Level Three **Violin** **$6.95**

Music Theory for Strings

Zamora Music

About the Author

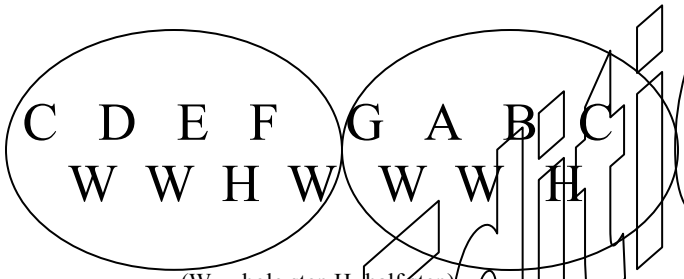
Kari Zamora is currently the orchestra director at Faubion Middle School in McKinney, Texas. Zamora received a Bachelor of Music Education from Hope College in Holland, Michigan and received a Master of Music in Music Theory from the University of Florida. While at the University of Florida, her presentation of her graduate thesis connecting serialism to passacaglias won first place in the Fine Arts Graduate Student Forum. Zamora is also a composer creating pieces for middle school string orchestras. She has a passion teaching strings as well as teaching practical theory skills that are meaningful to performance.

Acknowledgements

Mark Zamora, printing and publication
Glenn Zamora, illustration and designs
Michael Link, editing

Major Scales--Review

A major scale is made up of 8 notes total. It is also the combination of two major tetrachords joined with a whole step. The notes of a scale move by step and a scale should ALWAYS begin and end on the same note name.



(W=whole step H=half step)

1. **How many notes are in a scale?**

2. **How many tetrachords are in a scale?**

3. **What is the half/whole step pattern for all major scales?**

4. **Write out the following scales ascending. The first note has been given for you. Be careful to mark sharps by the correct notes. Circle each tetrachord when you are finished and mark all of the half and whole steps**

Eb

F

Natural Minor Scale—Review

There are three different forms of minor scales: natural, harmonic, and melodic. The first focus will be on the **natural minor scale.** The scale is called natural because there are no accidentals used in the scale. Here is the whole and half step pattern for a natural minor scale. The first tetrachord used is a minor tetrachord.

Scale Degrees:	1	2	3	4		5	6	7	8
Note Names:	A	B	C	D		E	F	G	A
Half/Whole steps:	W	H	W		W		H	W	W

The A natural minor scale

Notice that it uses the same key signature as C major

(all minor scales use the key signature of the major scale three half steps higher)

1. **Looking at the scale degrees in the chart above, which scale degrees do half steps fall between in a natural minor scale?**

   _____

2. **Write an F natural minor scale on the staff below using whole notes. Include your clef and the correct key signature.**

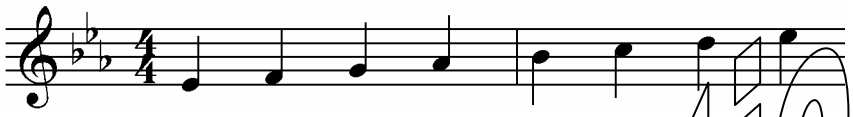
3. **Write a B natural minor scale on the staff below using half notes. Include your clef and the correct key signature.**

4. **What is the whole step/half step pattern for all natural minor scales?**

5. **Which scale degrees do half steps fall between in a *major* scale?**

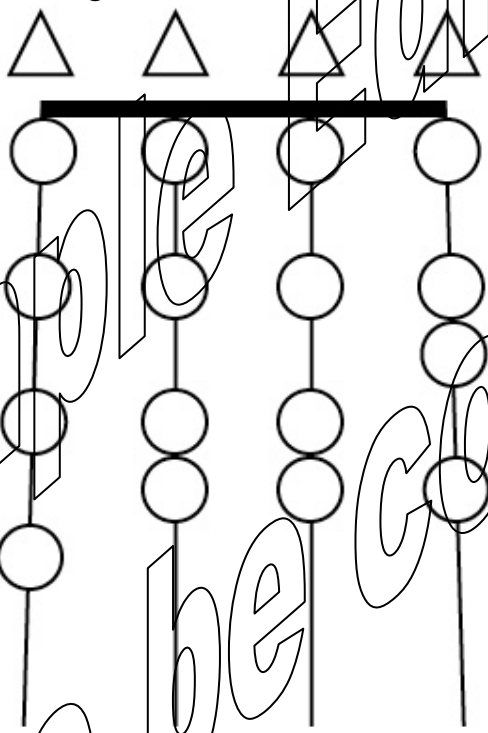
The Eb major scale

The Eb major scale has three flats—Bb, Eb and Ab. They always appear in that order. Remember that the presence of flats in a key means the absence of sharps. F and C are natural!



The Eb major scale ascending (going up)
Notice that it consists of the Eb and Bb major tetrachords.

1. Write the note names for all open strings, then write the note names in the circles on the D and A strings.

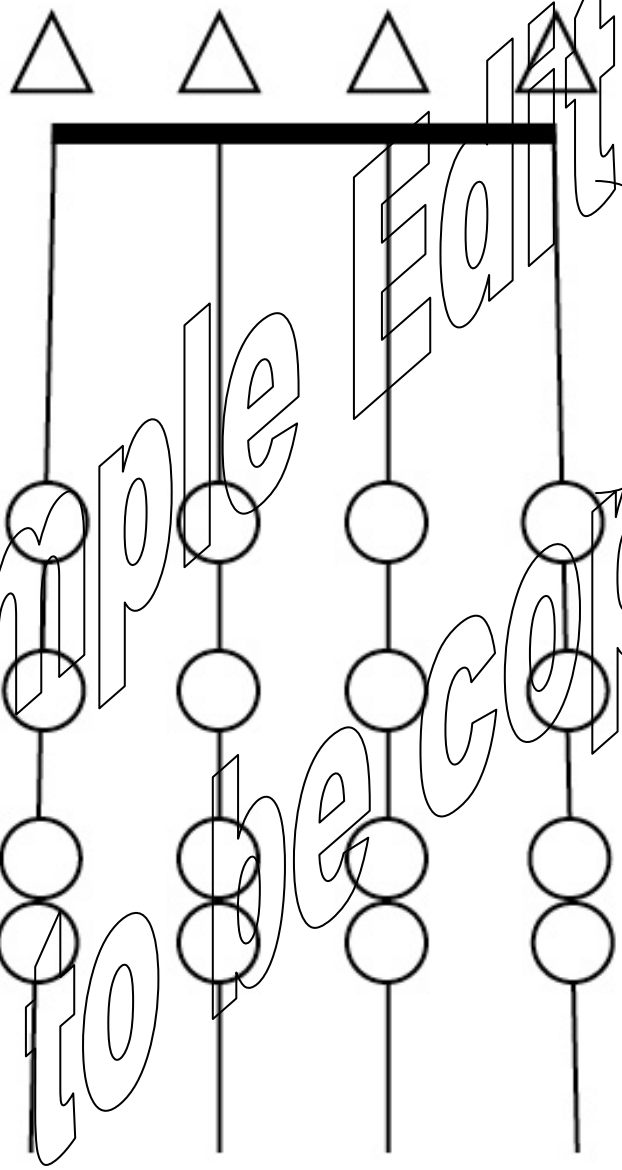


2. Write the notes of the Eb major scale DESCENDING in quarter notes on the staff below. Don't forget to add your clef and key signature at the beginning of the line!

Finger pattern #4 in Third Position

Finger pattern 4 (H3/augmented) can also be found in third position. The following exercises include finger pattern 4 in third position.

Fill in the note names on all four strings in third position.

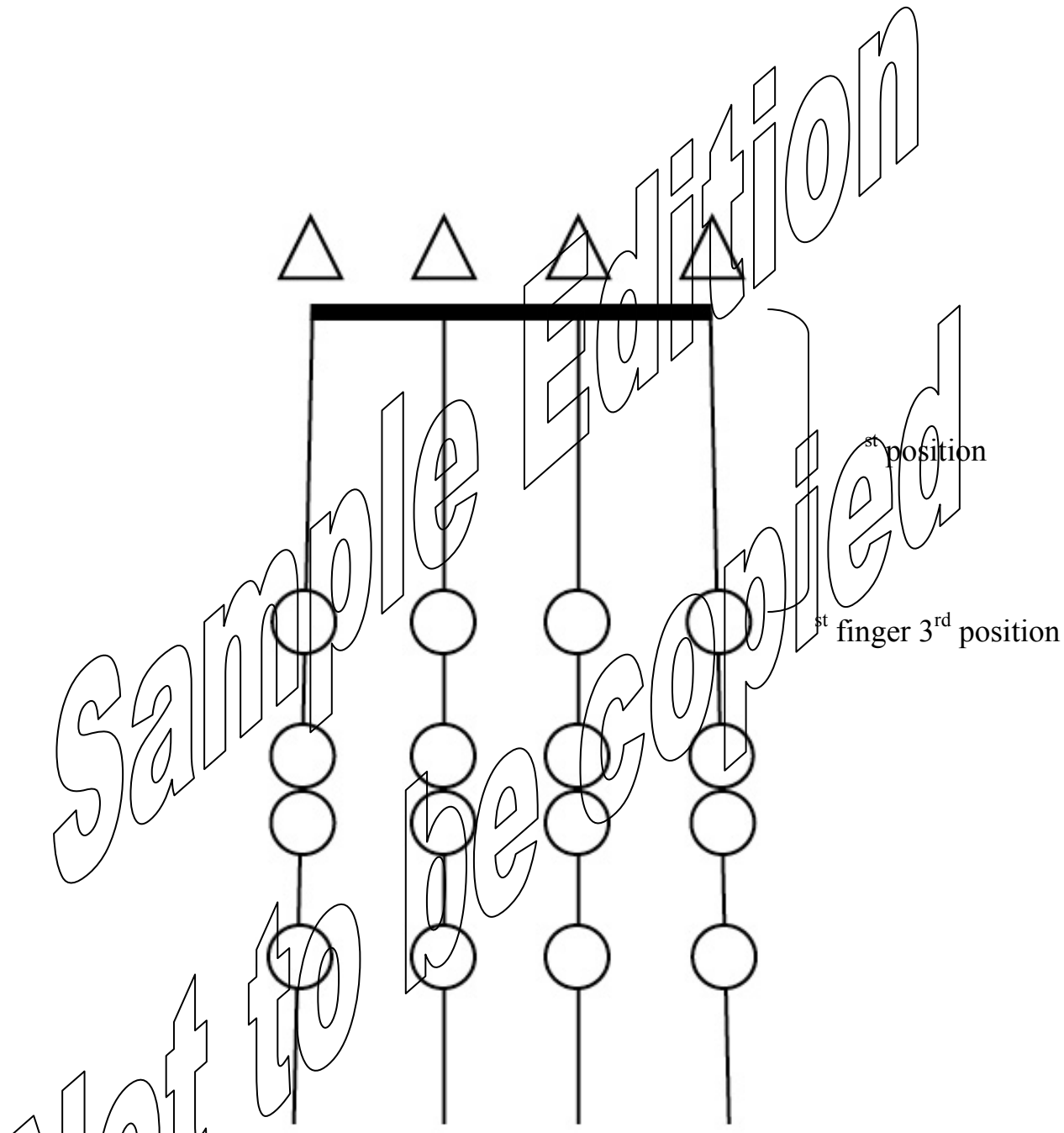


First position

← 1st finger, 3rd position

Finger Pattern #1 in Third Position

Finger pattern #1(H2/major) is frequently seen in other positions. The following exercise refers to finger pattern #1 in third position specifically.



Harmonic Minor Scale

The harmonic minor scale is exactly like the natural minor scale **but** the seventh scale degree is raised a half step from the note in the key signature. This creates an **augmented second** (the distance of 3 half steps or a whole step plus a half step) between the 6th and 7th notes in the scale. Here is the whole and half step pattern for a harmonic minor scale. The first tetrachord used is a minor tetrachord.

Scale Degrees: 1 2 3 4 5 6 7 8
Note Names: A B C D E F G# A
Half/Whole steps: W H W W H A H

The A harmonic minor scale

Notice that it uses the same key signature as C major

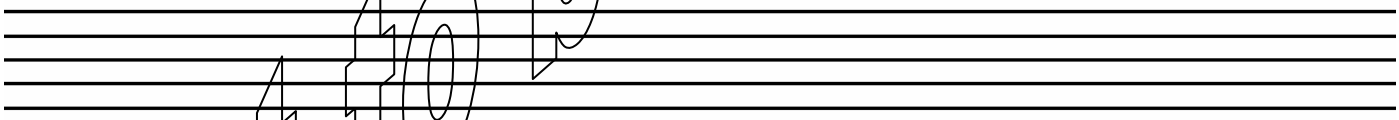
(all minor scales use the key signature of the major scale three half steps higher)

1. **Looking at the scale degrees in the chart above, which scale degrees do half steps fall between in a harmonic minor scale?**

   _____

2. **Write an E harmonic minor scale on the staff below using whole notes. Include your clef and the correct key signature.**

3. **Write a C harmonic minor scale on the staff below using half notes. Include your clef and the correct key signature.**



4. **What is the whole step/half step pattern for all harmonic minor scales?**

5. **What is the name of the interval that falls between the 6th and 7th scale degrees in a harmonic minor scale?**

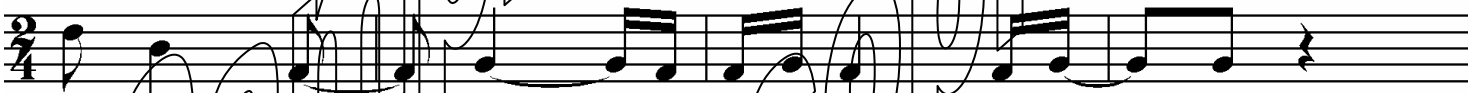
Counting Advanced rhythms with ties

Using parentheses to show the beats that rhythms are tied through is helpful when decoding complex rhythms.

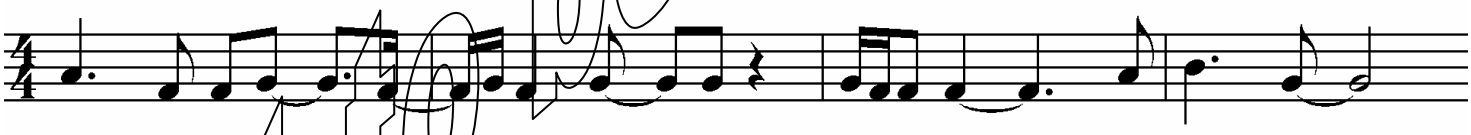
1 e +(a) (2 e) + a

1. Count the following rhythm.

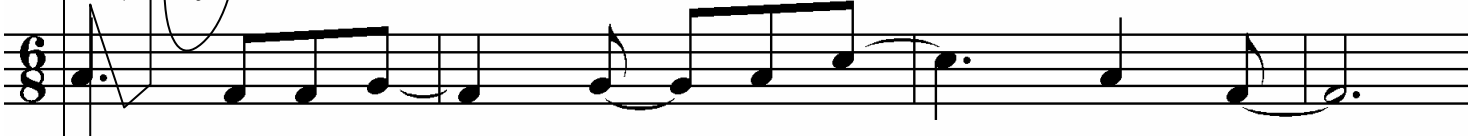
2. Count the following rhythm.



3. Count the following rhythm.



4. Count the following rhythm



Melodic Minor Scale

The melodic minor scale is different ascending than it is descending. The ascending form of the melodic minor scale has the 6th and 7th scale degrees each raised by a half step from the natural minor form. This part of the scale is created by a minor tetrachord followed by a major tetrachord. The descending melodic minor scale is identical to the natural minor scale. Here is the whole and half step pattern for a melodic minor scale.

Scale Degrees: 1 2 3 4 5 6 7 8 8 7 6 5 4 3 2 1
Note Names: A B C D E F# G# A A G F E D C B A
Half/Whole steps: W H W W W W H W W H W W H W

The A melodic minor scale

Notice that it uses the same key signature as C major

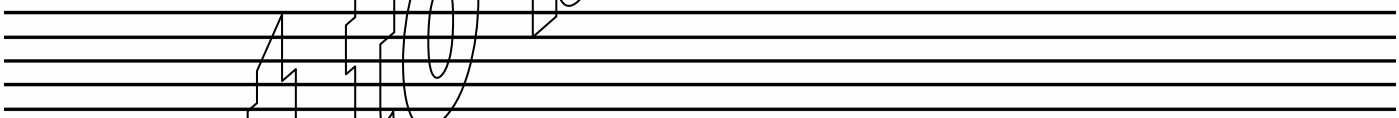
(all minor scales use the key signature of the major scale three half steps higher)

1. **Looking at the scale degrees in the chart above, which scale degrees do half steps fall between in an ascending melodic minor scale?**

   _____

2. **Write a D melodic minor scale on the staff below using whole notes. Include your clef and the correct key signature.**

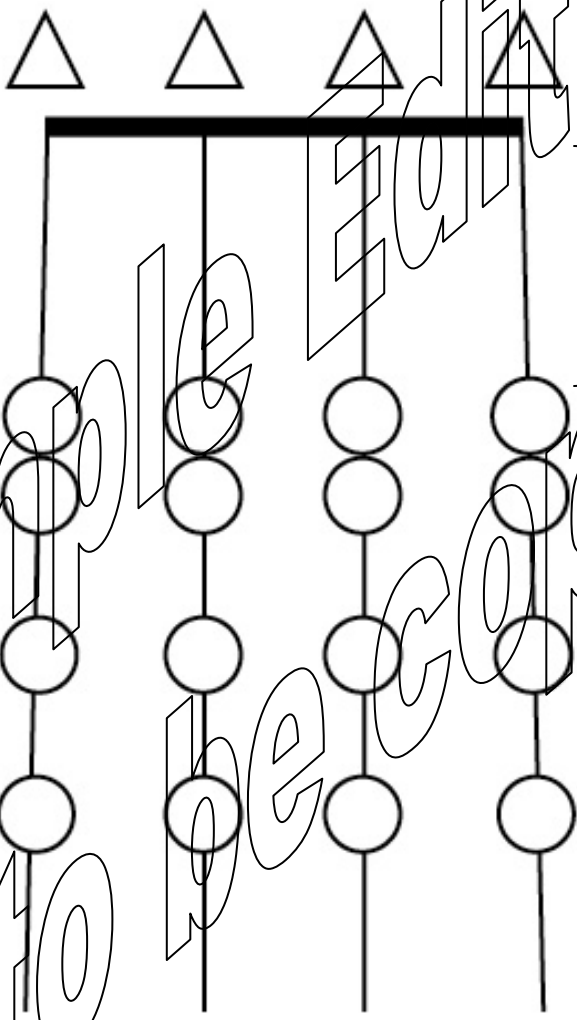
3. **Write a G melodic minor scale on the staff below using half notes. Include your clef and the correct key signature.**



4. **The melodic minor scale descending is the same pattern as what other scale?**

Finger Pattern #2 in Third Position

Finger pattern #2 (L2/minor) is seen frequently in position. The following exercises refer



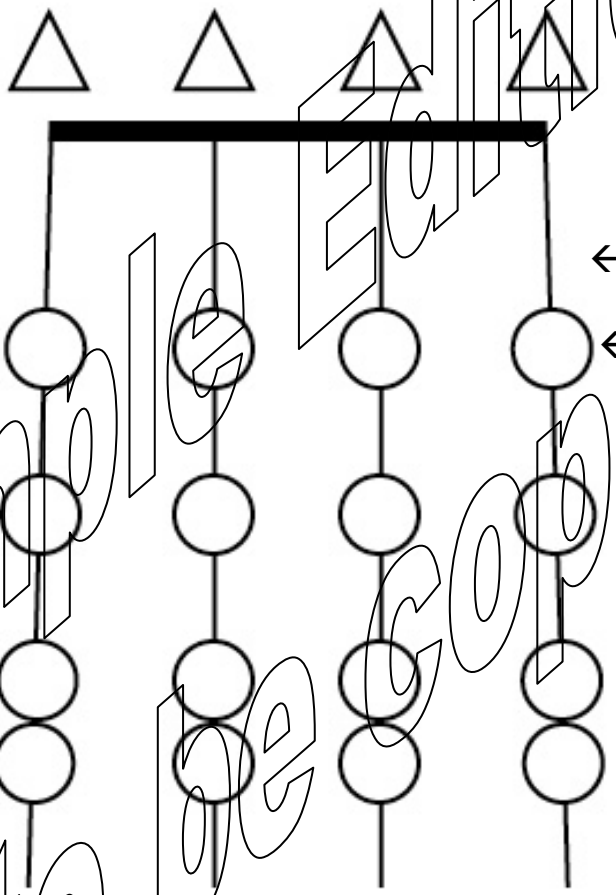
st Position

st finger in 3rd position

Finger Pattern #4 in Second Position

Finger Pattern 4 (augmented) can show up in many positions. The following exercises refer to second position.

Fill in the names of the notes on all four strings in second position (starts with first finger on L2).



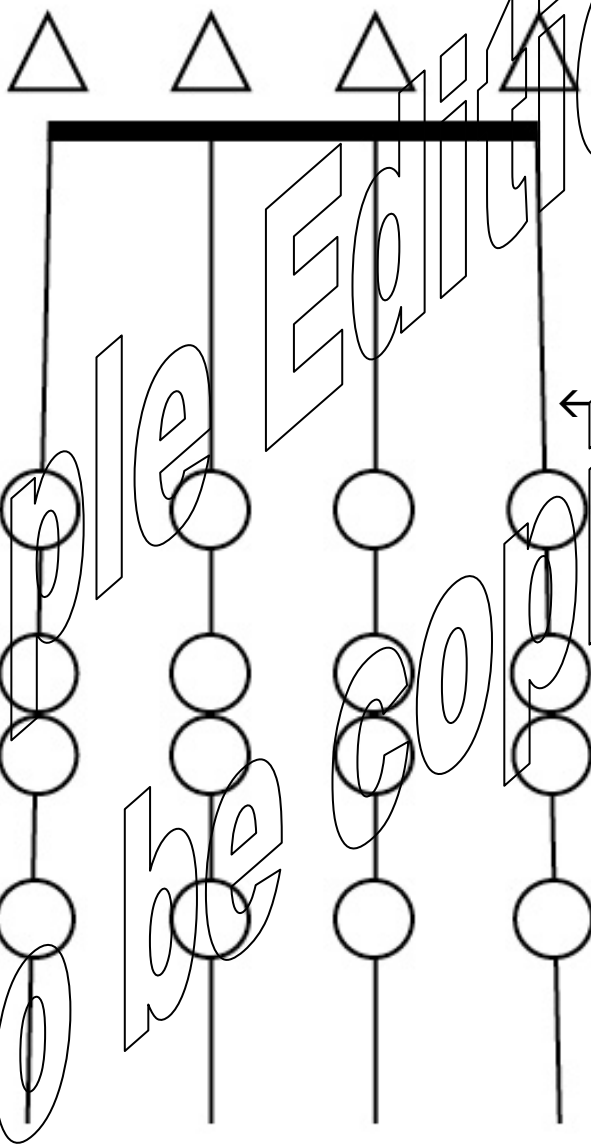
←1st finger, 1st position

←L2, 1st position/
1st finger, 2nd position

Finger pattern #1 in Second Position

Finger pattern 1 (H2/major) can also be found in second position. The following exercises use finger pattern 1 in second position where first finger is on L2.

Fill in the note names on all four strings in second position.



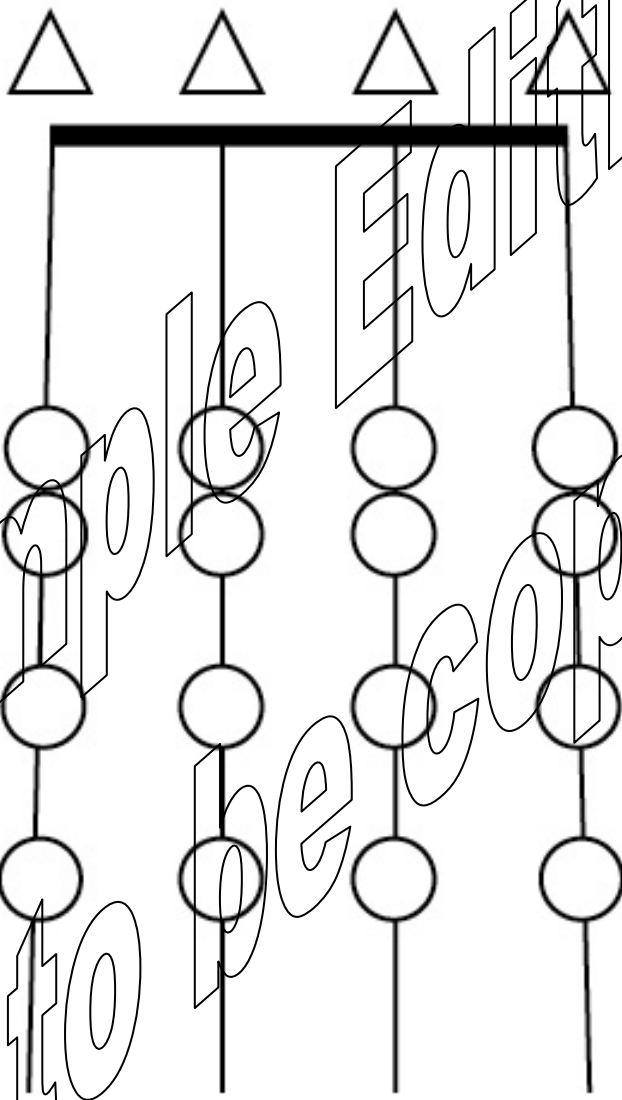
←1st finger, 1st position

←L2, 1st position/1st finger, 2nd position

Finger pattern #2 in Second Position

Finger pattern 2 (L2/minor) can also be found in second position. The following exercises use finger pattern 2 in second position where first finger is on H2.

Fill in the note names on all four strings in second position.

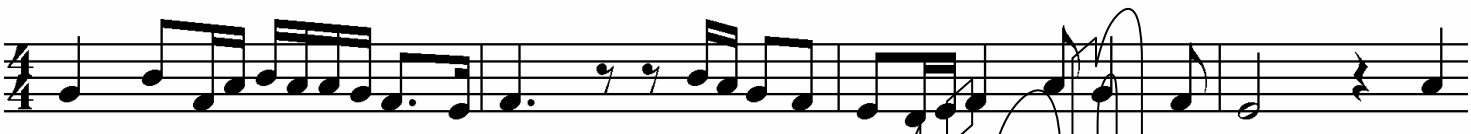


←1st finger, 1st position

←H2, 1st position/1st finger, 2nd position

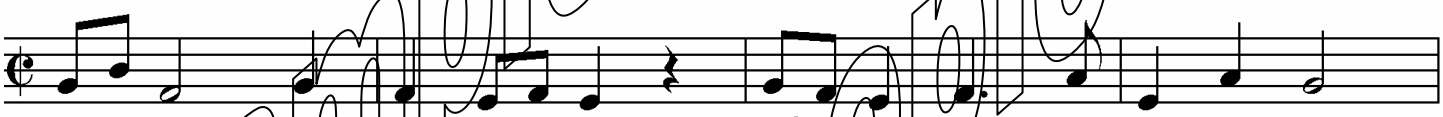
Rhythm Counting Review

1. Count the following rhythm.



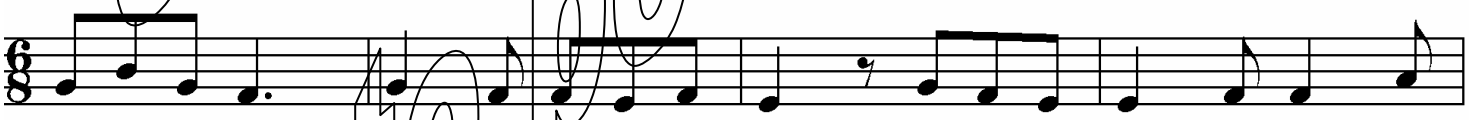
2. Count the following rhythm.

3. Count the following rhythm.



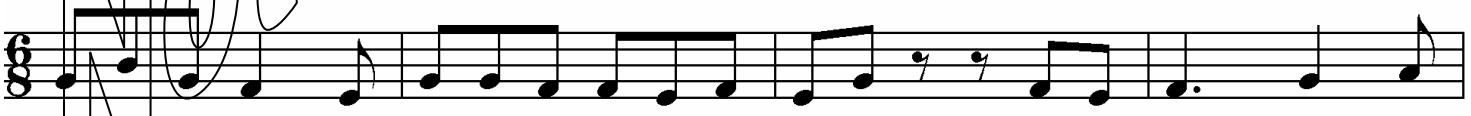
4. Count the following rhythm.

Presto



5. Count the following rhythm.

Adagio



Enharmonics--Review

Two notes which are the same in pitch (sound the same) but are spelled differently with different note names are called enharmonics or enharmonic equivalents.

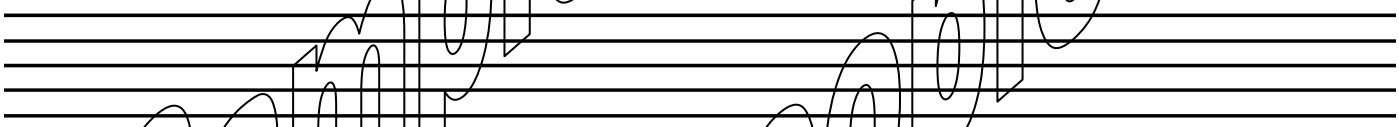
1. Name the enharmonic equivalent for the given note

A#_____ F_____ Db_____ Ab_____ E#_____

C#_____ Fb_____ Ab_____ F#_____ Gb_____

Eb_____ Bb_____ D#_____ B#_____ C_____

2. On the staff below, draw the enharmonic equivalent for the note listed under the staff using quarter notes.



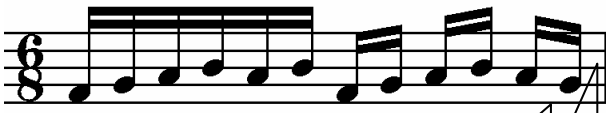
Gb D# B Ab Bb C# E F# Db A# G#

3. Circle the pairs of enharmonics that are correct in the sets below.

C# Db E# Fb B# Ab Gb F# Cb B Gb A# Eb D#

Counting Sixteenth Notes in 6/8

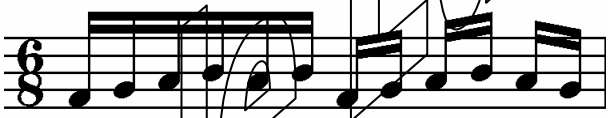
How sixteenth notes are counting in 6/8 time signatures depends on the tempo of the piece. If the tempo is slower and every eighth note is receiving the pulse, the sixteenth notes would be counted:



1 + 2 + 3 + 4 + 5 + 6 +

(notice the different types of beaming that can occur)

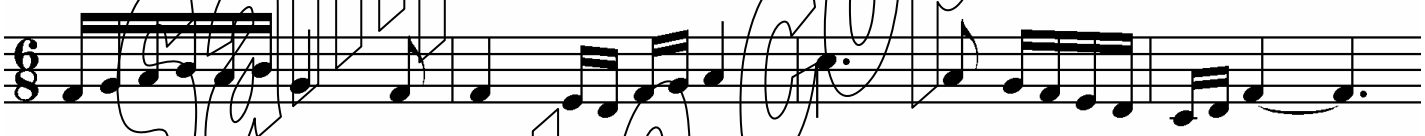
If the tempo is faster and the dotted quarter is receiving the pulse the sixteenth notes could be counted:



1 ta la ta le ta 2 ta la ta le ta

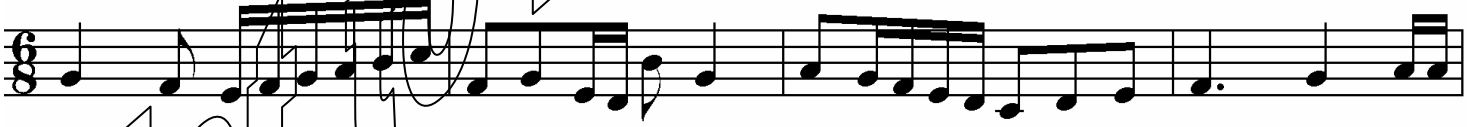
1. Count the following rhythm.

Adagio



2. Count the following rhythm.

Allegro



3. How many beats does a sixteenth note receive in a fast 6/8 time signature?

4. **How many beats does a sixteenth note receive in a slow 6/8 time signature?**

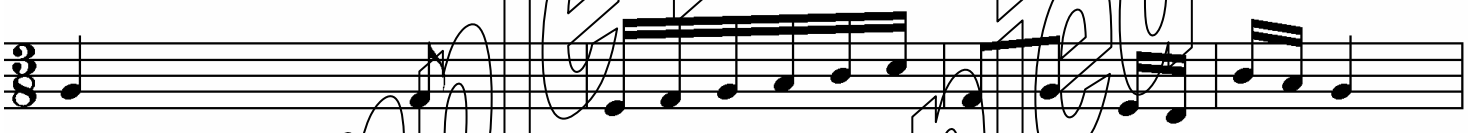
Rhythms in 3/8, 9/8, and 12/8

Time signatures of 3/8, 6/8, 9/8, and 12/8 are all compound time signatures since in a faster tempo, the beat (the dotted quarter note) is divided into three parts. Counting rhythms in 3/8, 9/8, and 12/8 time follow the same formula as the rhythms in 6/8 time. The difference in both tempos is the total number of beats per measure. This table helps to compare all of these compound time signatures.

Time Signature	Fast Tempo	Slow Tempo
3/8	1 beat to a measure	3 beats to a measure
6/8	2 beats to a measure	6 beats to a measure
9/8	3 beats to a measure	9 beats to a measure
12/8	4 beats to a measure	12 beats to a measure

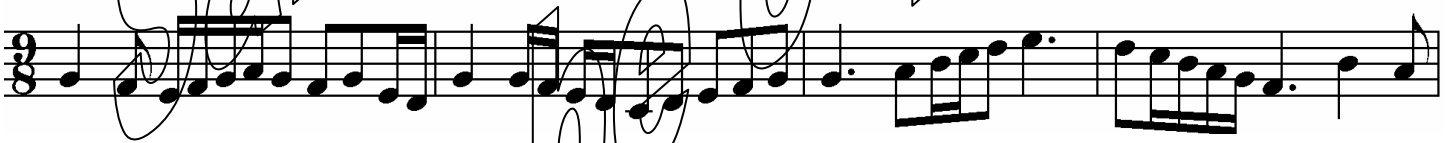
1. Count the following rhythm.

Vivace



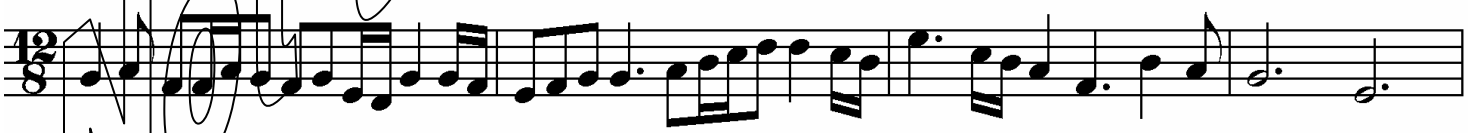
2. Count the following rhythm.

Largo



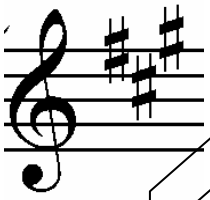
3. Count the following rhythm.

Allegro



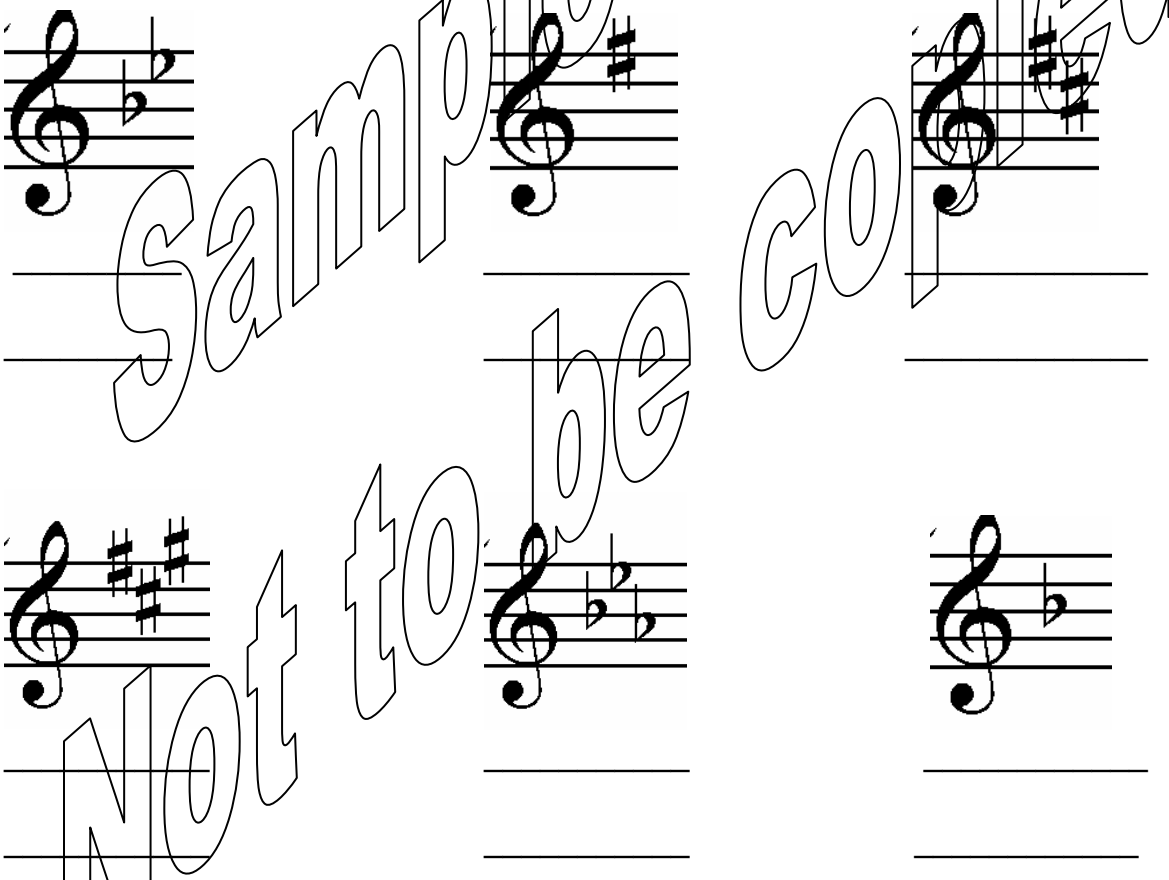
Key Signatures—Review

Name the following sharps and flats in the key signatures and then tell which major AND minor scales to which that key signature belongs. Remember that the name of the minor key signature is three half steps lower than the major key signature.



F, C, and G would be sharp
Key of A major, F# minor

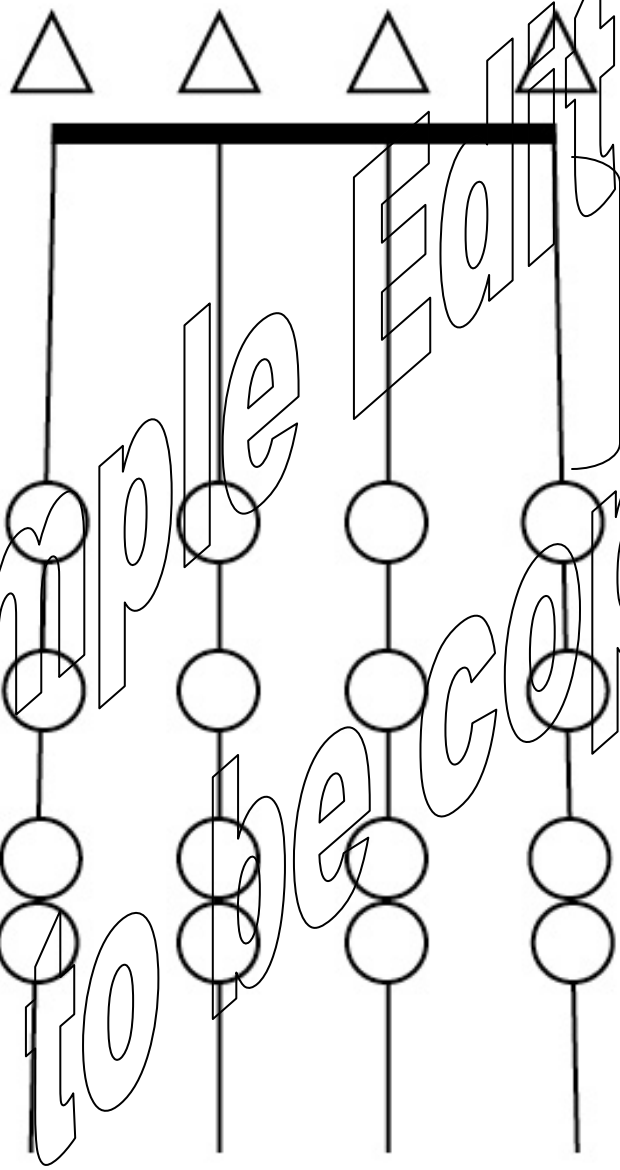
Name the sharps or flats in the key signatures in the order that they appear



Finger pattern #4 in Fourth Position, Part One

Finger pattern 4 (H3/augmented) can also be found in fourth position. The following exercises include finger pattern 4 in fourth position where first finger would be located on L4.

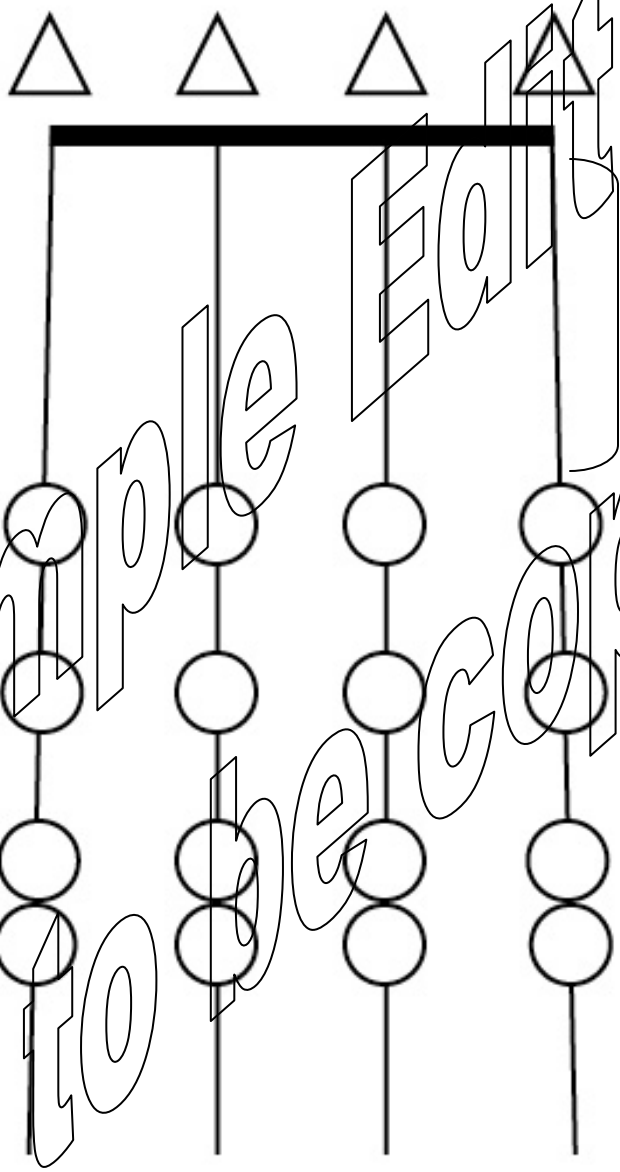
Fill in the note names on all four strings in fourth position.



First position

←1st finger, 4th position/
L4, 1st position

Finger pattern #4 in Fourth Position, Part 2

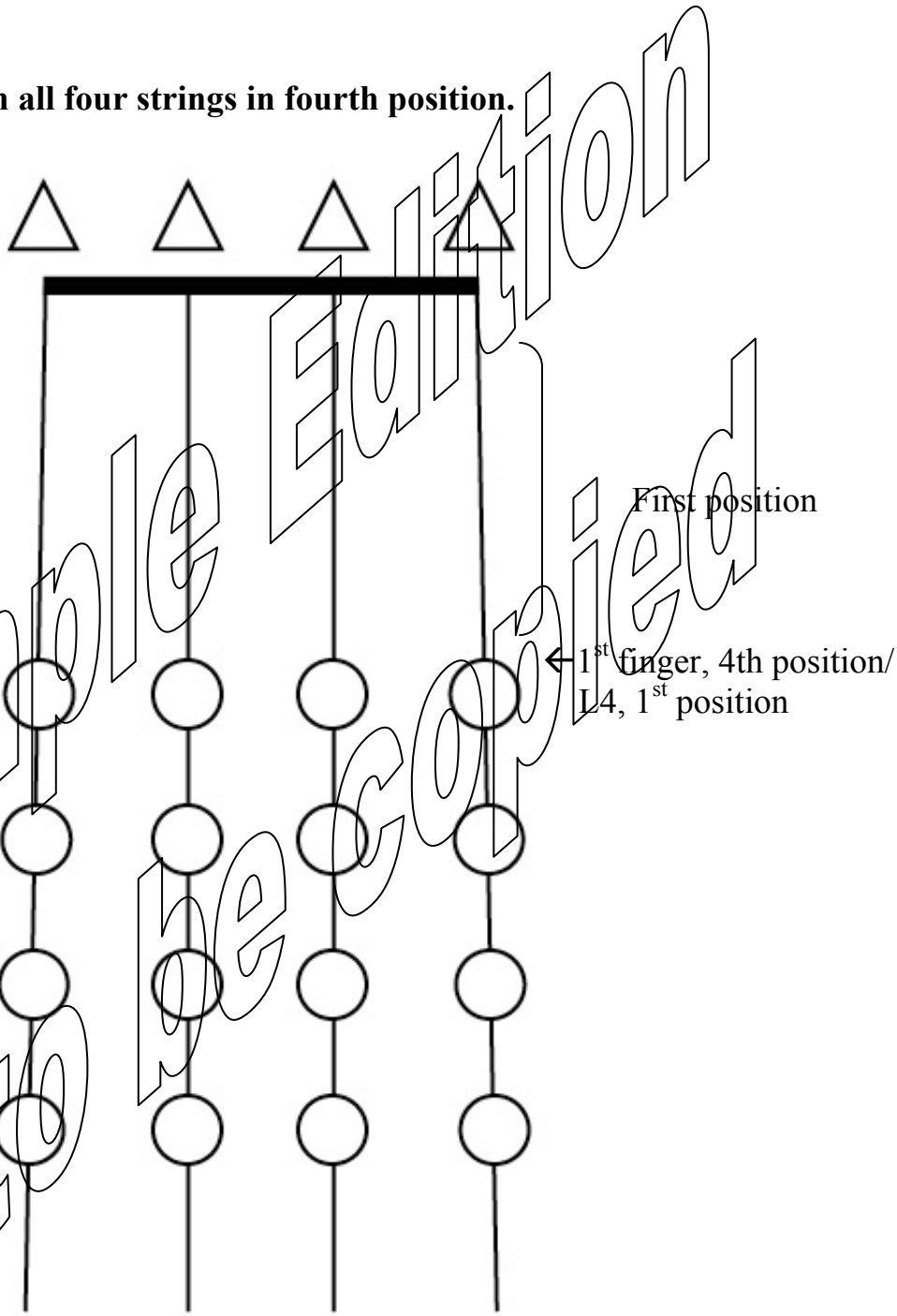


4th finger, 4th position/
4th finger, 1st position

Finger pattern #3 in Fourth Position

Finger pattern 3 (L1/augmented) can also be found in fourth position. The following exercises include finger pattern 3 in fourth position where first finger would be located on L4.

Fill in the note names on all four strings in fourth position.



Two Octave Scales

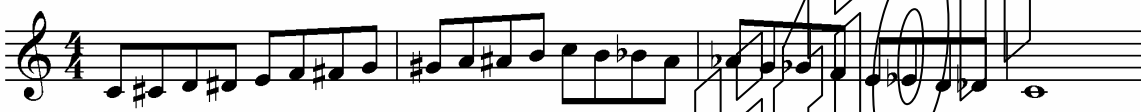
1. **Write the G major two octave scale ascending and descending using dotted half notes. Include your clef sign and label the notes below the staff.**

2. **Write the C major two octave scale ascending and descending using half notes. Include your clef sign and label the notes below the staff.**

3. **In the above two scales, write the fingerings and positions above the notes as you would play them on your instrument. Label every note.**

The Chromatic Scale

A chromatic scale has a total of twelve notes separated each by a half step. When the scale ascends, sharps are used. When the scale descends, flats are used. Be cautious of the natural half steps between E-F and B-C. Notice that this is VERY different from a major or minor scale.



1. Write an ascending chromatic scale starting on open G using whole notes

2. Write a descending chromatic scale starting on open E using half notes

3. Write a chromatic scale ascending AND descending starting on open D

4. How many notes are in a chromatic scale?

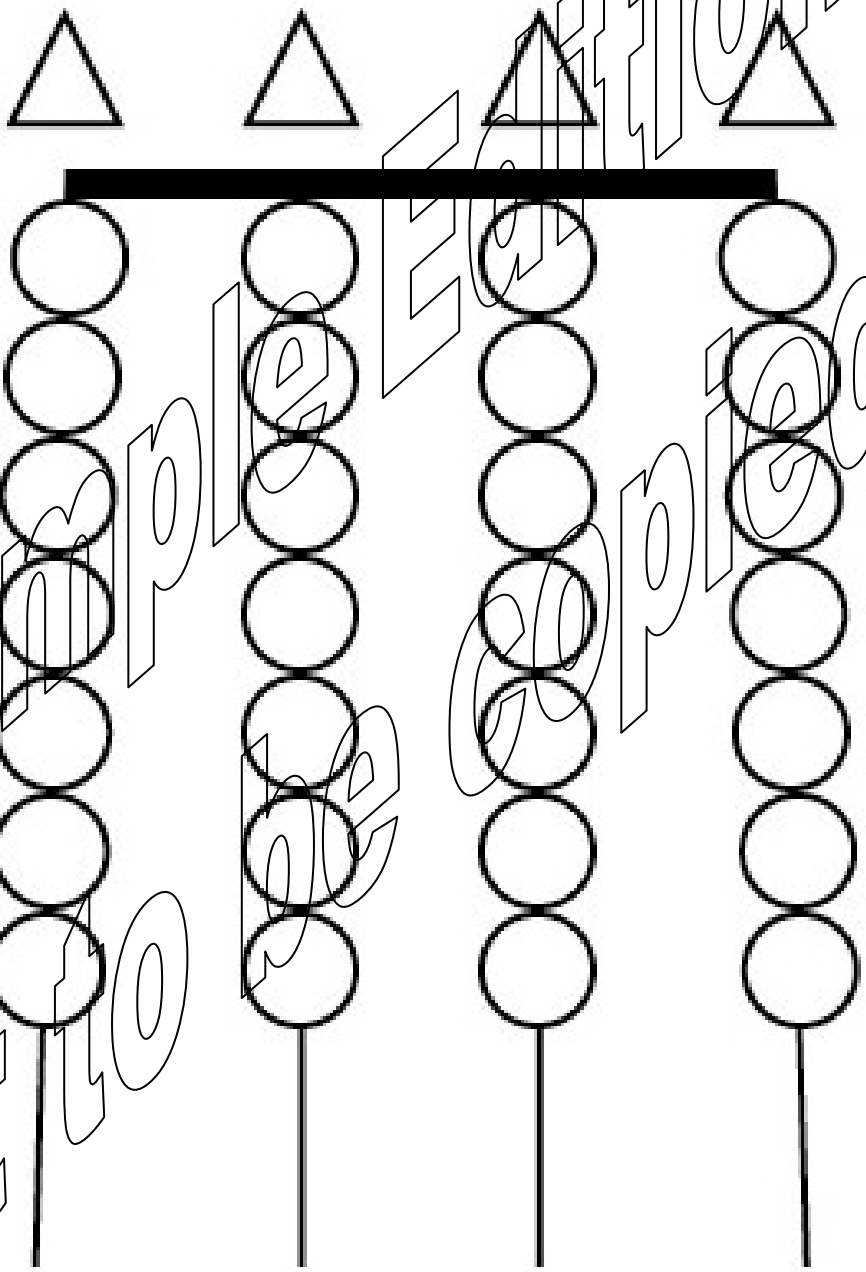
5. What is the half step/whole step pattern used in a chromatic scale?

6. When should flats be used in a chromatic scale?

7. **When should sharps be used in a chromatic scale?**

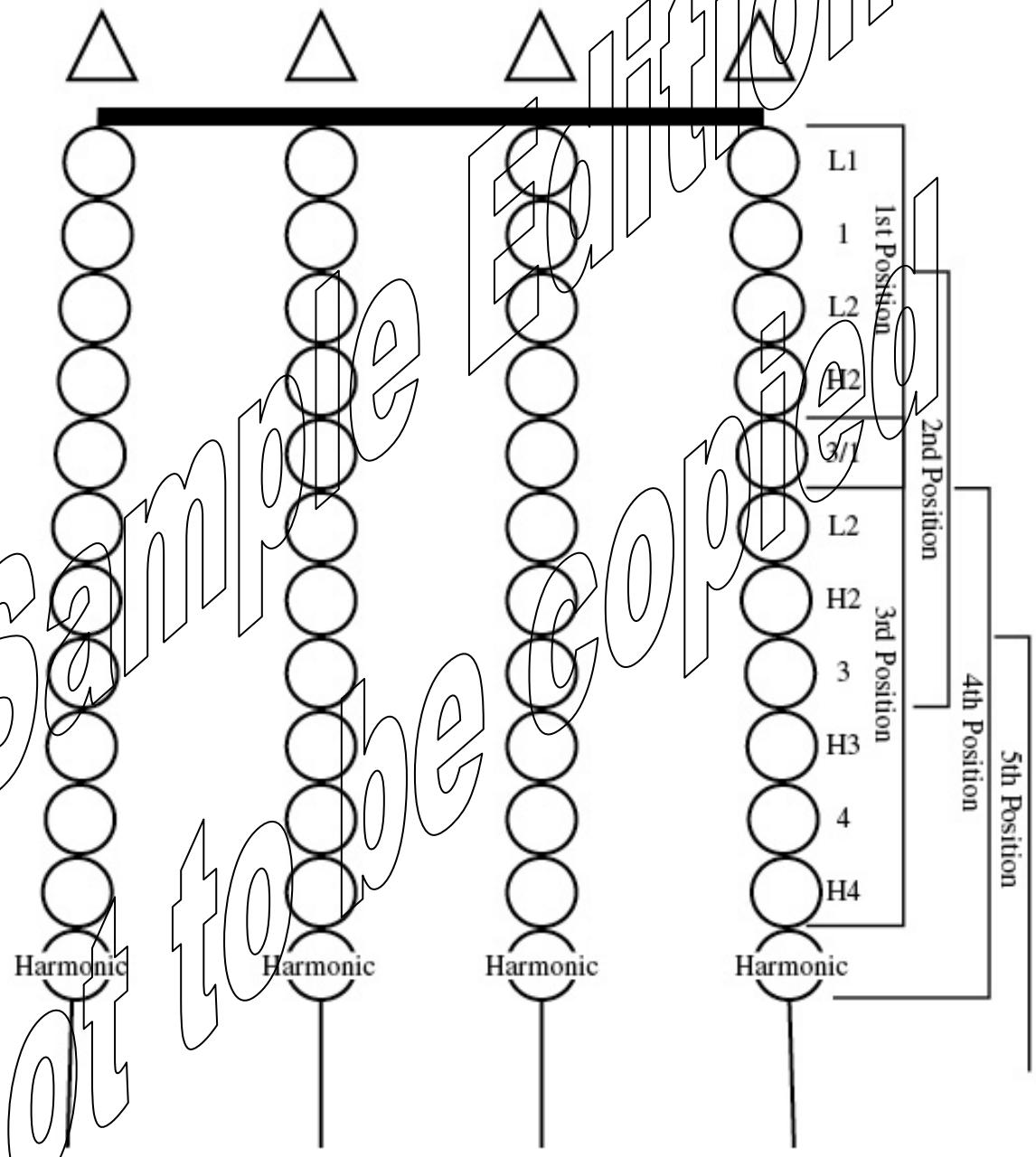
More Chromatics and Enharmonics

Fill out the chromatic fingering chart below for your instrument. Write the names of enharmonics where applicable. For example, write "A#/Bb" and not just "Bb".



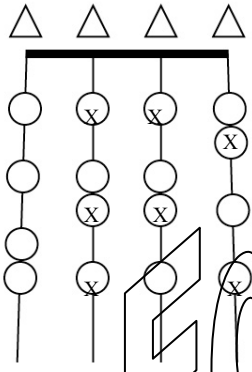
More Chromatics and Enharmonics in Position

Fill out the chromatic fingering chart below for your instrument from the lowest note up to the harmonic on each string. Write the names of enharmonics where applicable. For example, write "A#/Bb" and not just "Bb".

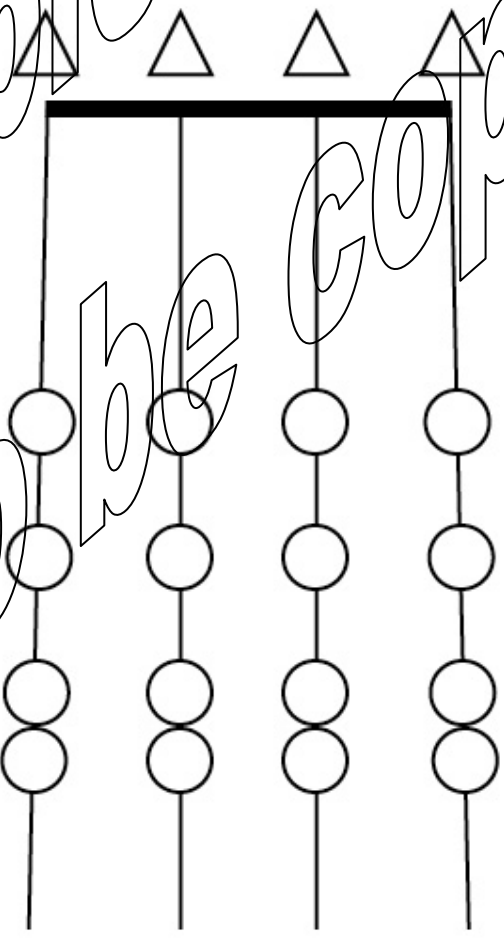


Matching Notes in position

From the following diagram in first position, transfer the notes with an "x" to their correct places on the third position diagram at the bottom. Use note names in the diagram.



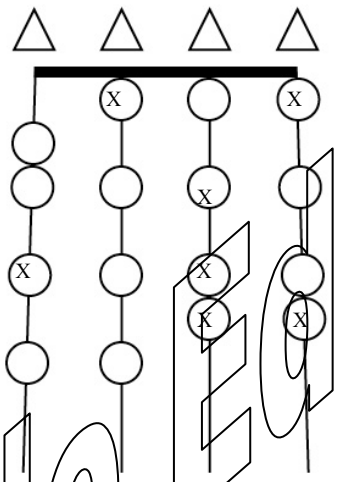
Key of D major



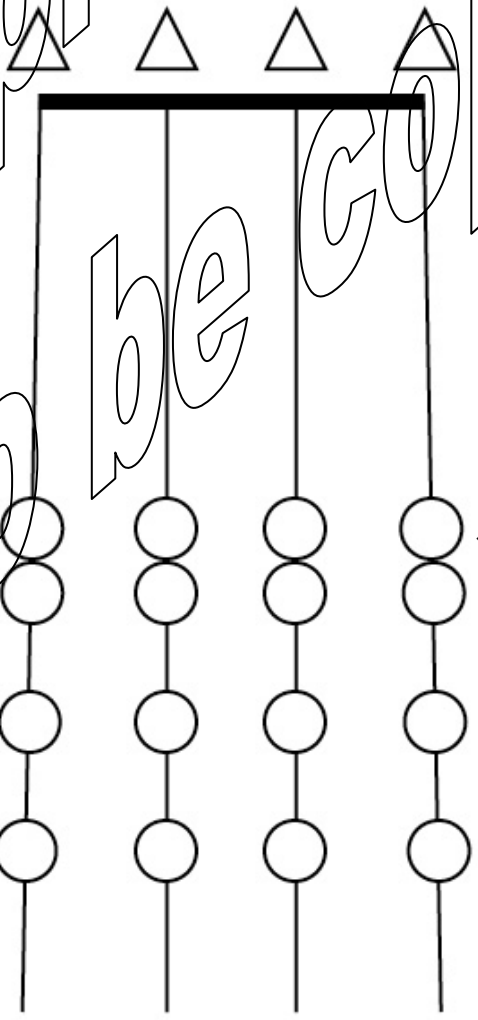
←1st finger, 3rd position

Matching Notes in position

From the following diagram in first position, transfer the notes with an "x" to their correct places on the third position diagram at the bottom. Use note names in the diagram.



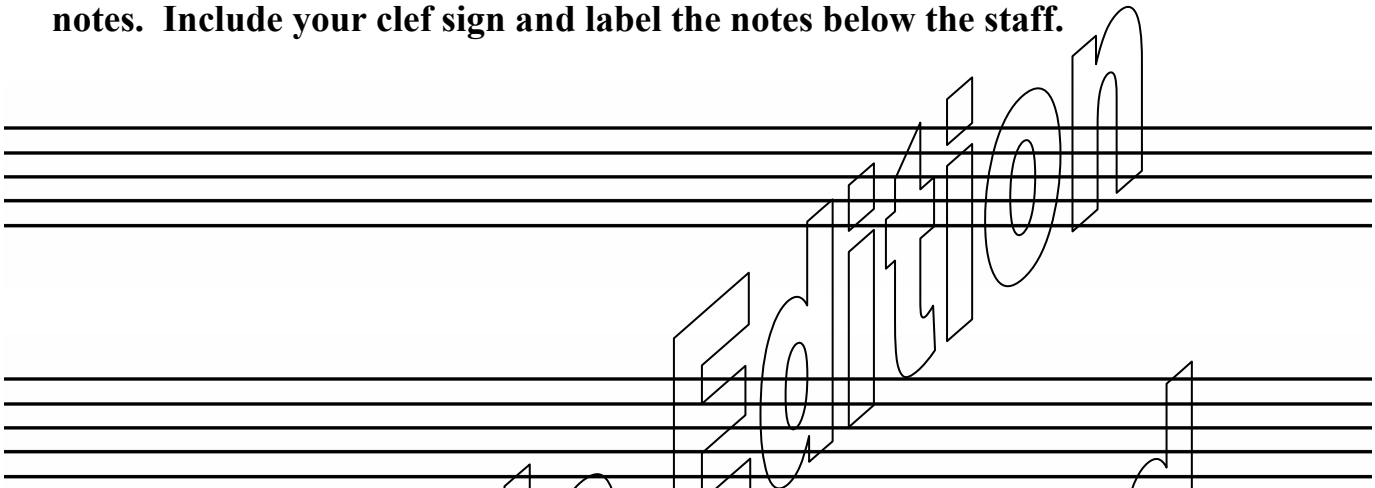
Key of Bb major



←1st finger, 3rd position

Two Octave Scales, Part Two

1. **Write the F major two octave scale ascending and descending using dotted half notes. Include your clef sign and label the notes below the staff.**

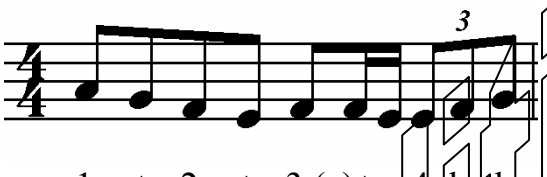


2. **In the above scale, write the fingerings and positions above the notes as you would play them on your instrument. Label every note.**

3. **Write out a two octave chromatic scale ascending and descending in whole notes starting on B. Write the note names below the notes.**

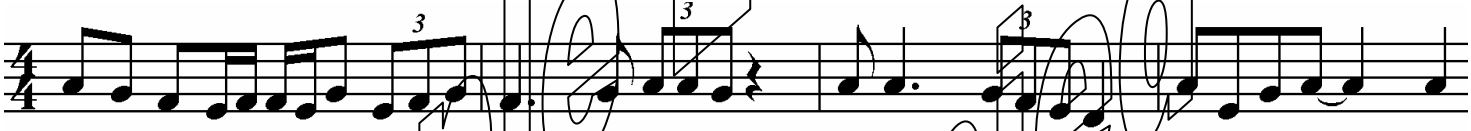
Triplets

Sometimes in a simple time signature, a subdivision of three can occur. When this happens, they are designated as triplets with a "3" placed above or below the set of notes. Here is an example showing how they would be counted:



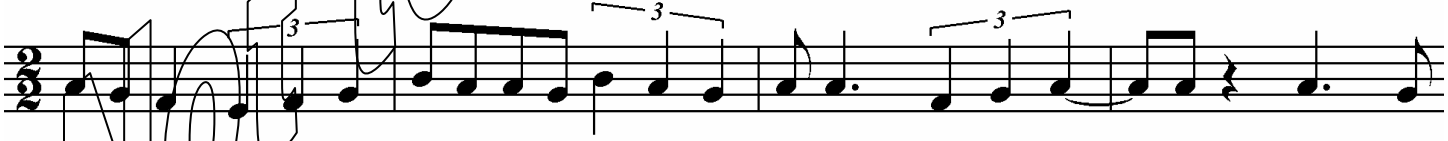
1 + 2 + 3 (e)+a 4 la le

1. Count the following rhythm.



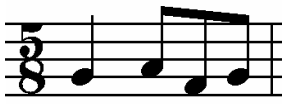
2. Count the following rhythm.

3. Count the following rhythm.



Complex Time Signature

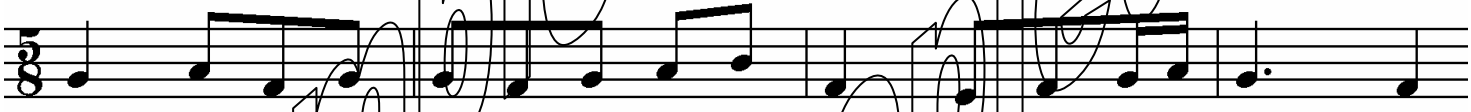
When a time signature has a mixture of compound and simple time signature elements and does not fit into one category it is often called complex, irregular, or asymmetric.



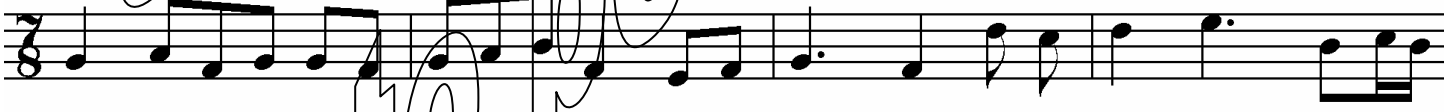
1(+) 2 la le

Part of the measure has a subdivision of two (simple time) and part of the measure has a subdivision of three (compound time). Complex time signatures are usually counted with the quarter note or dotted quarter note receiving the pulse; however, the eighth note receiving the pulse could still occur.

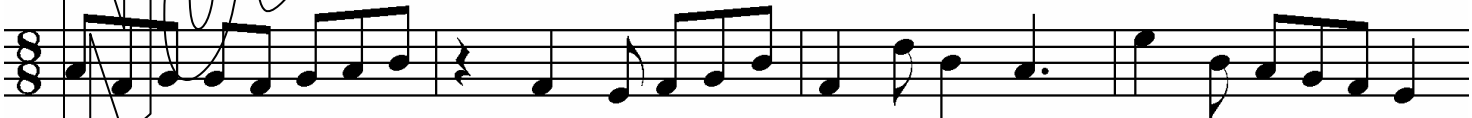
1. **First mark a star over the main beats in the measures, then count the following rhythm.**



2. **First mark a star over the main beats in the measure, then count the following rhythm.**

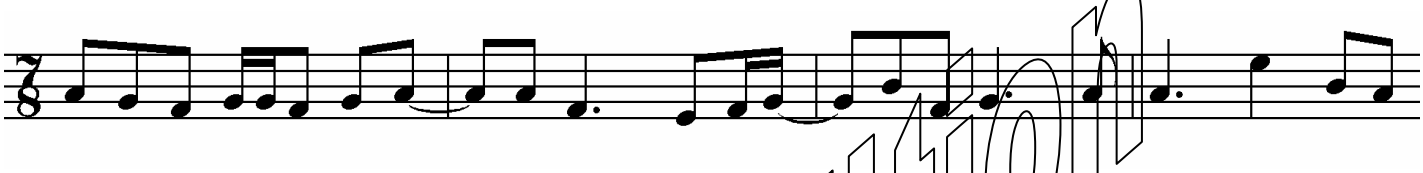


3. **First mark a star over the main beats in the measure, then count the following rhythm.**



Rhythm Counting Review

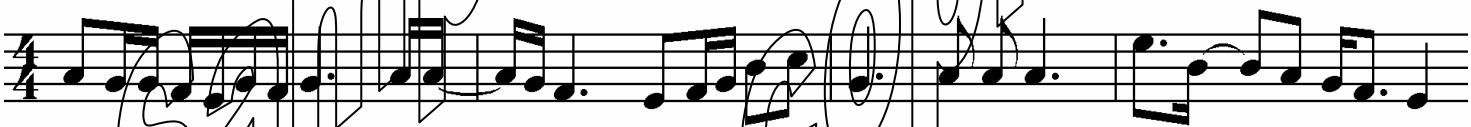
1. Count the following rhythm.



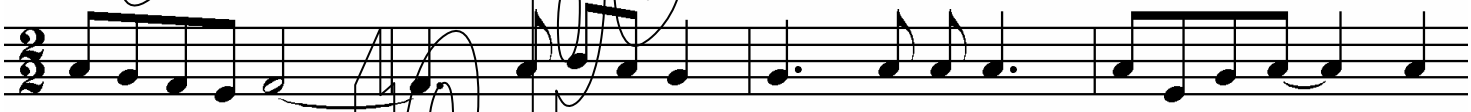
2. Count the following rhythm.

Allegretto

3. Count the following rhythm.



4. Count the following rhythm.



5. Count the following rhythm.