QQI Level 5 Music Award

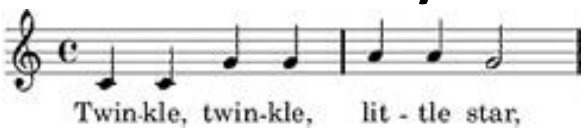
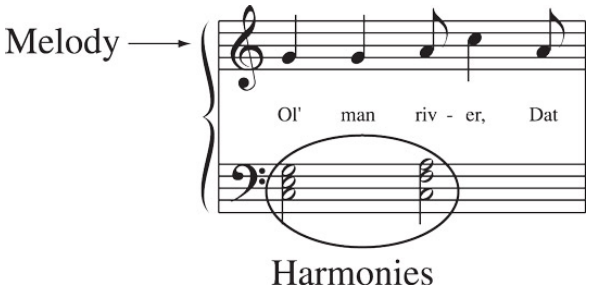
MUSIC THEORY & PRACTICE MODULE

TEXT BOOK

& Exam Question Examples

Written and compiled by Glenn McMahon

Music has 3 elements:

Musical Component	Definition	Example
1. Melody 	Melody is any *sequence* of single notes that make up a 'tune'.	1. The 'tune' a singer sings. 2. The notes a lead instrumentalist plays in a 'solo'.
3.Harmony 	Harmony occurs when 2 or more notes are sounded *at the same time*.	1. A different melody a second person sings at exactly the same time as another singer. 2. Notes played on an instrument at the same time as another note is played. (A collection of 2 or more notes played together at the same time is called a 'chord'.)
3. Rhythm 	Rhythm is any regular, repeated pattern of movement or sound.	1. The beat a drummer plays. 2. The strumming pattern of a guitarist.

Melody

PITCH is the highness or lowness of a sound.

You will use 12 pitches in your music. You will call each pitch, a **NOTE.**

When one note is *higher* than another, you will say that the higher note is **SHARP**.

When one note is *lower* than another, you will say that the lower note is **FLAT**.

You will place the following two symbols *after* a *note or chord* to let you or someone else know if a *note or chord* is flatter or sharper than some other *note or chord*.

(You will learn what a *chord* is later.)

Sharp Sign ♯ Flat Sign ♭

Example: An F♯ note is one note *higher* in pitch than an F note.

 Music happens when notes are played in sequence or at the same time.

You will only ever see 7 LETTERS in music

They will be the letters…

A B C D E F G

There are, however, a total of

12 NOTES in music.

Here they are, in the correct sequence:

Note Number	1	2	3	4	5	6	7	8	9	10	11	12
Note Name	**A**	**A♯**	**B**	**C**	**C♯**	**D**	**D♯**	**E**	**F**	**F♯**	**G**	**G♯**
Alternative Note Name		B ♭			D ♭		E ♭			G ♭		A ♭

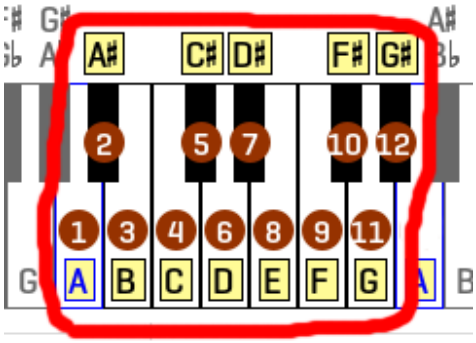
Notice that there are no sharps or flats between notes B & C and between E & F.

Some notes can be called by 2 DIFFERENT NAMES.
Example: A♯ is the *same* note as B ♭ . **C♯** is the *same* note as D ♭ **and so on**…

The SEQUENCE of NOTES in MUSIC

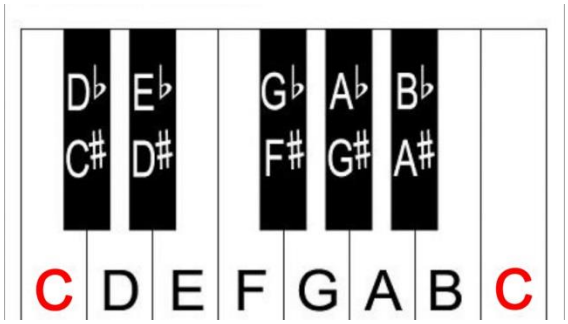
You will understand exactly where the 12 notes of music exist on a piano or keyboard.

Notice where the A note is located (the white key to the left of the *last* of the 3 black keys).



All WHITE keyboard notes are named using a *single letter*.
All BLACK keyboard notes are named using a *single letter* ***plus a*** ♯ ***or*** ♭ ***symbol***. (Remember some notes can be called by 2 different names.)

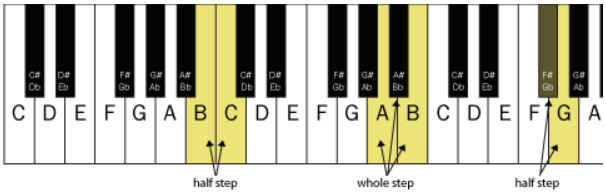
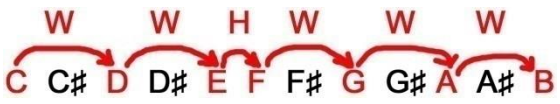
You will also understand where the
12 notes of music are located on a keyboard
starting & ending with the C NOTE.
(It is very important to know this!)



You will learn what a scale is and why scales are so important!

A **SCALE** is any particular sequence of notes (of the 12 that exist in music) that can be used to create music.
A scale is usually between 5 to 8 notes long.
Scales are used to create certain styles of music and to create certain emotional *moods*.
Most musical works are built using the notes of a single scale.
The notes of a scale are mostly ordered in ascending (increasing) pitch but can occasionally be ordered in descending pitch.
The first and last notes of a scale are always called by the same name. e.g. The notes of the C Major Scale are: **C** D E F G A B **C**
• The most common scale in music is called the major scale. • The major scale is scale is used to create happy and lively-sounding music. • Most pop, dance and rock music is composed using the major scale.
The major scale has 8 notes.
Other scales exist in music e.g. the **minor scale**. 'Minor' scales sound sad and serious and also have 8 notes.

HOW to WORK OUT the NOTES of ANY MAJOR SCALE

1	Write out the 12 notes that exist in music (that you learned earlier) IN THE CORRECT SEQUENCE! (A A♯ B C C♯ D D♯ E F F♯ G G♯)
2 Important Notice	Choose any one of those 12 notes as your *starting note*. The name of that starting note will also be the name of the major scale you want to figure out. Example: Choose the 'C' note as your starting note to work out the notes of the C major scale. (It's very important to know what the notes of the C major scale are!)
3	Now, write out the 12 notes of music *starting with the C note*. C C♯ D D♯ E F F♯ G G♯ A A♯ B...C (All scales must start and finish on the same note NAME).
4	Understand that a **Half Step** in music (using a piano to demonstrate) means *2 keys together with no keys between.* Understand that a **Whole Step** in music (using a piano to demonstrate) means *2 keys together with one key between.*  A Whole step = 2 Half steps
5 Important Notice	Then use the following formula (and apply it to any group of 12 notes starting at any position of the 12 notes of music) (where W=Whole step and H=Half step):  1 2 3 4 5 6 7 8 So the notes of the C major scale are **C** D E F G A B and **C** (Remember, there are 8 notes in a major scale and all scales start and finish on the same note NAME.) **You will NOTICE THAT EACH SCALE NOTE IS REFERRED TO BY NUMBER!!**

Harmony

HARMONY is any combination of notes (from the same key) that are sounded at the same time.

A **CHORD** is played by playing *three* or more notes *at the same time*.

The sound of each chord creates a certain **mood**.

For example, a 'major' chord sounds happy.

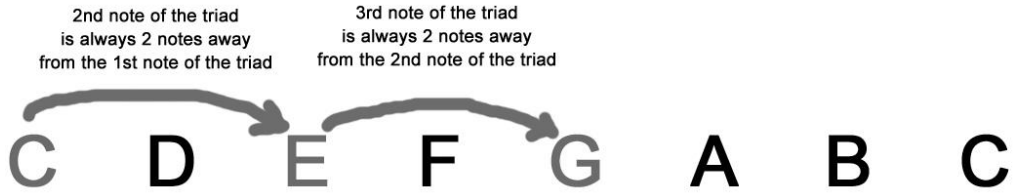
A minor chord sounds 'sad' or serious.

A **TRIAD** is a **3** note chord.

(Most chords you hear in modern music are triad chords).

HOW to FORM a TRIAD	
1	Choose any note from a scale as the 1st note of the triad.
2	The 2nd note of the triad will be *2 notes away from* the 1st note of the triad.
3	The 3rd note of the triad will be *2 notes away from* the 2nd note of the triad.

Example: How to form the C major Triad



Therefore, the notes of a C major triad are C, E and G.

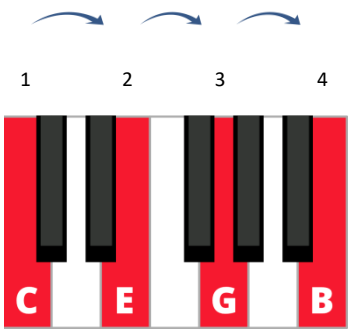
Examples of some **Triad Chords** (formed by using the notes of the C major scale). (The notes of the C major scale are C D E F G A B C)		
Triad chord	**C Major Scale**	**Triad Chord Notes**
Cmajor triad	**C** D **E** F **G** A B C	C E G
Fmajor triad	C D E **F** G **A** B **C**	F A C
G major triad	C D E F **G** A **B** C (**D**) Note: the 'D' note comes from the next *octave* scale. You will learn what an octave is later.	G B D

There are **other chord types.**

Some chords have 4 notes.

For example, here's a 4 note chord:

(Skip a note, Skip a note, Skip a note)



(This chord is called C major 7th or written more commonly as **C maj7**).

There are **other chord types**

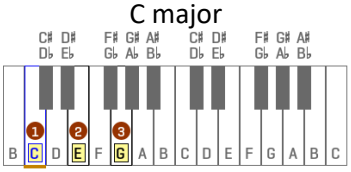
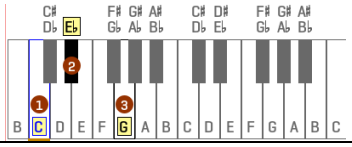
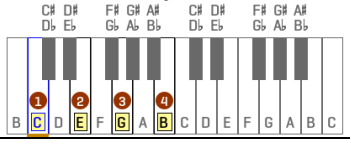
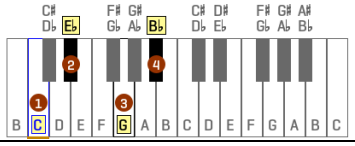
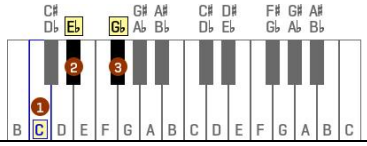
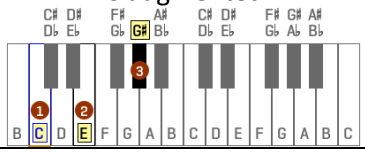
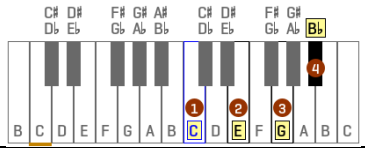
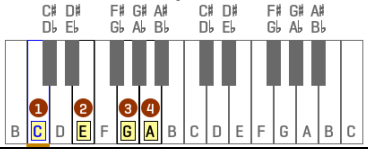
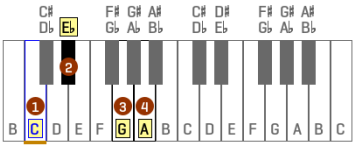
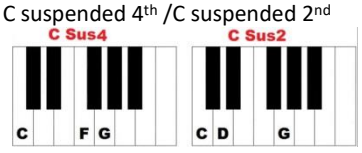
(with names that might seem strange at first, but their names will make more sense when you will learn the formula for finding the notes of each chord type).

An **ARPEGGIO** happens when the notes of a musical chord are played ***one after the other as a separate sequence***, instead of at the same time.

The **KEY** of a piece of music is the *specific group of notes* that are chosen, heard, performed or notated in a piece of music.

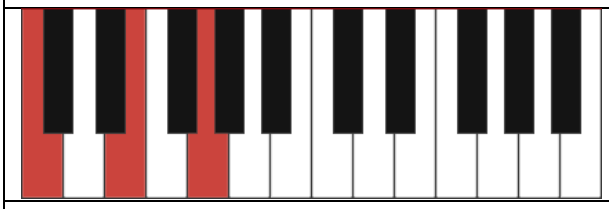
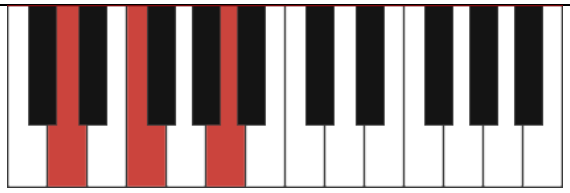
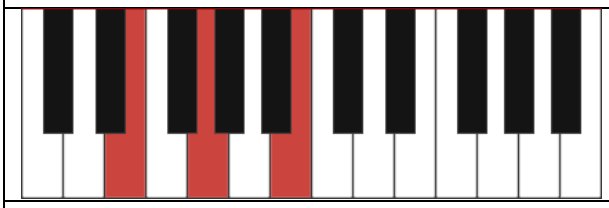
A key is chosen to ensure that a singer or instrumentalist can sound or perform better playing or singing a particular range of notes that suit his/her voice or instrument.

The following are **The 10 most Common Chord Types**:

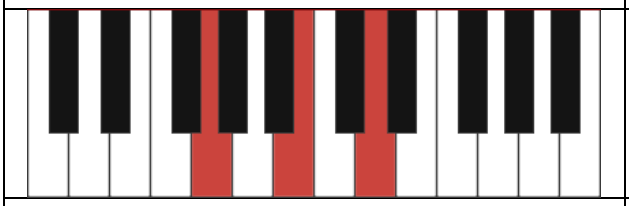
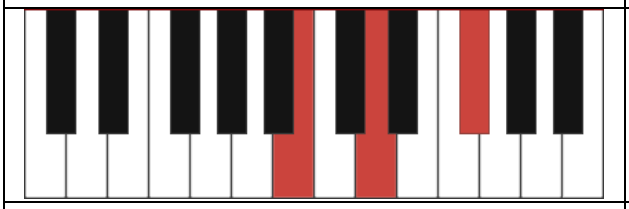
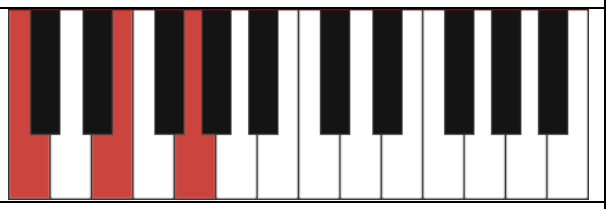
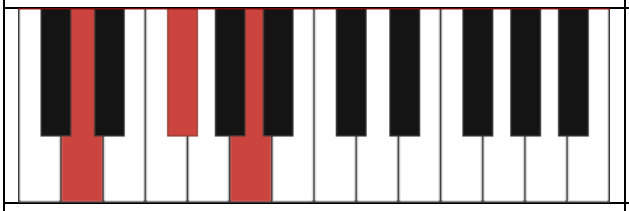
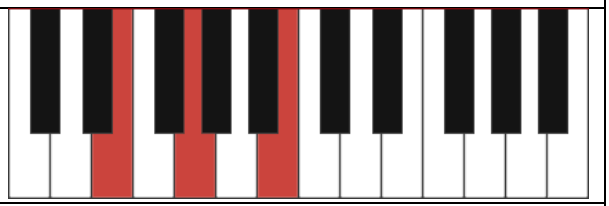
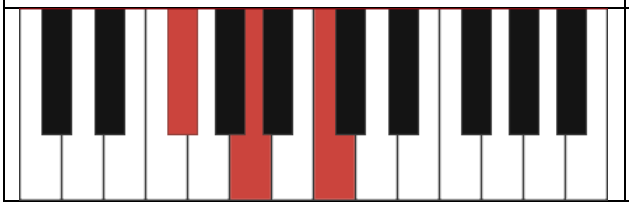
Chord Type	Chord Formula	Chord on Piano	Chord Symbol
Major Triad	1st 3rd 5th notes of a major scale	C major 	C
Minor Triad	1st ♭ 3rd 5th notes of a major scale	C minor 	Cm
Major 7th	1st 3rd 5th 7th notes of a major scale	C major 7th 	Cmaj7
Minor 7th	1st ♭ 3rd 5th ♭ 7th notes of a major scale	C minor 7th 	Cm7
Diminished Triad	1st ♭ 3rd ♭ 5th notes of a major scale	C diminished 	Cdim
Augmented Triad	1st 3rd ♯5th notes of a major scale	C augmented 	Caug
Dominant 7th	1st 3rd 5th ♭ 7th notes of a major scale	C dominant 7th 	C7
Major 6th	1st 3rd 5th 6th notes of a major scale	C major 6th 	Cmaj6
Minor 6th	1st ♭ 3rd 5th 6th notes of a major scale	C minor 6th 	Cm6
Suspended Triad suspended 2nd suspended 4th	1st 2nd and 5th (sus2) OR 1st 4th & 5th (sus4) notes of a major scale (Replace the 3rd note of the triad chord with either the 2nd or 4th note of the scale)	C suspended 4th /C suspended 2nd 	Csus2/Csus4

Some common piano CHORDS

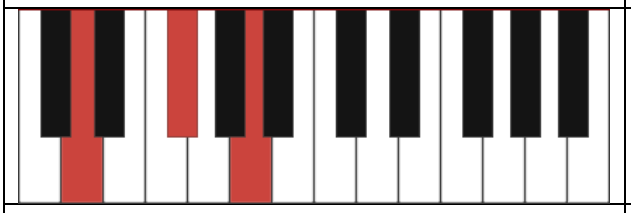
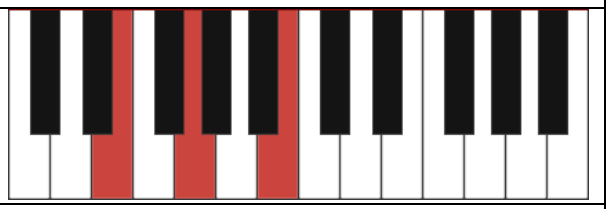
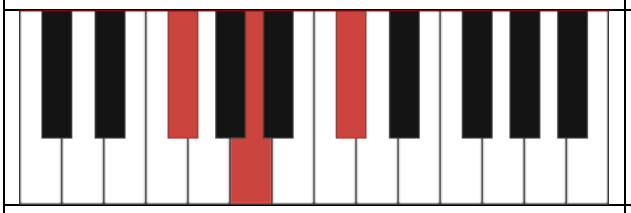
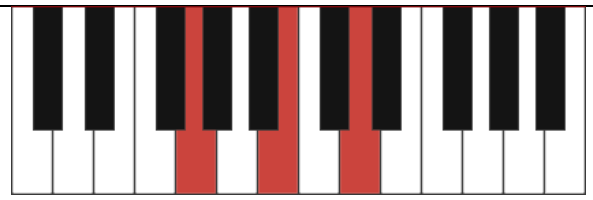
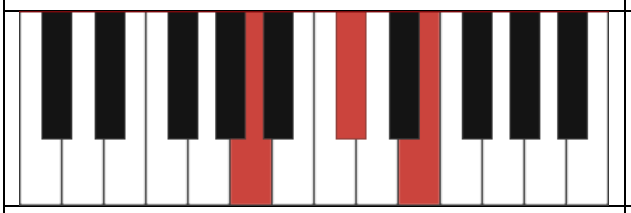
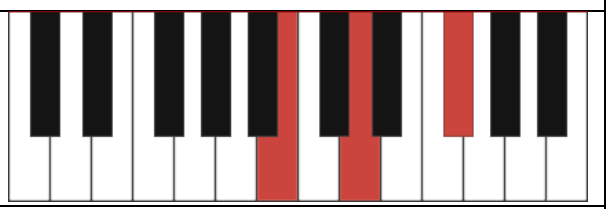
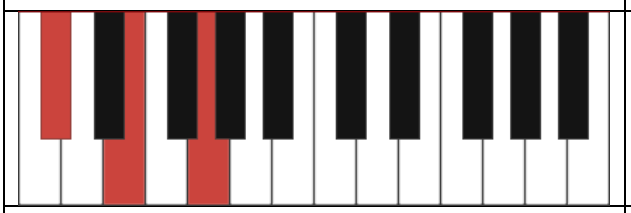
Triad Chords in the key of C Major

1. C Major	2. D Minor
	
3. E Minor	4. F Major
	
5. G Major	6. A Minor
	
7. B Diminished	
	

Triad Chords in the key of G Major

1. G Major	2. A Minor
	
3. B Minor	4. C Major
	
5. D Major	6. E Minor
	
7. F# Diminished	
	

Triad Chords in the key of D Major

1. D Major	2. E Minor
	
3. F# Minor	4. G Major
	
5. A Major	6. B Minor
	
7.C# Diminished	
	

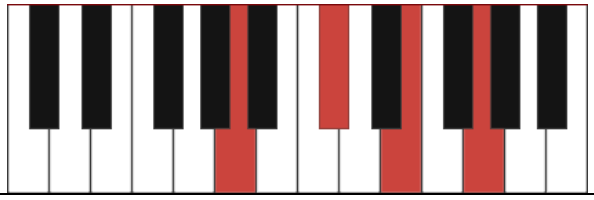
Some Important Dominant 7th Piano Chords

(A Dominant 7th chord sounds 'jazzy' and can replace the 5th chord of any Major Key)

1. G7

2. D7

3. A7



The Use of Roman Numerals in Music

Roman numerals are used to represent **chords**, that are built from scale degrees 1-7.

For instance, “IV” refers to the chord built on the fourth degree of a scale.

Scale degrees refer to single notes. Roman numerals refer to chords.

Some Common Piano SCALES

C Major Scale

A Minor Scale

G Major Scale

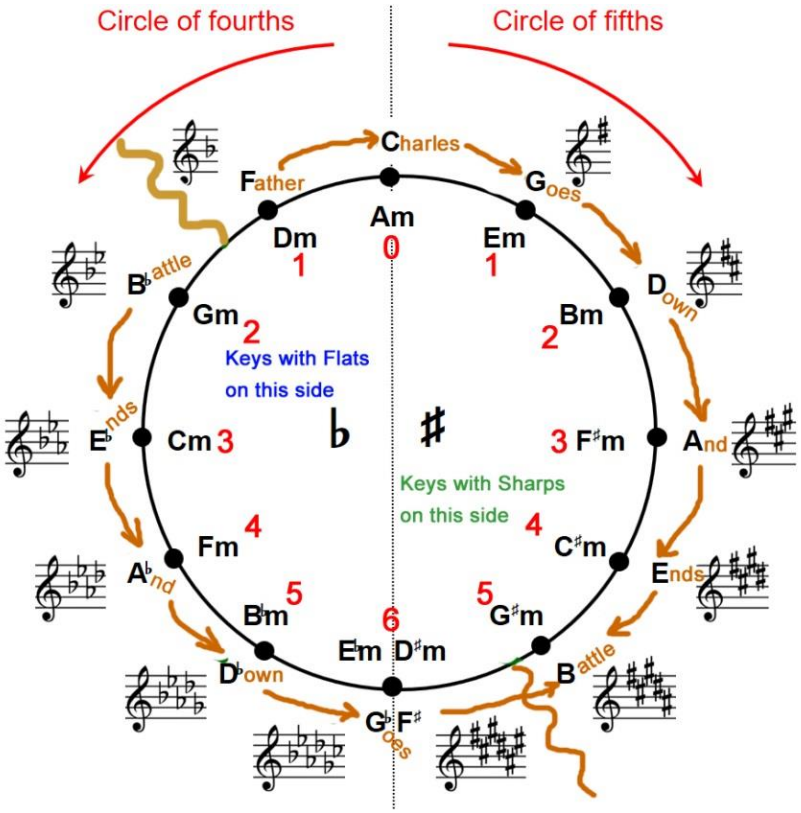
E Minor Scale

D Major Scale

B Minor Scale

It's absolutely essential that you learn and understand

THE CIRCLE of FOURTHS & FIFTHS



- Treat the circle as a **clock.** Notice where the **clock numbers** are.

- Treat the left-hand side of the clock as a mirror-image of the right-hand side.

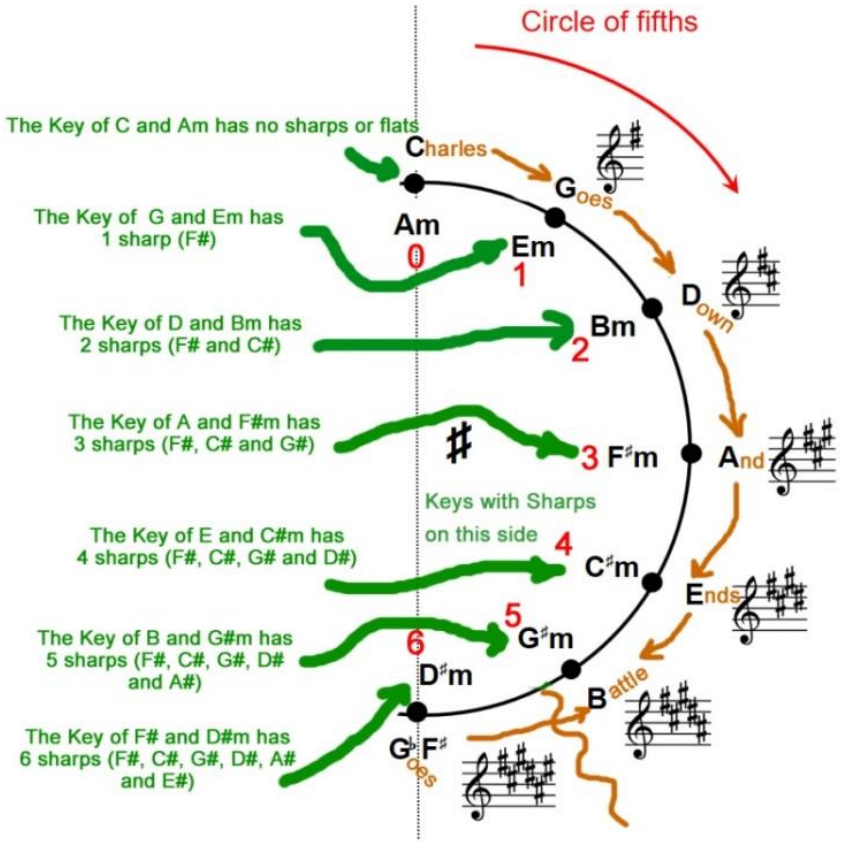
Example: Treat the position on the left-hand side of the clock that is normally referred to as the 11 o'clock position on a normal clock *also* as the one o'clock position (because its position is directly opposite the 1 o'clock position that exists on the right-hand side of the clock).

- A key's (letter's) position on the clock will tell you how many sharps or flats are in that key.

- To memorize what keys are in what positions on the 'clock', start from the 1 o'clock position on the *left-hand side* and remember the sentence,

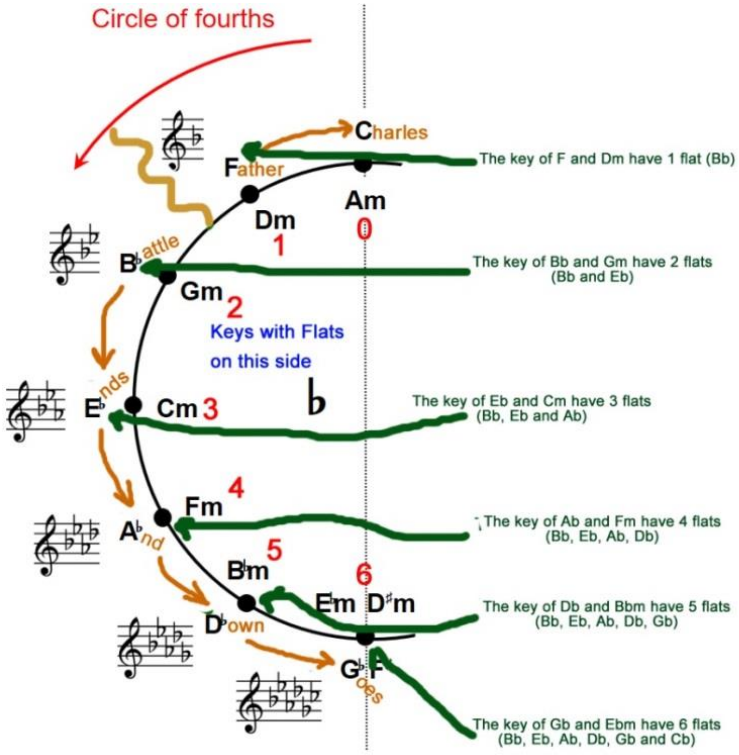
***F**ather **C**harles **G**oes **D**own **A**nd **E**nds **B**attle*

Notice that F is in the position that is a mirror image of the 1 o'clock position on the right side of the clock.

HOW TO FIGURE OUT WHAT KEYS are on the RIGHT-HAND SIDE of the CIRCLE.
Starting from the **F position** on the clock, move clockwise. Then use the sentence you just learned (**F**ather **C**harles **G**oes **D**own **A**nd **E**nds **B**attle) to figure out what letters (keys) are on the right-hand side of the clock.
This method will allow you to figure out what keys are in what positions up until the 5 o'clock position.


HOW TO FIGURE OUT WHAT KEYS are on the LEFT-HAND SIDE of the CIRCLE.

Starting from the F position on the clock, move anti-clockwise. Then reverse the order of the sentence you just learned (**F**ather **C**harles **G**oes **D**own **A**nd **E**nds **B**attle); The sentence will now read: ***B**attle **E**nds **A**nd **D**own **G**oes **C**harles **F**ather*. Again using the first letter of each word in the new sentence (B, E, A, D, G) and putting a flat (♭) symbol after each letter name, you will be able to figure out all the keys in all the positions on the **left-hand** side of the clock.



Important Notice

- On the left-hand side of the clock, keys have one or more FLAT NOTES in them.

For example, the key of B ♭ is in the 2 o'clock position therefore this key has 2 flat notes in it.

- When you're working out the notes of any flat key, **B ♭** will always be your first note.

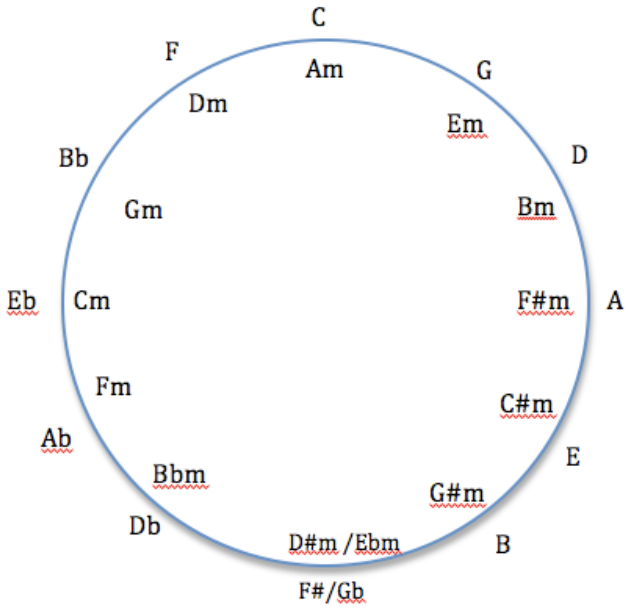
Important Notice For example, the key of F is in the reverse 1 o'clock position therefore it has one flat. That flat is **B ♭ .**

- To work out the other flat notes of any other flat key, according to the starting letter of your new sentence (***B**attle **E**nds **A**nd **D**own **G**oes **C**harles **F**ather*), B ♭ will be your first note, E ♭ will be your second, A ♭ will be your third, D ♭ will be your fourth note, Gb will be your 5th note.

HOW TO ILLUSTRATE USING A DIAGRAM THE CYCLE of 4ths/5ths.

1. Draw out the circle of 4ths/5ths.

(For the exam, you only need to write out the correct keys on the outside of the circle and their relative MINOR keys on the inside.)



Then you explain as follows:

- Draw a circle and think of it as a clock.
- On the **outside** of the circle, replace the clock numbers with certain major keys.
- To know where the major keys are placed on the 'clock', use the first letter of each word in the following sentence, '**F**ather Charles **G**oes **D**own **A**nd **E**nds **B**attle'.
- Place the first key (**F**) at the 11 0'clock position of the clock.
- Insert the correct major keys by replacing the clock numbers on the right hand side of the clock with the remaining word starting letters - C, G, D, A, E and B (C is placed in the 0 hundred hours position, G in the 1 o'clock position etc.).
- All the major keys on the right-hand side of the clock are derived by using the first letter of each word in the sentence. Each one of these keys on the right hand-side will have one or more sharp notes.
- The number of sharps or flats in a key depends on where the key appears on the clock. For example, the key of E ♭ has 3 flats in its key because the key appears in the 'mirror' 3 o'clock position.
- Reversing the sentence to '**B**attle **E**nds **A**nd **D**own **G**oes **C**harles' **F**ather', you place the first letters of this sentence, counter-clockwise on the left-hand side of the circle. You begin at the 10 o'clock position. (B ♭ is placed at the 10 o'clock position, E ♭ at the 9 0'clock position etc.).

The circle is called the 'Circle of Fourths and Fifths' because it shows you how to find the fourth and fifth note and/or chord of any key

How to Find the Fifth Note and Fifth Chord of Any Key

- Pick any key on the clock.
- Move clockwise one place forward to the next letter of the circle.
- That next letter is the FIFTH note and/or chord of the original key you chose and started moving from.

Example:

The fifth note of the key (scale) of G is D.

The fifth note of the key (scale) of D is A.

The fifth note of the key (scale) of A is E

etc.

How To Find the Fourth Note and Fourth Chord of Any Key

- Pick any key on the clock.
- Move anti-clockwise one place backwards to the next letter of the circle.
- That next letter is the FOURTH note and/or chord of the original key you chose and started moving from.

Example:

The fourth note of the key (scale) of E is A.

The fourth note of the key (scale) of A is D.

The fourth note of the key (scale) of D is G

etc.

The Circle of Fourths and Fifths helps you to

- work out the fourth and fifth note of every key. (This is important to be able to do as you will discover later on. It is also the reason the circle is known as 'The Circle of Fourths & Fifths'.
- understand the relationship between the 12 notes that exist in music
- understand key signatures and their corresponding scales.
- understand the special relationship between certain major and minor keys.
- work out how many sharps or flats are in every key
- work out what those sharps and flats are.

THE CIRCLE OF FOURTHS AND FIFTHS ALSO TELLS YOU

WHAT THE **SHARPS AND FLATS OF EACH KEY ARE**.

SHARP NOTES in the KEYS on the RIGHT-HAND SIDE of the CLOCK

Scale	Number of Sharps	Names of Sharp Notes
C or Am	0	none
G or Em	1	F♯
D or Bm	2	F♯ C♯
A or F♯m	3	F♯ C♯ G♯
E or C♯m	4	F♯ C♯ G♯ D♯
B or G♯m	5	F♯ C♯ G♯ D♯ A♯
F♯ or D♯m	6	F♯ C♯ G♯ D♯ A♯ E♯

FLAT NOTES in the KEYS on the LEFT-HAND SIDE of the CLOCK

Scale	**Number of Flats**	**Names of Flat Notes**
F or **Dm**	1	B ♭
B ♭ or **Gm**	2	B ♭ E ♭
E ♭ or **Cm**	3	B ♭ E ♭ A ♭
A ♭ or **Fm**	4	B ♭ E ♭ A ♭ D ♭
D ♭ or **B** ♭ **m**	5	B ♭ E ♭ A ♭ D ♭ G ♭
G ♭ or **E** ♭ **m**	6	B ♭ E ♭ A ♭ D ♭ G ♭ C ♭

RELATIVE MINOR & MAJOR KEYS

Every major key shares its notes and chords with one other minor key.

R**elative Keys** are major and minor scales that have the same notes and chords (but are arranged in a different order i.e. they have different starting notes).

Example:

The keys of G major and E minor share exactly the same notes and chords *but in a different order*.

The notes of the G **major** scale are

1	2	3	4	5	6	7	8
G	A	B	C	D	E	F♯	G

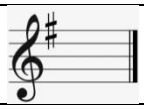
The notes of the E **minor** scale are

1	2	3	4	5	6	7	8
E	F♯	G	A	B	C	D	E

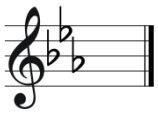
Relative major and minor keys are represented by the **same key signatures:**

Examples:

1. the keys of G major and E minor are represented by exactly the same key signature.

	This is the key signature for the keys of G **AND** Em.

2. the keys of E ♭ major and C minor are represented by exactly the same key signature.

	This is the key signature for the keys of E ♭ major **AND** C minor.

HOW to GET THE RELATIVE MINOR KEY of ANY KEY.

You can use any of the following 3 methods:

METHOD 1

1	Write out the notes of the scale of any major key. e.g. In this case, we'll write out the notes of the scale of the key of A:

1	2	3	4	5	6	7	8
A	B	C♯	D	E	F♯	G♯	**A**

2	Move 2 places backwards from the final 8th note and you will land on the relative minor key. e.g. in this example, the relative minor key of **A** is F♯m.

METHOD 2

USING THE CIRCLE OF FOURTHS & FIFTHS

Count 3 places forward (clockwise) on the circle.

Example: Picking the key of G major and counting 3 places forward on the circle, gives us the letter 'E'. Therefore, E minor is the relative minor key of the key of G major.

METHOD 3

Choose the **6th** note of any major scale to get its relevant minor key.

Example: the **6th** note of the **G major scale** is **E** therefore the relevant minor key of G major is E minor.

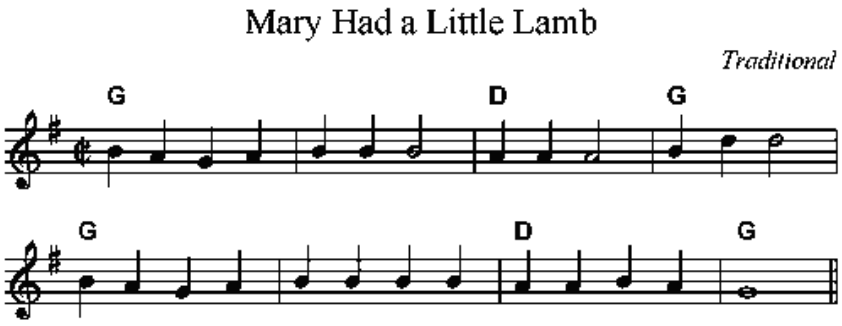
Rhythm

Rhythm is any regular, repeated pattern of movement or sound

HOW TO READ MUSIC NOTATION

Music Notation is a set of musical instructions written for a musician that appear on a screen or piece of paper. Music Notation tells a musician what pitch(s) to play and when to play them.

Here is an example of what a piece of music notation looks like:



Why use music notation at all?

In the days before recorded music was so easy to listen to, the only way a listener could hear a piece of music was if the musicians were performing the music right in front of the listener. If a composer wanted someone to perform his/her compositions, the composer had to write down and provide the musicians with sheets of written notation.

These days, music notation is not so important, because a musician can usually study how to play a piece of music by listening to or following an instruction video on Youtube, for example.

But music notation can be useful when you want to understand additional things about a piece of music like the tempo, time signature and key (You will learn what these things mean later in your course).

Before computers were easily available, music notation was written on paper, but composers now usually use computer software. Some of this software is free and available to download from the internet. Example *Sibelius First* or *MusScore*.

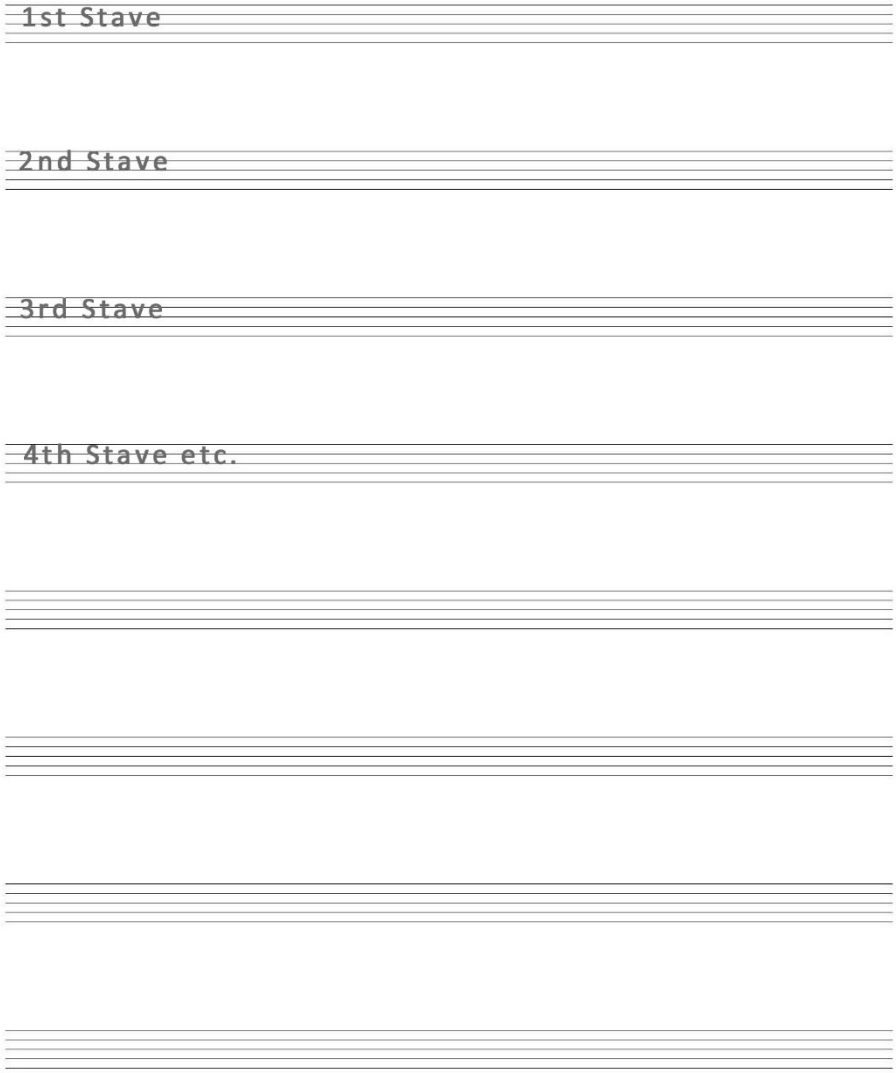
1st thing to know about reading music…

All music notation symbols are written mostly on (but also above or below) a 5-line lane that stretches from one end (the left-hand side) to the other end (the right-hand side) of a blank page.

This 5-line lane is known as a **stave** or **staff**. This musical stave is made up of 5 lines and 4 spaces. The position of a note symbol on the lines or in the spaces tells you the pitch and letter name of a note.

A music manuscript page contains several stacked staves. These staves fill up the entire music manuscript page.

BLANK MUSIC MANUSCRIPT PAGE



2nd thing to know about reading music…

The symbol that appears at the *start* of *every* stave is called a

Clef.

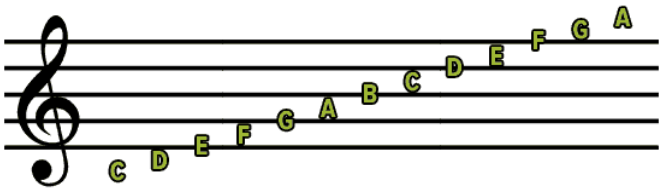
A **clef** is a musical symbol that tells you what notes are represented by the lines and spaces of a stave.

A clef is placed at the start of every stave.

The most common clef symbol you will see at the start of a stave is called the Treble Clef.

The TREBLE CLEF

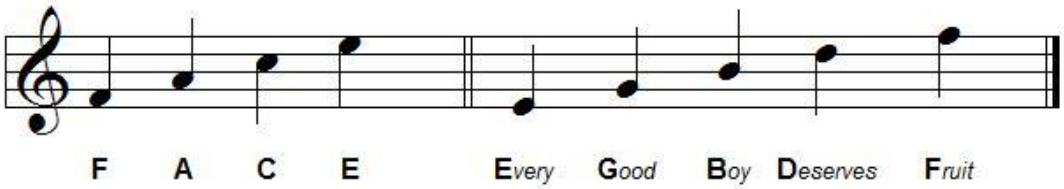
If you see a Treble Clef at the start of a stave, the lines and spaces will represent the following notes:



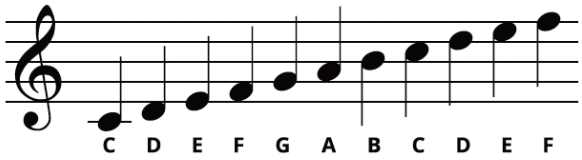
Note the value of the extra notes above and below the stave lines.

A good way of remembering the notes of the Treble Clef stave is to remember that the note letters in the stave ***spaces*** spell the word '**FACE**' and the note letters on the stave ***lines*** correspond to the first letters of the words in the following sentence,

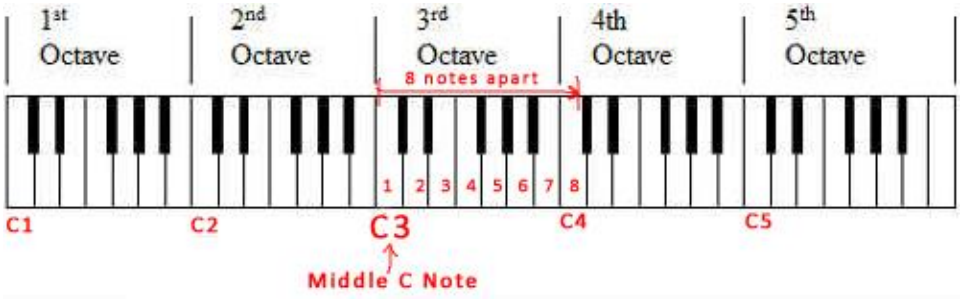
'Every Good Boy Deserves Fruit'.



Notice that, when you see the Treble Clef appear at the start of a stave, the note that exists 2 places below the lowest stave line is called the C note. This C note is placed underneath the stave on what is called a ledger line. This note corresponds to what is referred to as the 'Middle C' note on a piano.



Middle C note on a 61 Key Keyboard



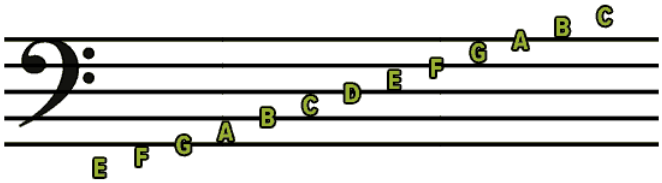
An Octave is the distance between 2 notes which are **8 notes apart**.

Examples of Instruments Represented by **The Treble Clef**	
violin	
flute	
saxophone	
trumpet	
6-string guitar	

On the **piano**, the treble clef notes are played by the right hand.

The BASS CLEF

When you see the bass clef at the start of a stave, the lines and spaces represent the following notes:



A good way of remembering the notes of the Bass Clef stave is to remember that the note letters in the stave ***spaces*** correspond to the first letters of the words in the following sentence,

All Cows Eat Grass

and the note letters on the stave ***lines*** correspond to the first letters of the words in the following sentence,

Good Boys Deserve Free Apples

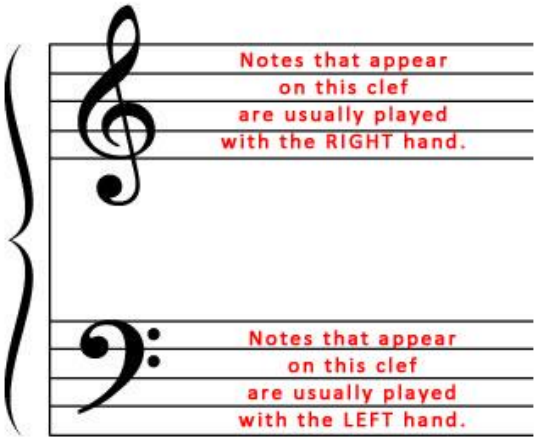
Again, pay attention to the values of the notes just beneath and above the Bass Clef stave.

On the **piano**, the bass clef notes are played by the left hand.

Examples of Instruments Represented by **The Bass Clef**	
Bass guitar	
Cello	
Trombone	
Tuba	

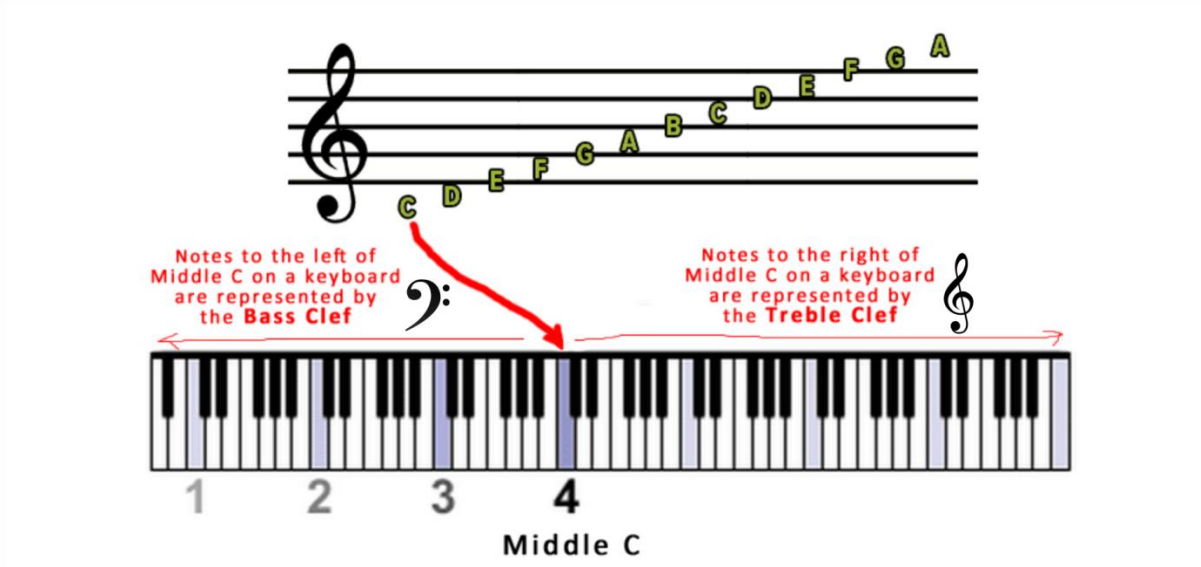
In music notation for **KEYBOARD MUSIC**,

the Treble Clef stave very often appears directly above the Bass Clef Stave.



Important Notice Make sure you know where the **Middle C Note** exists on a piano!

(C notes are always the white keys immediately to the left of the 2 grouped black keys.)



A **Bar** (or measure) is an **equal-length section** of a piece of music.

A bar has a certain number of beats. (most commonly 3 or 4)

The boundaries of the **bar** are indicated by vertical **bar lines**.

Each beat is represented by a particular **note value**.

A Note has 2 main values	
Pitch	Duration

The word 'Duration' means the same as the word 'length'.

Up until now, you have been learning about note pitch. Now you will learn about **note duration**.

You will read and write special symbols to let the reader of music notation know ***how long*** a particular pitched note lasts for.

For example, if a note lasts for a quarter of a bar, this note is called a *quarter note* and is represented by this symbol: ♩ If a note lasts for an eight of a bar, this note is called an *eight note* and is represented by this symbol: ♪ etc.

NOTE DURATION SYMBOLS

Whole Note 	This note lasts for the entire (whole) bar
Half Note 	This note lasts for half a bar
Quarter Note 	This note lasts for quarter of a bar.
Eighth Note 	This note lasts for one eight of a bar
Sixteenth Note 	This note lasts for a sixteenth of the bar
Thirty-second Note 	This note lasts for a tiny length – only one thirty second of the bar.

REST DURATIONS

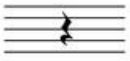
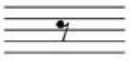
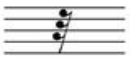
If a period of silence exists in a piece of music, this period of silence is represented by a visual symbol called a **rest symbol**.

For example, a period of silence in a piece of music may last for one quarter of a bar. In this case, the duration of that silence would be represented by this symbol: 

If a period of silence in a piece of music lasted for one eight of a bar, the duration of that silence would be represented by this symbol: 

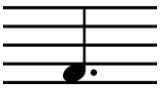
Rules for where to place RESTS.	
1	Place rests ON beats only (**not between beats**).
2	A rest cannot intersect the centre of a bar.
3	Always combine rests that equal 2, 3 or 4 beats into longer rests, but ONLY if they fall on the strong beat of the bar. (you will understand what this means when you learn about $\frac{4}{4}$ and $\frac{6}{8}$ time.

NOTE DURATION, REST VALUE SYMBOLS & Note Equivalent Values

Note Name	Symbol	Rest Value	Equivalent Value	Symbol
Whole Note			Two Half Notes	
Half Note			Two Quarter Notes	
Quarter Note			Two Eighth Notes	
Eighth Note			Two Sixteenth Notes	
Sixteenth Note			Two Thirty-second Notes	
Thirty-second Note			Two Sixty-fourth Notes	

You will also encounter a special type of note called a '**dotted quarter note**'.

A dotted quarter note looks like this:



A dotted quarter note is the equivalent of 1 ½ quarter notes which is the same as 3 x eight notes.

A Dotted Quarter REST symbol looks like this: (When you see one of these symbols, it means silence occurs for 3 x 1/8's of a bar.)	

When writing a piece of music, you will decide how many **beats** will exist in each and *EVERY* bar of your piece of music. You will demonstrate how many beats exist in your written piece of music by writing a **TIME SIGNATURE** on your staff**.**

*A **Time Signature is** a sign consisting of two figures, one above the other, the upper figure represents the number of beats per bar and the lower one represents the note duration value of each beat.*

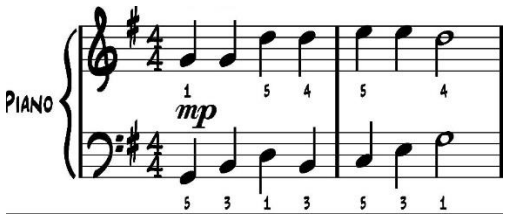
You will write and place your time signature **directly AFTER your key signature**.

You will write your clef, key signature and time signature at the **start** of each and EVERY stave.

The **order** you will write these three pieces of information is

Clef FIRST, Key signature SECOND and Time signature THIRD

Using music notation, here is an example of this order:



You will see four different time signatures during your course.

You will write these **time signatures** like this:

$\frac{4}{4}$ $\frac{3}{4}$ $\frac{2}{4}$ $\frac{6}{8}$

When you look at a time signature remember this:

The TOP NUMBER tells you HOW MANY BEATS ARE IN EVERY BAR.

The BOTTOM NUMBER tells you the NOTE DURATION VALUE TYPE THAT WILL REPRESENT EACH BEAT.

For the purposes of this course, you will only ever see and write

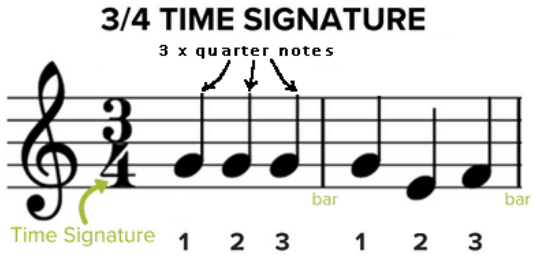
one kind of time signature in your piece of music.

So for example, if you see the $\frac{3}{4}$ time signature in your piece of music, you will know that there are 3 beats in every bar and that each one of those beats will be *represented* by a quarter note symbol.

In this key signature, even though each note is *represented* by a 'quarter note', there are only **3** quarter notes (NOT 4) in each bar of a piece of music that has the $\frac{3}{4}$ time signature.

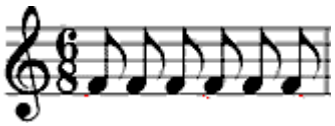
When verbally describing a time signature such as $\frac{3}{4}$ time, you describe it as 'Three four time'.

When describing the $\frac{4}{4}$ time signature, for example, you describe it as 'Four four time' etc.



Notice that each of the 3 beats in each bar is represented by a quarter note symbol.

When writing or reading a piece of music in the $\frac{6}{8}$ time signature, know that there are 6 beats in each bar and each beat is represented by an eight note symbol.

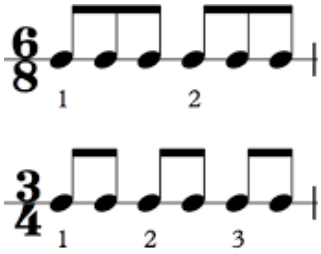


THE DIFFERENCE BETWEEN $\frac{3}{4}$ AND $\frac{6}{8}$ TIME SIGNATURES

In $\frac{6}{8}$ time, eight notes are **grouped in 3's** and this time signature has **2 beats per bar**.

In $\frac{3}{4}$ time, eight notes are **grouped in 2's** and this time signature has **3 beats per bar**.

Here is how you would write eight notes in these 2 different time signatures.



The most common time signature you will see is the $\frac{4}{4}$ time signature.

Most music you listen to from the internet or on television is written in this time signature.

In this time signature, each of the four beats are represented by the quarter note symbol.

Here is a very simple example of what this time signature would look like on a stave:

Sometimes notes are **grouped** (or 'beamed') together. In music notation, notes with less duration value than a quarter note have 'flags' attached to them. Connecting several notes with flags attached to them is what we call "**GROUPING**". Notes are grouped together to make sheet music easier to read.

Rules for Grouping Notes

These rules apply to all time signatures.

1. **Do not beam across a bar line.**

All beaming takes place within the bar. If you have a stray eighth note at the end of a bar, it should be written with the tail, rather than connected to the first beat of the next bar.

2. **Do not beam across the centre of a bar.**

For example, in 4/4 time, the centre of the bar lies between beats two and three. These beats are always separated to ensure clear rhythm for the reader.

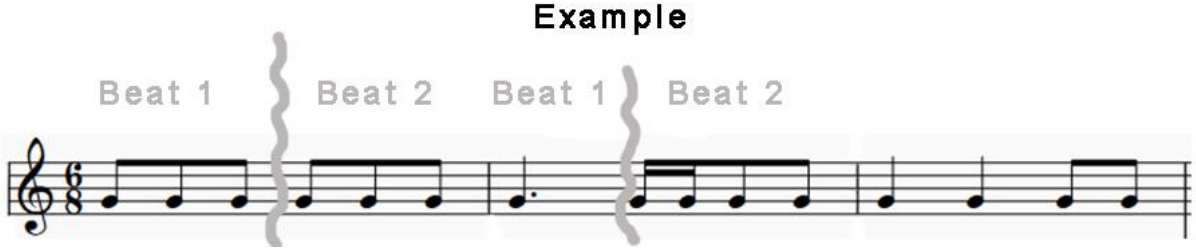
3. **Sixteenth Notes are grouped by beat.**

For example, in a bar where a beat is equal to one quarter note, a maximum of **four** sixteenth notes should be grouped together.

In $\frac{4}{4}$ **time**, beats two and three should always be separated. However, beats one and two can be grouped together, as well as beats three and four. Remember: sixteenth notes should be grouped by beat.

In $\frac{6}{8}$ time, there are **six eighth notes (pulses) per bar**, but treat this time signature like it has **only two beats**.

Example



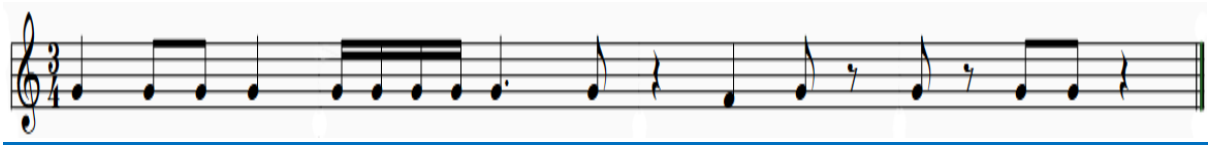
In this example, group 3 notes together. Treat each bar as having 2 beats.

HOW TO INSERT MISSING BAR LINES INTO A PIECE OF MUSIC PROVIDED

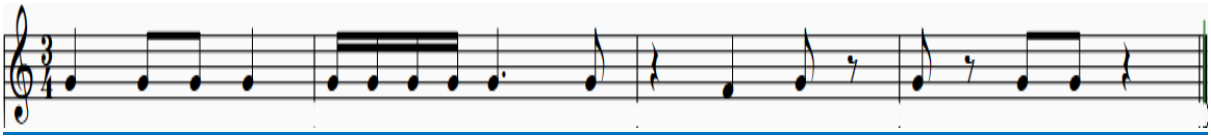
1. Look at the *time signature* at the beginning of the stave e.g. $\frac{4}{4}$. The top number will tell you how many beats and therefore how many notes exist in one bar.
2. Know the symbols that are used on the stave for each *note duration*. (e.g.  etc.)
3. Know the symbols that are used on the stave for each note *rest value*. (e.g.  etc.)
4. When you reach the point where the total number of note duration and rest values add up to one bar on the stave, draw a bar line after that group of notes.
5. When you have drawn the first bar line, begin the process again with the notes that follow the first bar line you drew.
6. Repeat this process until all of the notes on your piece of music notation, exist within the correct bars.

Example of how to insert missing bar lines into a piece of music provided.

Notice how *no* bar lines exist in this piece of music notation.



Now, notice where the bar lines have been inserted in this same piece of music notation.



In this example there are 3 beats in each bar (Look at the top number in the time signature at the beginning of the stave).

Each beat is represented by a quarter note (The bottom number in the time signature tells you this).

Remember: One quarter note is the equivalent of 2 eight notes and 4 sixteenth notes. Also remember that a dotted quarter note () is the equivalent of 3 eight notes.

Pay attention to the rest values that are used in the above example. ( = a quarter not rest).

Remember! In this example, the sum total of note duration values and note rest values must add up to 3 beats to fill a bar.

HOW TO WRITE A 4 BAR OPENING FROM A PROVIDED RHYTHM

1. Look at the *time signature* at the beginning of the stave e.g. $\frac{4}{4}$. The top number will tell you how many beats and therefore how many notes exist in one bar.
2. Know the symbols that are used on the stave for each *note duration*. (e.g.  ,  etc.)
3. Know the symbols that are used on the stave for each note *rest value*. (e.g.  .  etc.)
4. Make sure that all note duration values and note rest values in one bar add up to the total number of beats allowed in one bar.
5. Try to make sure the last note in the last bar is the same note as the key signature.
   For example, the key signature in this example is D major therefore the last note in the last bar is D.

Example of how to write a 4 bar opening from a rhythm provided.

Here is one bar of music notation.

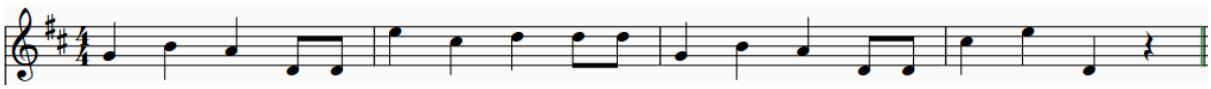
What do we know about this piece of music notation?

1. We know that the *treble clef* informs us of the *note pitch values* of the stave lines and spaces.

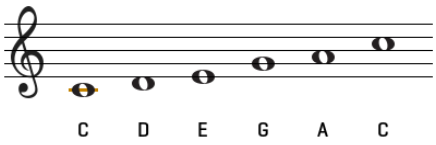
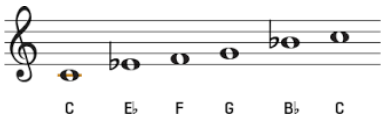
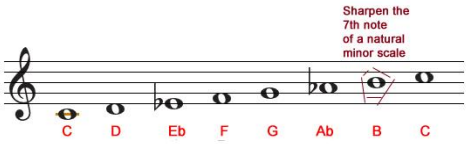
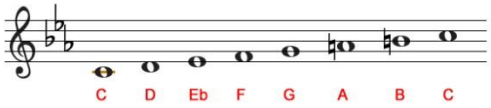
2. We know that the key signature tells us that the piece of music is written in the key of D major.

3. We know that the *time signature* tells us that there are 4 beats in each bar.

Using this information, the following is an example of how one might complete this 4 bar rhythm:



SCALE TYPES & their FORMULAS

Scale	Formula	Notation
Major	Write out the 12 notes that exist in music and apply the following formula: WWHWWWH (where W=whole note And H=half note)	The C Major Scale 
Major Pentatonic	The major scale minus the 4th & 7th notes.	The C Pentatonic Major Scale 
Natural Minor	Flatten the 3rd, 6th & 7th of a major scale.	The C Natural Minor Scale 
Minor Pentatonic	The minor scale minus the 2nd & 6th notes	The C Minor Pentatonic Scale 
Harmonic Minor	Sharpen the 7th note of a natural minor scale.	The C Harmonic Minor Scale 
Melodic Minor	Flatten the 3rd of a major scale. Or Sharpen the 6th & 7th of a natural minor scale.	The C Melodic Minor ***Ascending*** **Scale**  The C Melodic Minor ***Descending*** **Scale** is the same as the C Natural Minor Scale

For audio examples relevant to your exam, click on the following link:
https://www.facebook.com/1726580034/videos/10208599245095031/

Accidentals

An accidental in music notation is a symbol that changes a note's pitch.

An accidental is a note that is not a member of the scale indicated by the key signature.

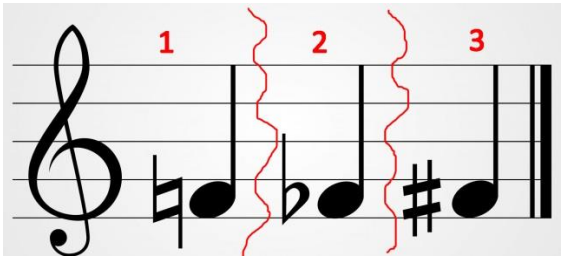
An accidental symbol is *always placed before a note*.

The most commonly used accidentals in music are the

sharp ♯ the flat ♭ and the natural ♮

These accidentals raise or lower a pitch by a half-step, making the pitch either higher or lower than it was before the accidental was applied.

The 3 Types of Accidental Symbols



1. In the above example, the first symbol before the first F note is called a **NATURAL SIGN**.

   In musical notation, a natural sign (♮) is an accidental sign used to cancel a flat or sharp that is indicated by the key signature at the start of the stave.

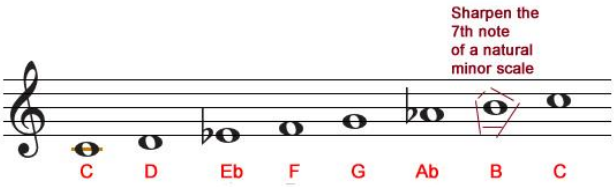
   (For example, in the above example, you would play or sing the 3rd note as an F♯ note and not an F.)

Harmonic Minor Scales

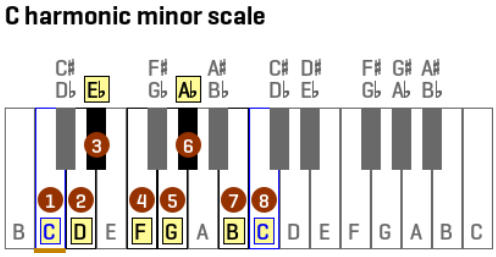
There is a special type of scale which sounds exotic, Middle-Eastern or Egyptian. It is called the Harmonic Minor Scale.

The Harmonic Minor Scale is the natural minor scale with a sharpened 7th.

Here's what a C Harmonic Minor scale looks like when written down on a stave.



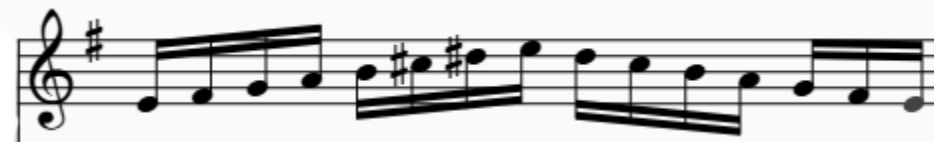
Play it on piano or guitar to hear what it sounds like.



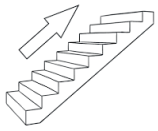
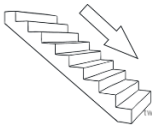
Melodic Minor Scales

Melodic Minor Scales are ***different ascending than they are descending***.

Notice how the notes in the key of E Melodic Minor below are different ascending than they are descending.



The formula for a **MELODIC MINOR SCALE** is

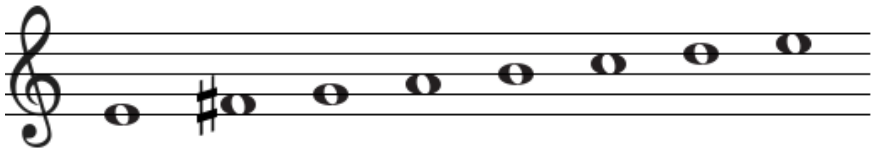
Ascending: 	**MAJOR SCALE WITH A ♭ 3RD**
Descending: 	**NATURAL MINOR SCALE**

HOW TO IDENTIFY THE KEYS OF SCALES.

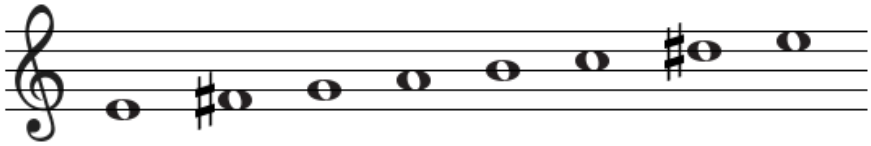
1. The first note (letter) of the scale tells you what *letter* to write as the key of the scale e.g. If the scale is *G A B C D E F♯ G* then the key is **G** major.
2. Then, you have to work out if the scale is major, minor, harmonic minor or melodic minor. For example, you will understand the difference between keys such as G major, G minor, G harmonic minor and G melodic minor.
3. Knowing the Circle of Fourths and Fifths will help you work this out.

Before you look at the answers on the next page, try to identify the keys of the following scales:

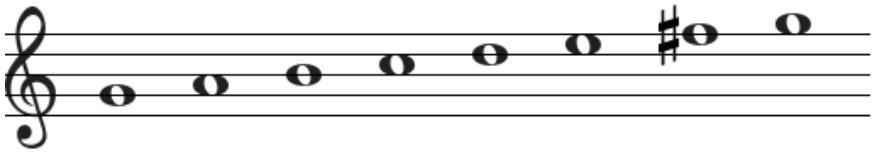
1.



2.



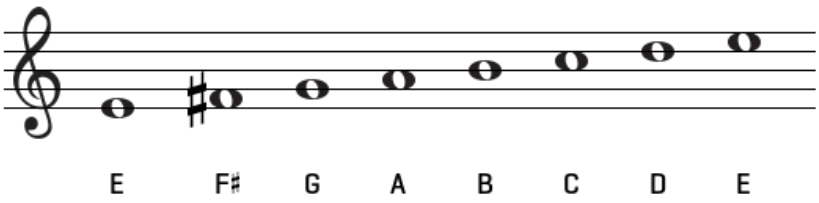
3.



Answers

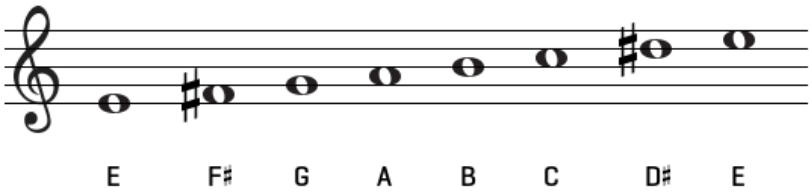
1.

E minor scale



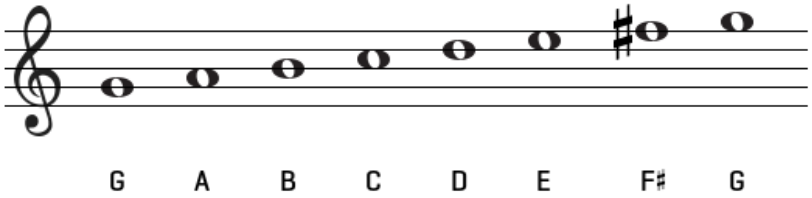
2.

E harmonic minor scale



3.

G major scale



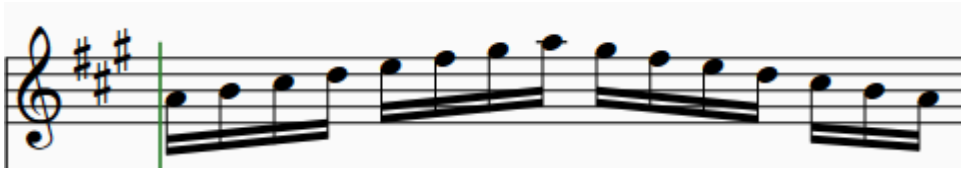
HOW TO NOTATE SCALES

1. Pick a **clef symbol** to write on your stave. (Pick the Treble Clef).
2. Know what pitch values correspond to the ledger lines and spaces of the stave you pick.
3. Write the *correct* and appropriate Key Signature immediately *after* your clef.
4. The first note of the scale will tell you the key of the scale but remember; the scale you will be presented with **can either be a major or minor scale** e.g. if the first note of the scale is G, the key of the scale can be either be G major **OR** G minor.

Here are examples of how to notate some random scales.

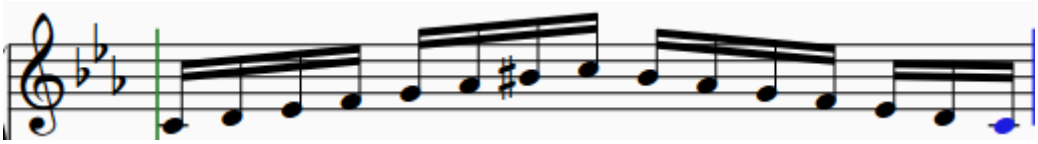
Question 1: Notate the scale of A major

Answer:



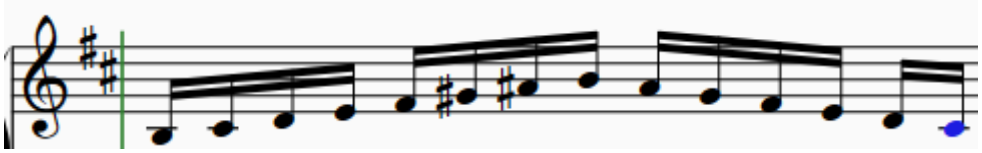
Question 2: Notate the scale of C Harmonic Minor

Answer:



Question 3: Notate the scale of B Melodic Minor

Answer:



HOW TO TRANSPOSE CHORDS FROM ONE KEY TO ANOTHER.

Before we learn how to do that,

Remember: The key of a piece of music can be *either* major or minor.

This means that a key's root chord can be *either* a major or a minor chord.

A piece of music almost always *finishes* on the key's root chord.

If a piece of music's root key chord is major, the piece of music will usually sound happy and lively.
If a piece of music's root key chord is minor, the piece of music will usually sound sad and serious.

There **12 major** and **12 minor keys** in music.

Each major key has a relative minor key. Each minor key has a relative major key.

This means that every single major key uses *exactly* the same chords as one particular minor key.
(but the chords in the relative minor key simply appear in a different *order*).

and every single minor key uses *exactly* the same chords as one particular major key
(but the chords in the relative major key also simply appear in a different *order*).

Example: The chords of the key of C major are C Dm Em F G Am and B dim.

The relative minor key of the key of C major is A minor and the chords of the key of Am are

Am Bdim C Dm Em F and G.

Chord Number / Key Number	Chord i Major 1 Key (Root) Chord	Chord ii Minor 2	Chord iii Minor 3	Chord iv Major 4	Chord v Major 5	Chord vi Minor 6	Chord vii Diminished 7
1	A	Bm	C♯m	D	E	F♯m	G♯dim
2	B ♭	Cm	Dm	E ♭	F	Gm	A dim
3	B	C♯m	D♯m	E	F♯	G♯m	A♯ dim
4	C	Dm	Em	F	G	Am	B dim
5	D ♭	E ♭ m	Fm	G ♭	A ♭	B ♭ m	C dim
6	D	Em	F♯m	G	A	Bm	C♯ dim
7	E ♭	Fm	Gm	A ♭	B ♭	Cm	D dim
8	E	F♯m	G♯m	A	B	C♯m	D♯ dim
9	F	Gm	Am	B ♭	C	Dm	E dim
10	F♯	G♯m	A♯m	B♯	C♯	D♯m	F dim
11	G	Am	Bm	C	D	Em	F♯ dim
12	A ♭	B ♭ m	Cm	D ♭	E ♭	Fm	G dim

In a *major* key, chords 2, 3 and 6 are always *minor*.

In a *minor* key, chords 1, 4 and 5 are always *major*.

You will learn How to transpose chords from one key to another by using the following example question:

Question: Transpose the chord chart provided below to the key of G:

E ♭	Cm	A ♭	E ♭	B ♭ 7	Ddim	Eb

Instructions:

- Write out the *12 notes* that exist in music (in the correct sequence).

Make sure you also include each note's alternative names. (e.g. A♯ = B ♭)

1. Note Name	**A**	**A♯**	**B**	**C**	**C♯**	**D**	**D♯**	**E**	**F**	**F♯**	**G**	**G♯**
Alternative Note Name		B ♭			D ♭		E ♭			G ♭		A ♭

- Figure out how many steps it will take you to go from the note name part of the **last** chord of the sequence you will be presented with to the key you will be asked to switch to. The last chord of the chord chart you will be presented with will tell you what key the original chord chart is written in. In this example, you will figure out how many steps it will take you to go from the note E ♭ to the note G. In this example, to get from E ♭ to G, you will need to move 4 places forward on your sequence of 12 notes that you will have written out already.

It takes 4 steps to go from E ♭ to G

A	**A♯**	**B**	**C**	**C♯**	**D**	**D♯**	**E**	**F**	**F♯**	**G**	**G♯**
	B ♭			D ♭		E ♭			G ♭		A ♭

- To figure out what new individual chords will replace the original chord chart chords, simply change the letter part of each chord in the chart to a new letter by moving 4 note places forward on your 12 note sequence to a new note. Whatever note you land on, will be the name of the *letter part* of each new chord.
- Do this for every letter part of each chord name.
- Looking at the second chord of the original chord chart (Cm); moving 4 places forward, we land on the E note so the Cm chord will transpose to Em. Don't forget to include the m in Em.
- Using the same process for the 3rd chord (A ♭), we move 4 places forward and land on the C note, so the new chord will be C.
- Taking a look at the 5th chord of the original chord chart (B ♭ 7); moving 4 places forward from the note B ♭ , we get D. Therefore, the new chord will be D. Don't forget to include the '7' part in your new chord.
- The rule is: If the original chord letter has the 'm' symbol for minor or the '7' number symbol for 'seventh' or the 'dim' abbreviation for diminished, carry these symbols over to your new equivalent chords.

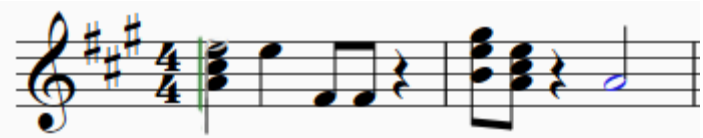
Answer:

E ♭	Cm	A ♭	E ♭	B ♭ 7	Ddim	Eb
						
G	**Em**	**C**	**G**	**D7**	**F♯dim**	**G**

How to transpose and rewrite a piece of music.

Using the following example question, you will learn how to transpose the following *music notation* to a new key.

Question: Rewrite and transpose the following piece of music to the Key of C major.



Instructions:

- Firstly, you must be able to figure out the key of the original piece of music you will be provided with. In this example, because the key signature contains 3 sharps, you will know that this provided piece of music is written in the key of A major. (You will know this by knowing how your cycle of 4ths and 5ths works.)
- You will then write out the notes of the scale of A major and directly beneath it, you will write out the notes of the scale of C major, because, *in this example*, you need to transpose all the notes from the key of A major to the key of C major:

A	B	C♯	D	E	F♯	G♯	A
⇩	⇩	⇩	⇩	⇩	⇩	⇩	⇩
C	D	E	F	G	A	B	C

* You must pay careful attention to the type of clef that appears at the start of your piece of music. This will tell you what note pitch values the stave lines and spaces correspond to.

- You must then be able to recognise the pitch value of every note from the original piece of music you will be provided with. For example, in the first bar, the first cluster of stacked notes corresponds to the notes of an A *chord*. You will then figure out the names of these notes and write them down like this:

E C♯ A

From the 2 scale charts you wrote earlier you will notice that these 3 notes in the key of A correspond to the following notes in the key of C.

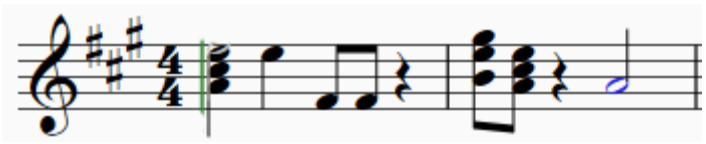
G F C

- You will then use this method of note transposition to figure out the remaining notes of your new stave.

This is what your music notation will look like when you transpose the original piece to the key of C

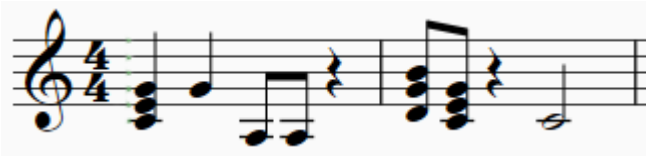
(Notice how there is no key signature because the key of C major has no sharps or flats.)

Key of A



Transposed to

Key of C



How to add correct clefs and key signatures to tonic triads.

Instructions:

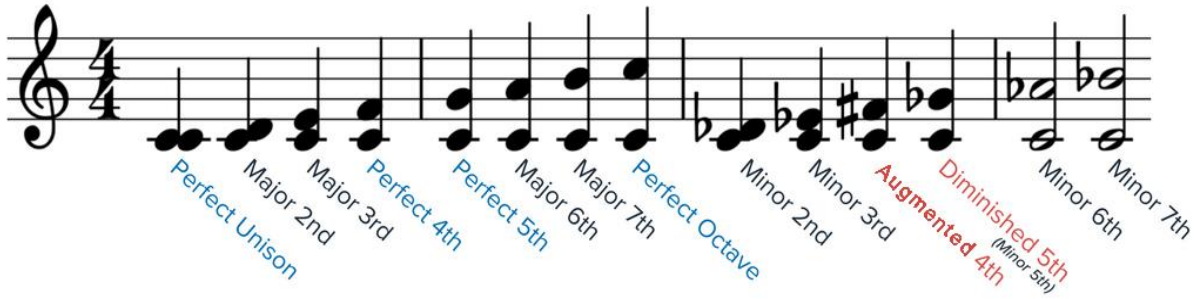
- You must know what notes on a stave the treble and bass clefs represent.
- Depending on what line or space the root (lowest pitched) note of the chord is placed on, you will either *write a treble or bass clef symbol*.
- You will then write the key signature that represents the chord triad that appears on the stave.

e.g.

A major F major G major

INTERVALS

An **Interval** is the difference in length & pitch between two sounds. **Intervals are formed by** playing a scale's root note *at the same time* as playing any other note in the scale.



Interval Types

Major Scale Intervals
Perfect Unison Perfect 4th Perfect 5th Perfect Octave

Major/Minor Intervals
Major/Minor 2nd Major/Minor 3rd Major/Minor 6th Major/Minor 7th

Augmented 4th
Diminished 5th

For examples (relevant to your aural exam) of how these intervals sound, click on the following link: **https://www.facebook.com/1726580034/videos/10208599065890551/**

How to find out if an interval is major, minor, augmented 4th or diminished 5th.

1. If the interval distance between the root note and your target note is between **1** and **8**, then the interval name will begin with either the word 'Perfect' or 'Major'.
2. If the interval distance between the root note and your target note is either **1, 4, 5** or **8**, then the name of the interval will begin with the word '**Perfect**'.
3. To complete the full name of the interval, you simply add the interval distance number to either the word 'Perfect' or 'Major'. For example, if the interval distance between the root note and the target note is 3, then the interval is a Major 3rd.
4. If you have to **alter** the distance between the root note and the target to any number other than between 1 and 8, then the interval distance is either a 'Minor' interval, an augmented 4th or a diminished 5th.

Augmented: having been made greater in size or value.

Diminished: made smaller or less.

Minor intervals are one half-step smaller than major intervals.

To Find a Minor Interval: Find the major interval and lower the top note by one half-step to give the minor interval.

EXERCISE: Identify the 8 intervals provided by stating the number and type.

Answers

1 is a **Major 3rd**

2 is an **Augmented 4th**

3 is a **Perfect 4th**

4 is a **Minor 3rd**

5 is a **Perfect 5th**

6 is a **Diminished 5th**

7 is a **Minor 6th**

8 is a **Perfect Unison**

HARMONY is any combination of notes from the same key that are *sounded at the same time* especially when blended into chords.

CADENCE is how the last 2 chords of a piece of music sound when played in sequence.

Perfect Cadence	the last 2 chords are the 5th followed by the 1st.
Imperfect Cadence	the last chord is either the 1st, 2nd or 4th and is followed by the 5th.
Imperfect Cadence	the 2nd last chord is either the 1st, 2nd or 4th and is followed by the 5th.
Interrupted Cadence	the last 2 chords are the 5th followed by the 6th.
Plagal Cadence	the last 2 chords are the 4th followed by the 1st.

For audio examples relevant to your exam, click on the following link:
https://www.facebook.com/1726580034/videos/10208616450365152/

SATB

Is a quick way of referring to the four main voices that make up a choir, which are

Voice	Pitch
Soprano	Highest
Alto	High
Tenor	Low
Bass	Lowest

Soprano and alto are high-pitched women's voices,

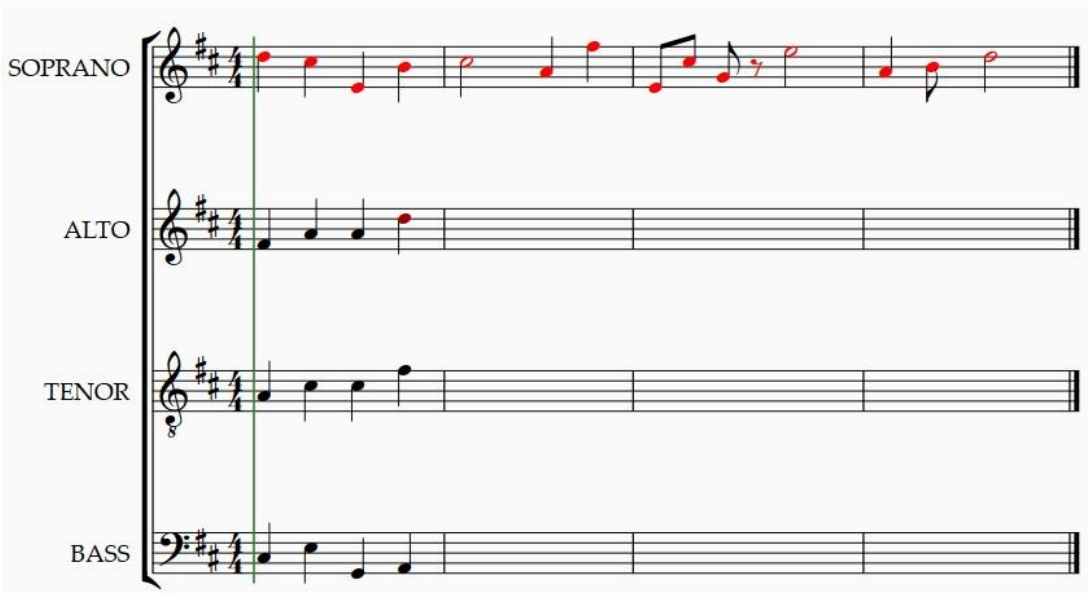
whereas tenor and bass are low-pitched men's voices.

Although tenor parts are low-pitched, they are often written in the treble clef. This means that in reality, the tenor notes are sung one octave lower than they are written on the treble-clef-represented stave. A little '***8***' symbol is written under the treble clef symbol to indicate this.

Example of HOW TO:

Arrange the 4 bar melody provided for the ensemble specified in a minimum of four parts, using harmony suitable for the genre.

(**Harmony** means: the combination of musical notes that sound ***at the same time*** and produce a pleasing effect to the listener.)



1. **Write out the 4 notes of each one of the 7 chords of the key.**

e.g.

In the case of the piece of music notation in the key of D major above, write out the full scale:

1 2 3 4 5 6 7

D E F♯ G A B C♯ (D) (No need to write out the 8th octave note D)

(You will be able to work out the notes of this scale by knowing your *Circle of 4ths and 5ths*

i.e. The key of D is in the 2 o'clock position, therefore it has 2 sharps, which are F♯ and C♯)

(You will know that F♯ and C♯ are the two sharps by remembering the '**F**ather **C**harles…' mnemonic (memory device))

2. **Then write out the 4 notes of the 7 chords**

For example, the 4 note chord of D has the notes D, F♯, A and C♯.

	Chord Root Note	Note 2	Note 3	Note 4
I	**D**	F♯	A	C♯
ii	**E**	G	B	D
iii	**F♯**	A	C♯	E
iv	**G**	B	D	F♯
v	**A**	C♯	E	G
vi	**B**	D	F♯	A
vii	**C♯**	E	G	B

3. **Look at each note in the provided melody. Each note will belong to a number of different chords in the key.**

4. **Then simply *stack* suitable chord notes on top or underneath the original melody note you're provided with to form a 4 note chord.**

5. **Try to make sure you harmonize to form different chords. (Many chords share some of the same notes)**

*** Pay careful attention to the clefs that appear at the beginning of each stave.**

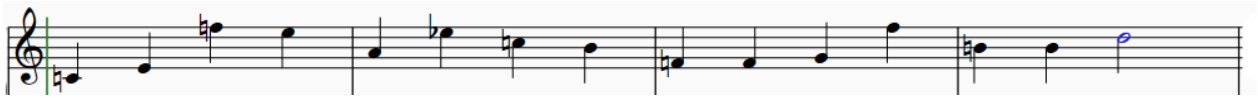
Notice how the 4th stave begins with a Bass Clef.

EXERCISE: Circle the non-harmony notes in the following melody.

This melody is in the key of D major.

(A 'non-harmony note' simply means any note that is not in the presented key scale.)

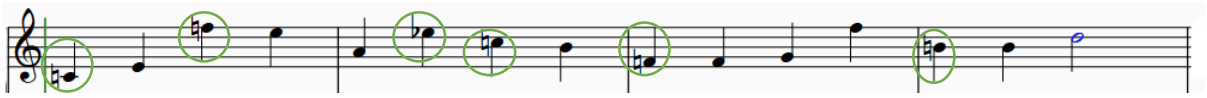
Notice that in this example, you are not provided with the key signature.



How to do it:

1. Write out the notes of the scale of D major: **D E F♯ G A B C♯ D**
2. Examine all the notes on the stave you will be presented with and circle any notes that are not in the original stated key (in this example, D major)

Answer:



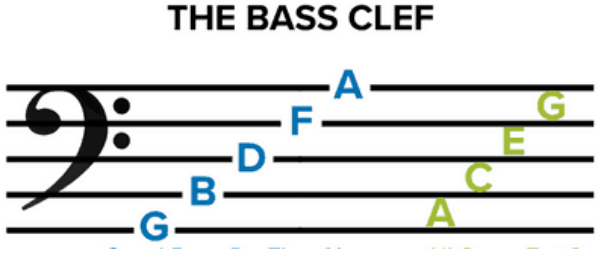
EXERCISE: Name one clef used by the trombone. Explain how this clef identifies the pitch of each note and register of the instrument and name one other instrument that uses the same clef.

Answer:

The trombone uses the Bass Clef.

The bass clef is used to identify the **lines** of a stave (beginning from the bottom line and working upwards) as G, B, D, F and A and the pitch value of the **spaces** (beginning from the bottom line and working upwards) as A, C, E and G.

Draw the following diagram as part of your answer:



Using a piano for comparison and demonstration purposes, the pitch **register of the trombone is**

D♯ 2 to F♯ 5

***Other instruments that use the same clef are the bass guitar, cello and tuba.**

Well done. You’re finished.