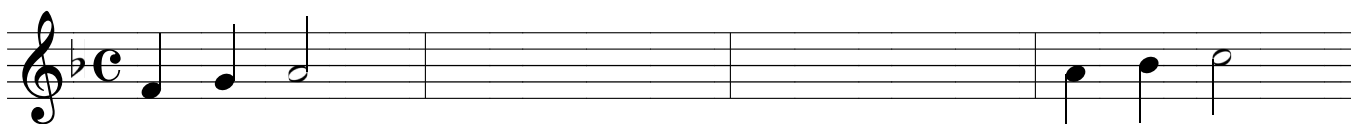
Melodic Dictation Practice

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

① C Major



② F Major



Rhythmic Dictation Practice

Rhythmic dictation involves hearing a rhythm and writing down the notes on the staff. There are various ways to approach the task of writing rhythms on paper, but these basic guidelines should be followed:

- Always keep track of the fundamental beat unit.
- First begin to write on a scratch sheet of paper.
- At first, begin writing in an abbreviated manner, beginning with just the stems, for example.
Don't waste time and attention coloring note heads!

To complete the following assignments alone, scan the QR code on the right or take the following route:



primotheory.com → Level 9 → Rhythmic Dictation Practice



Each rhythm is four measures in length. Fill in the blank measures.



More rhythmic dictation exercises are available online:

primotheory.com → Level 9 → Rhythmic Dictation:
Supplemental Rhythms



Reading Rhythms

Clap the rhythms as you count aloud. Note the time signatures.

A $\frac{2}{4}$ 

B $\frac{2}{4}$ 

C $\frac{3}{4}$ 

D $\frac{3}{4}$ 

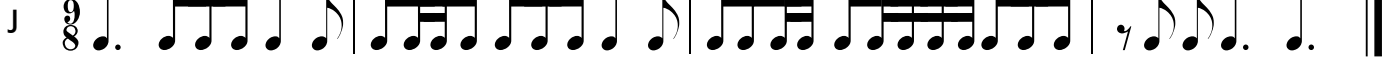
E $\frac{4}{4}$ 

F $\frac{4}{4}$ 

G $\frac{6}{8}$ 

H $\frac{6}{8}$ 

I $\frac{6}{8}$ 

J $\frac{9}{8}$ 

K $\frac{9}{8}$ 

More Rhythm Practice



Take the following route to find more rhythm exercises:

primotheory.com → Resources → Level 9 → Page 61

APPENDIX II

Online Ear-Training Assignments

Note to Teachers

The following assignments may be completed by the student alone using the online tools provided. Each assignment can be accessed directly with a mobile device using the QR codes provided.

Those students using a desktop computer should take the following route to access the menu for these online assignments:

primotheory.com → Level 9 → Appendix II: Ear-Training Assignments

The answers to the ear-training assignments are accessible only to the purchaser of this book. Email info@primotheory.com to request the password or printable PDF file.

Assignment 1



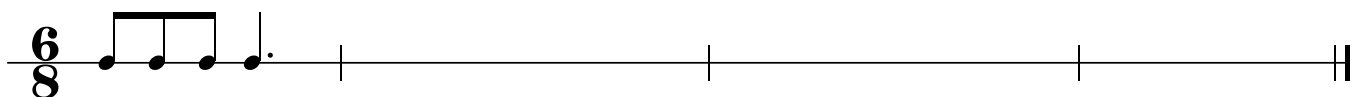
① You will hear **triads** played. Identify each as **MAJ**, **min**, **AUG**, or **dim**.

1. _____ 2. _____ 3. _____ 4. _____ 5. _____ 6. _____

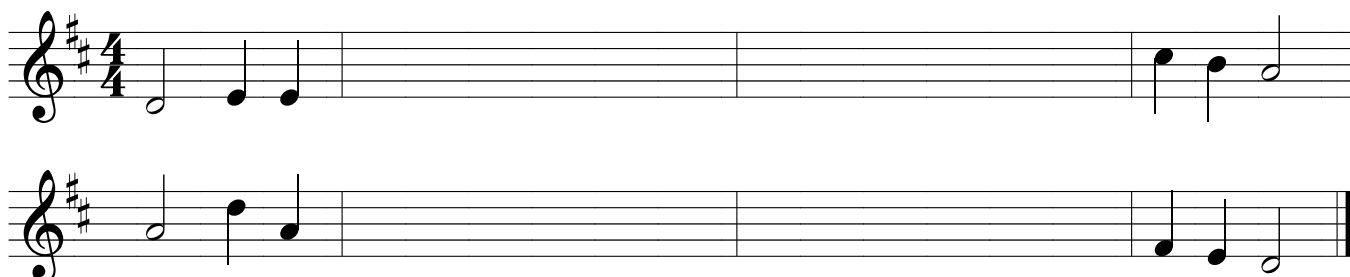
② You will hear major and perfect **intervals** played. Identify each by size and type (MAJ 2nd, PER 4th, etc.).

1. _____ 2. _____ 3. _____ 4. _____ 5. _____ 6. _____

③ You will hear a four-measure rhythm. Fill in the blank measures.



④ You will hear an eight-measure melody in **D Major**. Fill in the blank measures.



Assignment 2



- ① You will hear **triads** played. Identify each as **MAJ**, **min**, **AUG**, or **dim**.

1. _____ 2. _____ 3. _____ 4. _____ 5. _____ 6. _____

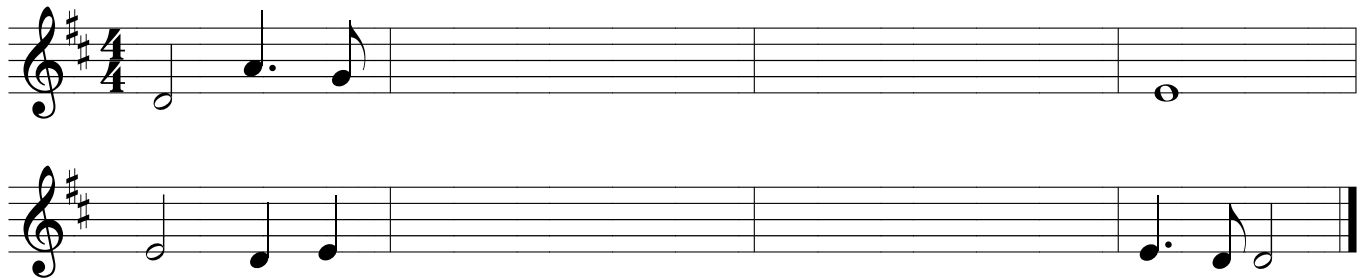
- ② You will hear major and perfect **intervals** played. Identify each by size and type (MAJ 2nd, PER 4th, etc.).

1. _____ 2. _____ 3. _____ 4. _____ 5. _____ 6. _____

- ③ You will hear a four-measure rhythm. Fill in the blank measures.



- ④ You will hear an eight-measure melody in **D Major**. Fill in the blank measures.



Assignment 3



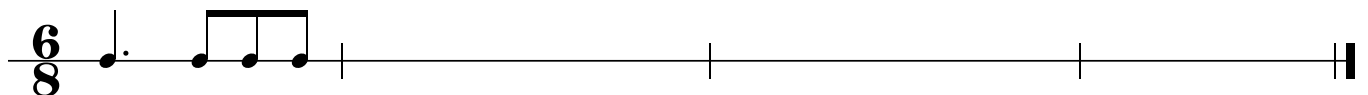
- ① You will hear **triads** played. Identify each as **MAJ**, **min**, **AUG**, or **dim**.

1. _____ 2. _____ 3. _____ 4. _____ 5. _____ 6. _____

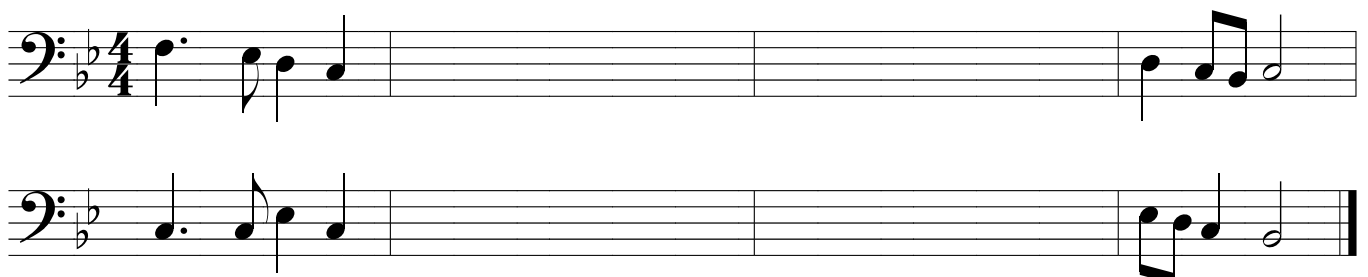
- ② You will hear major and perfect **intervals** played. Identify each by size and type (MAJ 2nd, PER 4th, etc.).

1. _____ 2. _____ 3. _____ 4. _____ 5. _____ 6. _____

- ③ You will hear a four-measure rhythm. Fill in the blank measures.



- ④ You will hear an eight-measure melody in **B^b Major**. Fill in the blank measures.



Assignment 4



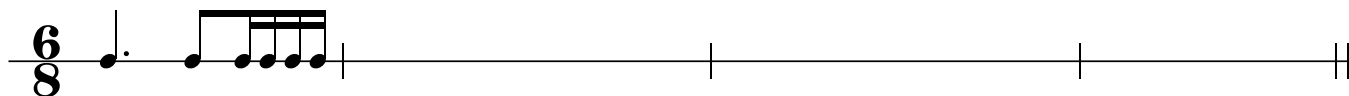
① You will hear **triads** played. Identify each as **MAJ**, **min**, **AUG**, or **dim**.

1. _____ 2. _____ 3. _____ 4. _____ 5. _____ 6. _____

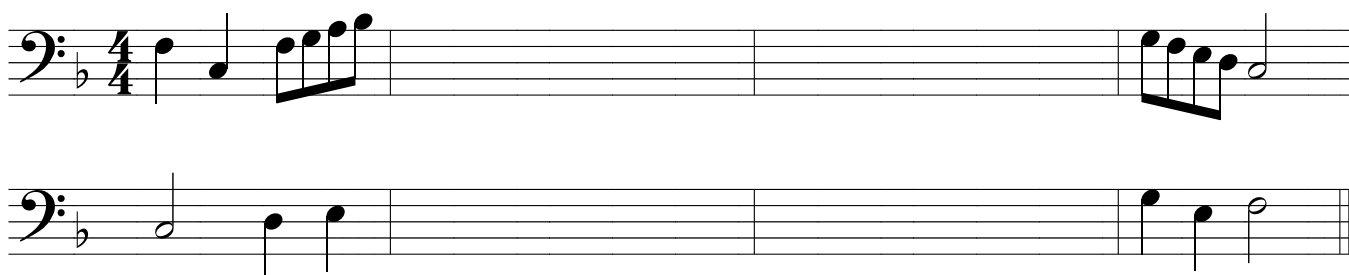
② You will hear major and perfect **intervals** played. Identify each by size and type (MAJ 2nd, PER 4th, etc.).

1. _____ 2. _____ 3. _____ 4. _____ 5. _____ 6. _____

③ You will hear a four-measure rhythm. Fill in the blank measures.



④ You will hear an eight-measure melody in **F Major**. Fill in the blank measures.



Assignment 5



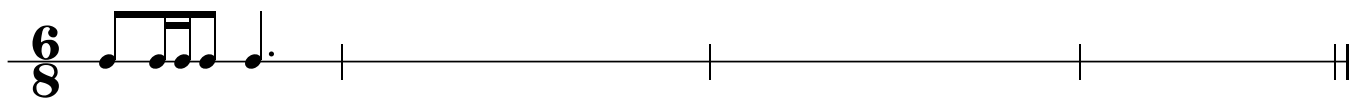
① You will hear **triads** played. Identify each as **MAJ**, **min**, **AUG**, or **dim**.

1. _____ 2. _____ 3. _____ 4. _____ 5. _____ 6. _____

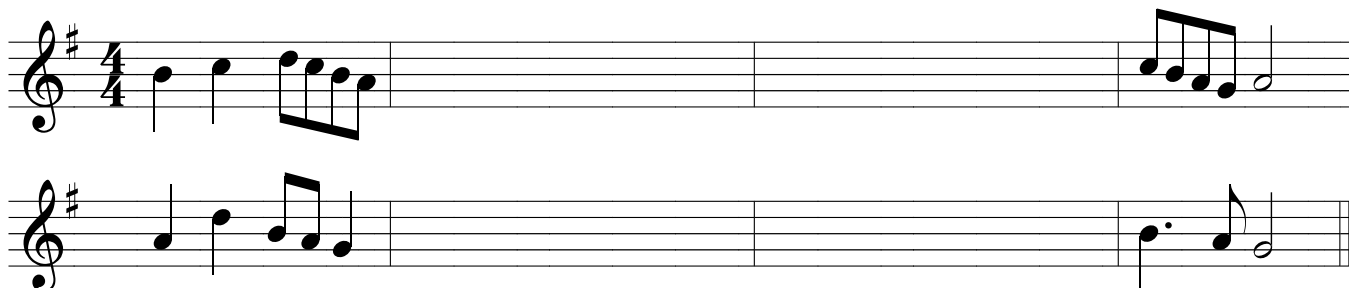
② You will hear major and perfect **intervals** played. Identify each by size and type (MAJ 2nd, PER 4th, etc.).

1. _____ 2. _____ 3. _____ 4. _____ 5. _____ 6. _____

③ You will hear a four-measure rhythm. Fill in the blank measures.



④ You will hear an eight-measure melody in **G Major**. Fill in the blank measures.



Assignment 6



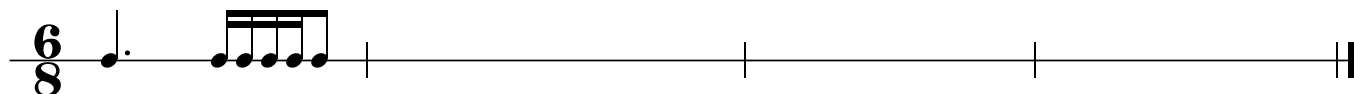
① You will hear **triads** played. Identify each as **MAJ**, **min**, **AUG**, or **dim**.

1. _____ 2. _____ 3. _____ 4. _____ 5. _____ 6. _____

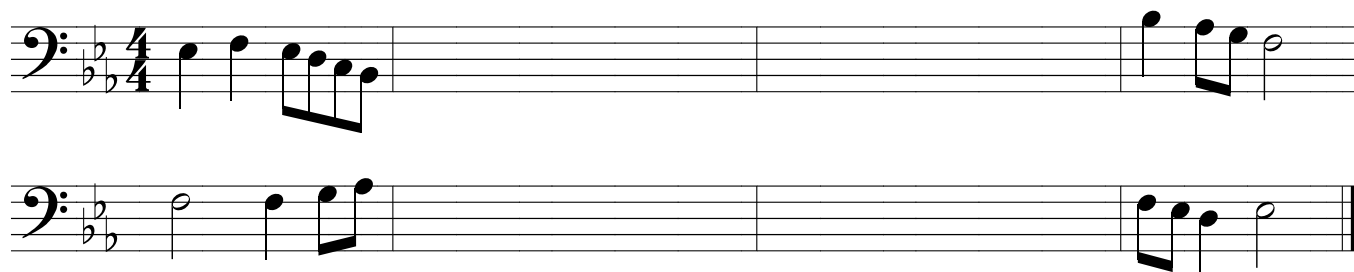
② You will hear major and perfect **intervals** played. Identify each by size and type (MAJ 2nd, PER 4th, etc.).

1. _____ 2. _____ 3. _____ 4. _____ 5. _____ 6. _____

③ You will hear a four-measure rhythm. Fill in the blank measures.



④ You will hear an eight-measure melody in **E^b Major**. Fill in the blank measures.



Definitions

<i>accelerando</i>	Increasing in tempo gradually
<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 [#])
augmented triad	A triad made up of two major thirds
authentic cadence	A cadence consisting of the dominant progressing to tonic; V-I or V-i
bass	The lowest voice in four-part harmony
cadence	A sequence of notes or chords occurring at the end of a phrase which give a sense of pause or closure
<i>cantabile</i>	In a singing style
chromatic scale	A twelve-tone scale built only of half steps
compound meter	A meter in which the beat can be subdivided into groups of three
consonance	The mixing of sounds that blend well
diatonic half step	A half step spelled using two different letter names; a minor second (C-D ^b)
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
dissonance	The mixing of sounds that do not blend well together; a discord
first inversion triad	A triad that has its third as the lowest pitch
half cadence	Any cadence which ends on the dominant triad (V)
harmonic interval	Two tones played or sung at the same time
harmonic minor scale	A minor scale in which scale degree 7 is raised a half step
imperfect authentic cadence	Any authentic cadence (V-I) which is not perfect, which does not have the root in the bass or both chords and the soprano voice of the I chord is not tonic
interval inversion	Turning an interval upside down by transferring the lower tone up an octave or the upper tone down an octave
invention	A short contrapuntal piece based on one theme
major interval	The intervals found in a major scale using scale degrees 1-2, 1-3, 1-6, and 1-7
<i>marcato</i>	Marked; emphasized
melodic Interval	The distance between two tones played or sung in succession
melodic minor scale	A minor scale in which scale degrees 6 and 7 are raised one half step when ascending and which takes the natural minor form descending
melody	An organized group of tones which makes a musical statement, a tune
meter	The organizing pattern of strong and weak beats
minor interval	An interval which is a half step smaller than the corresponding major interval
minor second	An interval of a second having one half step (C-D ^b); a diatonic half step

minor third	An interval with three half steps, spelled as a skip
natural minor scale	A scale using the following whole and half step pattern: W-H-W-W-H-W-W
opera	A theatrical drama that is sung and set to music
parallel keys	Major and minor keys that share the same tonic
perfect authentic cadence	Any authentic cadence (V-I) which has the root of both chords in the bass and the tonic of the I chord in the soprano
perfect interval phrase	The intervals found in a major scale using scale degrees 1-1, 1-4, 1-5, and 1-8 Part of a melody which pauses or ends with a cadence
<i>piu mosso</i>	More motion, quicker
prelude	A short composition that is usually followed by a larger composition in the same key
relative keys	Major and minor keys that share the same key signature
root position triad	A triad with its root as the lowest pitch
second inversion	A triad that has its fifth as the lowest pitch
<i>semplice</i>	To play simply, without ornament
<i>sempre</i>	Always
seventh chord	A four-tone chord produced by adding another third on top of a triad
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
transposition	The performing or writing of music in a key other than the original key
voice leading	The procedures governing the movement of voices in chord progressions
whole-tone scale	A six-tone scale built only of whole steps

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