MUSIC THEORY

INSTRUCTOR'S GUIDE

LEVEL 4

MUSIC AND ARTS MINISTRIES
CANADA AND BERMUDA

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Review of Level 3

A **major** scale is formed using **tones** and **semitones** in the following pattern (ascending): T T S T T T S

Key signatures appear to the right of the clef sign and to the left of the time signature.

The key of:

C major – has no sharps or flats

G major – has one sharp (F#)

F major – has one flat (Bb)

Number of half, quarter, eighth and sixteenth notes in a whole note:

1 Whole note	
2 Half Notes	
4 Quarter Notes	
8 Eighth Notes	
16 Sixteenth Notes	

A **dot** after a note adds half the length of the note.

Beams can be used to group eighth and sixteenth notes together to make music easier to read.

One beam is used for eighth notes:

Two beams are used for sixteenth notes:

A **tie** is a curved line that joins two notes of the **same** pitch. The sound is held for the total value of all the notes tied together.

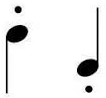
A **slur** is a curved line that joins two or more notes of a **different** pitch. The notes should be played or sung smoothly.

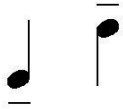
When counting eighth notes, we **say** "1 and" and **write** "1+."

When counting sixteenth notes, we **say** "1 ee and ah" and write "1 e + a."

Articulation is the way notes are played.
Legato means that the notes should be played in a *smooth, connected style.*
Marcato means *in a marked style.*

An **accent** is a note brought out louder than the other notes:

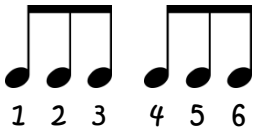
A **staccato** note is played short: 

A **tenuto** note should be held for its full value and given slight emphasis: 

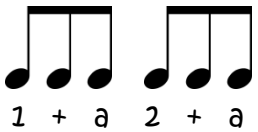
Metronome markings tell us how fast to play based on the number of beats per minute.

6/8 is a **compound time signature** because each compound beat can be divided into *three* parts (three eighth notes). In 6/8 time, there are two compound beats (two groups of three) in each measure.

At a **slow** tempo, 6/8 can be counted as six simple beats in a bar.



At a **fast** tempo, 6/8 is counted in compound beats: 1 + a, 2 + a



Lesson 4.1 – Major Scales

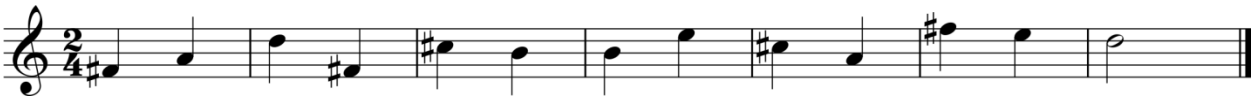
Recall that a scale is built upon a specific pattern of tones (T) and semitones (S):

T T S T T T S

Using this pattern, we can write the notes of a major scale starting on any note.

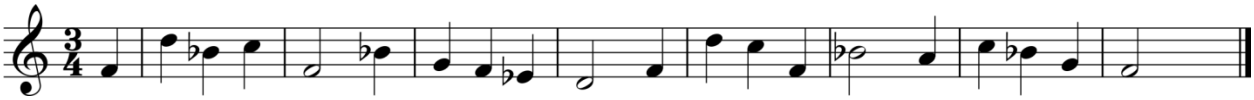
D Major and Bb Major

Look at the following melody. What do you notice about the notes?



This melody has two sharps - F# and C#. It is in the key of **D major.**

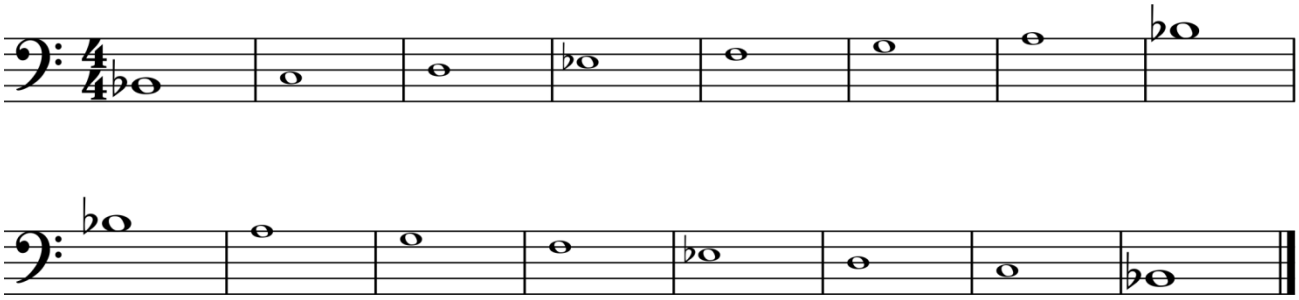
Now, look closely at this melody. What do you notice about the notes?



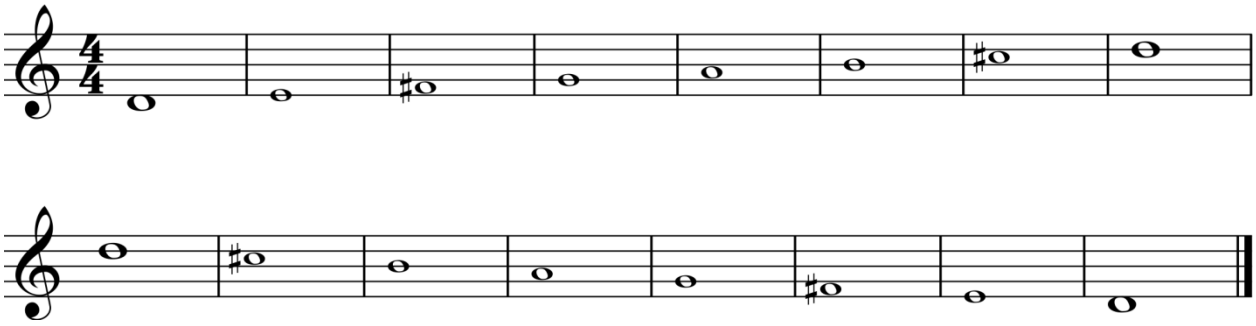
This melody has two flats – Bb and Eb. It is in the key of **Bb major.**

EXERCISE

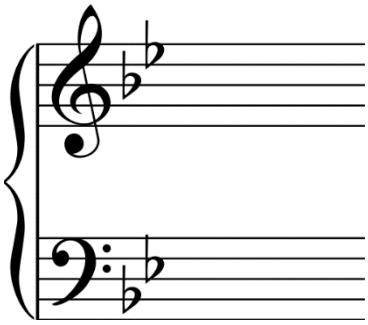
Write out the Bb major scale in whole notes using accidentals.



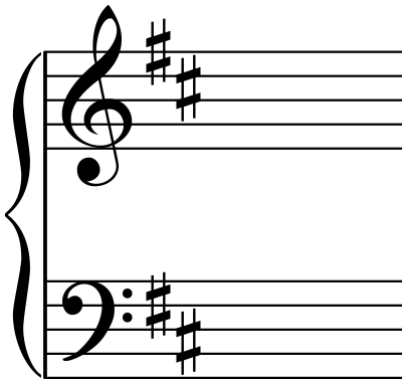
Write out the D major scale in whole notes using accidentals.



There are two flats in the key of Bb major, Bb and Eb. In the key signature of Bb, the flat symbols are written on the B line and E space above it:

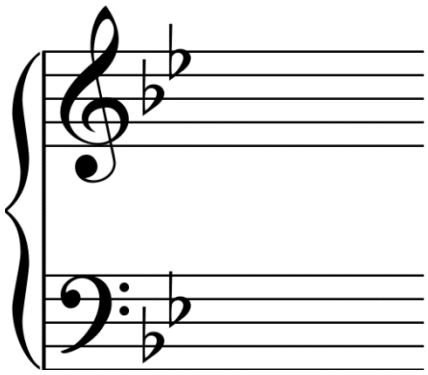


In the **key of D major**, there are **two sharps**, F# and C#. In the key signature, a sharp symbol is written on the F line and the C space **below.**

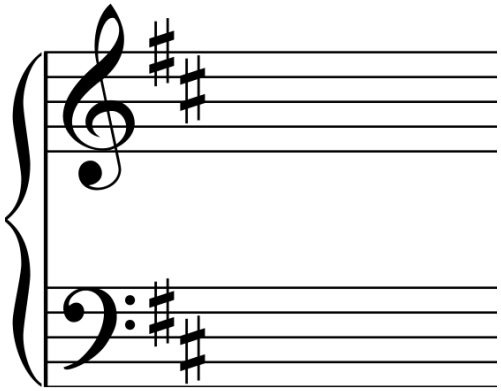


EXERCISE

Practice drawing these 2 key signatures in both the Treble and Bass clefs:



Bb major

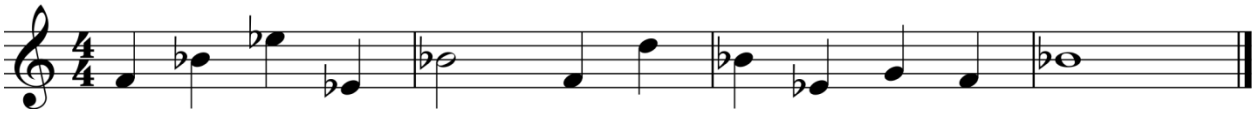


D major

Remember:

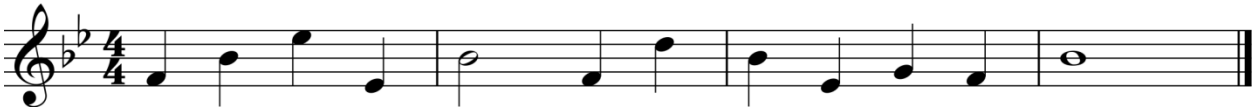
The ORDER and PLACEMENT
of flats and sharps in key signatures
is important!

Here is an example of a piece <u>without</u> a key signature:



Notice how certain notes have flats in front of them.

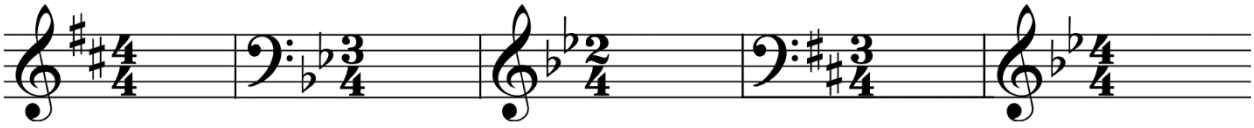
Now here is the same melody <u>with</u> a key signature:



Which example is easier to read? Why?

EXERCISE

Write the following **clefs**, **key signatures** and **time signatures**.

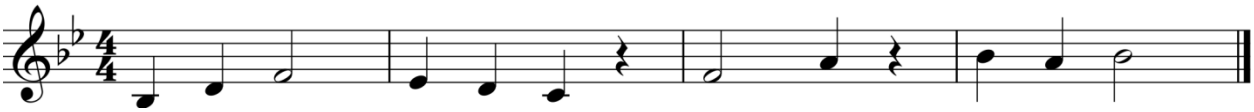


Treble Clef	Bass Clef	Treble Clef	Bass Clef	Treble Clef
D major	Bb major	Bb major	D major	Bb major
4/4	3/4	2/4	3/4	4/4

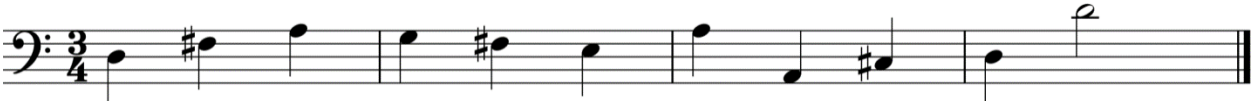
EXERCISE

Identify which **major key** the following pieces are in, remembering to look for the **key signature** or **accidentals**.

(a) Key: Bb major



(b) Key: D major



SUMMARY

- ✓ The key of **D major** has **two sharps** — F# and C#
- ✓ The key of **Bb major** has **two flats** — Bb and Eb

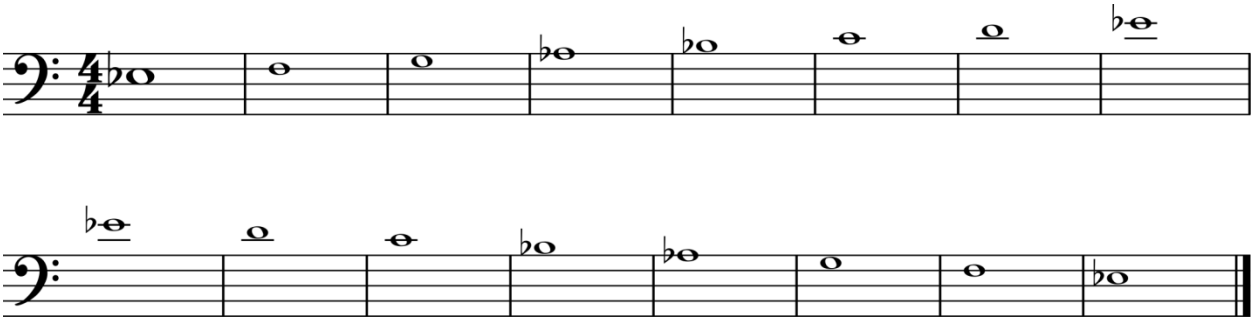
More Scales

As mentioned before, the same pattern of tones and semitones can be used to write a major scale starting on ANY note. In the next exercise, you will learn four new scales. Remember to use the pattern of tones and semitones. If you need to refresh your memory, the pattern is on page 4.

EXERCISE

Write major scales, ascending and descending, starting on the note given. Repeat the top note.

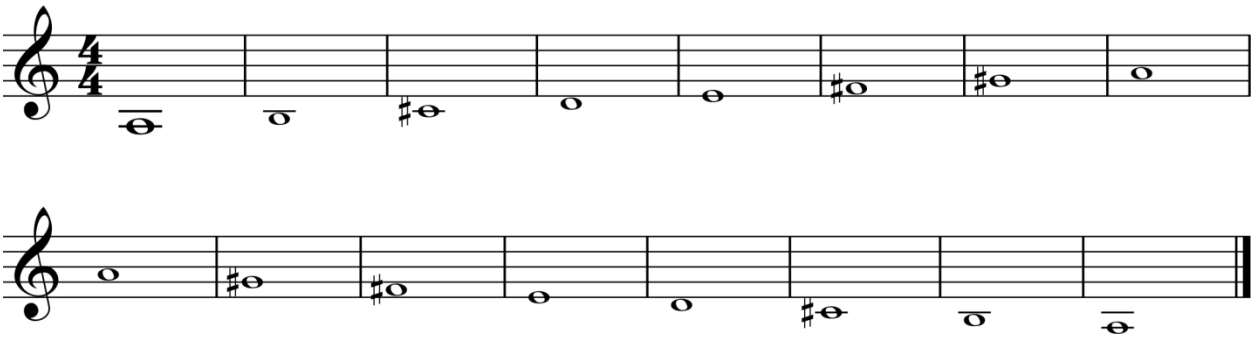
(a) Eb major



* How many flats are in the key of Eb major? ___3____

List the flats: _Bb__, _Eb__, _Ab__

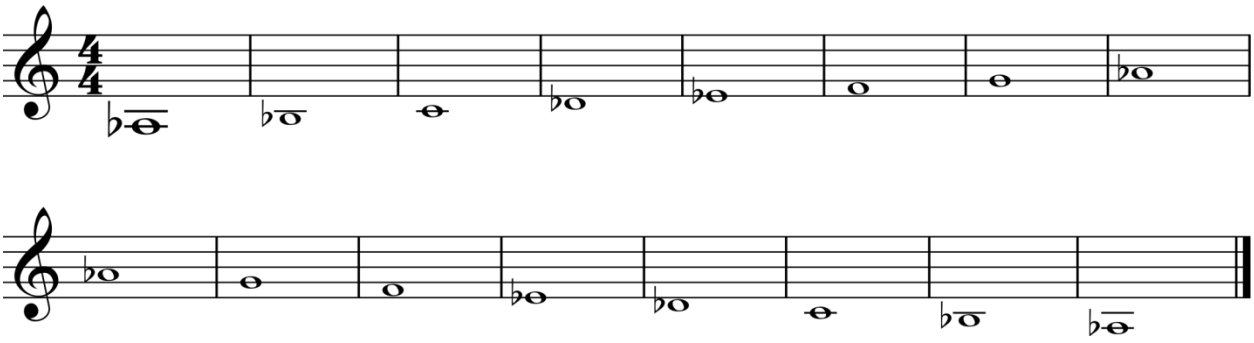
(b) A major



* How many sharps are in the key of A major? __3___

List the sharps: _F#__, _C#__, _G#__

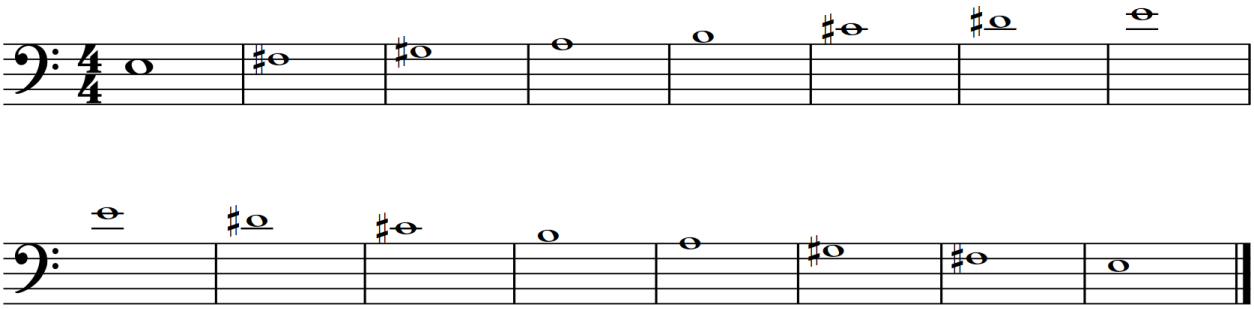
(c) Ab major



* How many flats are in the key of Ab major? __4__

List the flats: __Bb__, __Eb__, __Ab__, __Db__

(d) E major



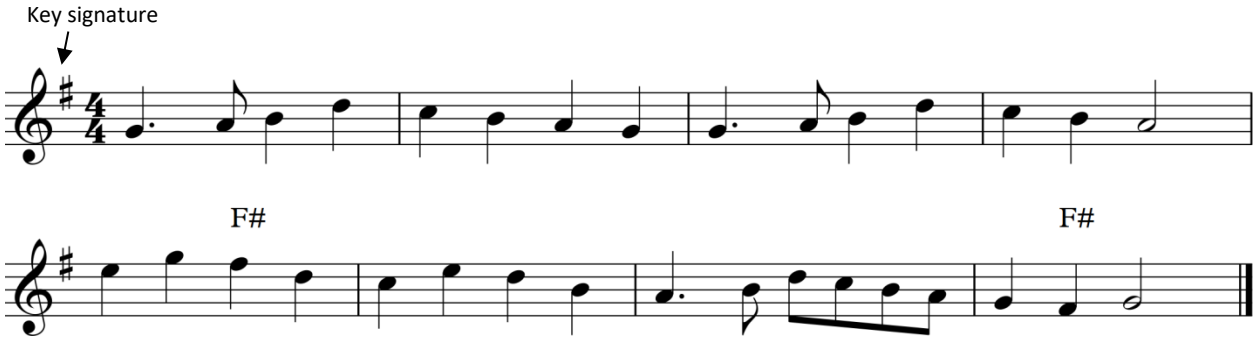
* How many sharps are in the key of E major? __4__

List the sharps: __F#__, __C#__, __G#__, __D#__

You have just written four new major scales and four new key signatures.

Key Signatures

A **key signature** shows what notes in the music are played as sharps or flats. For example, if you are in the key of G major (based on the G major scale) you must play F# whenever you see an 'F' appear on the staff. Instead of writing # in front of every 'F' in the piece, composers will usually just write a key signature at the beginning of each line. Here is an example of a piece in G major:



Here is a review of the keys and key signatures we have learned so far:

KEY	KEY SIGNATURE
C major	No sharps or flats
G major	One sharp – F#
D major	Two sharps – F#, C#
A major	Three sharps – F#, C#, G#
E major	Four sharps – F#, C#, G#, D#
F major	One flat – Bb
Bb major	Two flats – Bb, Eb
Eb major	Three flats – Bb, Eb, Ab
Ab major	Four flats – Bb, Eb, Ab, Db

In the last lesson, you wrote major scales using sharps and flats when necessary. However, most music uses a **key signature** at the beginning of each line to tell you which notes are sharp or flat. The following exercise will help you review which sharps or flats (and how many) are in each key that you have learned!

EXERCISE

Fill in the blanks. It may be helpful to review the chart on the previous page.

(a) There is __1__ sharp in the key of G major. It is __F#__.

(b) There are __3__ sharps in the key of A major. They are __F#__, __C#__ and __G#__.

(c) There are three __flats__ in the key of Eb major. They are __Bb__, __Eb__ and __Ab__.

(d) There is __1__ __flat__ in the key of __F__ major. It is Bb.

(e) There are two __sharps__ in the key of D major. They are __F#__ and __C#__.

(f) There are __4__ __flats__ in the key of __Ab__ major. They are Bb, Eb, Ab and Db.

(g) There are __2__ flats in the key of Bb major. They are __Bb__ and __Eb__.

(h) There are four sharps in the key of __E__ major. They are __F#__, __C#__, __G#__ and __D#__.

(i) There are no flats or sharps in the key of __C__ major.

SUMMARY

- ✓ All major scales are built on the same pattern of tones and semitones: T T S T T T S.
- ✓ You have learned to build major scales on C, F, G, Bb, D, Eb, A, Ab and E.
- ✓ A **key signature** tells us the **key** of the music and which notes to play sharp or flat in the piece.

Lesson 4.2 - Order of Sharps and Flats

When writing key signatures, two points are important:

(1) The *order* of flats or sharps
(2) The *position* of flats or sharps

(1) *Order*

The order of *sharps* is: F#, C#, G#, D#, A#, E#, B# (go *up* by 5 letter names each time).

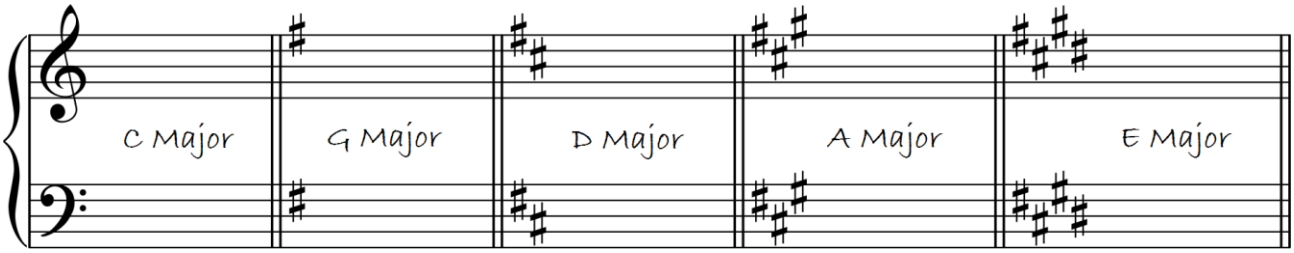
> Use this rhyme to help you:
> Father Charles Goes Down And Ends Battle

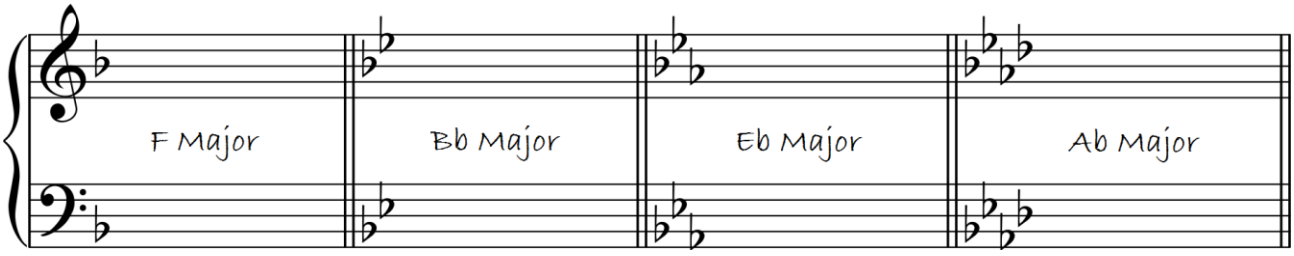
The order of *flats* is: Bb, Eb, Ab, Db, Gb, Cb, Fb (go *down* by 5 letter names each time).

> Use this rhyme to help you:
> Battle Ends And Down Goes Charles' Father

(2) *Position*

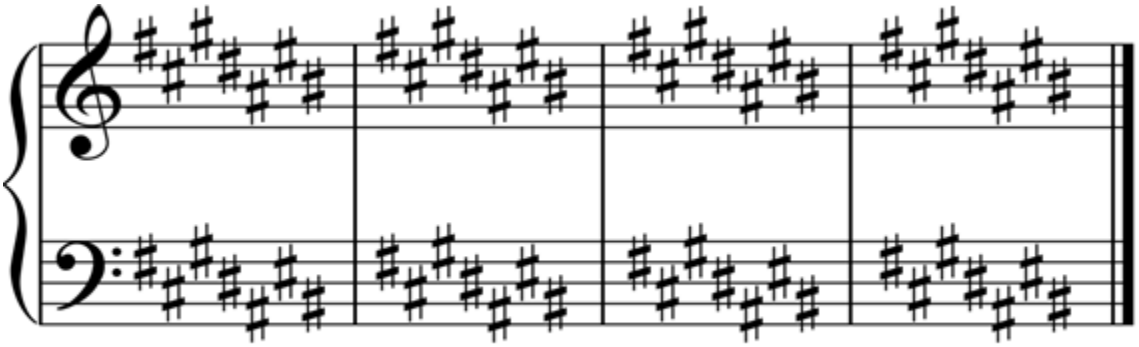
What about the *position* of sharps and flats? If you look at enough music examples, you will notice that F# is ALWAYS written on the fifth line (Treble Clef) and NOT the first space. The pattern for the other sharps and flats is given below; study these carefully.

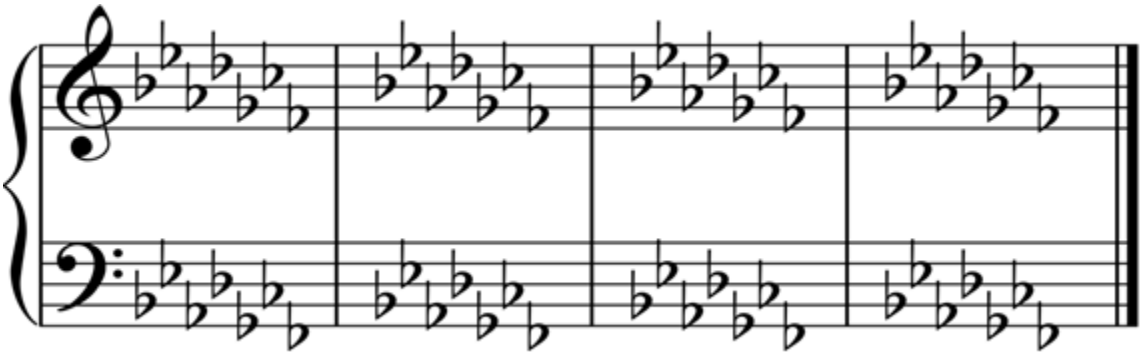




EXERCISE

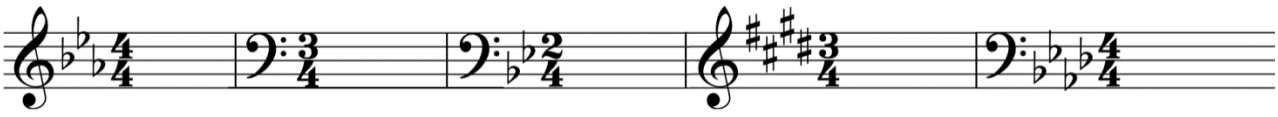
Practice writing the sharps and flats in the correct order and position. The first one is done for you.



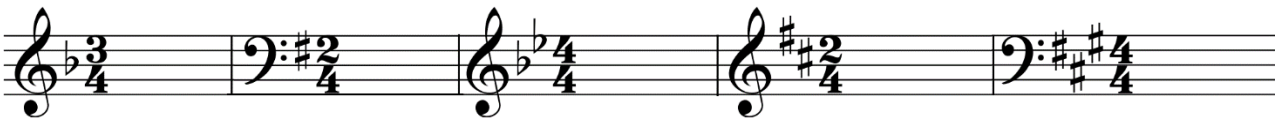


EXERCISE

Write the following **clefs, key signatures** and **time signatures.** They MUST be written in that order!



Treble Clef	Bass Clef	Bass Clef	Treble Clef	Bass Clef
Eb major	C major	Bb major	E major	Ab major
4/4	3/4	2/4	3/4	4/4



Treble Clef	Bass Clef	Treble Clef	Treble Clef	Bass Clef
F major	G major	Bb major	D major	A major
3/4	2/4	4/4	2/4	4/4

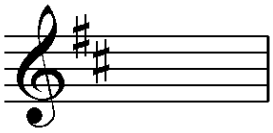
Naming Key Signatures

It is important to be able to look at a piece of music and name the key signature. A couple of tricks may help you:

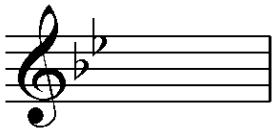
- For sharp keys, find the *last* sharp and go up *one* letter name.
- For flat keys, the *second last* flat is the name of the key.
- NOTE: One flat is the key of F major.

EXERCISE

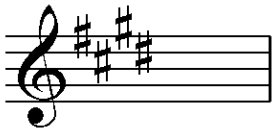
Write the name of the given key signature. The first one is done for you!



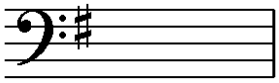
D major



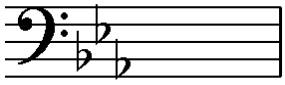
Bb major



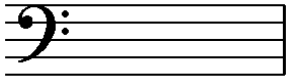
E major



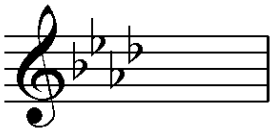
G major



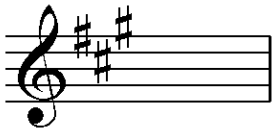
Eb major



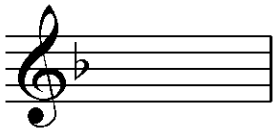
C major



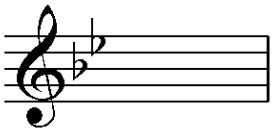
Ab major



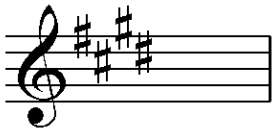
A major



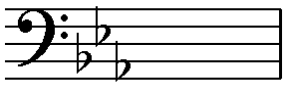
F major



Bb major



E major

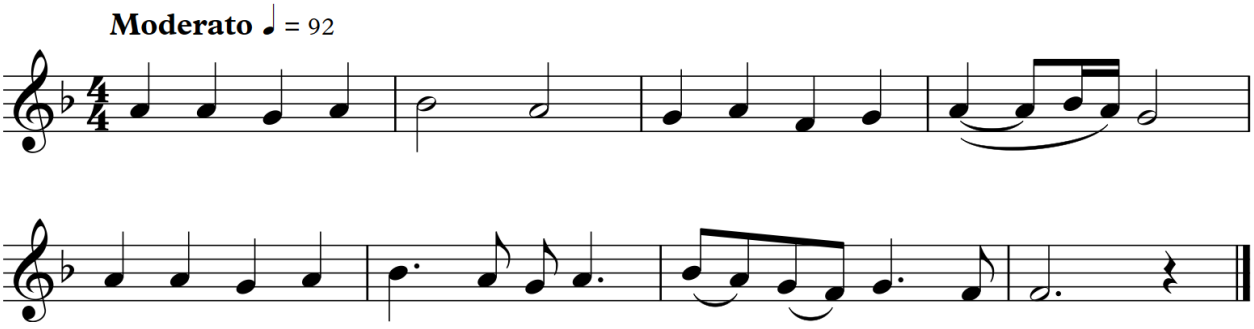


Eb major

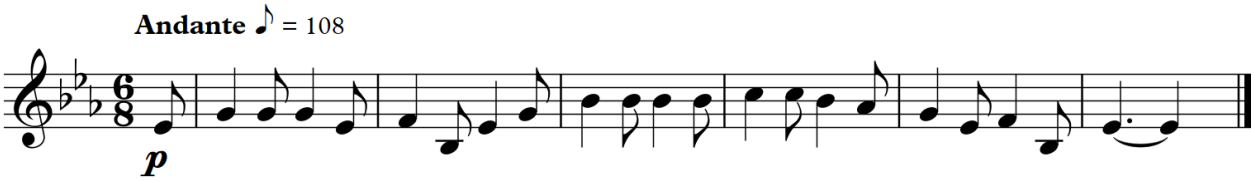
EXERCISE

Name the key of each piece of music.

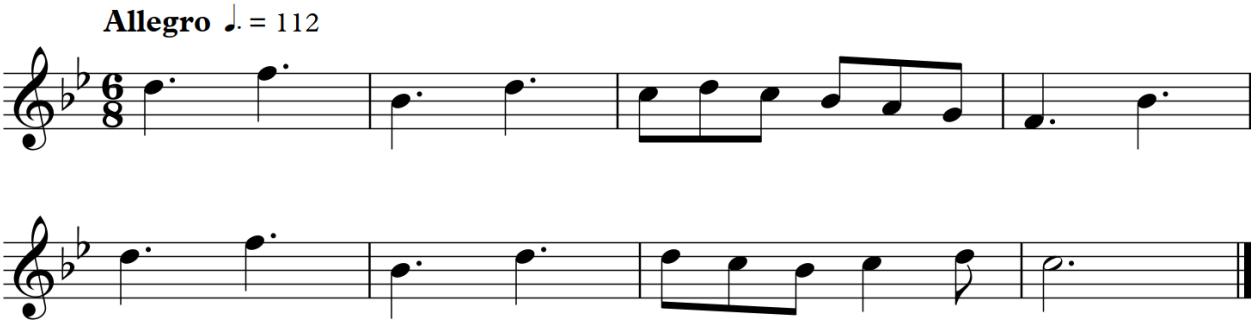
(a) Key: __F__ __major_____



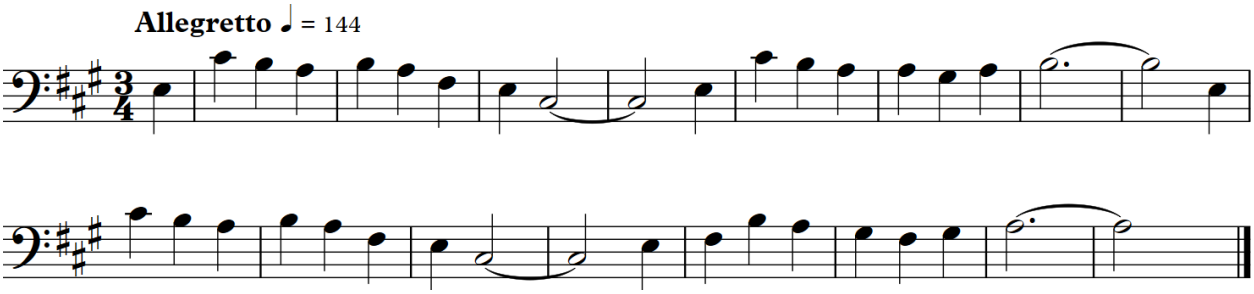
(b) Key: __Eb__ __major_____



(c) Key: __Bb__ __major_____



(d) Key: __A__ __major_____



SUMMARY

- ✓ In music, the key signature at the beginning of each line tells us which notes are always played sharp or flat in that piece (except when cancelled out by an accidental).
- ✓ When writing key signatures, the **order** and **position** of sharps and flats is important.
- ✓ To name the key signature for:

  Sharp keys, find the *last* sharp and go up *one* letter name.

  Flat keys, the *second last* flat is the name of the key.

  Exceptions: *C major* (no sharps or flats), *F major* (one flat)
- ✓ Here is a summary of the keys you have learned so far:

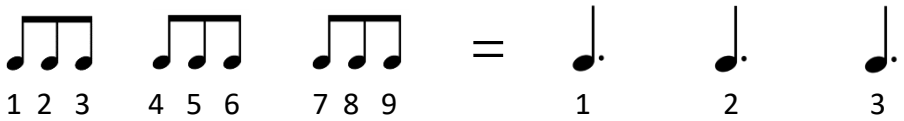
KEY	KEY SIGNATURE
C Major	No sharps or flats
G Major	One sharp – F#
D Major	Two sharps – F#, C#
A Major	Three sharps – F#, C#, G#
E Major	Four sharps – F#, C#, G#, D#
F Major	One flat – Bb
Bb Major	Two flats – Bb, Eb
Eb Major	Three flats – Bb, Eb, Ab
Ab Major	Four flats – Bb, Eb, Ab, Db

Lesson 4.3 - Compound Time

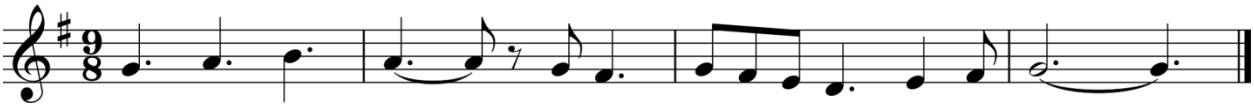
We know that simple time signatures can have 2, 3, or 4 beats in each measure (2/4, 3/4, and 4/4). In the last level, we learned that 6/8 can have two compound beats in each measure (♩. = one compound beat). There are also compound time signatures that have 3 or 4 compound beats per measure.

9/8 – *Three Compound Beats*

Since 8 is the bottom number of the time signature, we know that an eighth note is the *simple* beat. The top number tells us there are 9 eighth notes per measure. If we group them into threes, like we did in 6/8, then there are 3 *compound* beats per measure:

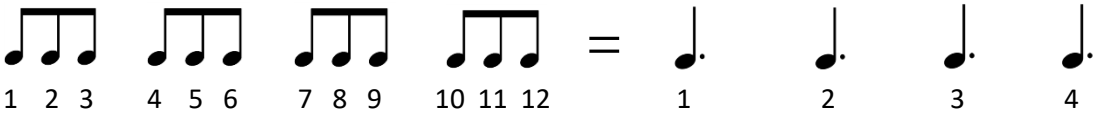


Here's an example of a piece in 9/8 time:

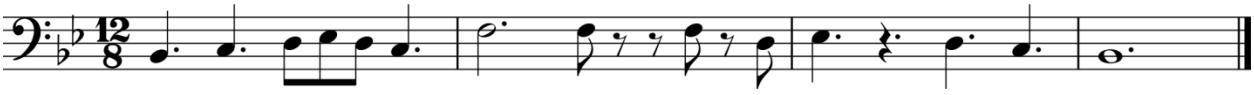


12/8 – *Four Compound Beats*

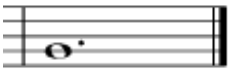
Similarly, the 12/8 time signature can either have twelve simple beats, or four compound beats:



Here's an example of a piece in 12/8 time:



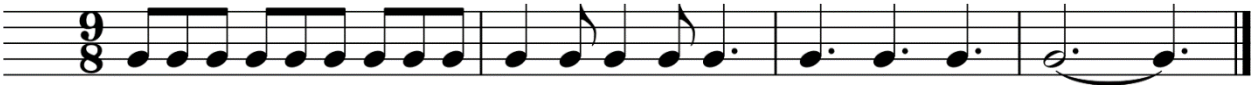
Look at the two examples on page 18 again. Notice that each example ends with one note that lasts one whole bar of the piece.

Time Signature	One full measure	Example
6/8	dotted half note	
9/8	dotted half note tied to a dotted quarter note	
12/8	dotted whole note	

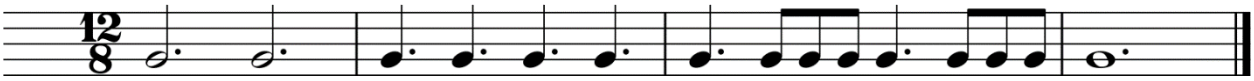
EXERCISE

TEACHER NOTE: Answers will vary between students. Check for correct rhythm.

1. Write four measures of rhythm in 9/8 time.

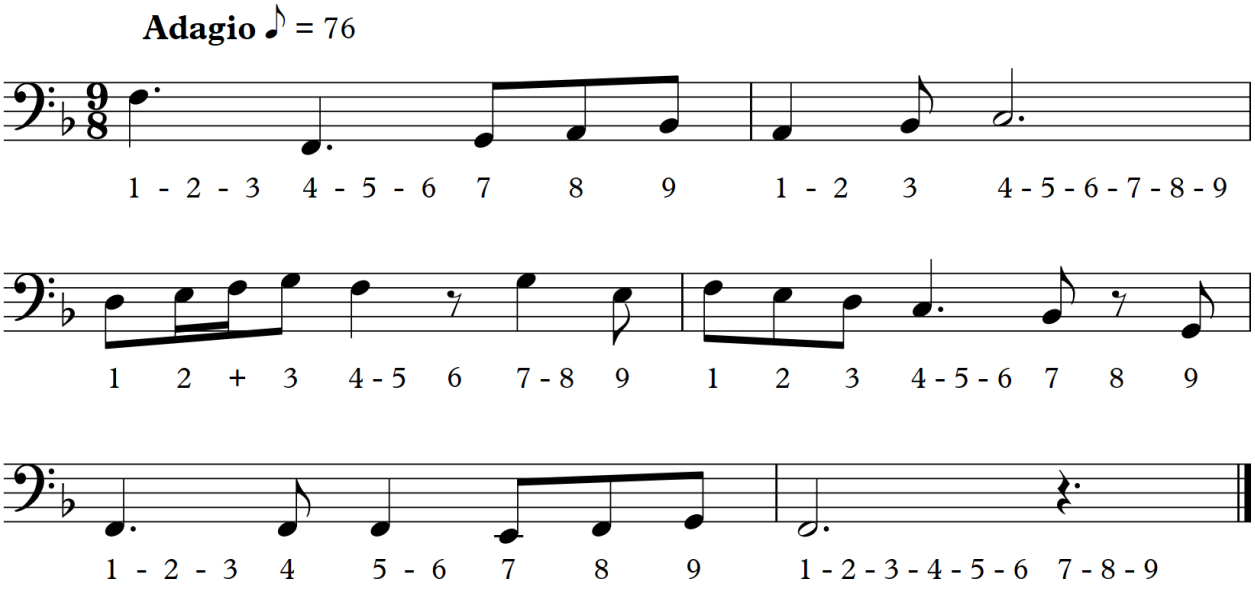


2. Write four measures of rhythm in 12/8 time.

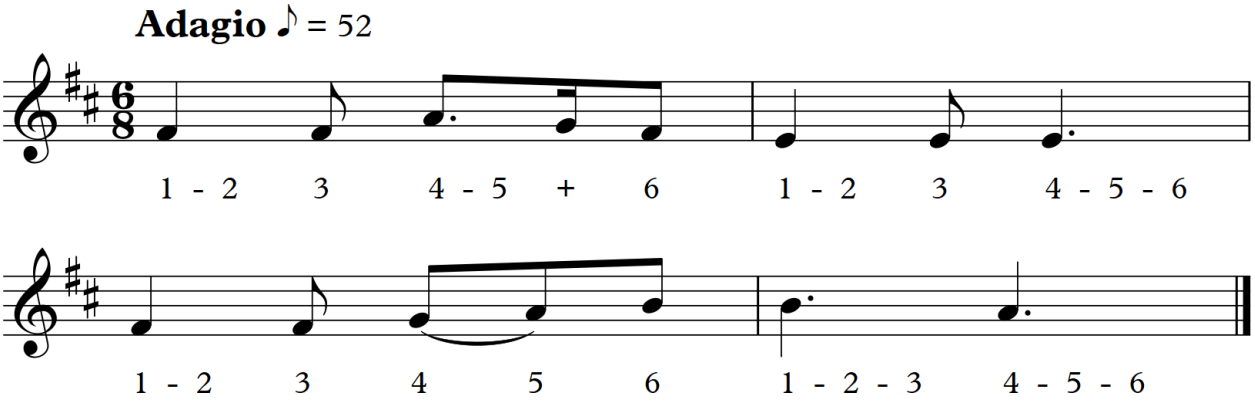


3. For each example on the next page, write in the counting then clap the rhythm while speaking the counts. Remember that in compound time signatures, the way we count depends on the speed of the music; look at the tempo term AND the metronome marking!

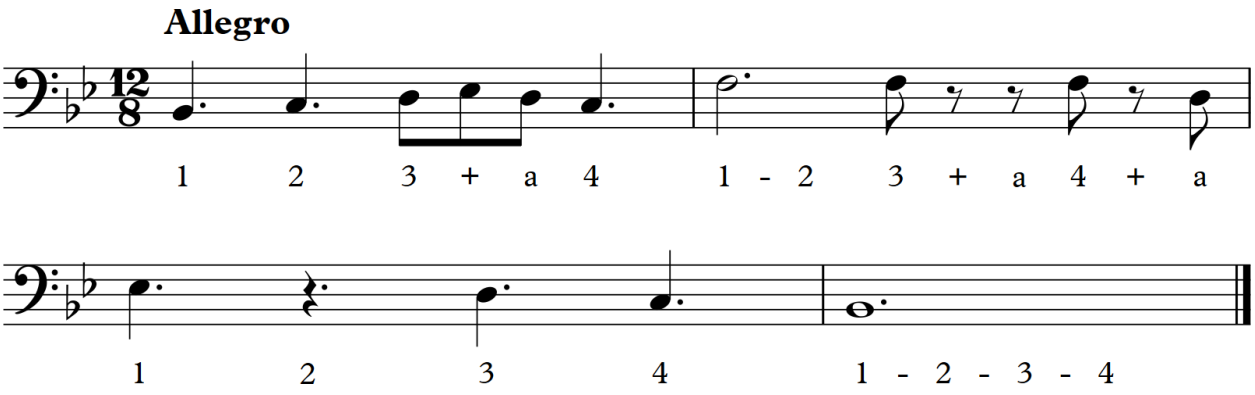
(a)


Adagio ♪ = 76
1 - 2 - 3 4 - 5 - 6 7 8 9 1 - 2 3 4 - 5 - 6 - 7 - 8 - 9
1 2 + 3 4 - 5 6 7 - 8 9 1 2 3 4 - 5 - 6 7 8 9
1 - 2 - 3 4 5 - 6 7 8 9 1 - 2 - 3 - 4 - 5 - 6 7 - 8 - 9

(b)


Adagio ♪ = 52
1 - 2 3 4 - 5 + 6 1 - 2 3 4 - 5 - 6
1 - 2 3 4 5 6 1 - 2 - 3 4 - 5 - 6

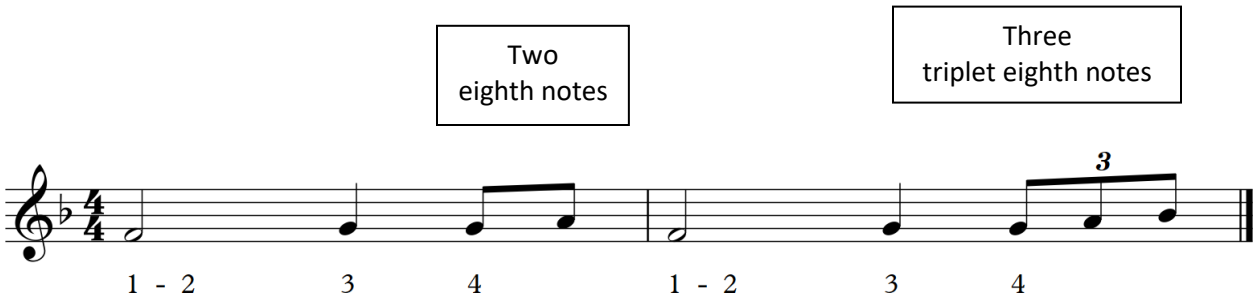
(C)


Allegro
1 2 3 + a 4 1 - 2 3 + a 4 + a
1 2 3 4 1 - 2 - 3 - 4

Triplets in Simple Time

A group of three eighth notes can also occur in simple time signatures (2/4, 3/4, 4/4). In this case, they are called **triplets**.

A triplet is a group of three notes that are played in the time of what would normally be two notes. For example, in 4/4 time, you could have **triplet eighth notes** which would take up the same amount of time as **two eighth notes**:

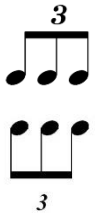


Notice that two eighth notes in the first measure and triplet eighth notes in the second measure *both equal one simple beat* in 4/4 time.

The triplet label ("3") is always written on the same side as the stem and beam.

If the stems are going *up*, the "3" is written above the notes.

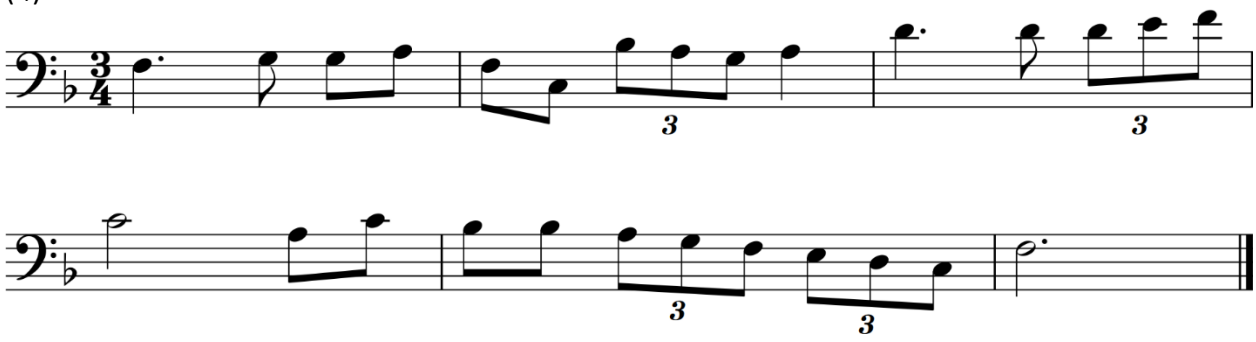
If the stems are going *down*, the "3" is written below the notes.



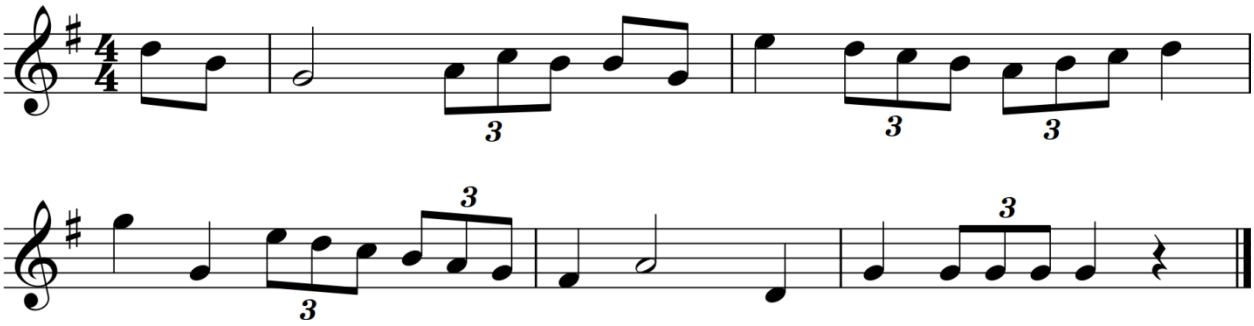
EXERCISE

In the music below, find the triplets and add a triplet label (a "3") above or below the group of notes.

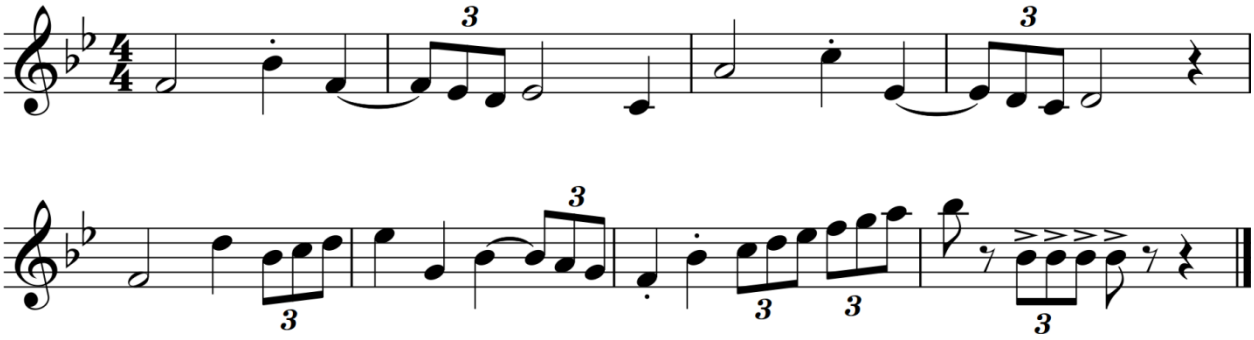
(a)



(b)

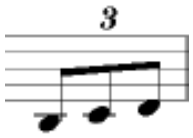


(c)



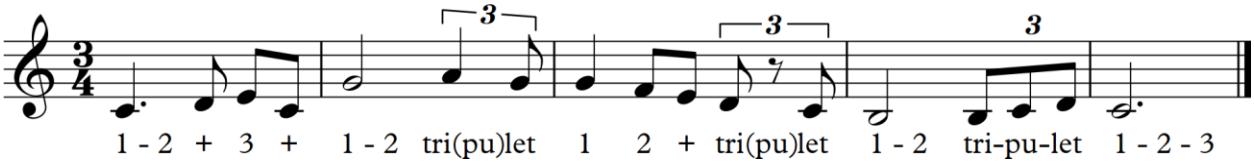
Counting Triplets

We just practiced recognizing triplets, but how do we *count* triplets? When counting triplets, we could count them as if they were a compound beat (i.e. 1 + a 2 + a). However, because the eighth notes in a triplet are actually a little shorter than the eighth notes we use in a simple group, we can say "tri-pu-let" to help us keep the rhythm in the correct time.



tri – pu - let

Within a triplet, you can combine eighth notes in different ways. On the next page, there's an example which shows triplets that look a little different:

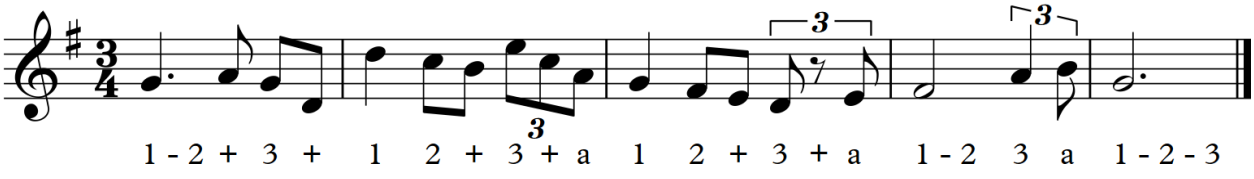


PRACTICE: Using the example above, your teacher will clap a quarter note beat. Your job is to clap or tap the rhythm of the melody AND count out loud.

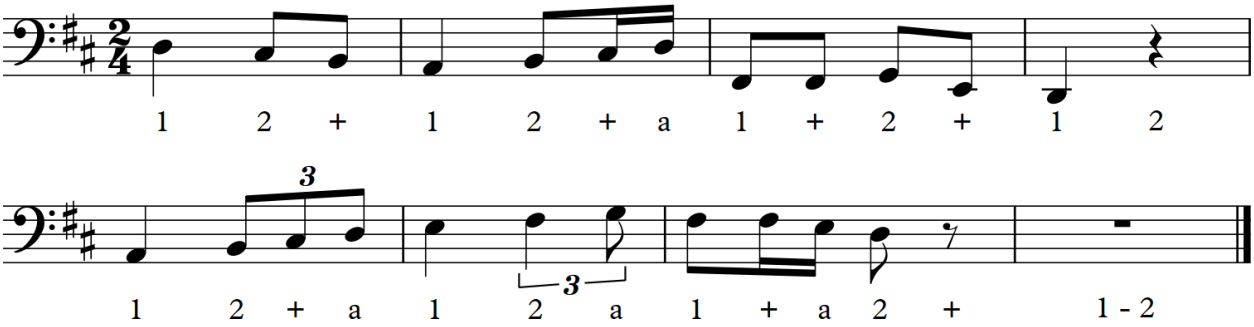
EXERCISE

For each example, write in the counting and then clap the rhythm while speaking the counts.

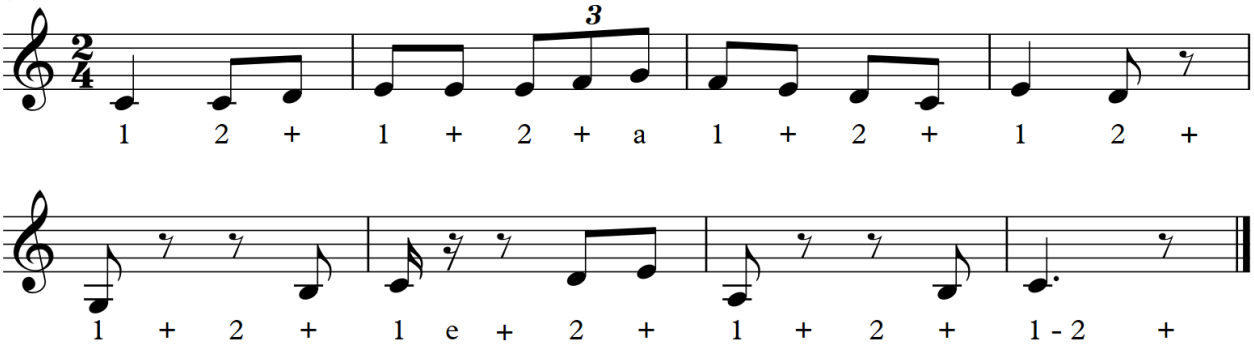
(a)



(b)



(C)



SUMMARY

- ✓ Depending on the tempo, 6/8 time has two compound beats or 6 simple beats (less common).
- ✓ Depending on the tempo, 9/8 time has three compound beats or 9 simple beats.
- ✓ Depending on the tempo, 12/8 time has four compound beats or 12 simple beats.
- ✓ Three **triplet eighth notes** have the same total length as two ordinary eighth notes, or one quarter note.
- ✓ When writing triplets, we write the number 3 above or underneath the beam.

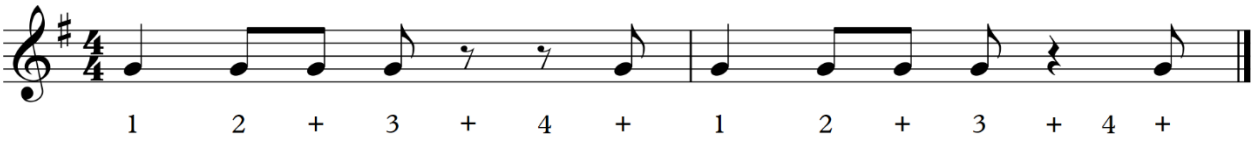
Lesson 4.4 – Rests in Compound Time

Just as notes are grouped in certain ways to make them easier to read, there are also rules for writing rests in both simple and compound time.

In **simple time**, for example, two eighth rests can be grouped together into one quarter rest if they start on a beat. If the two eighth rests start on a half beat (the "and of 3" in this case) then it is better to write two eighth rests:

✓ **Two eighth rests = beat placement is clearly shown**

✗ **One quarter rest = beat placement is harder to determine**



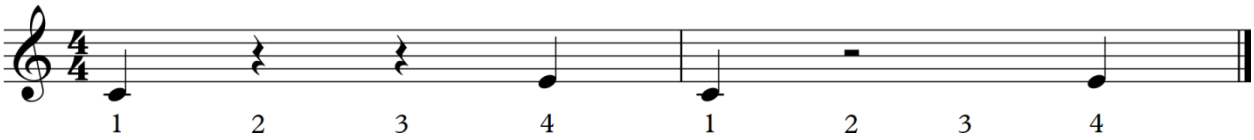
In 4/4 time, *rests that have a greater value than one beat are most beneficial when used in the first half or last half of a bar*.

GOOD

GOOD

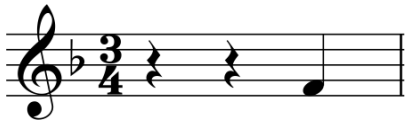
Two quarter rests = GOOD

One half rest = NOT AS EASY TO COUNT

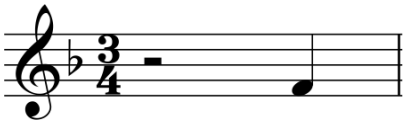


This means that in 3/4 time the largest rest typically used is a quarter rest (unless you need a full measure rest):

GOOD



NOT Common

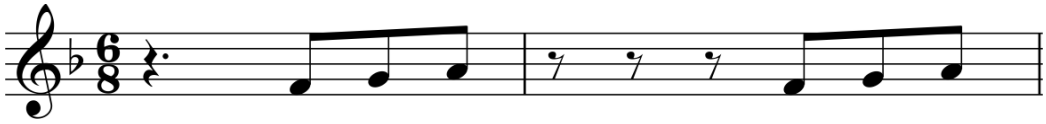


There are similar rules for writing rests in **compound** time.

(1) A full compound beat is usually represented by a dotted quarter rest:

DO THIS

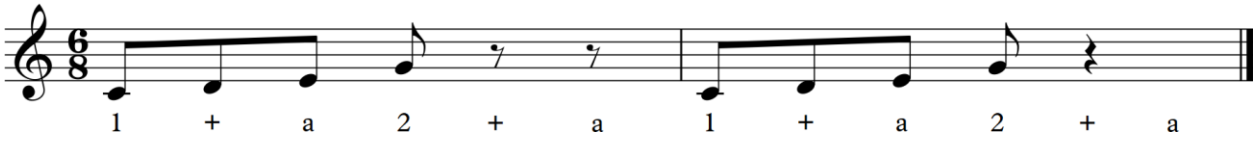
NOT THIS!



(2) A compound beat is usually completed using two eighth rests instead of a quarter rest:

Two eighth rests = GOOD

One quarter rest = MORE DIFFICULT TO READ

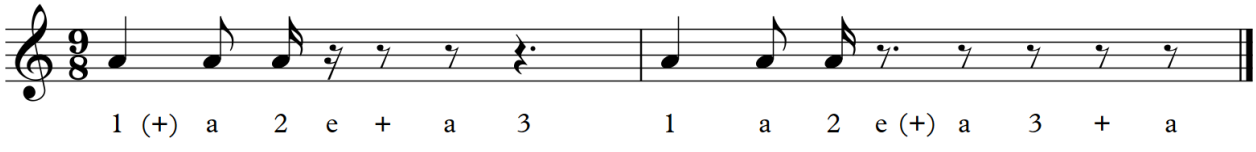


(3) A general guideline is to **first complete the simple beat** and then complete the compound beat without combining rests.

Sometimes a sixteenth rest is needed followed by an eighth rest. These should NOT be combined into a dotted quarter rest:

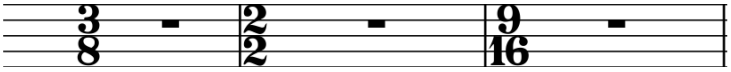
Easier to tell where the compound beat is

More difficult to tell where the compound beat is



(4) Finally, for any time signature (simple or compound), **a whole rest can be used to fill an entire measure with silence,** even if there are more or less than four beats of rest needed. A whole rest is a full measure of silence.

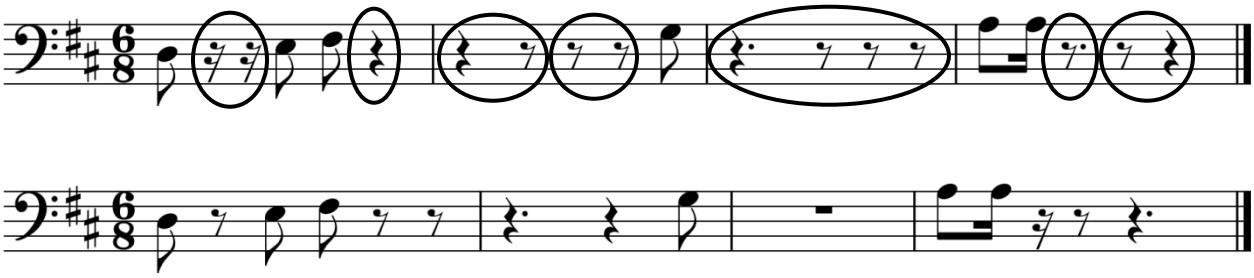
A whole rest = a full measure of



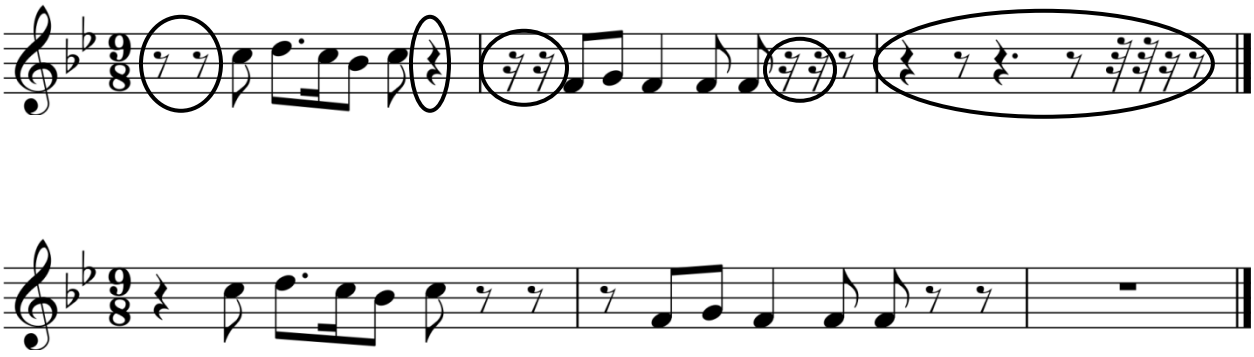
EXERCISE

1. Make the following examples easier to read. Circle the rest-reading difficulties in the first line. Re-write the same passage on the second line, using the rules for rests that make the compound beats much easier to see.

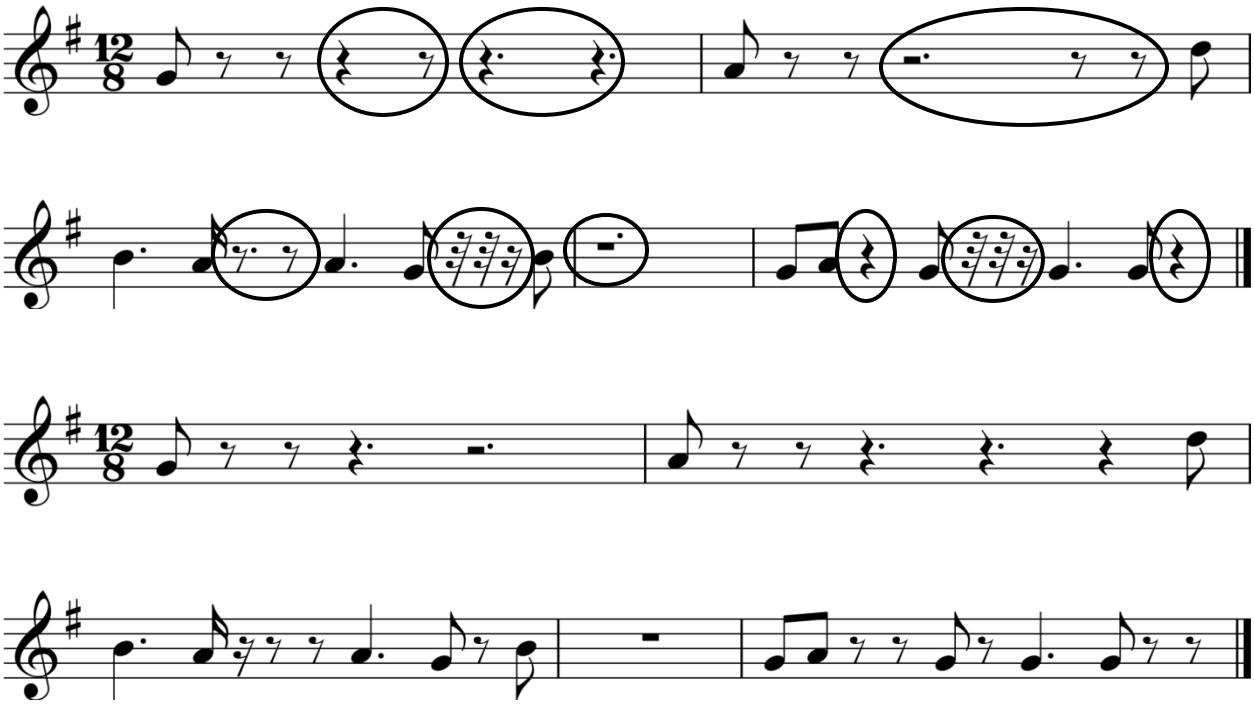
(a)



(b)

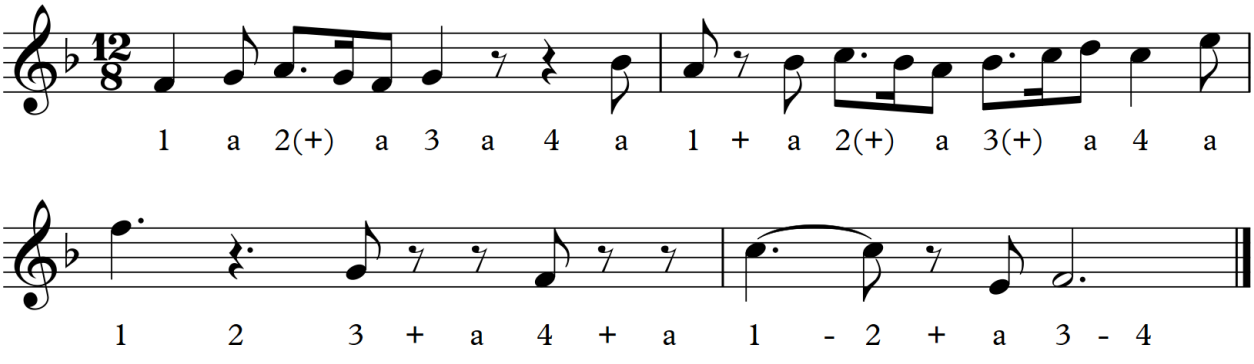


(C)

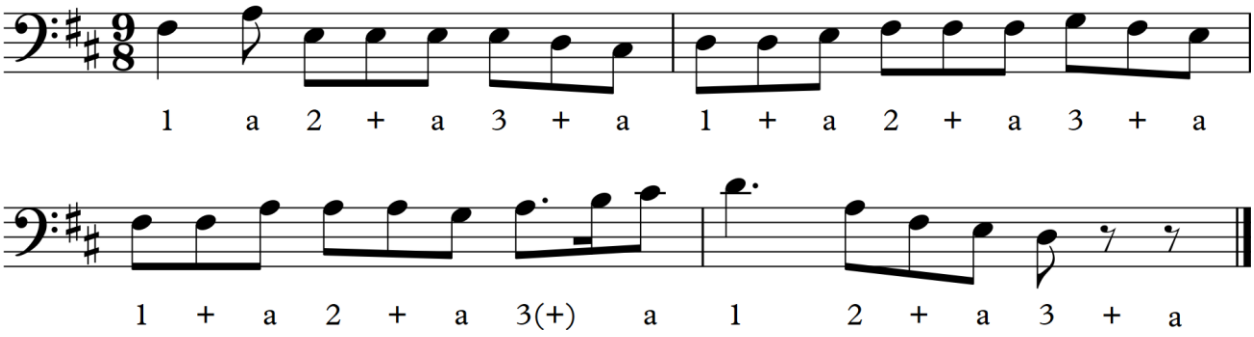


2. Now let's do some more counting. Assume in the examples below that the tempos are fast enough to count using compound beats. Write the counts underneath the examples. Clap the rhythm while counting out loud.

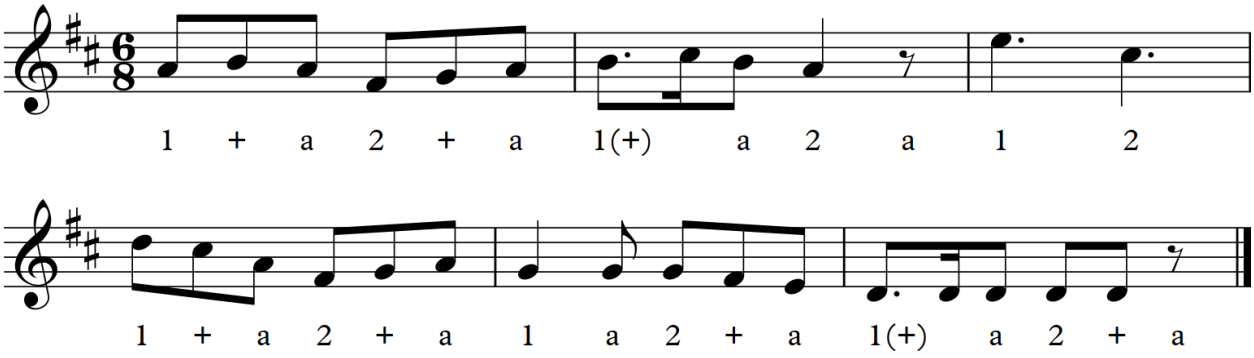
(a)



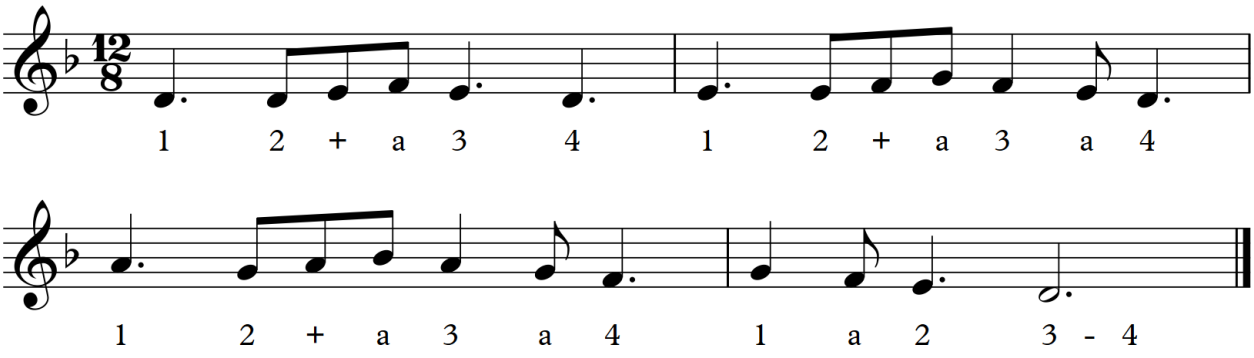
(b)


1 a 2 + a 3 + a 1 + a 2 + a 3 + a
1 + a 2 + a 3(+) a 1 2 + a 3 + a

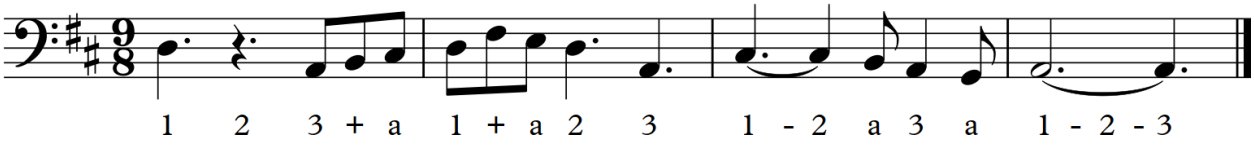
(c)


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

(d)


1 2 + a 3 4 1 2 + a 3 a 4
1 2 + a 3 a 4 1 a 2 3 - 4

(e)


1 2 3 + a 1 + a 2 3 1 - 2 a 3 a 1 - 2 - 3

SUMMARY

Writing Rests

There are rules for writing rests in music, both in simple time and compound time. Study these carefully!

1. A full compound beat is usually represented by a dotted quarter rest.
2. A compound beat is usually completed using two eighth rests instead of a quarter rest.
3. First complete the simple beat and then complete the compound beat without combining beats.
4. For any time signature (simple or compound), a whole rest can be used to fill an entire measure with silence.

Lesson 4.5 – Repeat Signs

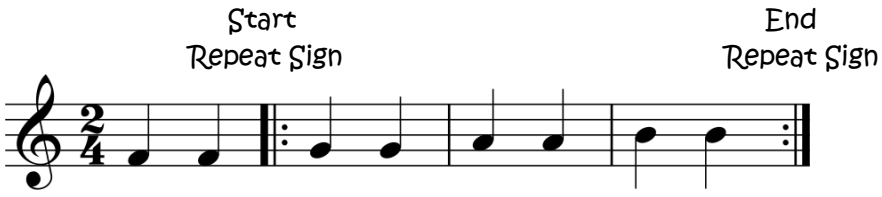
Sometimes in a piece of music, we are required to **repeat** sections of music we have already played. The simplest way to do this is to use the **repeat sign**.

A **repeat sign** is marked by a **double bar line with two dots** next to it.

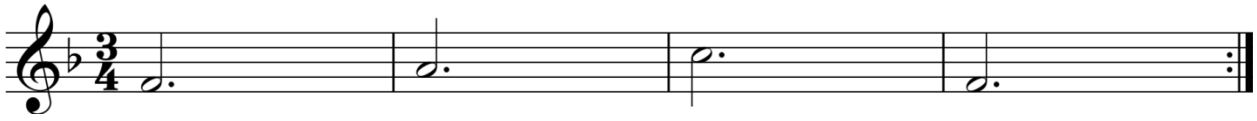
If the two dots are on the **left** of the double bar line, this is called an **end repeat sign**.

If the two dots are to the **right** of the double bar line, this is called a **start repeat sign**.

The end repeat sign tells us to go back, **one time**, to the start repeat sign.



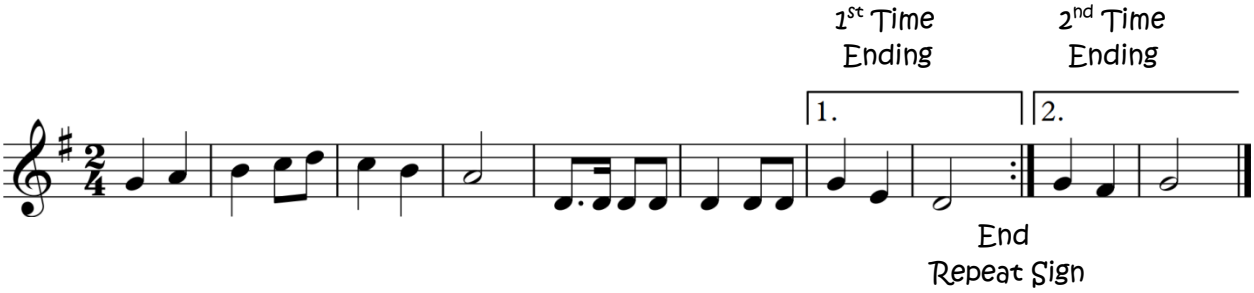
If there is no start repeat sign, repeat back to the beginning of the piece, **one time**.



1st and 2nd Endings

Sometimes a section is repeated exactly the same, but has a different ending to the section. We can do this with **first time** and **second time endings.**

When we play through a section of music the first time, we play the **first time ending**. The second time we play the same section of music, we skip the first time ending and play the **second time ending**.



Did you know?

There can be 3rd time endings? And 4th time endings?
Watch out for those!

Da Capo

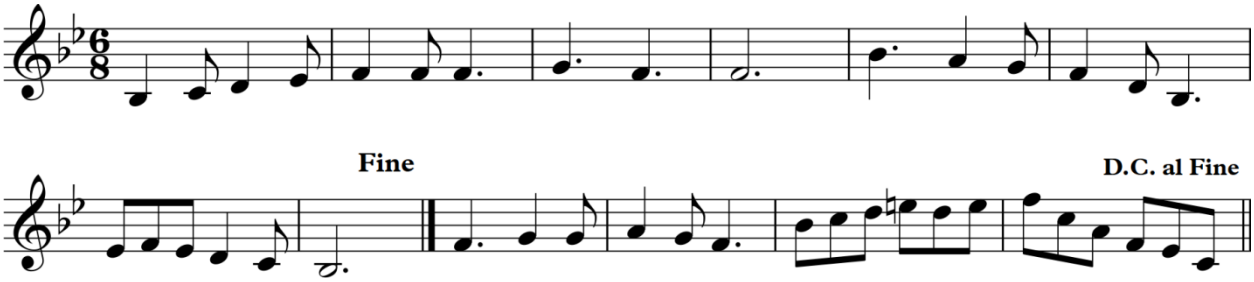
Another way to repeat music is to use a **Da Capo** (written **D.C.**)

Da Capo means "**from the beginning**" and whenever we see it in music, we **repeat back to the very beginning of the piece**.

The musical term **Fine** (pronounced *fee-nay)* means "the end."

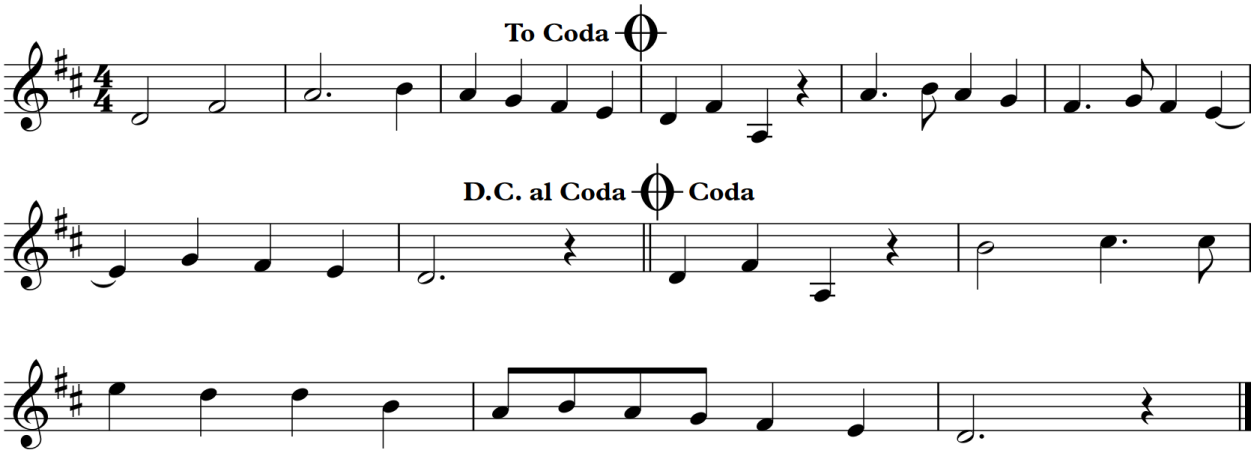
When we pair these two terms together, we have **D.C. al Fine**. This means we repeat back to the beginning of the piece, then play or sing until we see the word **Fine**. That is where we stop!

Look closely at the example below.



D.C. can also be paired with "**al Coda**," or "**to Coda**."

D.C. al Coda tells us to repeat back to the beginning of a piece, then play or sing until we see the marking "**al Coda**," or "**to Coda**." Then we jump to the next **coda symbol** ⊕, skipping any music in between.



Dal Segno

Another way to repeat music is to use the **Dal Segno** (written **D.S.**)

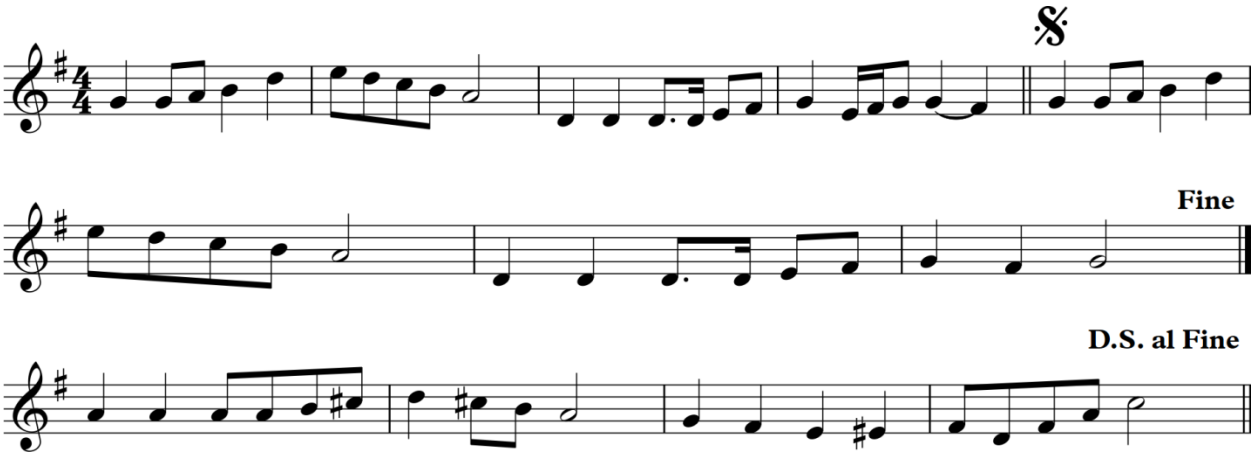
Dal Segno means "**from the sign.**"

When we see **D.S.**, we repeat back to a sign that looks like this: 𝄋

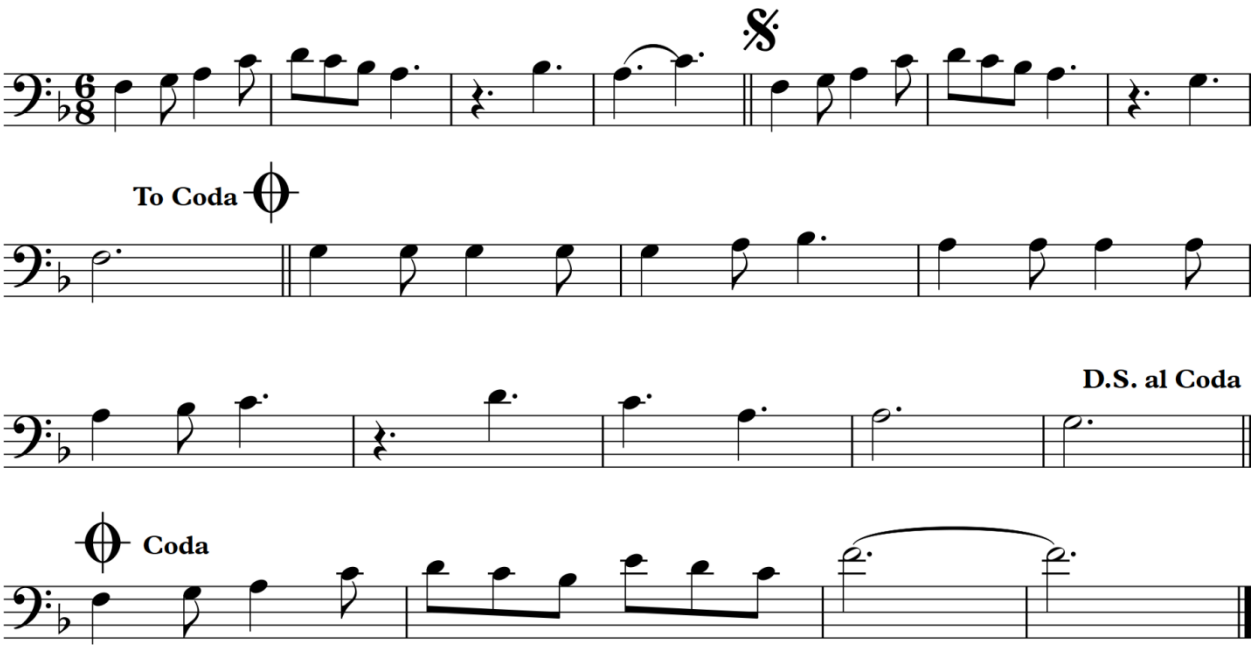
We can also use **D.S. al Fine** and **D.S. al Coda.**

Study the examples below.

Ex. 1

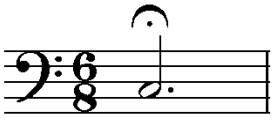


Ex. 2



Fermata

A fermata 𝄐, also called a **pause**, is a symbol that tells us to **hold the note or rest for longer than the normal value.**



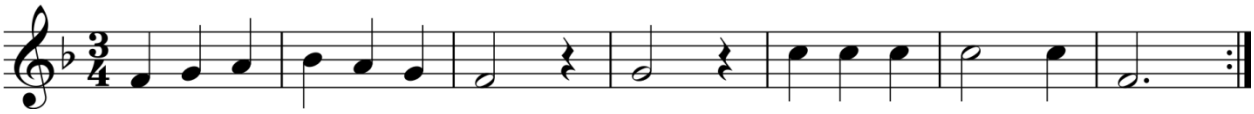
If you are playing or singing by yourself, you can hold the note or rest for as long as you want to.

If you are playing or singing in a band or choir, it is up to the conductor!

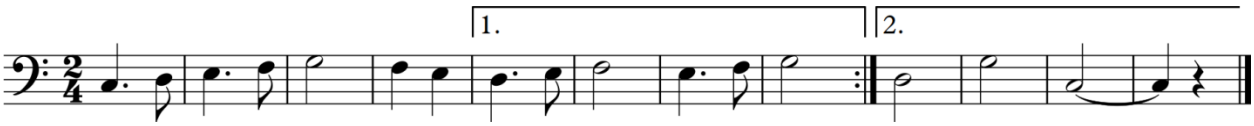
EXERCISE

Sing the following pieces to "la" or clap the rhythm, making sure to follow the repeat markings.

(a)



(b)



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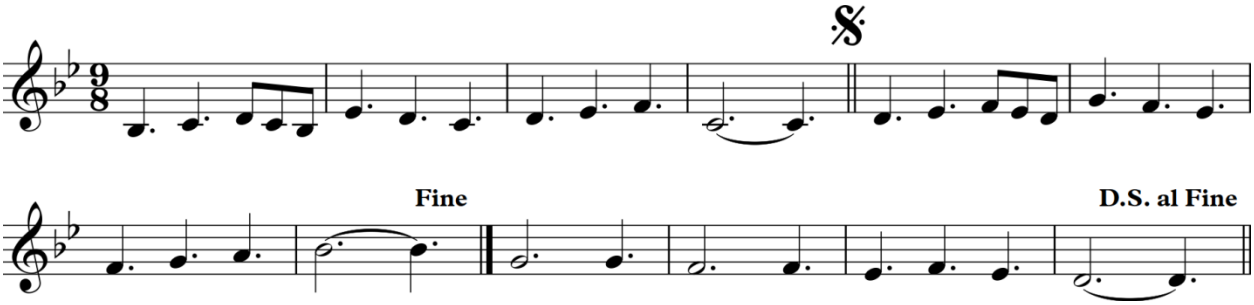

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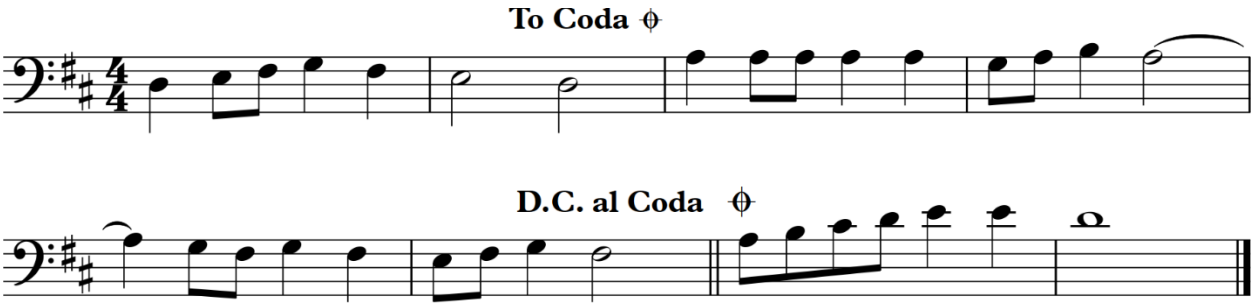

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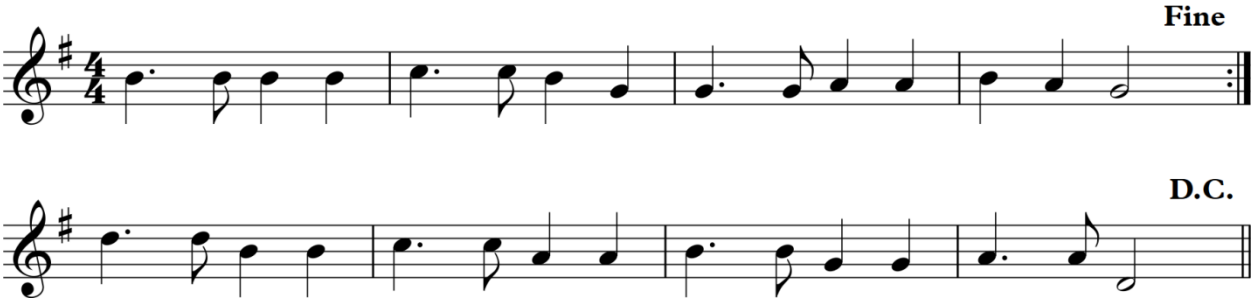

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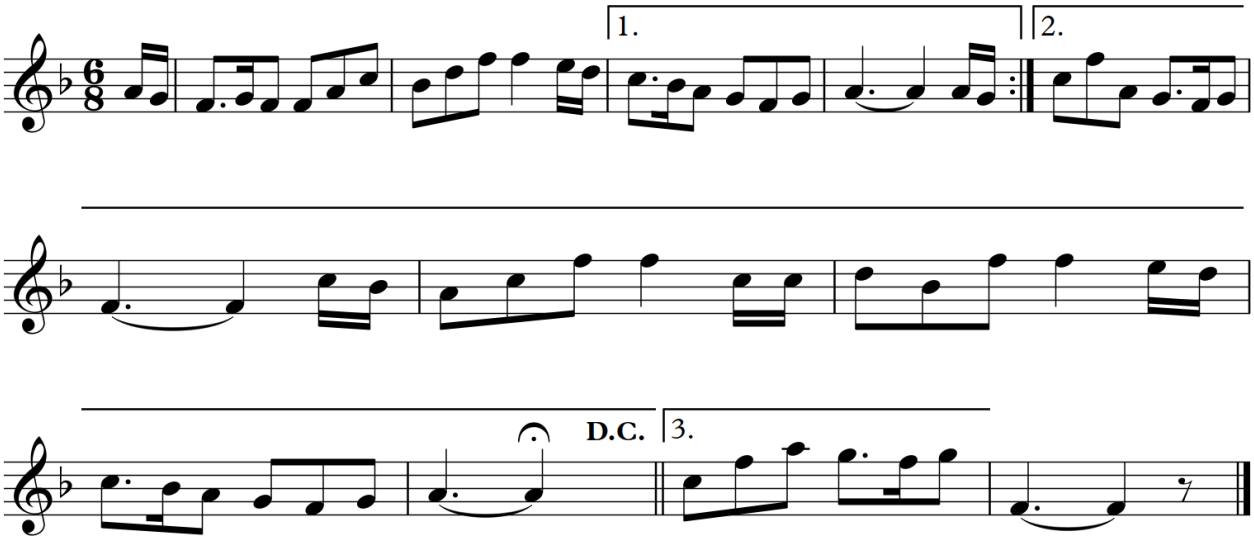


SUMMARY

- ✓ Repeat signs tell us to repeat a certain section of music, either part of it or all of it.
- ✓ An **end repeat sign** tells us where to repeat from. A **start repeat sign** tells us where to repeat back to.
- ✓ The **first time ending** is played the first time we play a section. The **second time ending** is played the second time we are playing a section. The first time ending has an **end repeat** sign.
- ✓ We also use **Da Capo (D.C.)** and **Dal Segno (D.S.)** as another way to repeat sections of music.
- ✓ **D.C.** means to repeat back to the beginning. **D.S.** means to repeat back to the sign.
- ✓ We can also use **D.C. al Coda** and **D.C. al Fine**. D.C. al Fine means to go back to the beginning until you see the marking fine. D.C. al coda means to go back to the beginning until you see the marking **to Coda**, then go to the Coda, marked by a **Coda** symbol.
- ✓ You may also see **D.S. al Coda** or **D.S. al Fine** which are used the same way but with a **D.S.** instead of a **D.C.**
- ✓ A **fermata** is a note or rest held for longer than its actual value.

Supplementary Material

The activities below are intended to reinforce the concepts taught in this level.

Tic-Tac-Toe

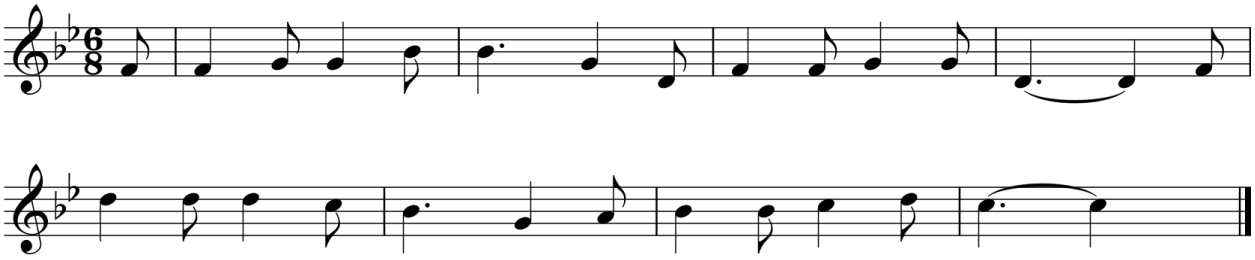
Create a set of flashcards for the concepts taught in this level (i.e. key signatures, major scales, terms, etc.)
Set up 9 chairs in a 3 x 3 grid. Divide your class into 2 teams, one being the X's and the other being the O's. Start with one team and choose a student to answer. Show them a flashcard. If they name the image on the card correctly, they can choose a seat in the grid. If they do not know the answer, or guess it incorrectly, a student from the opposite team has a chance to answer. The first team to complete a row wins!

Rhythm Review

On the next page are additional rhythm examples for extra practice.
Have students sight read these rhythms by clapping or tapping them.
You can also clap the rhythm and have them clap it back. This will be good ear training.

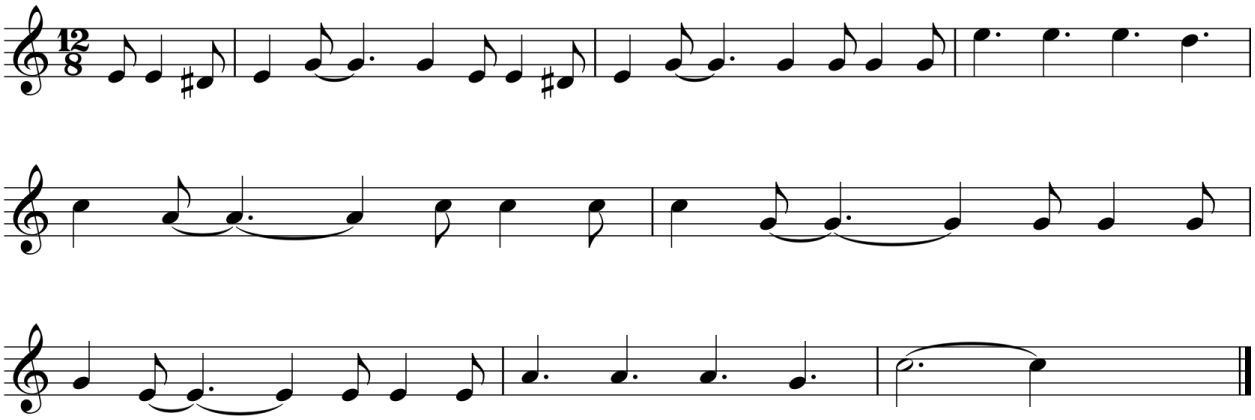
(a)

Allegro



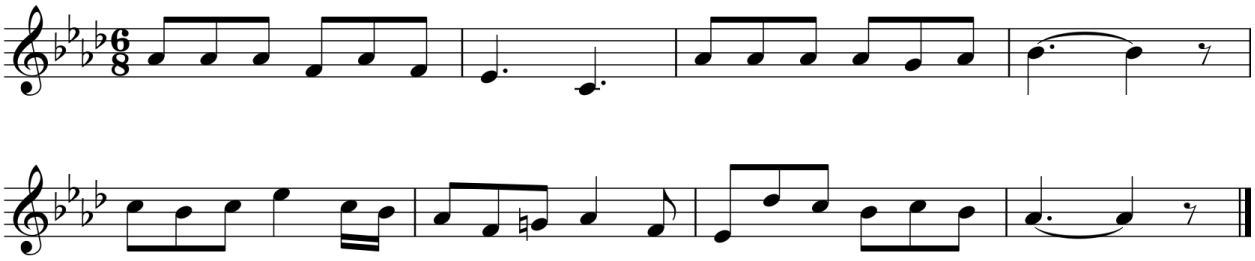
(b)

Allegro



(c)

Andante



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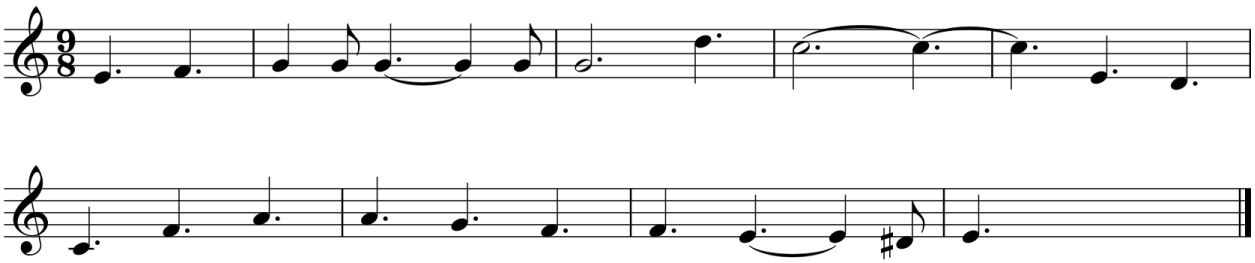
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