

Eastern Kentucky University

Department of Music



EASTERN KENTUCKY UNIVERSITY
Serving Kentuckians Since 1906

Music Theory

Study Guide

for

Prospective

Music Students

Compiled by
Dr. Richard Byrd

TO THE PROSPECTIVE MUSIC STUDENT:

We are excited to know that you are considering Eastern Kentucky University as your choice for musical training. While preparing to enter your particular field of interest in music, whether it be in teaching, performing, composition, arranging, administration, business, instrument design, instrument repair, therapy, or in any other music-related area, every music student should have a basic understanding of music theory. With that in mind, we believe that it is to your advantage to prepare yourself before you begin your college studies. Before you begin your musical studies at ECU, you will need to take a theory diagnostic exam to help determine your placement in the theory program.

The ECU music theory and composition program is one of excellence. The music theory and composition faculty are nationally recognized educators, composers, and performers. Many of our students have participated in national conferences and composition symposiums. After completing an undergraduate music degree, many of our students attain graduate degrees at prestigious colleges and universities, while others serve as music educators, work in the music industry, and perform professionally.

The Bachelor of Music Theory and Composition degree (B.M.) is designed to prepare students for career in teaching at the college and university level. This degree also prepares students to successfully enter a graduate program in music theory or composition. At ECU students will be exposed to a wide variety of compositional styles, and will have the opportunity to compose music for a variety of instrumental and vocal combinations. Advanced study on piano is an asset. Students are required to declare a major instrument for additional applied study. Music theory and composition majors are required to give an additional recital of their original compositions as well as a theory paper presentation. ECU currently uses the Kostka and Payne theory text and workbook, *Tonal Harmony*, and the Berkowitz musicianship text, *A New Approach to Sight Singing*, for their four-semester sequence of music theory courses.

Our music theory and composition faculty have diverse backgrounds in music theory and composition. They have written articles for professional journals, made presentations at professional conferences, composed music for various organizations, and had several works published. Additionally, each member of our music theory and composition faculty has an extensive background in performance and performs professionally.

ECU Music Theory Faculty:

Dr. Thomas Couvillon, Ph.D.
E-mail: Thomas.Couvillon@eku.edu
Web page: [Thomas Couvillon](#)

Dr. Richard Byrd, Ph.D.
E-mail: Rich.Byrd@eku.edu
Web page: [Richard Byrd](#)

Dr. Kristen Kean, DMA, flute
E-mail: Kristen.Kean@eku.edu
Web page: [Kristen Kean](#)

Dr. Nathan Jasinski, DMA, cello
E-mail: Nathan.Jasinski@eku.edu
Web page: [Nathanael Jasinski](#)

About our Music Department:

The ECU Department of Music provides aspiring students with the training and education they need to succeed as professionals in the field of music. Students learn the historical, stylistic, and theoretical fundamentals of music and apply this knowledge through performance and scholarship. ECU music students have the unique opportunity to perform with award winning ensembles that are regularly invited to perform at national and international festivals and competitions. ECU music students study with nationally recognized, award winning faculty, guest artists, and clinicians. The degree programs offered by the ECU Department of Music are accredited by The National Association of Schools of Music, the Southern Association of Colleges and Schools, and the National Council for the Accreditation of Teacher Education.

Our music program offers several undergraduate degree options including the Bachelor of Music in Music Education, Bachelor of Music with an Emphasis in Music Industry, Music Performance, and Music Theory and Composition. In addition to preparing students for careers in music, the discipline acquired in meeting the demands of musical performance may also serve as an excellent background for persons desiring to pursue careers in other fields. The Department offers a music minor consisting of piano, music theory, music history, and electives. Other degree options including current curriculum guidelines are also available upon request.

The music program also offers [graduate degree options](#) in Performance, Choral Conducting, Theory/Composition, Music Education, and Instrumental Conducting. **All applicants must be accepted by the [Graduate School](#) and the ECU Department of Music. All MM candidates must register for the Music Theory Entrance Exam.** Applicants need to contact [Dr. Thomas Couvillon](#) to schedule this exam and are also encouraged to download the [Study Guide for the ECU Graduate Entrance Theory Examination](#).

Please feel free to contact our Music Department at ECU to answer any questions you may have about our music programs. We invite you to visit our web site at www.music.ecu.edu to acquaint yourself with our university, music programs, and faculty.

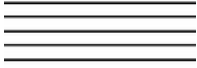
How to use this study guide:

This guide is designed to be a self-help tutorial to help prepare the prospective music student for their first semester of theory at ECU. Through diligent study and careful practicing of the materials in this guide you will have a solid foundation upon which you can strengthen your music skills in your desired music program. Please study each lesson thoroughly before proceeding to the study questions. All of the answers to the questions are provided in the back so that you can check your answers. Be sure not to neglect the important lesson on ear training and sight singing.

If you have questions about the material or if you do not understand the material in any the lessons, please refer to the selected bibliography in the back of this study guide. The titles listed in this bibliography are excellent resources to help you further understand the concepts and principles taught in this study guide. Many of these sources are texts that are currently being used by many college and university music theory programs.

Lesson One: Musical Symbols

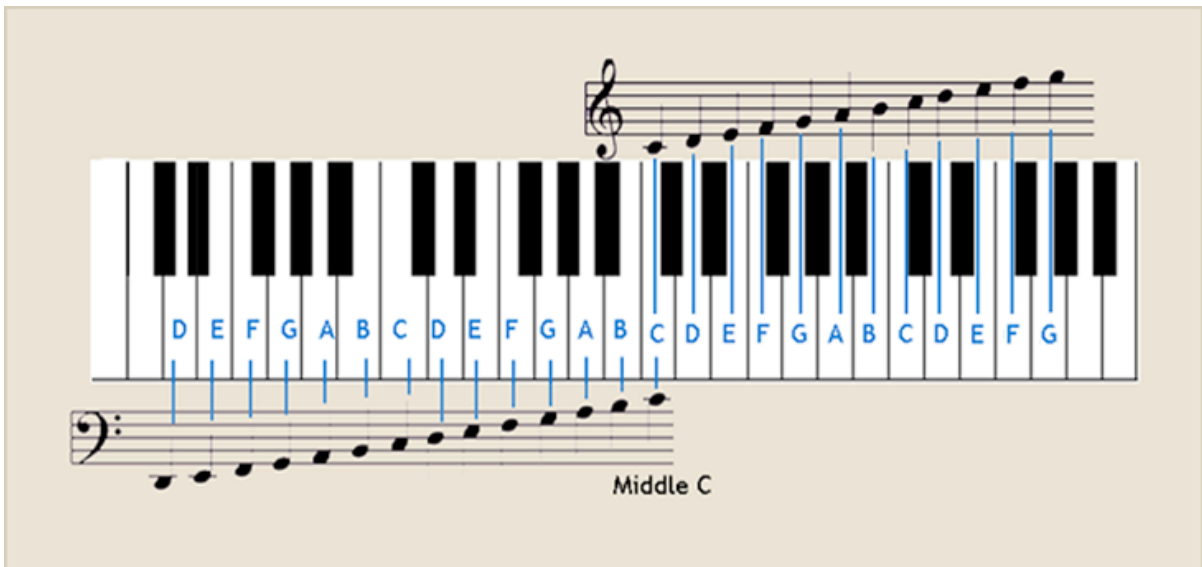
Staff—a set of five parallel horizontal lines and four intervening spaces that each represents a musical pitch.



Grand staff—the combination of the treble and bass clefs joined together by a brace.

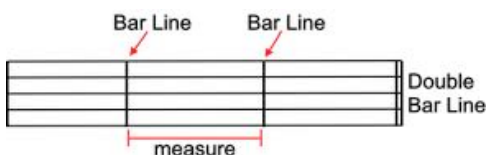


Middle C—the name given to the pitch C which is near the middle of the piano keyboard.



Bar line—a symbol used to organize music into groupings or patterns.

Double bar line—a symbol used to mark the end of a composition or the end of a major section of a composition.



Ledger lines—short lines equidistant from each other used to extend the staff above or below the written staff.



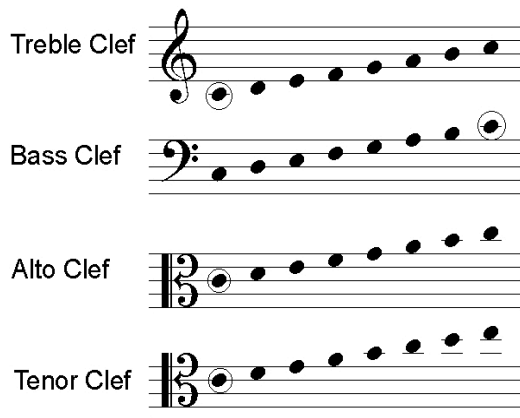
Clef—indicates where the pitch letter names are placed on the staff.

Treble clef—also called the G clef, it designates the pitch g with a lower loop.

Bass clef—also called the F clef, it designates the pitch f with two dots.

Alto clef—a specific kind of C clef, it designates the Middle C pitch with an indentation.

Tenor clef—a specific kind of C clef, it designates the Middle C pitch with an indentation.



(Middle C is circled on each of the scales above.)

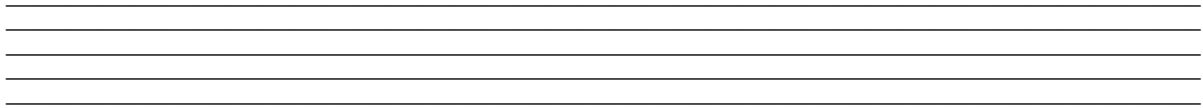
Accidentals—chromatic alterations placed directly before the affected note and on the same line or space as the note head (flat, sharp, double flat, double sharp, double flat, natural). A flat lowers the pitch by one half step and a sharp raises the pitch by one half step. A double flat lowers the pitch by one whole step and a double sharp raises the pitch by one whole step.



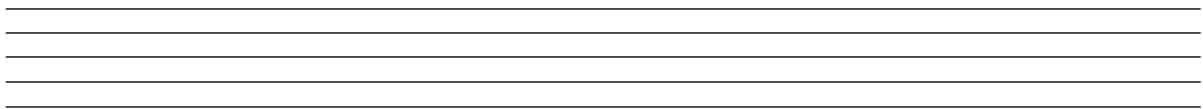
Note: It is important to make sure that you carefully notate each accidental so that the middle of each accidental is centered on either the line or the space that it is marking.

Lesson One: Musical Symbols **Practice Questions**

1) Write one of each of the four clefs (treble, bass, alto, tenor) on the staff below.



2) Write one of each accidental (flat, sharp, double flat, double sharp, natural) on the staff below.



3) Identify the following pitches in various clefs by placing the correct pitch letter name below each pitch.



4) Notate the requested pitches in the various clefs on the staff below.



Lesson Two: Key Signatures & Scale Degree Names

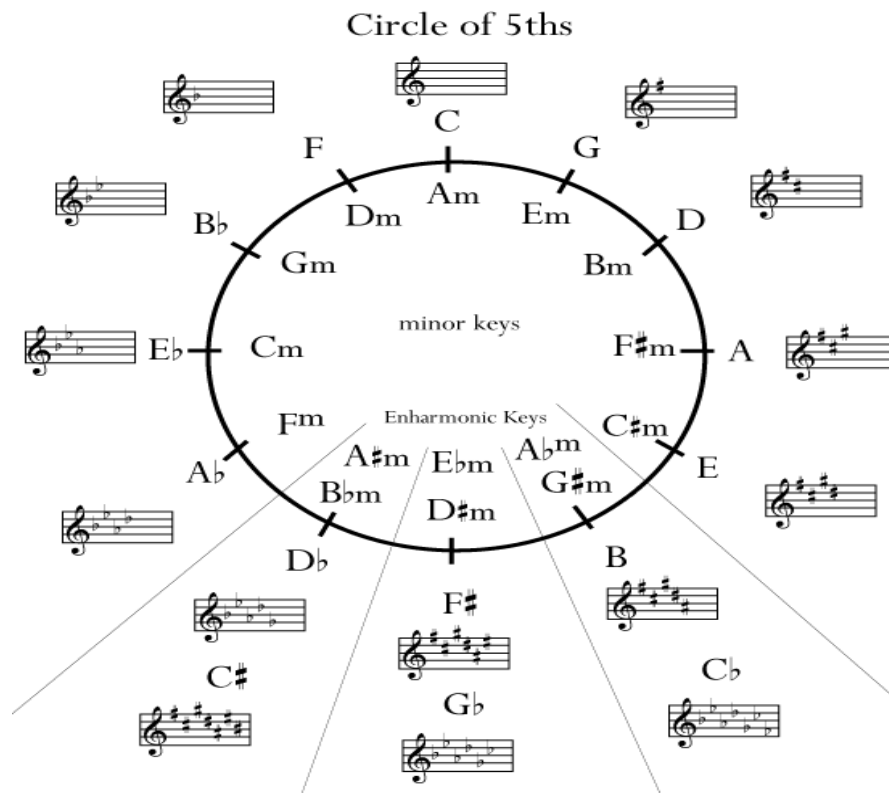
Key signature—accidentals written at the beginning of a composition (which can be changed throughout the work) used to designate the key or tonality of a work.

The **order of flats** is always: Bb, Eb, Ab, Db, Gb, Cb, Fb

The **order of sharps** is always: F#, C#, G#, D#, A#, E#, B#



Circle of fifths—a diagram that illustrates the order of keys from the least to the greatest number of sharps (clockwise), and the least to the greatest number of flats (counterclockwise)



The order for the placement of sharps and flats:

#	F	C	G	D	A	E	B
b	B	E	A	D	G	C	F

Note: It is best to just memorize both the major and minor key signatures! There are just 15 major keys and 15 minor keys to learn for a total of 30 keys. While there are all sorts of clever methods to use to figure out the keys, it is in your best interest to have all the keys memorized without using aids to “figure out the keys.” For example, when you see a key signature of 4 sharps, 2 keys should IMMEDIATELY pop into your head—E major and c# minor. Using tricks and other clever methods will ultimately slow you down and potentially increase the possibility for error for more complicated theory problems.

Note: The flats and sharps appear in the same order and pattern for key signatures written in both the alto and tenor clefs).

Relative Keys—the pair of major and minor keys that share the same key signature (e.g., G major and e minor both share the same key signature of 1 sharp).

Parallel Keys—the pair of major and minor keys that share the same tonic note (e.g., C major and c minor both share the same c tonic pitch).

Enharmonic Keys—the pair of major keys or pair of minor keys that share the same tonic note in sound, but are written with a different key signature. (e.g., C# major and Db major both share the same tonic note in sound, but are written as 7 sharps and 5 flats respectively).

Scale degree names—the traditional names given to the pitches of a scale as represented by their order.

1st scale degree—**tonic**

2nd scale degree—**supertonic**

3rd scale degree—**mediant**

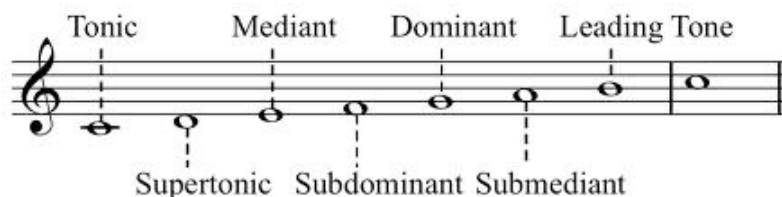
4th scale degree—**subdominant**

5th scale degree—**dominant**

6th scale degree—**submediant**

7th scale degree—**leading tone** or **subtonic**

(The term leading tone is used for a raised 7th and the term subtonic is used for a lowered 7th)



Lesson Two: Key Signatures & Scale Degree Names Practice Questions

- 1) List the correct order of flats: _____
- 2) List the correct order of sharps: _____
- 3) What is the relative key of f minor? _____
- 4) What is the relative key of B major? _____
- 5) What is the parallel key of c# minor? _____
- 6) What is the parallel key of Eb major? _____
- 7) What is the enharmonic key of B major? _____
- 8) What is the enharmonic key of F# major? _____
- 9) Name the following keys with both a major and minor key for each key signature:



- 10) Write the key signature for the requested keys:

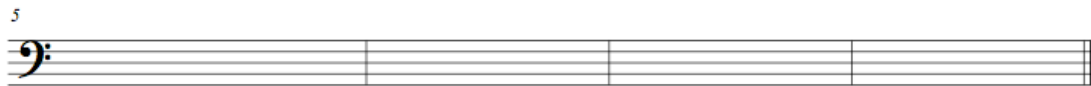


D Major

Eb Major

c# minor

bb minor



F# Major

Ab Major

g minor

E Major

- 11) Name all 7 scale degrees in order:

1 _____ 2 _____ 3 _____ 4 _____ 5 _____ 6 _____ 7 _____

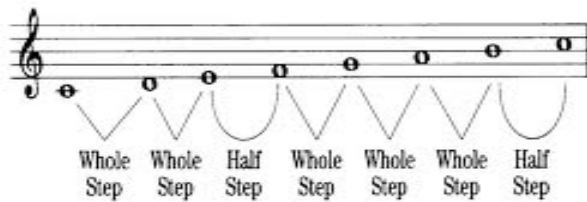
Lesson Three: Major and Minor Scales

Half step—the shortest interval traditionally used in Western music, represented by two adjacent keys on the piano (e.g., B—C, D—E \flat , F—F \sharp , etc.).

Whole step—the combination of two half steps (e.g., G—A, B—C \sharp , D—E, G \sharp —A \sharp).

Major scale—a series of seven consecutive letter-name pitches found diatonically in its major key with a pattern of whole steps and half steps as follows: W W H W W W H.

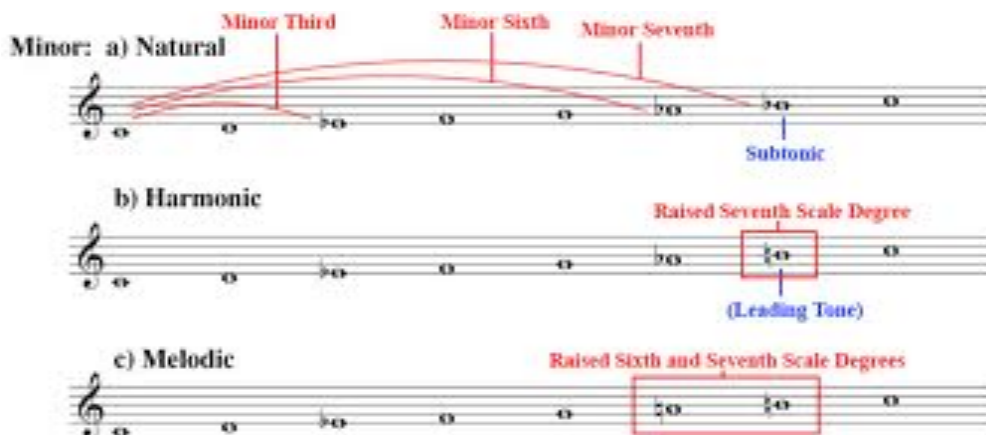
C Major Scale



Natural minor scale—a series of seven consecutive letter-name pitches found diatonically in its minor key with a pattern of whole steps and half steps as follows: W H W W H W W.

Harmonic minor scale—a natural minor scale with the seventh scale degree raised one half step. Note that this scale creates the interval of an augmented 2nd between the 6th & 7th scale degrees.

Melodic minor scale—a natural minor scale with the sixth and seventh scale degrees raised one half step in the ascending part of the scale, and a return (or re-lowering of the sixth and seventh scale degrees one half step) of the natural minor scale in the descending part of the scale.



While it is possible to spell all the major and minor scales using the patterns shown above, it is much more efficient (and easier) to use the key signatures that you memorized in the previous lesson. Here are some examples of how this would work:

To spell an E major scale:

- 1) Write all the alphabet letters through one octave starting with an E on the staff using whatever clef is requested as follows: E, F, G, A, B, C, D, E.
- 2) Apply (plug in) all the sharps or flats of the requested scale in front of all notes that apply. Since there are 4 sharps in the key of E major (F#, C#, G#, D#), place these four sharps in front of the corresponding pitches as follows: E, F#, G#, A, B, C#, D#, E. Notice that this answer illustrates the W W H W W W H major scale pattern.

To spell an e natural minor scale:

- 1) Write all the alphabet letters through one octave starting with an E on the staff using whatever clef is requested as follows: E, F, G, A, B, C, D, E.
- 2) Apply (plug in) all the sharps or flats of the requested scale in front of all notes that apply. Since there is 1 sharp in the key of E minor (F#), place that sharp in front of the corresponding pitch as follows: E, F#, G, A, B, C, D, E. Notice that this answer illustrates the W H W W H W W natural minor scale pattern.

To spell an e harmonic minor scale:

- 1) Write all the alphabet letters through one octave starting with an E on the staff using whatever clef is requested as follows: E, F, G, A, B, C, D, E.
- 2) Spell an e natural minor scale as shown above: E, F#, G, A, B, C, D, E
- 3) Raise the 7th scale degree by changing D to a D# as follows: E, F#, G, A, B, C, D#, E.

Note: Each letter of the alphabet must be represented, so be careful not to use enharmonic pitches that represent the same alphabet letter. For example, in e harmonic minor, you should use a D# for the 7th scale degree rather than an Eb, otherwise there would be no alphabet letter represented for the letter D (e.g., E, F#, G, A, B, C, D#, E is correct and E, F#, G, A, B, C, Eb, E is incorrect).

To spell an e melodic minor scale:

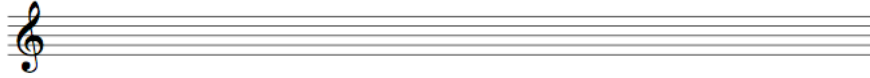
- 1) Write all the alphabet letters through one octave starting with an E on the staff using whatever clef is requested as follows: E, F, G, A, B, C, D, E.
- 2) Spell an e natural minor scale as shown above: E, F#, G, A, B, C, D, E
- 3) Raise both the 6th and 7th scale degree by changing C to C# and D to a D# as follows: E, F#, G, A, B, C#, D#, E for the ascending part of the scale, and return the C# and D# back to its natural minor form as a C and D for the descending part of the scale:



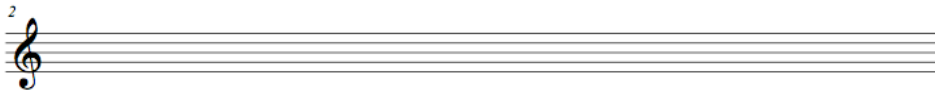
Lesson Three: Major and Minor Scales
Practice Questions

- 1) Spell the following requested scales without writing in the key signature by adding in the appropriate accidentals:

Note: Be sure to write both the ascending and descending form of the melodic minor scale. All other scales can be spelled with just the ascending form.



D Major



F natural minor



B harmonic minor



D# harmonic minor



Ab melodic minor

- 2) Write in the missing pitches in the blanks provided for the following requested scales:

F# Major: F# G# _____ B C# D# _____ F#

Eb harmonic minor: Eb F _____ Ab Bb Cb _____ Eb

Ab Major: Ab Bb C _____ Eb F _____ Ab

B melodic minor: B _____ D E F# _____ A# B _____ G F# E D _____ B

G# natural minor: G# _____ B C# _____ E F# G#

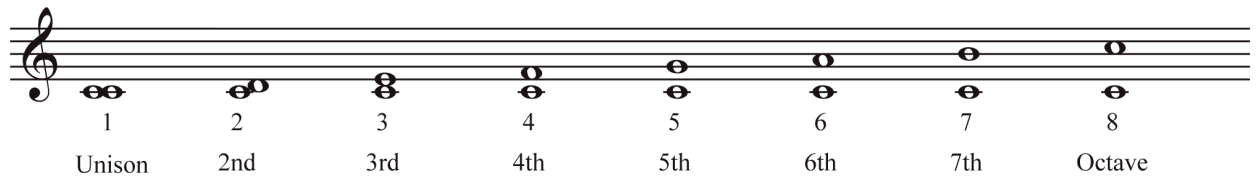
- 3) What is the 6th scale degree of a B Major scale? _____
4) What is the 3rd scale degree of a c# natural minor scale? _____
5) What is the 7th scale degree of an f# harmonic minor scale? _____
6) What is the ascending 6th scale degree of a c melodic minor scale? _____
7) What is the descending 7th scale degree of a g melodic minor scale? _____

Lesson Four: Intervals

Interval—term used to measure the distance between two pitches. Each interval is comprised of two parts—the interval quality and the interval size.

Interval quality—describes the quality of the interval with the following descriptions: **perfect** (P), **major** (M), **minor** (m), **diminished** (o), and **augmented** (+).

Interval size—describes the size of the interval which is measured by how far apart the notes are on the staff with the following numbers: **unisons**, **seconds**, **thirds**, **fourths**, **fifths**, **sixths**, **sevenths**, and **octaves**.



Melodic intervals—the distance measured horizontally between any two adjacent pitches.

Harmonic intervals—the distance measured vertically between any two simultaneously sounding pitches.

Simple intervals—intervals that are smaller than an octave (including the octave).

Compound intervals—intervals that are larger than an octave (e.g., m9 is a m2 plus an octave, M10 is a M3 plus an octave, P11 is a P4 plus an octave, etc.)

The term perfect (abbreviated P) is only used for unisons, 4ths, 5ths, and octaves (and their compound intervals) as follows: P1, P4, P5, and P8. (P is NEVER used to describe 2nds, 3rds, 6ths, or 7ths)

The term major (abbreviated M) or minor (abbreviated m) is only used for 2nds, 3rds, 6ths, and 7ths (and their compound intervals) as follows: M2, m2, M3, m3, M6, m6, M7, m7. (M and m are NEVER used to describe unisons, 4ths, 5ths, or octaves)

The term augmented (abbreviated +) is used when a perfect or major interval is raised a half step without changing the numerical name as follows: P1 → +1 (C—C#), M2 → +2 (C—D#), M3 → +3 (C—E#), P4 → +4 (C—F#), P5 → +5 (C—G#), M6 → +6 (C—A#), M7 → +7 (C—B#), P8 → +8 (C—C#).

NOTE: If a minor interval is raised a half step it just becomes a major interval, not an augmented interval.

The term diminished (abbreviated o) is used when a perfect or minor interval is lowered a half step without changing the numerical name as follows: m2 → o2 (C—D $\flat\flat$), m3 → o3 (C—E $\flat\flat$), P4 → o4 (C—F \flat), P5 → o5 (C—G \flat), o6 (C—A $\flat\flat$), o7 (C—B $\flat\flat$), P8 → o8 (C—C \flat).

NOTE: If a major interval is lowered a half step it just becomes a minor interval, not a diminished interval.

One easy way to identify intervals is to relate them to the intervals found in the major scale, specifically the intervals from the first scale degree up to the other scale degrees.

You should learn to convert intervals by raising and lowering them to form smaller or larger intervals. The following chart shows the hierarchy of the major and minor intervals from smallest to largest—going from diminished to minor to major to augmented for the 2nds, 3rds, 6ths, and 7ths, and the hierarchy of the perfect intervals from smallest to largest—going from diminished to perfect to augmented for the unisons, 4ths, 5ths, and octaves.

Interval	Quality	Interval	Quality	Interval	Quality	Interval	Quality
unison	aug	second	dim	second	min	second	maj
second	maj	third	dim	third	min	third	maj
third	maj	fourth	dim	fourth	min	fourth	maj
fourth	maj	fifth	dim	fifth	min	fifth	maj
fifth	maj	sixth	dim	sixth	min	sixth	maj
sixth	maj	seventh	dim	seventh	min	seventh	maj
seventh	maj	octave	dim	octave	min	octave	maj

Notice how that many intervals have a different name, but produce the same sound, for example, a M3 and a o4 have the same sound but are spelled differently. It is important to remember the size of the interval reflects how many pitch letter names it contains, so G to B must be some type of third because it contains 3 pitch letter names (G, A, and B), whereas G to C \flat must be some type of fourth because it contains 4 pitches letter names (G, A, B, and C). Therefore, the interval G to C \flat would be incorrectly labeled as a M3 even though C \flat is the same pitch as B—it must be correctly labeled as a diminished 4th.

NOTE: Calculating intervals by counting half steps and/or whole steps is sometimes easier and faster, but is more often time consuming and has a greater likelihood of producing errors.

Lesson Four: Intervals Practice Questions

1) Identify each interval with the correct quality and size. (e.g., P4, M3, m6, +5, o7, etc.)

Exercise 1 consists of four staves of music, each containing eight pairs of notes. The intervals to be identified are as follows:

- Staff 1 (Treble clef): C4-G4 (P5), D4-A4 (P5), E4-B4 (P5), F4-C5 (P5), G4-D5 (P5), A4-E5 (P5), B4-F#5 (+2), C5-G#5 (+2).
- Staff 2 (Bass clef): B2-F#3 (+2), C3-G#3 (+2), D3-A#3 (+2), E3-B3 (P5), F3-C4 (P5), G3-D4 (P5), A3-E4 (P5), B3-F#4 (+2).
- Staff 3 (Alto clef): C4-G4 (P5), D4-A4 (P5), E4-B4 (P5), F4-C5 (P5), G4-D5 (P5), A4-E5 (P5), B4-F#5 (+2), C5-G#5 (+2).
- Staff 4 (Bass clef): B2-F#3 (+2), C3-G#3 (+2), D3-A#3 (+2), E3-B3 (P5), F3-C4 (P5), G3-D4 (P5), A3-E4 (P5), B3-F#4 (+2).

2) Write the requested intervals above the given pitches with the correct quality and size.

Exercise 2 consists of four staves of music, each containing eight single notes. The intervals to be written above the notes are as follows:

- Staff 1 (Treble clef): m3, P4, M7, P5, +6, o5, +7, M3.
- Staff 2 (Bass clef): +5, m2, m7, o4, m6, M7, m3, P8.
- Staff 3 (Alto clef): M3, +4, M6, o7, +5, m2, +8, M7.
- Staff 4 (Bass clef): +2, m3, P4, +6, P5, M3, o7, o3.

Lesson Five: Chords (Arpeggios)

Chord—a group of notes sounding simultaneously (block chord) or in close succession (broken chord or *arpeggio*)

Major triad—a chord consisting of three different pitches that comprise the first, third and fifth scale degrees of a major scale. It is comprised of major 3rd and a minor 3rd.

Minor triad—a chord consisting of three different pitches that comprise the first, third, and fifth scale degrees of a minor scale. It is comprised of a minor 3rd and a major 3rd.

Diminished triad—a minor triad that has the fifth of the chord lowered by one half step. It is comprised of two minor thirds.

Augmented triad—a major triad that has the fifth of the chord raised by one half step. It is comprised of two major thirds.

One of the easiest ways to spell any triad is to 1) memorize the quality of the chords that are used in the C Major scale and 2) be able to convert any triad to a different triad.

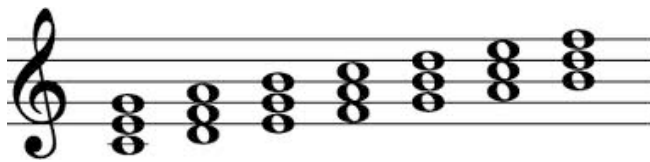
Chord qualities in the C major scale:

The triads built on scale degrees 1, 4 and 5 are major.

The triads built on scale degrees 2, 3, and 6 are minor.

The triad built on scale degree 7 is diminished.

Therefore, every triad that starts on a the letters C, F, or G will always result in a major triad if all accidentals are the same, and every chord that starts on the letters D, E, or A will always result in a minor triad if all accidentals are the same, and every chord that starts on the letter B will always result in a diminished triad if all accidentals are the same.



1	2	3	4	5	6	7
M	m	m	M	M	m	o

Examples:

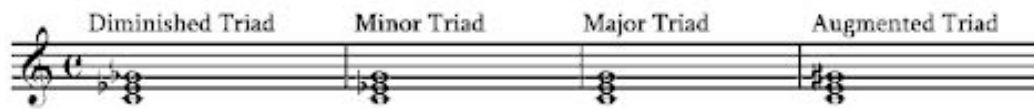
If you want to spell a major triad starting on the pitch C#, then keep all the accidentals the same, and you will produce a C# major triad—C#, E#, G#.

If you want to spell a minor triad starting on the pitch Eb, then keep all the accidentals the same, and you will produce an Eb minor triad—Eb, Gb, Bb.

If you want to spell a diminished triad starting on the pitch Bb, then keep all the accidentals the same, and you will produce a Bb diminished triad—Bb, Db, Fb.

Converting triads to different triads:

You will be able to convert triads by knowing the differences between each triad. An augmented triad is a major triad with the 5th of the chord raised a half step. A diminished triad is a minor triad with the 5th of the chord lowered a half step. A minor triad is a major triad with the 3rd of the chord lowered a half step, and conversely a major triad is a minor triad with the 3rd of the chord raised a half step.



So what happens if you want to spell a major triad using this system, but you are asked to start on the pitch Db? You will need to first spell the chord as a minor triad and then convert that minor triad to a major triad. So if you want to spell a Db major triad, then you would first spell a Db minor triad by starting on a Db and keeping all the accidentals the same for each of the other triad pitches—Db, Fb, Ab. Then you would need to convert that minor triad to a major triad by raising the 3rd of the chord a half step from an Fb to an F, which would then produce the desired major triad starting on a Db—Db, F, Ab.

While you certainly can spell all your triads by using your major and minor key signatures that you have learned, this system will prove to be helpful when you want to spell triads on pitches that do not have major or minor key signatures—for example, if you wanted to spell a G# major triad, you could not use the G# major key signature since it does not exist. It would be very easy to produce the answer G#, B#, D# without using any key signatures, since you learned that any triad that begins on the pitch G that has all accidentals the same will produce a major triad.

Also, you will find this system helpful when you want to spell tricky triads, but are not given the tonic note—for example, if you were asked to spell an augmented triad and were given the pitch D# as the 3rd of the chord, then you could approach the problem like this:

- 1) write in the chord letter names using the same accidentals as the given pitch, so you would write B#, D#, F# and notice that this yields a diminished triad since it begins on the pitch B.
- 2) convert this diminished triad to a minor triad by raising the 5th of the chord F# to an Fx.
- 3) convert this minor triad to a major triad by raising the 3rd of the chord, but since that is the given pitch (which you are not allowed to change), then you must lower the surrounding pitches B# to a B and the Fx to an F#.
- 4) convert this major triad to an augmented triad by raising the 5th of the chord F# to an Fx.

Now you have produced an augmented triad of B, D#, Fx when you were only given the 3rd of the triad. This may seem tricky at first, but with practice it will become an invaluable tool to you.

Lesson Five: Chords (Arpeggios) Practice Questions

- 1) Using the symbols M, m, o, and +, identify each triad as either major (M), minor (m), diminished (o), or augmented (+).

7

13

19

- 2) Spell each requested chord on the staff using accidentals when necessary. Be careful to observe which note you are given—it will be labeled as the root, 3rd, or 5th of the chord.

M (root) m (3rd) o (5th) + (root) M (3rd) m (5th)

7

o (root) + (3rd) M (5th) m (root) o (3rd) + (5th)

13

M (root) m (3rd) o (5th) + (root) M (3rd) m (5th)

19

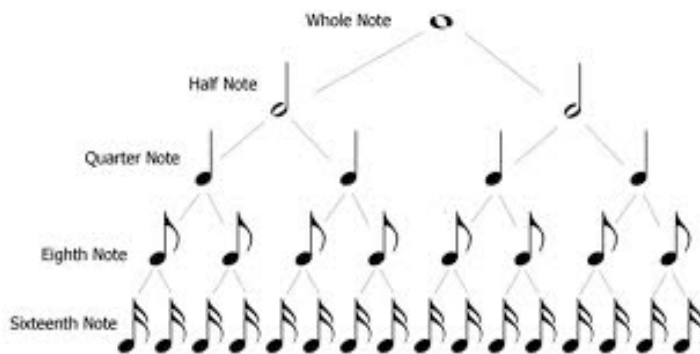
o (root) + (3rd) M (5th) m (root) o (3rd) + (5th)

Lesson Six: Note and Rest Values

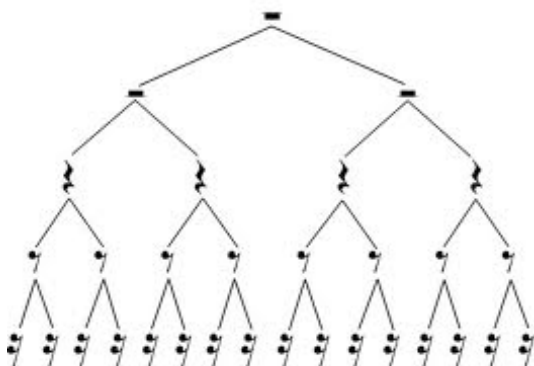
The names of the most common note and rest values are shown in the following chart:
Notice the line/space placement of the whole rest and the half rest.

Rest Description	Rest Image	Note Description	Note Image
whole rest		whole note	
half rest		half note	
quarter rest		quarter note	
eighth rest		eighth note	
sixteenth rest		sixteenth note	
thirty-second rest		thirty-second note	

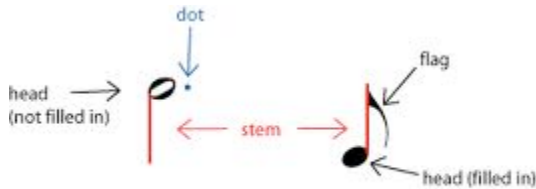
The following chart shows the basic note values and how they compare to each other:



The following chart shows the basic rest values and how they compare to each other:



The following terms are used to describe the different parts of the note:



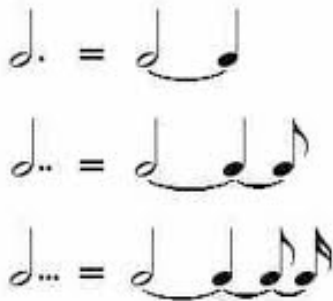
The dot on a note adds half the value of the note or dot that precedes it.

When notated on the staff, a dot is never placed on a staff line. If the notehead lies on a staff line, then the dot should be placed to the right of the note in the space above the note.

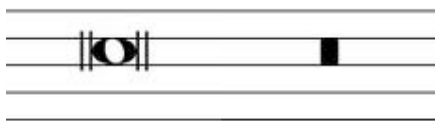
If a half note gets 2 beats, then a dotted half note will equal 3 beats (2+1)

If a half note gets 2 beats, then a doubly dotted half note will equal 3 1/2 beats (2+1+1/2)

If a half note gets 2 beats, then a triply dotted half note will equal 3 3/4 beats (2+1+1/2 +1/4)



A double whole note (American) or a breve (international) is a note that is equal to two whole notes, or a rest that is equal to two whole rests.



You should be familiar with the following tempo terms:

Grave (solemn)

Largo (broad)

Lento (slow)

Adagio (slow)

Andante (moderately slow)

Moderato (moderate)

Allegretto (moderately fast)

Allegro (fast)

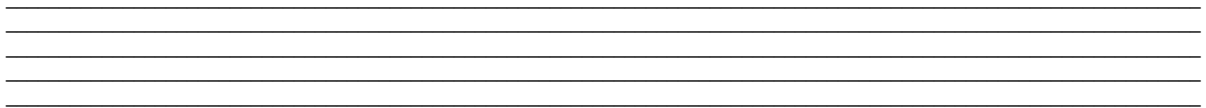
Vivace (lively)

Presto (very fast)

Lesson Six: Note and Rest Values
Practice Questions

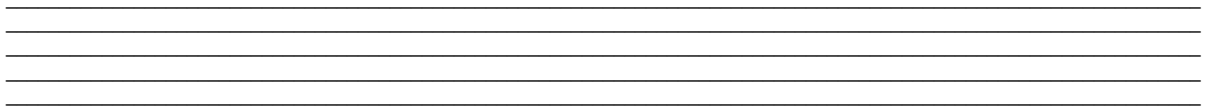
- 1) Write the following rhythms on the staff below:

breve note, whole note, half note, quarter note, eighth note, 2 eighth notes beamed together, sixteenth note, 2 sixteenth notes beamed together, thirty-second note, 2 thirty-second notes beamed together



- 2) Write the following rests of the staff below:

breve rest, whole rest, half rest, quarter rest, eighth rest, sixteenth rest, thirty-second rest



- 3) What a single rhythm in each blank that equals the sum of the given rhythms:

3 quarters + 4 eighths + 3 sixteenths + 2 thirty-seconds = _____

2 thirty-seconds + 1 sixteenth + 2 eighths + 2 dotted eighths = _____

1 dotted quarter + 1 dotted eighth + 4 sixteenths + 6 thirty-seconds = _____

- 4) Complete each measure with one note that compliments the given pitches in the melody.
(Answers may vary, and feel free to be creative)



Lesson Seven: Rhythm and Meter

Time signature (meter)—two numerical numbers, one above the other, at the beginning of a composition (which can be changed throughout the work) used to designate the number of beats in each grouping (the top number or numerator) and the division of the beat (the bottom number or denominator). The top number is often thought of as representing how many beats are in a measure, and the bottom number is often thought of as representing what note gets the beat.

The time signature always follows the key signature, which always follows the clef. If you ever forget the order, just remember that they are in alphabetical order: clef—key—time (CKT), or clef—key—meter (CKM).

Duple—meters with two beats per measure

Triple—meters with three beats per measure

Quadruple—meters with four beats per measure

Simple meters—meters in which the beat is divisible by two.

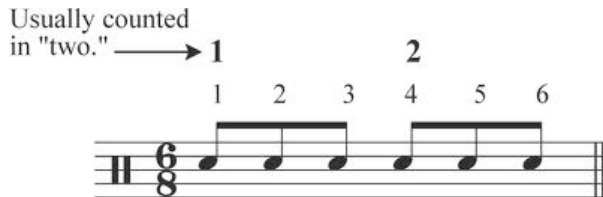
Type	Common			Uncommon	
Simple Duple	2	2		2	2
	2	4		8	16
Simple Triple	3	3	3	3	
	2	4	8	16	
Simple Quadruple	4	4	4	4	
	2	4	8	16	

Compound meters—meters in which the beat is divisible by three.

Compound Time Signatures

Type	Common		
Compound Duple	6	6	6
	4	8	16
Compound Triple	9	9	9
	4	8	16
Compound Quadruple	12	12	12
	4	8	16

The terms duple, triple, and quadruple in compound meters refer to the fact that these meters often have the dotted pulse as the beat rather than the actual number that appears on the bottom of the meter as the beat. The following example illustrates a measure of 6/8 time. While the top number generally represents how many beats there are in a measure, the top number in compound time is generally a dotted note value that represents the sum of three bottom-number rhythms. Three eighth notes combine to make 1 dotted quarter note beat in 6/8 time, and since there are 2 of those groupings in one measure, this meter is referred to as a duple meter.



The decision on what note value gets the “beat” or “pulse” (or conducted) in compound time is determined by the tempo. If the tempo is slow then the bottom note (the eighth note in 6/8 time) would get the beat, and if the tempo is fast then the dotted note (the dotted quarter note in 6/8 time) would get the beat.

Rhythms are often grouped or beamed together to reflect what note value gets the beat. While both 6/8 time and 3/4 time both have a total of 6 eighth notes in each measure, the decision regarding which meter to use depends on how the eighth notes are grouped. For example, if there were three groups of two eighth notes each that are beamed together, then that would indicate a 3/4 meter, and if there were two groups of three eighth notes each that are beamed together, then that would indicate a 6/8 meter (as shown in mm. 2 and 6).



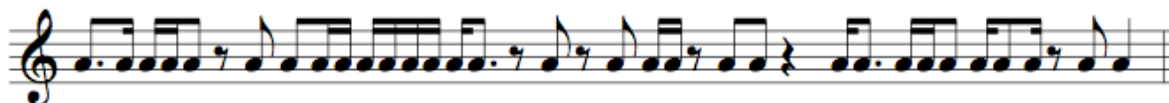
Lesson Seven: Rhythm and Meter

Practice Questions

- 1) Write in a meter for each line that best reflects the rhythmic notation.



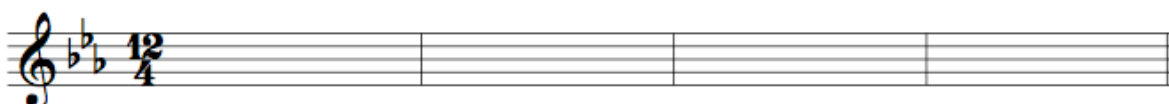
- 2) Write in bar lines to reflect the meter of 4/4 time.



- 3) Write in bar lines to reflect the meter of 6/8 time.



- 4) Rewrite the last four measures of number 1 above so that it reflects 12/4 time.



Lesson Eight: Musicianship

EAR TRAINING EXERCISES:

Interval Recognition—this exercise strengthens your ability to identify various intervals both melodically (itches sounded successively) and harmonically (itches sounded simultaneously).

It is helpful that you associate one song for each simple interval both ascending and descending. Use the first two pitches from the opening or significant section of a song. The following chart lists familiar songs for every simple interval ascending and descending. You should memorize the song that corresponds with each interval ascending and descending. Feel free to use the songs listed or any song that you know well. There are numerous types of songs might be helpful to you when choosing your song: patriotic, childrens, hymns, holiday, classical themes, Broadway, movie, television, jazz standards, pop, rock, jingles, and video games. After you can easily identify intervals using your song aids, you will quickly become proficient in identifying intervals without the use of your song aids.

Interval:	Ascending:	Descending:
minor 2nd	Ode to Joy (<i>Symphony No. 9</i> —Beethoven) Theme from Jaws (Williams)	Joy to the World (Mason/Handel) Für Elise (Beethoven)
Major 2nd	Happy Birthday (Hill) Silent Night (Gruber)	Mary Had a Little Lamb (Mason) Three Blind Mice (trad.)
minor 3rd	Lullaby (Brahms) Greensleeves/What Child is This (trad.)	The Star-Spangled Banner (Smith) Frosty the Snowman (Rollins)
Major 3rd	When the Saints Go Marching In (trad.) U. S. Marine Corps Hymn (Offenbach)	Summertime (<i>Porgy & Bess</i>) My Old Kentucky Home (Foster)
Perfect 4th	Here Comes the Bride (<i>Lohengrin</i> —Wagner) Amazing Grace (folk hymn)	Old MacDonald Had a Farm (folk) Hallelujah Chorus (<i>Messiah</i>)
+4th/o5th	Maria (<i>West Side Story</i> —Bernstein) Theme from <i>The Simpsons</i> (Elfman)	Blue Seven (Sonny Rollins) YYZ (instrumental by Rush)
Perfect 5th	Twinkle Twinkle Little Star (trad.) Theme from <i>Star Wars</i> (Williams)	Theme from <i>Superman</i> (Williams) Theme from <i>The Flintstones</i> (Curtin)
minor 6th	Morning of the Carnival (<i>Black Orpheus</i>) Last Midnight (<i>Into the Woods</i> —Sondheim)	Where Do I Begin (Love Story) Please Don't Talk About Me
Major 6th	NBC Theme Song My Bonnie Lies Over the Ocean (folk song)	Nobody Knows the Trouble Music of the Night (<i>Phantom</i>)
minor 7th	Somewhere (<i>West Side Story</i> —Bernstein) Theme from <i>Star Trek</i> (Courage)	An American in Paris (Gershwin) Something Wonderful (<i>The King & I</i>)
Major 7th	Theme from <i>Fantasy Island</i> (Rosenthal) Bali Hai (<i>South Pacific</i> —Rogers)	I Love You (Porter) Back in Your Own Backyard
Perfect 8^{ve}	Somewhere Over the Rainbow (Arlen) Chestnuts Roasting on an Open Fire (Torme)	There's No Business Like Show B. Willow Weep for Me (Ronell)

HELPFUL HINT: Your goal is to be able to **immediately** (without thinking) identify and sing all simple intervals, both ascending and descending. This is the key to having a positive and successful experience in your college musicianship classes.

Chord Recognition—this exercise strengthens your ability to identify the quality of various chord structures in both arpeggiated (pitches sounded successively) and block chord fashions (pitches sounded simultaneously). You should be able to identify and sing (as arpeggios) the four basic triad types: major, minor, diminished, and augmented.

Melodic Error Detection—this exercise strengthens your ability to detect and correct any discrepancies (both pitches and rhythms) between a melody that is heard and a melody that is written on the staff.

Melodic Dictation—this exercise strengthens your ability to dictate a performed melody (both pitches and rhythms) on a musical staff.

Rhythmic Error Detection—this exercise strengthens your ability to detect and correct any discrepancies between rhythms that are heard and rhythms that are written within a given meter on the staff.

Rhythmic Dictation—this exercise strengthens your ability to dictate a performed series of rhythms within a given meter.

Harmonic Dictation—this exercise strengthens your ability to dictate a performed harmonic progression on a musical staff using Roman numeral notation. You should be able to dictate the soprano and bass lines of the chord progression as well.

SIGHT SINGING:

Solfège (solfeggio) is a singing technique that is used in many college and university programs to teach sight singing. There are two methods of applying solfège: fixed do and movable do. Moveable do is the more commonly used method in most American colleges and universities. The solfège syllables for a major scale are do, re, me, sol, la, ti, do. The solfège syllables for a natural minor scale are do, re, me, fa, sol, le, te, do.



When beginning to learn solfège, you should start practicing with melodies that are diatonic (in the key) and scalar. You should be proficient with melodies that focus on just a few pitches, particularly the first 3 or 5 notes of the scale, before progressing to melodies that involve skips and leaps.

THEORY WEB SITES:

Free web sites for theory practice:

- www.musictheory.net
- www.teoria.com
- www.earmaster.com/intervalsongs
- www.trainear.com
- www.trainer.thetamusic.com
- www.8notes.com
- www.oneminutemusiclesson.com
- www.eMusicTheory.com
- www.mugglinworks.com/chordmaps/
- www.tonalcentre.org
- www.wmich.edu/mus-history/TheoryHelp/TheoryHelp.html
- www.dolmetsch.com/theoryintro
- www.people.vcu.edu/~bhammel/theory/mhis110/index.html
- www.dolmetsch.com/musictheorydefs
- www.musiccards.net/cgi-bin/music-note-flashcards.pl?type=treblenotedgernatural
- www.childrensmusicworkshop.com/musictheory/trainers/html/id82_en.html
- www.circle-of-fifths.net/quiz01/quiz01.html
- www.gmajormusictheory.org/Fundamentals/Flashcards/4_1HalfWholeEnharm.html

Musical Terms:

- www.naxos.com/education/glossary.asp
- www.potsdam.edu/academics/Crane/MusicTheory/Musical-Terms-and-Concepts.cfm
- www.method-behind-the-music.com/theory/intervals
- www.classicalworks.com/html/glossary.html
- www.musictheory.org.uk/res-musical-terms/italian-musical-terms.php
- www.quizlet.com/subject/music-terms/

Free tool downloads:

- www.people.vcu.edu/~bhammel/theory/mhis110/index.html (metronome—limited to 9 tempo markings between 60 & 120; virtual keyboard—limited to 2 octaves)

Other free downloads:

- www.finalemusic.com/notepad/default.aspx (free music notation software)
- www.musictheory.net (free downloadable blank staff paper—with & without staves—click Tools tab, then under Utilities, click Staff Paper Generator)

Lesson One: Musical Symbols **ANSWERS to Practice Questions**

1)

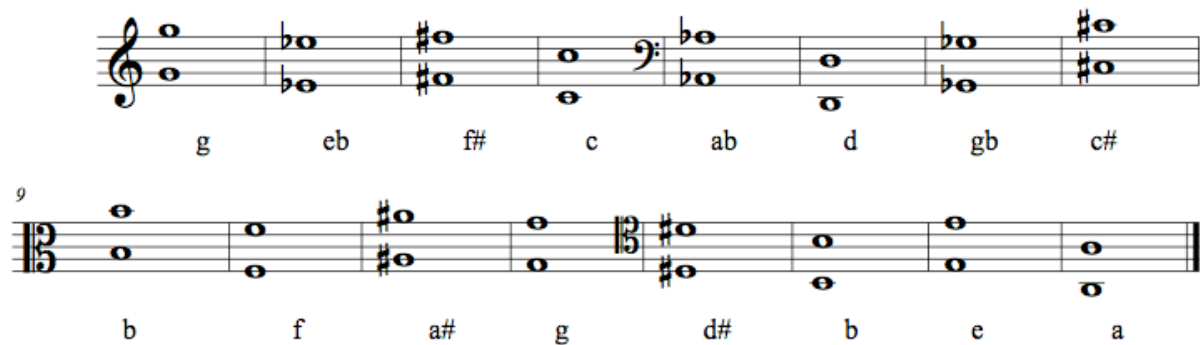


2)



3) Treble clef: d, g, e, c; Bass clef: b e f a; Alto clef: g, b, d, d; Tenor clef: a, g, b, a

4)



Lesson Two: Key Signatures & Scale Degree Names **ANSWERS to Practice Questions**

- 1) Bb Eb Ab Db Gb Cb Fb
- 2) F# C# G# D# A# E# B#
- 3) Ab Major
- 4) g# minor
- 5) C# Major
- 6) eb minor
- 7) Cb Major
- 8) Gb Major

Lesson Two: Key Signatures & Scale Degree Names
ANSWERS to Practice Questions cont.

- 9) 1 sharp: G Major/e minor
 1 flat: F Major/d minor
 2 sharps: D Major/b minor
 3 flats: Eb Major/c minor
 4 sharps: E Major/c# minor
 4 flats: Ab Major/f minor
 2 flats: Bb Major/g minor
 3 sharps: A Major/f# minor

10)

The image shows two staves of musical notation. The top staff is in treble clef and contains four measures, each with a key signature symbol: one sharp (F#), one flat (Bb), two sharps (D# and F#), and two flats (Bb and Eb). The bottom staff is in bass clef and contains four measures with key signature symbols: three sharps (F#, C#, G#), one flat (Bb), one flat (Bb), and three sharps (F#, C#, G#). Below each measure is a label for the key signature.

D Major Eb Major c# minor bb minor

5

F# Major Ab Major g minor E Major

- 11) tonic, supertonic, mediant, subdominant, dominant, submediant, leading tone/subtonic

Lesson Three: Major and Minor Scales
ANSWERS to Practice Questions

1)

The image shows five staves of musical notation, each representing a different scale. The first staff is in treble clef and shows the D Major scale (D, E, F#, G, A, B, C#). The second staff is in treble clef and shows the F natural minor scale (F, G, Ab, Bb, C, D). The third staff is in bass clef and shows the B harmonic minor scale (B, C, D, E, F#, G, Ab). The fourth staff is in bass clef and shows the D# harmonic minor scale (D#, E, F#, G, A, B, C#). The fifth staff is in bass clef and shows the Ab melodic minor scale (Ab, Bb, C, D, E, F, G, Ab). Below each staff is a label for the scale.

D Major

2

F natural minor

3

B harmonic minor

4

D# harmonic minor

5

Ab melodic minor

Lesson Three: Major and Minor Scales
ANSWERS to Practice Questions cont.

- 2) F# Major: A#, E#
 Eb harmonic minor: Gb, D
 Ab Major: Db, G
 B melodic minor: C#, G#, A, C#
 G# natural minor: A#, D#

- 3) G#
 4) E
 5) E#
 6) A
 7) F

Lesson Four: Intervals
ANSWERS to Practice Questions

- 1) Treble Clef: P5 m3 m7 +4 M6 P4 M2 o7
 Bass Clef: M3 +5 P5 M7 m6 o5 m2 P8
 Alto Clef: +6 m7 m3 P4 P5 o3 M7 +2
 Tenor Clef: o4 M3 +7 P8 o2 P4 m7 P5

2)

The image displays four staves of musical notation, each representing a different clef: Treble, Bass, Alto, and Tenor. Each staff contains eight pairs of notes, with the interval between them labeled below. The notes are written as whole notes.

- Treble Clef (Staff 1):**
 - m3: C4 to E4
 - P4: C4 to F4
 - M7: C4 to B4
 - P5: C4 to G4
 - +6: C4 to A4
 - o5: C4 to F#4
 - +7: C4 to G#4
 - M3: C4 to E4
- Bass Clef (Staff 2):**
 - +5: C3 to F3
 - m2: C3 to B2
 - m7: C3 to Bb2
 - o4: C3 to F#3
 - m6: C3 to Ab3
 - M7: C3 to Bb3
 - m3: C3 to Bb2
 - P8: C3 to C4
- Alto Clef (Staff 3):**
 - M3: C4 to E4
 - +4: C4 to F4
 - M6: C4 to A4
 - o7: C4 to F#4
 - +5: C4 to G4
 - m2: C4 to B3
 - +8: C4 to A#4
 - M7: C4 to B4
- Tenor Clef (Staff 4):**
 - +2: C4 to D4
 - m3: C4 to B3
 - P4: C4 to F4
 - +6: C4 to A4
 - P5: C4 to G4
 - M3: C4 to E4
 - o7: C4 to F#4
 - o3: C4 to Eb3

Lesson Five: Chords (Arpeggios) ANSWERS to Practice Questions

- 1) Treble Clef: M m m + M o
 Bass Clef: M m + o m M
 Alto Clef: o + m M + m
 Tenor Clef: m o o m + M

2)

The musical notation for Lesson Five, Question 2, consists of four staves, each showing a sequence of six arpeggiated chords. The chords are labeled below each staff:

- Staff 1 (Treble Clef):** M (root), m (3rd), o (5th), + (root), M (3rd), m (5th)
- Staff 2 (Bass Clef):** o (root), + (3rd), M (5th), m (root), o (3rd), + (5th)
- Staff 3 (Alto Clef):** M (root), m (3rd), o (5th), + (root), M (3rd), m (5th)
- Staff 4 (Tenor Clef):** o (root), + (3rd), M (5th), m (root), o (3rd), + (5th)

Lesson Six: Note and Rest Values ANSWERS to Practice Questions

1)

The musical notation for Lesson Six, Question 1, shows a sequence of note values in Treble clef: a whole note, a half note, a quarter note, an eighth note, a sixteenth note, a thirty-second note, a sixty-fourth note, and a final quarter note.

2)

The musical notation for Lesson Six, Question 2, shows a sequence of rest values in Treble clef: a whole rest, a half rest, a quarter rest, an eighth rest, a sixteenth rest, a thirty-second rest, and a final quarter rest.

Lesson Six: Note and Rest Values

ANSWERS to Practice Questions cont.

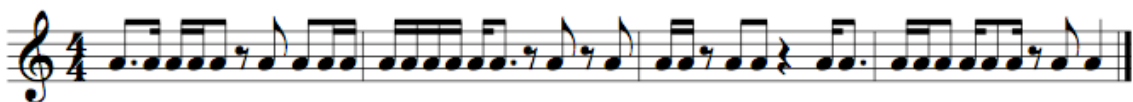
- 4)



Lesson Seven: Rhythm and Meter

ANSWERS to Practice Questions

- 2)



-

-

SELECTED BIBLIOGRAPHY:

- Benjamin, Thomas, and Michael Horvit and Robert Nelson. Techniques and Materials of Music from the Common Practice Period Through the Twentieth Century, 7th edition, Schirmer, 2008.
- Benward, Bruce, and Jackson, Barbara. Practical Beginning Theory—A Fundamentals Worktext, 8th edition, McGraw-Hill, 2000.
- Benward, Bruce, and Marilyn Saker. Music in Theory and Practice, Vol 1 and Vol 2 with Audio CD, 8th edition, McGraw-Hill, 2009.
- Berkowitz, Sol. A New Approach to Sight Singing, 5th edition, W. W. Norton, 2011.
(This is the text that Eastern Kentucky University uses for the 4-semester undergraduate musicianship sequence)
- Clendinning, Jane Piper, and Elizabeth Marvin. The Musician's Guide to Aural Skills: Sight-Singing, Rhythmic Reading, Improvisation, and Keyboard Skills, Vol 1 and Vol 2, 2nd edition, W. W. Norton, 2011.
- Clendinning, Jane Piper, and Elizabeth Marvin. The Musician's Guide to Theory and Analysis, 2nd edition, W. W. Norton, 2010.
- D'Amante, Elvo. Music Fundamentals. Ardsley House Publishers, Inc., 1994.
- Duckworth, William. A Creative Approach to Music Fundamentals, 11th edition, Wadsworth Publishing, 2013.
- Gauldin, Robert. Harmonic Practice in Tonal Music, 2nd edition, W. W. Norton, 2004.
- Harder, Paul, and Greg Steinke. Basic Materials in Music Theory: A Programmed Approach, 12th edition, Pearson, 2009.
- Henry, Earl. Fundamentals of Music, 6th edition, Pearson, 2012.
- Horvit, Michael, and Timothy Koozin and Robert Nelson. Music for Ear Training, 3rd edition, Schirmer, 2009.
- Kostka, Stefan, and Dorothy Payne. Tonal Harmony with an Introduction to Twentieth-Century Music, 7th edition, McGraw-Hill, 2013.
(This is the text that Eastern Kentucky University uses for the 4-semester undergraduate music theory sequence)
- Laitz, Steven. The Complete Musician, 3rd edition, Oxford University Press, 2011.
- Ottman, Robert. Elementary Harmony: Theory and Practice, 5th edition, Pearson, 1997.
- Ottman, Robert, and Nancy Rogers. Music for Sight Singing, 8th edition, Pearson, 2010.
- Piston, Walter, and Mark DeVoto. Harmony. Norton, 5th edition, 1987.
- Roig-Francoli, Miguel. Harmony in Context, 2nd edition, McGraw-Hill, 2010.
- Spencer, Peter, and Barbara Bennett. The Practice of Harmony, 6th edition, Pearson, 2011.
- Turek, Ralph. The Elements of Music: Concepts and Applications, Vol 1 & 2, 2nd edition, McGraw-Hill, 1996.