

Praise Music School

Music Theory

Grade 5



A Complete Concept Learning Approach

By Douglas Scott

This theory workbook represents a new approach to the core theory up to the requirements of Grade 5 level exams. It is designed specifically for those students who have been learning an instrument for a number of years but have never done any formal theoretical work. The layout is such that each section is dealt with as a complete unit from the start of that conceptual unit to its logical conclusion. Adopting this approach means that material can be presented in a thorough yet compact way. This enables the student to engage with first principles in a way that doesn't become overwhelming as new conceptual categories are layered on top incomplete mastery of existing ones.

Although working with a teacher is certainly recommended it is certainly possible to use this book for self study because of its layout. However, doing so will mean foregoing the practical knowledge that experience brings, something which can prove invaluable with the more obscure and difficult concepts.

One section that is omitted entirely in this book is the melody writing section. There is no theoretically satisfactory way of approaching this section that does not deserve a book in its own right, and as such this will be treated in a separate volume. The section on musical instruments and voices is also left without much in the way of explanation, for similar reasons.

Although the book is intended for older students, it is perfectly possible to use it with younger learners, in which case the teacher may wish to enliven the somewhat drab theoretical text with more lively drawings and turn the exercises into engaging games.

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PART I

Note Values

Music theory, as with so many things in life, begins with a line:



But lines aren't useful unless we are told what they represent:



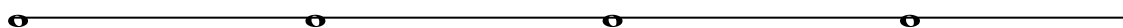
Now at least we know that the line represents a length of time, but we still have no way of knowing whether we are talking about a short or a long period of time. What we need to do is add units to the line, so that it becomes a number line:



This is no doubt an improvement, but it still doesn't tell us much about how to divide and count time with our line. No problem, we can give each unit a name. We can use a word or a number; it doesn't matter as long as the naming convention is consistent.



This actually tells us something important that we had to guess before, that each little block is the same size as all the others. It is still a little clumsy to use a word as a symbol, so let's replace it with something a little easier to write:



Each one of these little blobs is called a whole note and starts off a new segment of the line. So each segment is one whole unit in length.

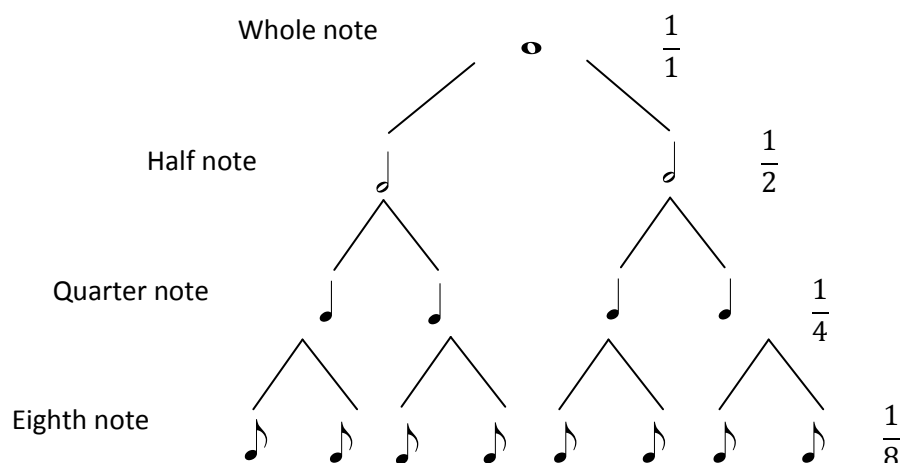


“How long is one whole unit” you ask?

“Simple”, says your teacher: “It is worth two halves.”

“Oh very clever”, you say, “but now we still don’t know how long each half is!”

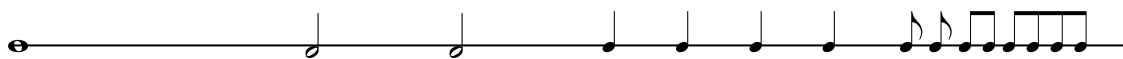
“Of course we do”, retorts the pedagogue, “it is worth two quarters.”



At this point you may rightfully be somewhat despondent, but fortunately there is an answer to the problem, and the answer is in the name of the units: Beats. It doesn’t matter if we use whole notes, half notes or quarter notes, each one represents one beat; and just as the name may suggest, each beat has some connection to the fundamental human timekeeper: the heart-beat.

So if we look at our time-line again we can say now that each beat is roughly one heart beat long (that is about 72 beats per minute; or a little quicker than a beat every second). We do that by adding tempo indication, the closest one to our needs is “Andante”, which is usually interpreted as meaning “at a walking pace” but more precisely means just “going”:

Andante



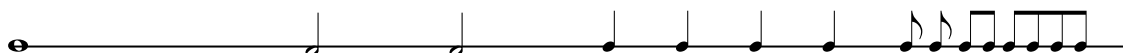
[Notice that eighth notes can have their flags connected and that this doesn’t affect their timing, this also applies to the direction of stems for notes having them, both of these issues will be discussed in later sections. It is sufficient to note that neither affects the time value for now.]

“But this is still not terribly helpful”, you may protest “we still don’t know whether it is whole, half, quarter or eighth notes doing the walking.”

This is indeed very true, so we need to add one more thing:

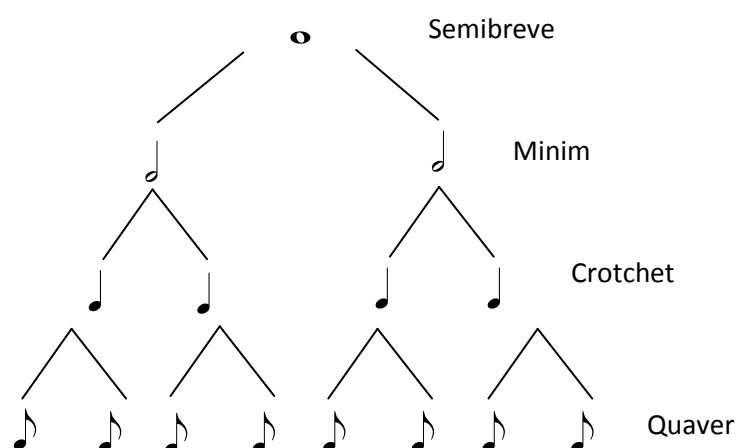
Andante

4

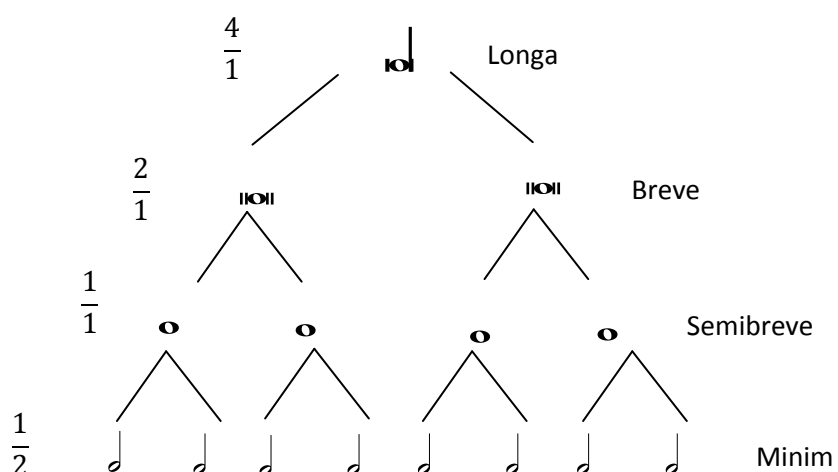


This number tells us that there each beat is one quarter note long. It is one part of what is called the time signature.

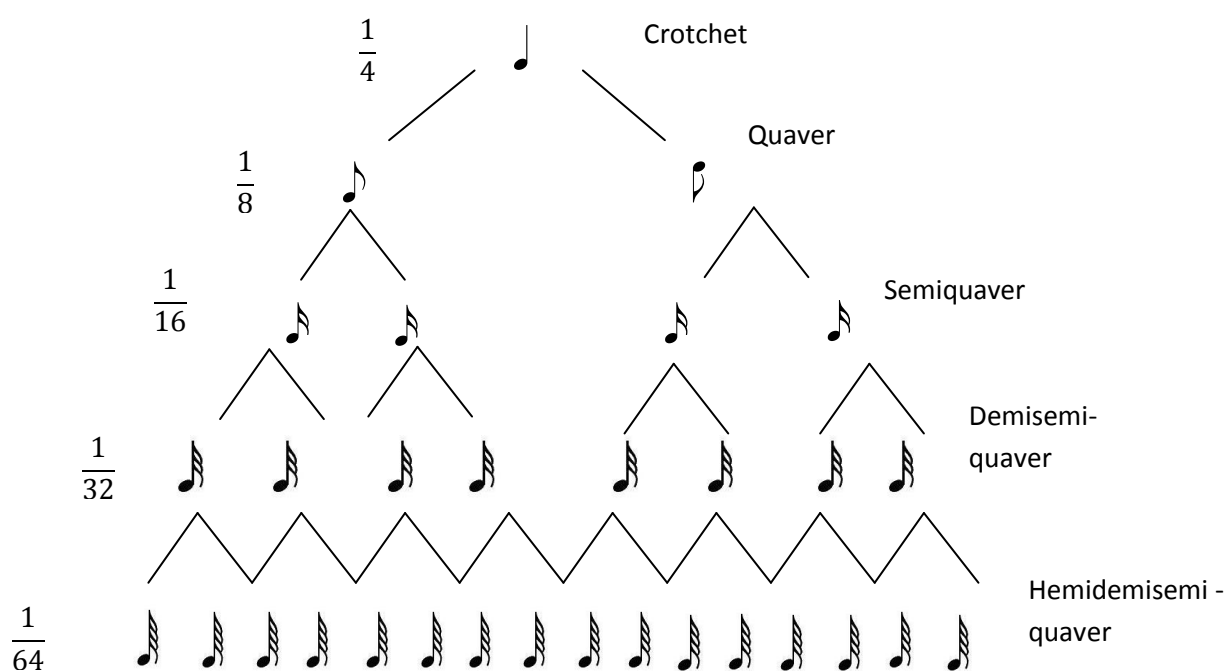
Before we continue, it important to learn the other set of names for the notes we have learned so far. The names are less intuitive but are very common, it is important to know them:



Sometimes a little context helps the process of memorization, but the only sure way is practice and repetition, so don’t rely only understanding things to help you remember them. The context for these seemingly random names is the fact that our modern notation system is the end result of many centuries of development, and time tends to get things mixed up in unexpected ways . You may have noticed the strange name for the longest time value: Semibreve. If you thought that sounds a little like “Semi-brief” you would be right. So why is the longest time value called a “half-a-short”? The answer is that there are longer time values known as breves and longas (that’s right “shorts” and “longs”). Nowadays we rarely use breves while longas are little more than a historical curiosity. As such it is usually required that you know breves, but not longas for exam purposes. It is nevertheless helpful to divide the time-values into white notes and black notes to see how they fit together.



We can arrange the black notes similarly:



There is also a $\frac{1}{128}$ note with the most fun name of all:
semihemidemisemi-quaver (try saying *that* fast)
















Review

What you need to know:









- 1) Have a general understanding of the symbolic function of note-values as denoting a period of time.
- 2) Memorize the names for each of the note values in both naming conventions.
- 3) Understand the relative values of note-values.

Exercises:







Level 1

| <u>A</u> <u>(include both names)</u> | <u>Note</u> | <u>A times what</u> <u>is B?</u> | <u>Note</u> | <u>B</u> <u>(include both names)</u> |
|---|---|-------------------------------------|---|---|
| |  | 2 |  | Crotchet / Quarter note |
| Breve |  | 1/16 | | Quaver / Eighth note |
| Minim / Half note |  | |  | Semibreve / Whole note |
| Semiquaver / Sixteenth note | | 2 |  | Quaver / Eighth note |
| Semibreve / Whole note |  | 1/2 |  | |
| |  | 8 |  | Minim |
| Demisemiquaver / Thirty second note | | 8 |  | Crotchet |
| Quaver |  | |  | Hemidemisemiquaver / Sixtyfourth note |

Level 2

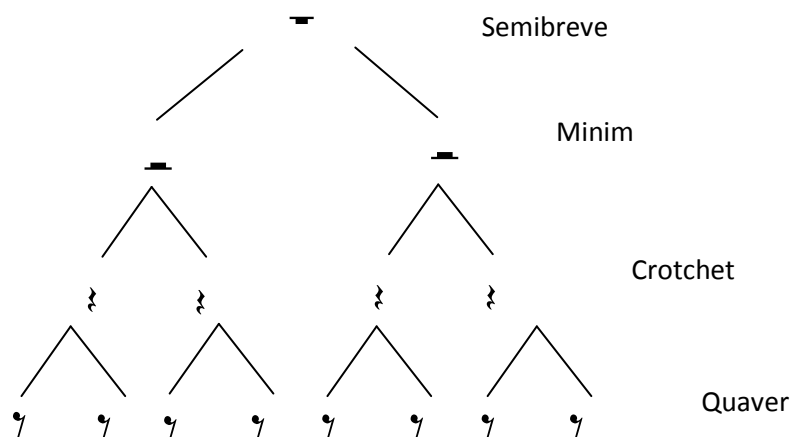
| <u>A</u> <u>(include both names)</u> | <u>Note</u> | <u>A times what</u> <u>is B?</u> | <u>Note</u> | <u>B</u> <u>(include both names)</u> |
|--|---|-------------------------------------|---|---|
| Crotchet | | 2 |  | |
| |  | 1/4 | | Crotchet |
| Minim |  | |  | |
| Semiquaver |  | | | Breve |
| |  | 8 | | Quaver |
| Quaver |  | 1/2 | | |
| Hemidemisemiquaver / Sixtyfourth note |  | | | Demisemiquaver / Thirtysecond note |
| Semibreve | | 1/16 | | Semiquaver |

Level 3

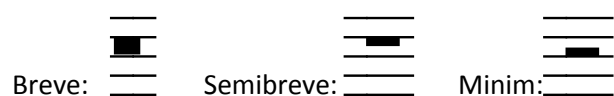
| <u>A</u> <u>(include both names)</u> | <u>Note</u> | <u>A times what</u> <u>is B?</u> | <u>Note</u> | <u>B</u> <u>(include both names)</u> |
|---|---|-------------------------------------|---|---|
| |  | |  | |
| Crotchet | | 2 | | |
| |  | | | Minim |
| | | 8 |  | |
| Semiquaver | | |  | |
| | | 16 |  | |
| Demisemiquaver | | | | Quaver |
| | | 1/4 | | Crotchet |

Rests

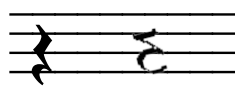
Rests are used when we want to indicate a gap in the music where no note is being played, each note value has a corresponding rest value. The names for the rests are the same as for the note values, so only new thing to learn here is their appearance:



The minim and semibreve can be somewhat difficult to distinguish; it is easier to see when they are positioned on the staff:





The other difficulty is in drawing the crotchet rest, but fortunately you don't have to be very precise a slanted z and c will do the trick if it starts and ends in the right place:





This is a place where you can ask your teacher to help you establish your own unique style of drawing, as long as it is clearly distinguishable as a crotchet rest.

For the rests smaller than a quaver a similar process occurs as the one for notes, for each smaller division an extra line is added:


eighth / quaver


sixteenth / semiquaver


sixty-fourth / hemidemisemiquaver


one hundred and twenty-eighth / semihemidemisemiquaver

Review

What you need to know:

- 1) The names of the different rests
- 2) How to draw the different rests

Exercises:

Identify the following rests:

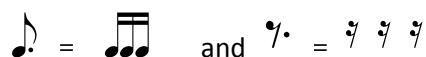
The exercises consist of ten staves, each with three rests to be identified:

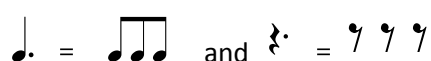
- Staff 1: Whole rest, Quarter rest, Quarter rest.
- Staff 2: Quarter rest, Half rest, Quarter rest.
- Staff 3: Quarter rest, Quarter rest, Quarter rest.
- Staff 4: Whole rest, Quarter rest, Quarter rest.
- Staff 5: Quarter rest, Whole rest, Quarter rest.
- Staff 6: Quarter rest, Quarter rest, Quarter rest.
- Staff 7: Quarter rest, Whole rest, Quarter rest.
- Staff 8: Quarter rest, Whole rest, Quarter rest.
- Staff 9: Quarter rest, Quarter rest, Quarter rest.
- Staff 10: Quarter rest, Quarter rest, Whole rest.

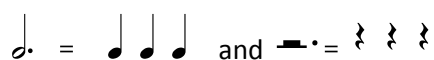
Dotted Notes and Ties

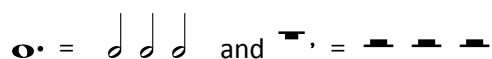
We have an impressive number of notes now, but you may have noticed that it is not complete. We have notes worth one, two, four, eight, and so forth quavers and could invent new ones using similar principles for however many quavers we like. But what happens if we want to write a note worth three quavers?

This is where dotted notes come in. A dotted note has half-again the value of the note, which is the main note plus half the value of the main note, or more simply 1.5 times the value of the original note. That means that a dotted crotchet has a value of two quavers plus half of two quavers (which is one quaver) totalling three quavers.

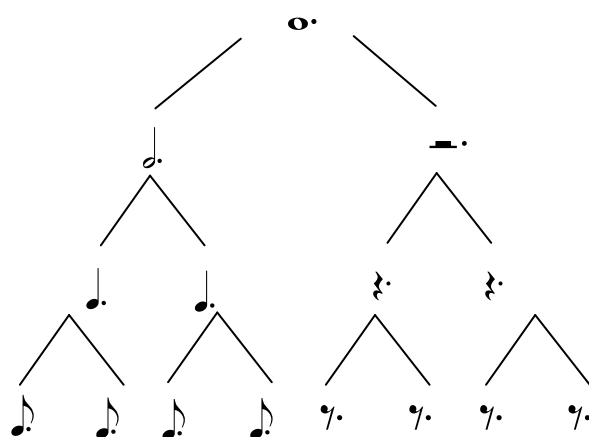
 $\text{crotchet} \cdot = \text{two eighth notes}$ and $\text{quaver} \cdot = \text{three sixteenth notes}$

 $\text{minim} \cdot = \text{three eighth notes}$ and $\text{crotchet} \cdot = \text{three sixteenth notes}$

 $\text{half note} \cdot = \text{three quarter notes}$ and $\text{whole note} \cdot = \text{three half notes}$

 $\text{whole note} \cdot = \text{three half notes}$ and $\text{whole rest} \cdot = \text{three whole rests}$

One useful thing to bear in mind is that two dotted crotchets are equal to one dotted minim (which is 3 crotchets):



(We are only concerned here with the time values for illustration purposes, strictly speaking of course a dotted minim plus a dotted minim rest does not equal a dotted semibreve note, but that is an issue for grouping which will be addressed later)

It is also possible to have a double dot, which adds another half of the half, adding three quarters of the original value of the original note:

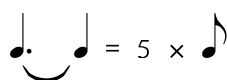


And again, two of these is equal to one double dotted minim:

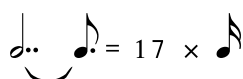


So now we can count in twos and threes, but what about the prime numbers? How would we write a note that is five or seventeen beats long?

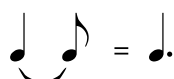
This is where the tie comes in, we use ties to connect two notes into one single note:



and



Ties are always drawn from notehead to notehead with the line note quite touching either, so that:



Of course, there is no need for ties when we are dealing with rests, because two rests sound like one rest already.

Note that there is no notation for adding a quarter of a note's value, so this has to be done using a tie:



Using these three elements (notes, dots and ties), we can notate notes with any number of beats and of any length we may desire.















Review

What you need to know:

- 1) The value of dotted and double dotted notes and rests.
- 2) How to use ties

Exercise:

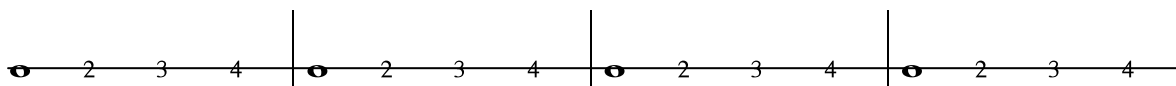
Use ties, rests and dotted notes and to write notes or rests of the required length:

| | | |
|----|---|---|
| 16 |  |  |
| 14 |  | |
| 18 |  | |
| 7 |  | |
| 14 |  | |
| 15 |  | |
| 5 |  | |
| 6 |  | |
| 18 |  | |
| 15 |  | |
| 19 |  | |
| 10 |  | |
| 7 |  | |

Time signatures

Beats are not just a way to count time; they are usually grouped together in a unit called a bar. One way to think of a bar is as a group of beats (often regular). We know when each of these groups start because the first beat of each bar is emphasized. This emphasis is indicated in notation by a bar line.

Bar lines are a way of showing that the next beat will be beat one, also called the downbeat.



A double bar at the end tells us that the piece has come to an end.



We can also use a smaller double bar (\parallel) to show where a new section of music begins.

The music doesn't have to start on the downbeat though, it can sometimes start on an upbeat too, also called an anacrusis, in which case it is usual to have the last bar plus the upbeat sum up to one full bar:



To help us know how many beats there are in each bar we use something called a time signature. You may notice that often the time signature just tells us what we can plainly see in the notes themselves, but other times it can be quite difficult or impossible to see how many beats and of what kind there are in the music. This is where a time signature comes in handy to help us decode the notes.

This is what time signatures look like:

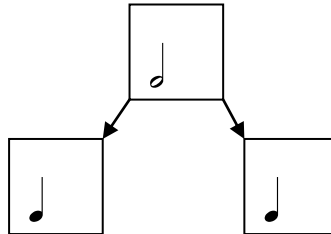
$$\begin{array}{ccccc} 2 & 4 & 9 & 3 & 2 & 6 \\ 2 & 4 & 8 & 4 & 4 & 4 \end{array}$$

We have already had a hint about what the bottom number means in the earlier sections, but beware! Time signatures are a little more complicated than was suggested in that section

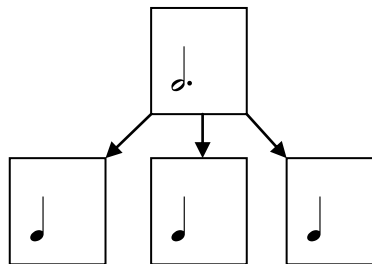
The naming convention for time signatures is quite old but only really became systematised in its current form fairly recently, in fact bar lines themselves are a relatively recent invention. What this means is that can a little tricky to see why we construct the time signature the way we do, but a little investigation will soon make it quite plain.

Bar can have any number of beats but the most usual is two, three or four. These are called duple, triple and quadruple meters. But each beat can also be subdivided into groups of two or three. When the beat is subdivided into groups of two the meter is called simple, and when it is divided into groups of three it is called compound.

Simple:



Compound:






You can think of simple time as cherries (two to a bunch) and compound time as clovers (three leaves).






Image credit (cherry): <http://www.public-domain-image.com/flora-plants-public-domain-images-pictures/fruits-public-domain-images-pictures/cherry-fruit-pictures/cherry-fruit-on-white-background.jpg.html> title="Cherry fruit on white background" by Paolo Neo

Clover by the author.

Simple:

| Beat | Duple | Triple | Quadruple |
|---|---------------|---------------|---------------|
|  | $\frac{2}{8}$ | $\frac{3}{8}$ | $\frac{4}{8}$ |
|  | $\frac{2}{4}$ | $\frac{3}{4}$ | $\frac{4}{4}$ |
|  | $\frac{2}{2}$ | $\frac{3}{2}$ | $\frac{4}{2}$ |

Notice that the top number tells you the number of beats, while the bottom number tells you value of each of those beats. As the name suggests this is fairly simple, compound time is less obvious though. Look at the following table and try to fill in the blank boxes.

| Beat | Duple | Triple | Quadruple |
|---|---------------|---------------|----------------|
|  | | | |
|  | $\frac{6}{8}$ | $\frac{9}{8}$ | $\frac{12}{8}$ |
|  | $\frac{6}{4}$ | | |

Can you see the logic? Here the top number shows you the number of sub-divisions, and the bottom number shows the value of those sub-divisions. So the top number is the number of beats times three because each beat has three sub-divisions.

There is no reason other than convention to not use time signatures using threes and sixes as the bottom number so that the top number can show the number of beats, except that then a dotted minim would have to be 1.5, which is not ideal. As it is it is sufficient to remember that having a top number of 6, 9 or 12 shows compound duple, triple and quadruple time respectively and that the bottom number in compound time denotes the value of the sub-division rather the beat itself.

This is one of those places in the music theory system where the jargon can obscure a rather simple idea, so don't worry if the idea of compound time is a little confusing at first sight. Once you understand the concept it is actually very simple to use

We are still missing one thing though, when the beats are unequal in length. This is called irregular time, and sometimes understanding irregular can make compound time make more sense.

Irregular time, like compound time, shows not the number of beats but the number of sub-divisions. We also usually don't distinguish between duple, triple or quadruple irregular times although irregular time signatures do have distinct beats. Some of these beats will have three sub-divisions and some will have two.

Typically an irregular time signature will have a prime number at the top, but that isn't necessarily the case, as long as some beats have two sub-divisions and some three the time is irregular.

Here are some examples of irregular time signatures:

$$\frac{7}{4} \quad \frac{5}{4} \quad \frac{8}{4}$$

It makes sense that seven and five should be irregular, because neither is divisible by 2 or 3 (they are both prime numbers), that means that the only way to get seven beats in a bar is to have some combination of beats with two and three sub-divisions. You can have $2 + 2 + 3$, $3 + 2 + 2$ or $2 + 3 + 2$. For five you can have either $2 + 3$ or $3 + 2$. But what about eight? Can you list the sub-divisions that

would make $\frac{8}{4}$ an irregular time signature? (hint: it is the same as $\frac{7}{4}$ but with the 2's and 3's swapped around).

| |
|--|
| |
| |
| |

Generally speaking any time signature that doesn't have a top number of 2, 3 or 4 for the simple times or 6, 9 or 12 (for the compound times) is an irregular signature. The bottom can be any multiple of two (in addition to 1 for whole note beats, but this is rare) and in principle the top number can be anything too, but in practice it is rarely a very large number since composers will rely on changing time signatures.

In some cases the composer may indicate exactly how the beats should be sub-divided (see page 26), but this is actually rather rare in practice since the beats are usually made clear by the grouping and the grouping changes frequently in irregular meters.

Review

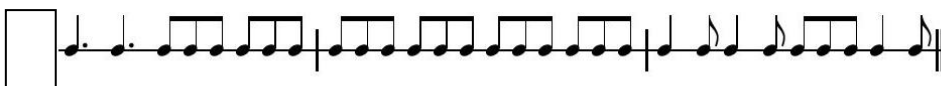
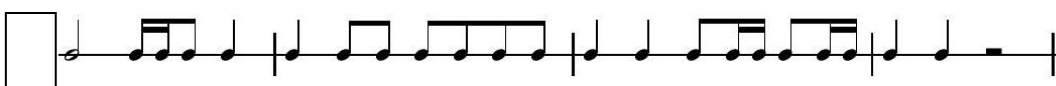
What you need to know:

- 1) The number of beats in duple, triple and quadruple time.
- 2) How to write the simple and compound time signatures for each of the preceding with various beats.
- 3) Identifying and writing irregular time signatures.

Exercises:

Add time signatures to the following extracts and identify them as simple or compound.

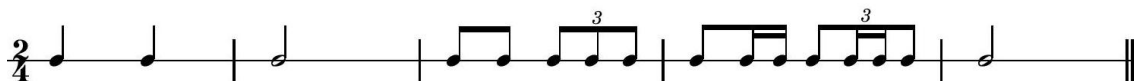
Examples from Telemann's Fantasias for Solo Flute (TWV 40)





Tuplets

Tuplets are a way of changing the sub-divisions of note values without having to change the time signature. Imagine you were writing a piece in $\frac{2}{4}$ time but you wanted just the second beat to have three sub-divisions instead of two:



The triplet in the next to last bar is one beat that would normally be divided into two sub-divisions that is now divided into three equal sub-divisions instead. So those three beats take place in the time of two. We can also do the same in compound time, this time using a duplet for two beats in the time you would have had three:



Now try to re-write first example in $\frac{6}{8}$ time

and the second in $\frac{2}{4}$

But we don't only use tuplets only for sub-divisions, we can use the same principle for any number of notes played in the time of some other number of notes:

| | |
|------------|-------------------------|
| Duplet | 2 in the time of 3 |
| Triplet | 3 in the time of 2 |
| Quadruplet | 4 in the time of 6 |
| Quintuplet | 5 in the time of 4 or 6 |
| Sextuplet | 6 in the time of 4 |
| Septuplet | 7 in the time of 6 or 4 |
| Octuplet | 8 in the time of 9 or 6 |
| Nonuplet | 9 in the time of 8 |

You don't have to learn a table like this, because tuplets are not always used consistently, especially the higher number tuplets (starting from the quadruplet), but one can almost always work out the total value of a tuplet from the context so it is very rare indeed to encounter ambiguity in tuplets. When there is ambiguity it can be resolved by writing the ratio out in full, such as 3:4 or 7:6 which means three notes in the time of four or seven note in the time of six respectively.

Review

What you need to know:

- 1) How to read and write triplets.
- 2) How to work out how many beats a triplet fits into.
- 3) Re-writing triplet notation as normal notes by changing the time signature.

Exercises:

Add bar lines to the following

The exercises consist of three groups of musical notation on staves, each containing various rhythmic patterns and tuplets for identification and bar line placement.

Group 1 (Top):

- Staff 1: A series of eighth notes, followed by a triplet of eighth notes, another triplet of eighth notes, and a quintuplet of eighth notes.
- Staff 2: A triplet of eighth notes, followed by a sextuplet of eighth notes, and another sextuplet of eighth notes.
- Staff 3: A triplet of eighth notes, followed by a septuplet of eighth notes, and a decuplet of eighth notes.

Group 2 (Middle):

- Staff 4: A dotted half note, followed by a triplet of eighth notes, a quarter note, and a triplet of eighth notes.
- Staff 5: A dotted half note, followed by a half note, a quarter note, and a half note.
- Staff 6: A triplet of eighth notes, followed by a quarter note, a half note, and a triplet of eighth notes.

Group 3 (Bottom):

- Staff 7: A triplet of eighth notes, followed by a quarter note, a half note, and a triplet of eighth notes.
- Staff 8: A triplet of eighth notes, followed by a quarter note, a half note, and a triplet of eighth notes.
- Staff 9: A triplet of eighth notes, followed by a quarter note, a half note, and a triplet of eighth notes.

Grouping





We have now come to the point where we can notate any rhythm we desire, but it is not just about writing it, it also needs to be readable.

In order for our rhythms to be readable we have to make sure they are “spelt” right. Spelling in musical rhythms is known as grouping. Fortunately, just like in spelling, there are several rules that help us spell correctly. Unfortunately, also just like spelling (especially in a language like English) there are several exceptions which we have to learn, and sometimes there are more exceptions than rules. Fortunately, we can always become accustomed to what “looks right” in music and use that as a guide. Unfortunately, the rules of grouping can change in different contexts depending on what “looks right” to a particular editor in that particular context.

The ultimate rule in grouping is that it must show the correct meter and rhythm in a way that is readily visible and not ambiguous.


But first let us establish the ground rules:




- 1) *You can change how the music looks, but not how it sounds.* That means that you can (for

example) change  into  but you can never change  into 





- 2) *You can change the beams if the notes have beams, but you can't change the rhythm.* That

means that you change  into  but not  into 

- 3) *You can make two tied notes into one, but never over a bar line.* So you can change 


into  but you can't change  into 

- 4) *You can use dotted notes wherever it is appropriate, but only use dotted rests in compound time or triple sub-divisions in irregular time, never in simple time.*

So you can change  into  but you can only change  into  if the time



signature is either $\frac{6}{8}$ $\frac{9}{8}$ or $\frac{12}{8}$ (usually).

- 5) When you have a whole bar of rest use a whole note rest, except for the very large time value

time signatures. One bar of rest is written like this:  whether you are in $\frac{6}{8}$ $\frac{5}{4}$ $\frac{2}{4}$ $\frac{2}{8}$ or $\frac{3}{4}$


This is just because the whole note rest symbol is also used as the symbol for one bar rest.


- 6) In duple and quadruple time you must try to show the middle of the bar if you can, except when you are writing a syncopation from the second to third beat. This is okay

$\frac{4}{4}$  but this is not $\frac{2}{4}$  because rests can't be syncopated, so you should write

it like this $\frac{2}{4}$ 


- 7) In triple time rests you should not group the first and second beats or the second and third

together. This is wrong $\frac{3}{4}$ 

instead you should write this $\frac{3}{4}$ 

- 8) Notes with beams can be grouped in twos in duple, threes or sixes in depending on the sub-

division. This is right $\frac{3}{8}$  and this is right $\frac{2}{4}$ 

but this is wrong $\frac{2}{4}$ 

- 9) Beamed notes can be grouped into groups of up to four for duple and up to six for triple meters:



It isn't ideal to learn the rules of grouping as a list in the same way that it would very hard indeed to learn spelling by trying to memorize every word in the dictionary. The rules listed above are only a guide to help you get started; you will internalize them quite quickly once you start doing exercises, but do refer back to them for clues if you get stuck.

The symbol: C indicates $\frac{4}{4}$ or common time, C indicates $\frac{2}{2}$ (also called cut-time or alla breve)

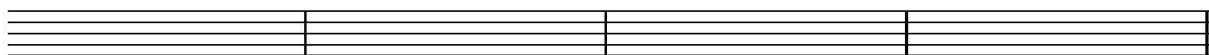
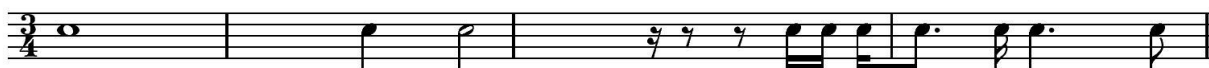
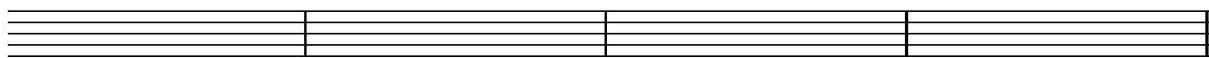
hint: the last bar is incomplete, use a tie over the bar-line to steal time from the next to last bar)



(hint: an incomplete initial bars is called a upbeats, anacrusis or pick-ups. Add the time to the last bar to complete it)



(hint: the first note crosses the bar-line, check the last bar to see how long the anacrusis should be)



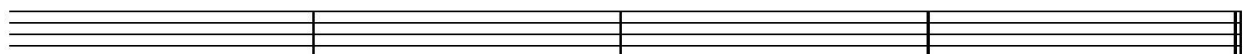
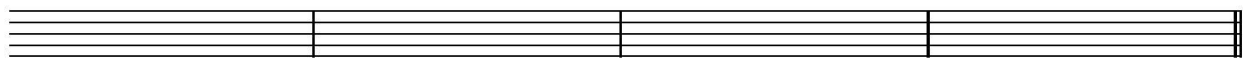
The first staff of music, labeled 'Trio', contains measures 1 through 3. The key signature has one sharp (F#) and the time signature is 2/4. The melody consists of eighth and quarter notes, with some notes beamed together. Measure 1: F#4 (quarter), G#4 (quarter). Measure 2: A5 (quarter), G#4 (quarter). Measure 3: F#4 (quarter), E5 (quarter), D5 (quarter), C5 (quarter).

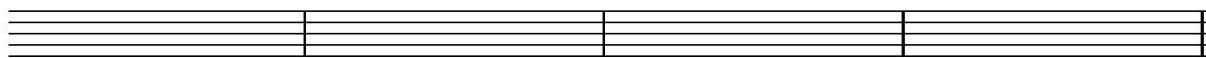
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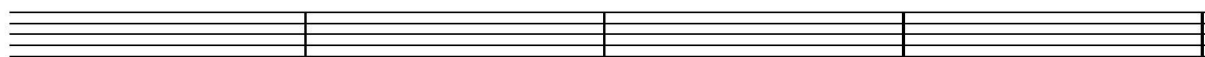
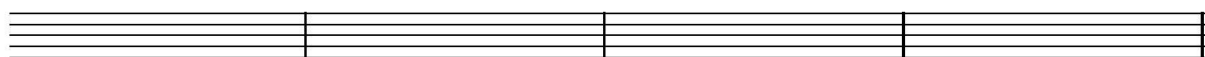
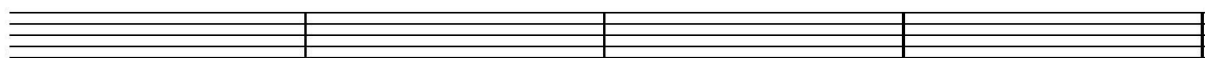
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The first staff of the 'Trio' section contains measures 1 through 5. The notation is as follows:

- Measure 1: Quarter note G4, quarter note A4, eighth rest, eighth note G4.
- Measure 2: Quarter note G4, quarter note A4, eighth rest, eighth note G4.
- Measure 3: Quarter note G4, quarter note A4, eighth rest, eighth note G4.
- Measure 4: Quarter note G4, quarter note A4, eighth rest, eighth note G4.
- Measure 5: Quarter note G4, quarter note A4, eighth rest, eighth note G4.

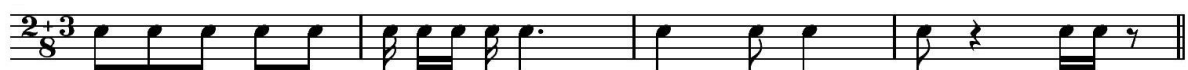
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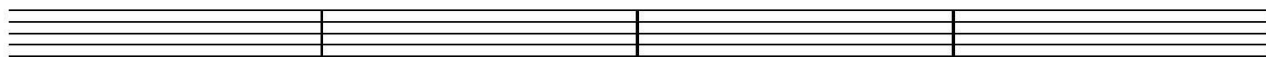
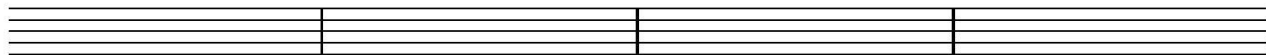
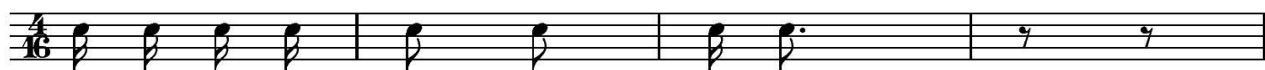
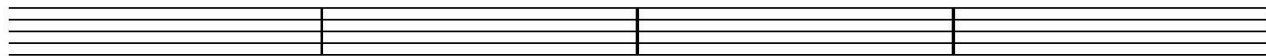
The first system of the musical score for 'The Rose Tree' is written in 3/4 time. It begins with a treble clef and a key signature of one flat (B-flat). The melody starts on a whole note G4, followed by a half note F4, and then a quarter note E4. The bass line consists of a whole note D3. The system ends with a double bar line.

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The first staff of music, labeled 'Trio', contains measures 1 through 4. The key signature has one flat (B-flat), and the time signature is 4/2. The notation includes eighth notes, quarter notes, and half notes, with a fermata over the final half note in measure 4.

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PART II

Note Names

Music notation doesn't only deal with rhythm, it also deals with pitch. While rhythm goes along the horizontal line, pitch goes along the vertical.

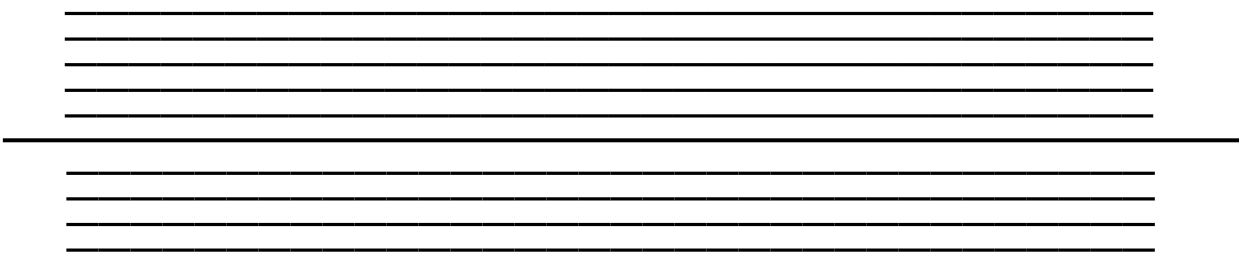
Notes that are higher in pitch are written higher up on the page, and notes that are lower are written lower:



Only the position of the note heads show the pitch, the high notes have stems going down and the low notes have stems going up, but this is just to make them fit better on the page.

Now we can tell that some notes are high and some low, but just how high or how low are they supposed to be?

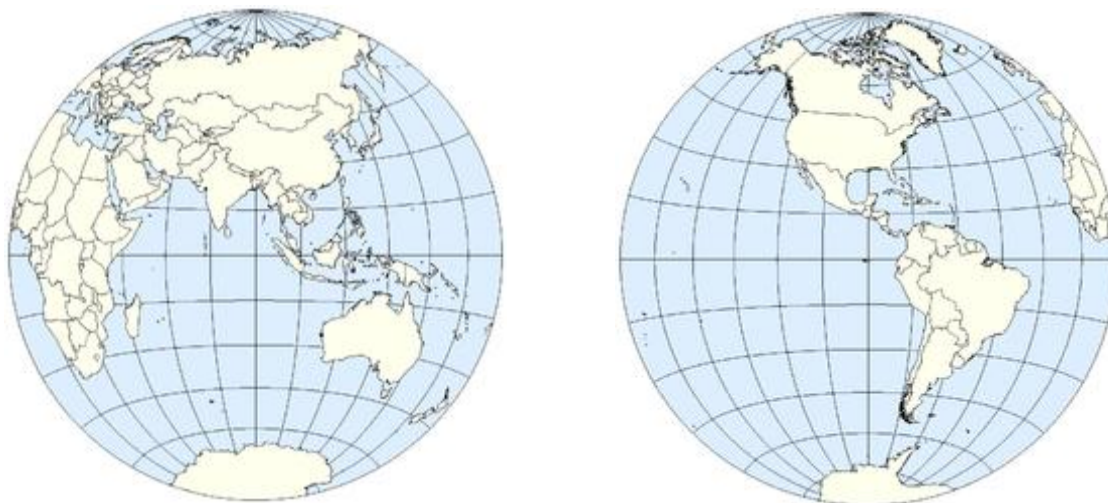
This where we add lines, in the same way that finding your way on a map is made easier if there are gridlines to help you find your way. The lines we use in music are best shown by using what is called the grand staff, it looks like this:



The big line in the middle is like the equator, it shows us where the "middle" of the map is. Any notes written on this line are called middle C.

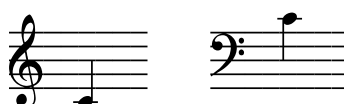
Each space and each line on the grand staff has its own letter name, going up from middle C it goes C, D, E... F and going down from middle C it goes C, B, A...G (try naming the spaces and line this yourself and see if you get to F at the top line and G at the bottom line).

In principle we could carry on adding lines forever as we count up and down, but although this is very neat, having to read music with so many lines would be very hard on the eyes. So, just like we can split the world map in two, we can split the grand staff into bits, showing only the line we need to see to find our way.



http://en.wikipedia.org/wiki/File:Eastern_Hemisphere_LamAz.png)

When we split music up like this we use five line staves. When we do this we need a key to show us what map we are looking, these keys in music are called clefs (clef means “key” in French). The most common of these are the bass clef and treble clef, also known as the G-clef and F-clef. Remember that they don’t only show where the notes G and F are, but the very specific G immediately above middle C and the F immediately below middle C.



The third clef is slightly less common, it is the C-clef and it shows middle C. Although any of the clefs can be placed anywhere on the lines and have been in the past, the G and F clefs are now only used in the treble and bass position as shown above. Not so for the C-clef, which is nowadays used in two positions as the Tenor and Alto clefs:



Notes that are above and below the staff need extra lines (called ledger lines) to show their position. The rule here is to show all the line needed but only those line that are needed, no more:



In principle you can use ledger lines to go as high or as low as is needed, but usually this is avoided by using different clefs or octave symbols (see Glossary) having to read too many lines can become very hard indeed:



Review

What you need to know:

- 1) How to name and write notes in treble (g), bass (f), tenor (c) and alto (c) clefs.
- 2) The relationship between the clefs in reference to middle c.
- 3) Using ledger lines.

Exercises:

Identify the following notes by name, and then write them on the grand staff provided:

A musical exercise for the treble clef. The top staff shows a sequence of notes: C4 (middle C, ledger line), D4 (first line), E4 (first space), F4 (second line), G4 (second space), A4 (third line), B4 (third space), C5 (fourth line), D5 (fourth space), E5 (fifth line), F5 (first ledger line), G5 (second ledger line), and A5 (third ledger line). Below each note is a vertical dashed line extending down to a grand staff consisting of five staves. The grand staff is currently empty, intended for the student to write the notes.

A musical exercise for the bass clef. The top staff shows a sequence of notes: C4 (middle C, ledger line), B3 (third line), A3 (third space), G3 (second line), F3 (second space), E3 (first line), D3 (first space), C3 (first ledger line), B2 (second ledger line), A2 (third ledger line), G2 (fourth ledger line), and F2 (fifth ledger line). Below each note is a vertical dashed line extending down to a grand staff consisting of five staves. The grand staff is currently empty, intended for the student to write the notes.

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One further point about note names is the direction of stems. The rule here is simple and sensible:

(In any clef)

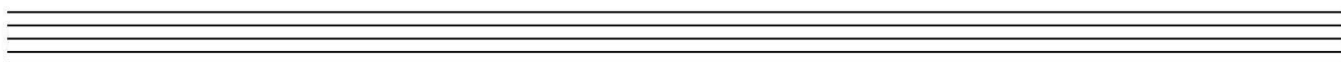
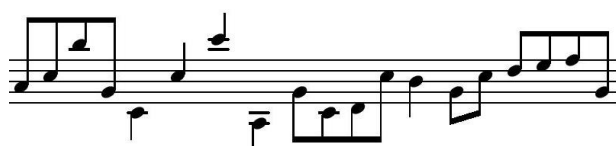
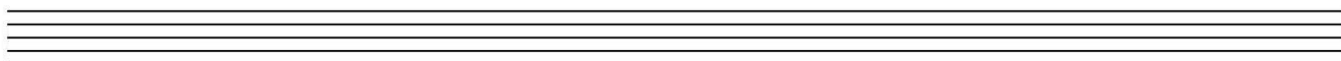
- 1) If the note is above the middle line of the staff the stem goes down.
- 2) If the note is below the middle line of the staff the stem goes up.
- 3) If the note is on the middle line of the staff the stem goes in either direction.
- 4) If a group of notes which are beamed together cross the middle line, pick whichever side has the most notes on.

Example:



Exercise:

Correct the following stem directions by rewriting it on the staff provided



Major keys

An octave is the distance between two notes of the same name. The octave is filled out with twelve equal subdivisions called semi-tones, and as the name suggests two semi-tones makes one whole tone. The piano keyboard is laid out so that each key, both white and black, are exactly one semi-tone apart.



For example: In between C and D there is a black note. To reach that note we have to go one step up from C, and we can do that by adding a sharp. Alternatively we could reach the same note by going one step down from D using a flat. In extreme cases you can go two steps up by using a double sharp or a double flat.

Sharp **#** Flat **b**

Double Sharp **##** Double Flat **bb**

These symbols are called accidentals. When a note has an accidental, the new pitch will apply for the whole bar and is cancelled by the bar line. We also sometimes need to cancel a note that was sharp or flat within a bar, for this we use the natural sign.

Natural **♮**

It is useful to remember that a natural sign raises a note that was previously a flat and lowers a note that was previously a sharp.

It is not uncommon to find accidentals in music where they may not be strictly required, for example finding a natural sign when an accidental has been cancelled by the bar-line. These are called courtesy accidentals and are often used to make reading easier

The white keys on the piano are laid out to produce the C major scale (no sharps no flats). Counting the semi-tones between the notes and you will find the irregular repeating pattern: TTS (T) TTS. Each of these TTS groups is called a tetrachord.

You can remember the pattern by holding your right hand in front of you, palm facing out and thumb tucked in:

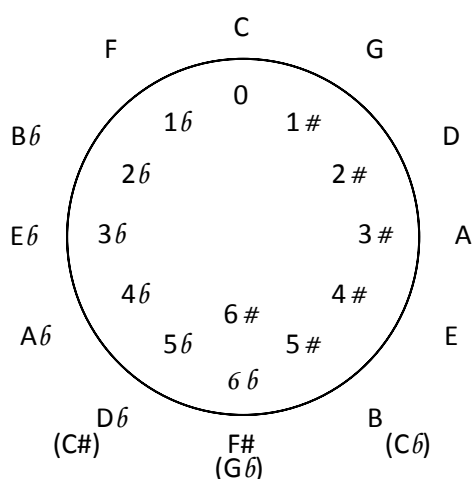


Every major scale is made up of this pattern of tones and semi-tones (called a tetrachord). You can move from one scale to the next by simply placing another tetrachord before the first at a whole-tone distance apart, in which case you will move to the sub-dominant key (f major), or by adding another tetrachord after the second, also at one tone distance, in which case you will move to the dominant.

(F G A B \flat) C D E F | G A B C (D E F \sharp G)

In this way we can continue to add sharps or flats until the scales starting on each of the twelve notes of the piano keyboard are generated, forming a musical clock called the circle of fifths. Can you see why?

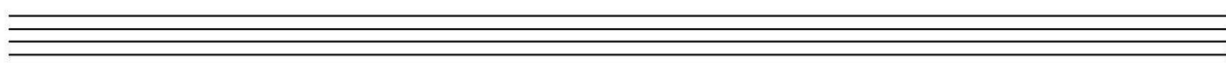
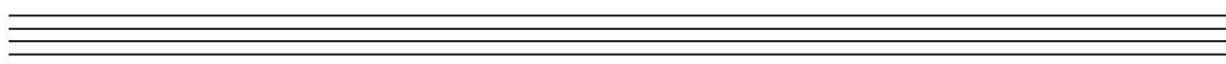
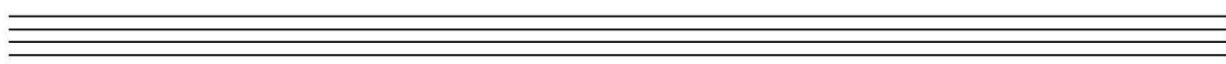
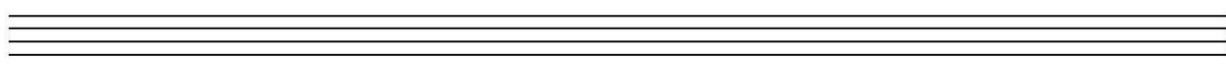
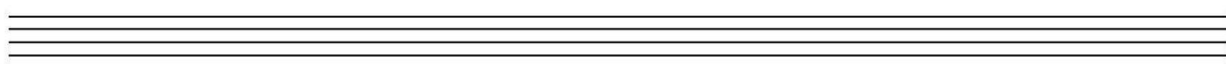
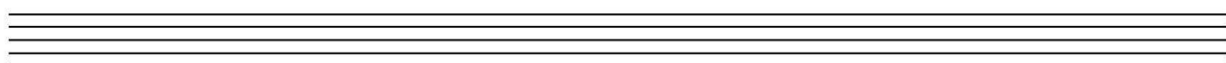
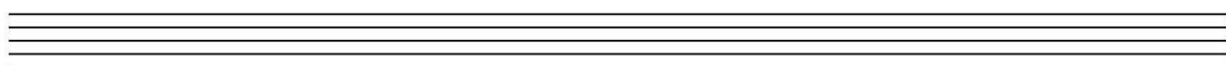
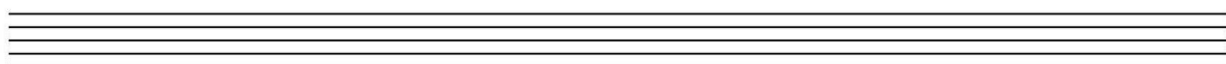
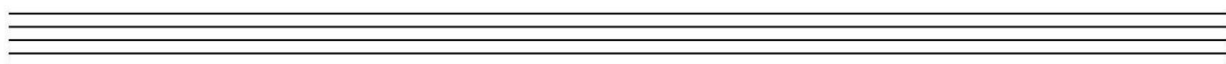
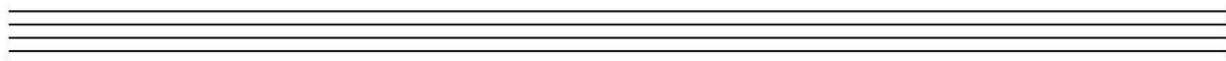
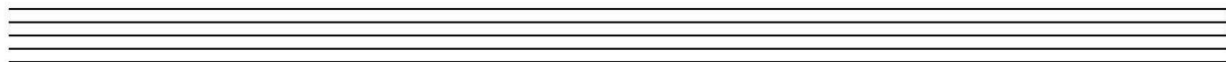
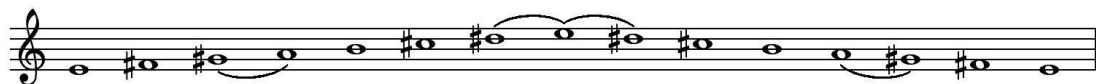
Write out the scales on the following scales. Add slur marks over the semi-tones, they occur between the third and fourth notes and the seventh and eighth notes of the major scale (always counting from the bottom).

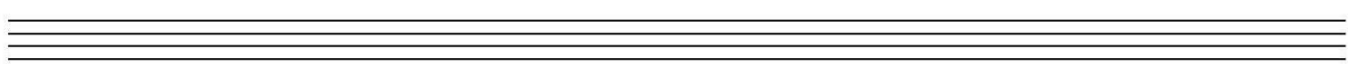
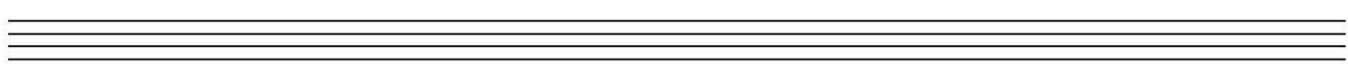
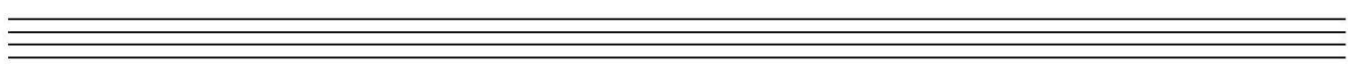
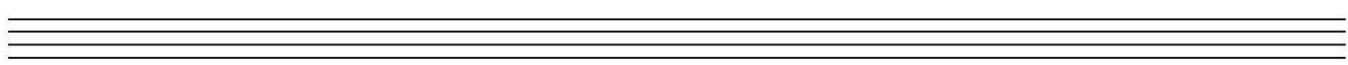
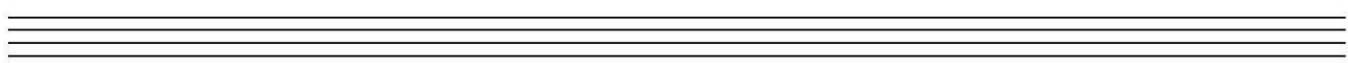
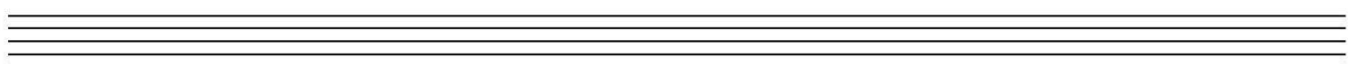
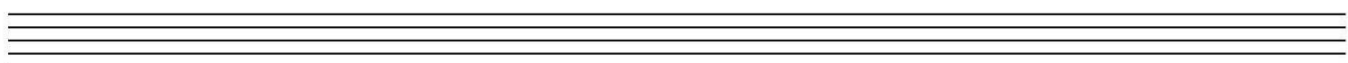
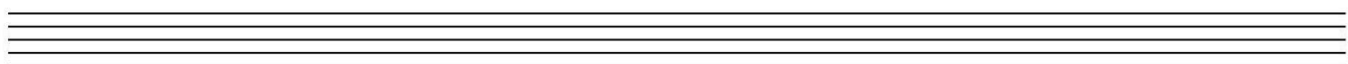
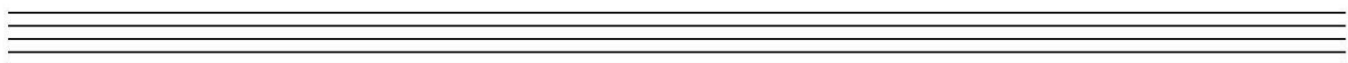
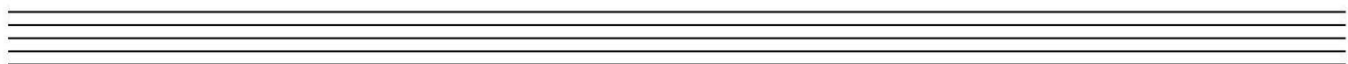
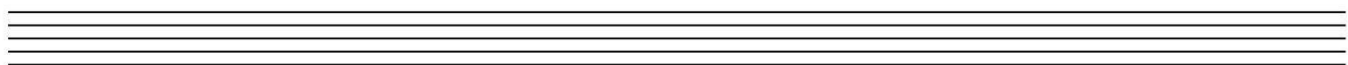
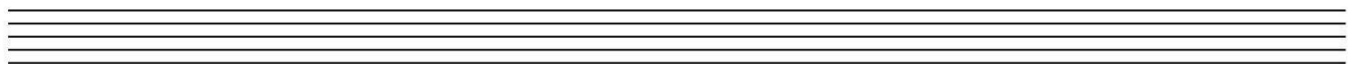


Try to work which sharps and flats each key has by yourself, but the order is listed on page 62.

It is vitally important that these key signatures be memorized as soon as possible because they underpin much of what follows. There are many mnemonics and tricks to help that process, but ultimately rote learning is the only sure way to avoid confusion.

Write out all the scales starting, indicating the position of the semi-tones with slurs.





Minor keys

We have seen that the major scale consists of a pattern of semi-tones and whole-tones that is centred on a key note, or tonic. What happens if we keep the same pattern of notes but use a different scale degree as tonal centre?

Hold a note of a major scale (this is called a drone or pedal point) while your teacher makes up a melody using the rest of the notes. Then change the note to a different scale degree without changing the scale. Do you notice how the mood changes even though the key stays the same? This is called a modal shift.

Now let your teacher drone a note while you invent some melodies of your own above it.

Modal systems have historically been fairly complicated, but the modern modal system is much simpler: There are seven modes, one beginning on each scale degree of the major scale.

They are (C major scale starting on):

1 - C - Ionian

2 - D - Dorian

3 - E - Phrygian

4 - F - Lydian

5 - G – Mixolydian

6 - A – Aeolian

7 - B – Locrian

(Don't be frightened by the scary names, they are simply the names of places around Greece and modern Turkey)

The modern minor scale is simply the Aeolian mode of any major scale, with one or two alterations. In fact, the Aeolian mode is sometimes called the natural minor scale. Every major scale has a "relative" minor scale, which has the same key signature but starts and ends on the sixth degree.

The minor scale feels somewhat sad compared to the major, so another way of finding the relative minor of a major key is to count three semi-tone steps down as if you are going from a smile to a frown. Conversely the relative major of a minor key can be found by counting three semi-tone steps (or one half and one whole tone) up.

The relative major and minor keys share the same key signature. Write the relative minor for each of these major keys:

A –

D –

G –

C –

F –

Bb –

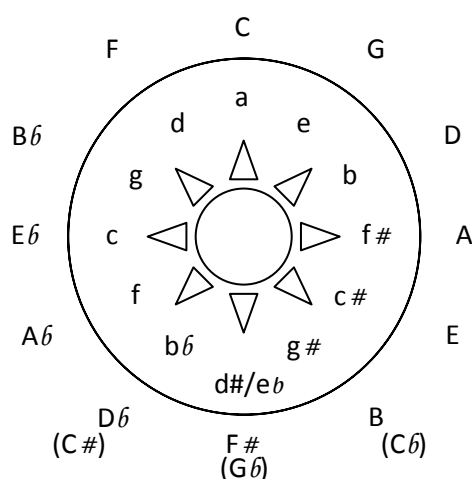
Eb –

G –

Minor scales come in two forms: the harmonic form and the melodic form. The harmonic form is used when we work out how to harmonize something, while the melodic form is used when we make a melody.

In the harmonic form we raise the seventh note of the scale so that there is a semi-tone between the leading note and the tonic. Try this. Do you notice that the gap between the sixth and the seventh note is now too large and sounds a bit odd?

To fix this we use the melodic form, where we raise both the sixth and the seventh going upwards, but lower them again so that the scale looks just like the Aeolian mode when we come back down.



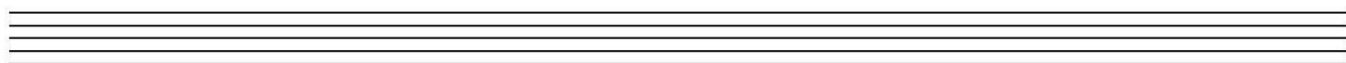
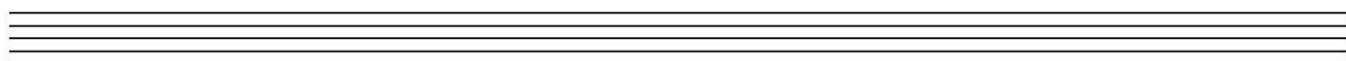
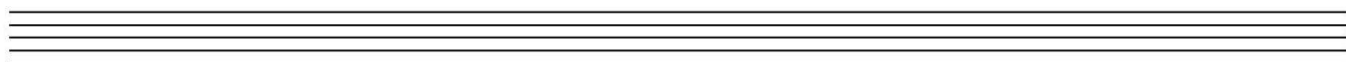
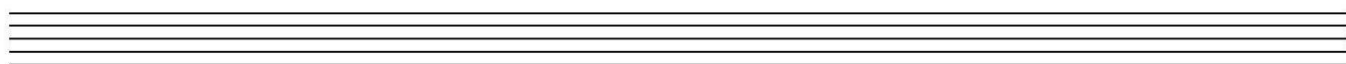
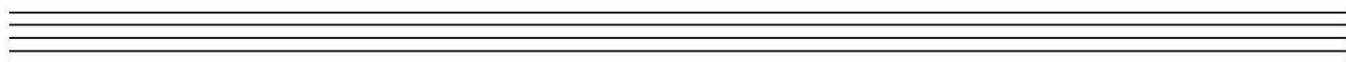
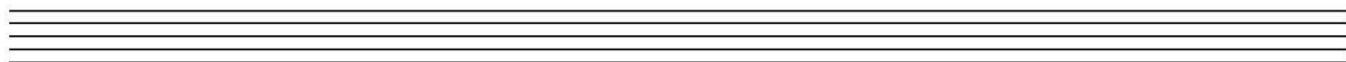
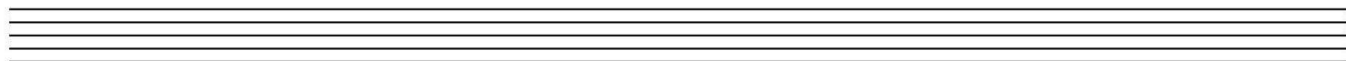
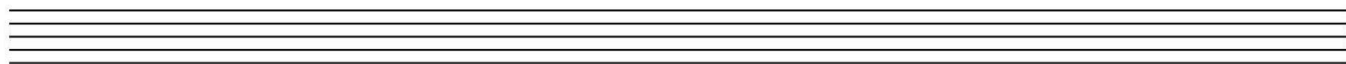
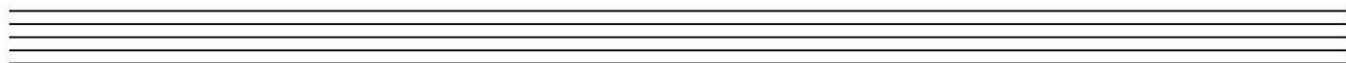
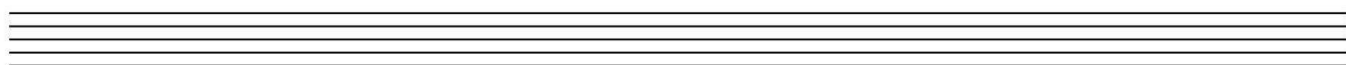
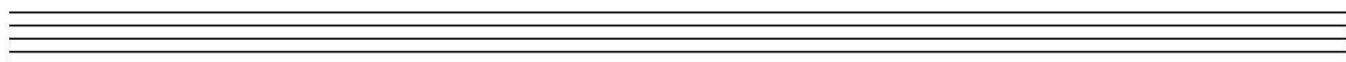
As with the major scales, it is not as important to thoroughly understand the theory as it is to know the keys and their respective sharps and flats of by heart.

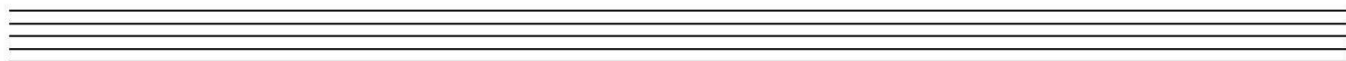
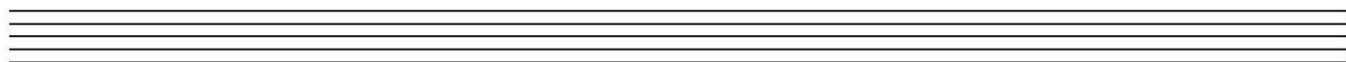
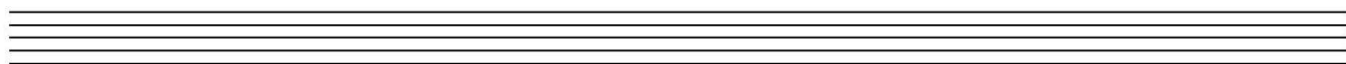
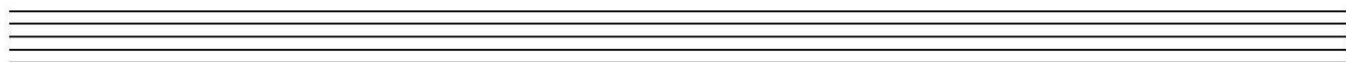
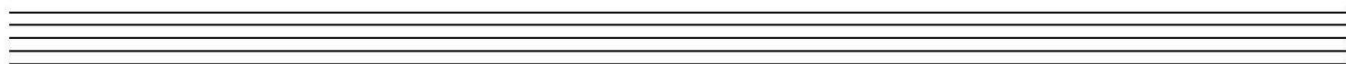
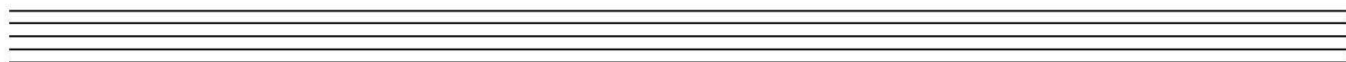
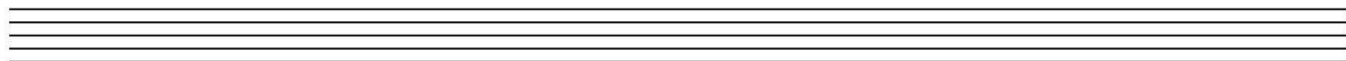
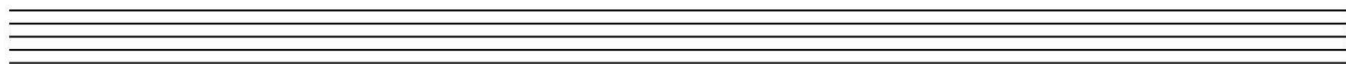
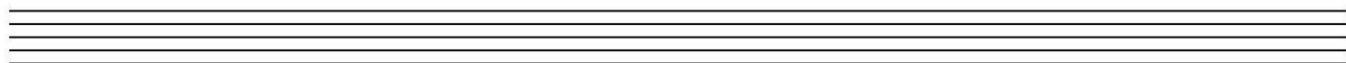
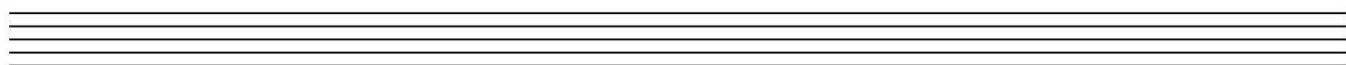
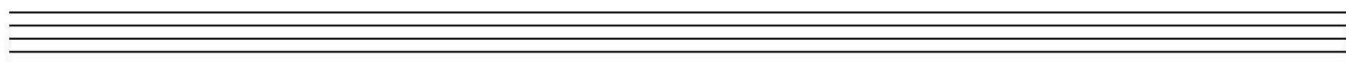
Now write the minor key scales in harmonic and melodic form on the following manuscript:

harmonic

musical notation for the harmonic of the first exercise, showing a sequence of notes on a single staff.

[illegible]



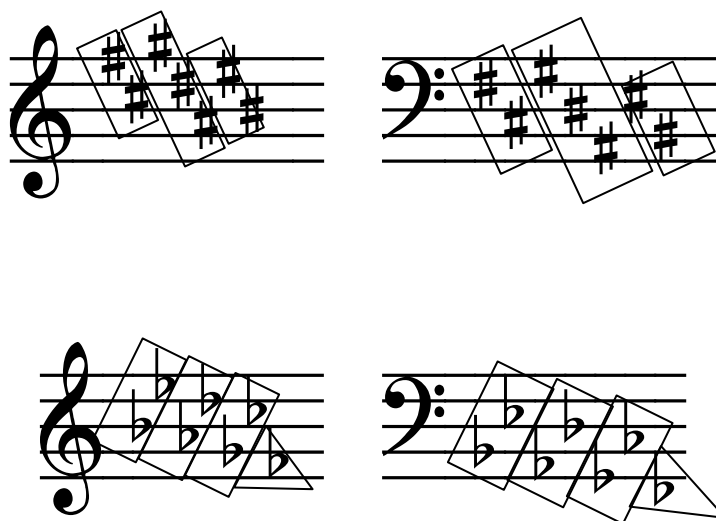


Key signatures

If we had to write every sharp and flat out individually things would get very messy very quickly, especially in keys with six or seven flats or sharps. To remedy this situation we use key signatures at the start of a piece. Learning the key signatures is just a matter of practice, and there are only two forms (one each for sharps and flats).

Writing out the key signatures is also a great way to practice memorising the keys.

The patterns you need to know are:



The alto clef uses the same patterns as the treble and bass clefs:



But in order to avoid ledger lines the tenor clef uses a different pattern for the sharps.



It is important to remember that this order and pattern must always be preserved, so that you must always write the b-flat first, and you can never write a key signature with just a flat.

There are many rhymes to help you remember the order of the flats and sharps. Here are two examples:

Father Christmas Gave Dad an Electric Blanket; Blanket Explodes And Dad Gets Cold Feet.

Father Charles Goes Down And Ends Battle; Battle Ends And Down Goes Charles' Father.

Review

What you need to know:

- 1) All of the major key signatures and how to write the associated scales.
- 2) All of the minor key signatures and how to write the associated scales in both harmonic and melodic forms.
- 3) The relationship between major scales and there relative minors.

Exercise:

Write the correct key signature for the following keys with the indicated clef. Major keys are indicated by a capital letter followed by a colon, minor keys with a lower case letter

| | | |
|---------------|-----------|-----------------|
| Treble A: | Bass e: | Treble f: |
| Alto G: | Treble C: | Bass d: |
| Tenor B-flat: | Bass b: | Treble f-sharp: |
| Alto D-flat: | Bass E: | Treble g: |
| Bass C-sharp: | Tenor F: | Treble b-flat: |
| Alto d-sharp: | Treble D: | Bass B: |

Enharmonic notes and Chromatic scales

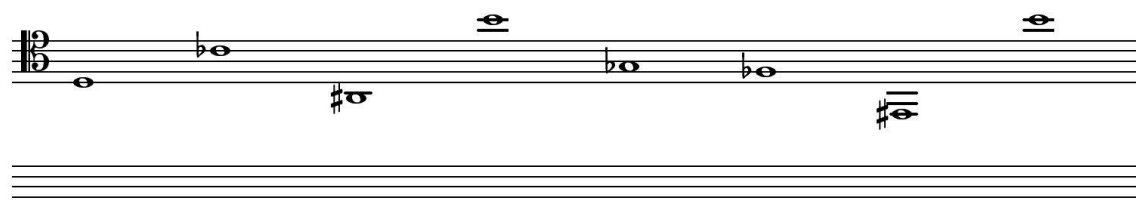
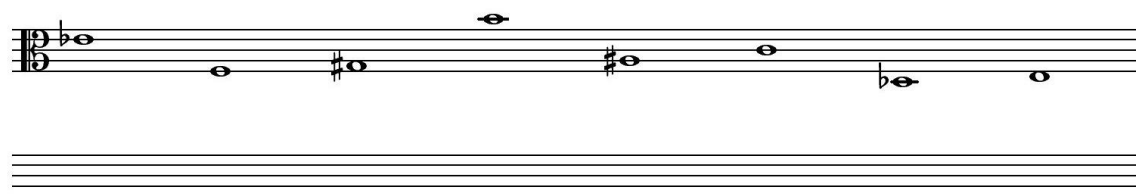
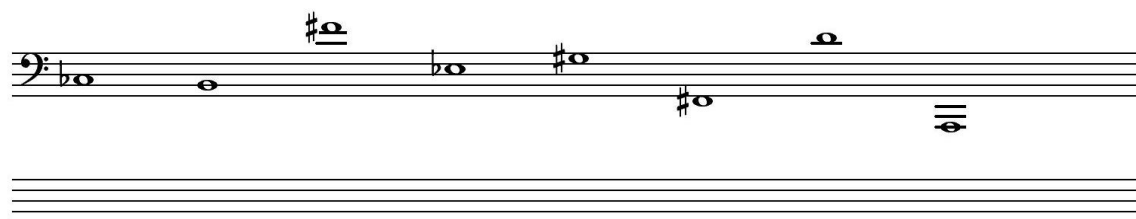
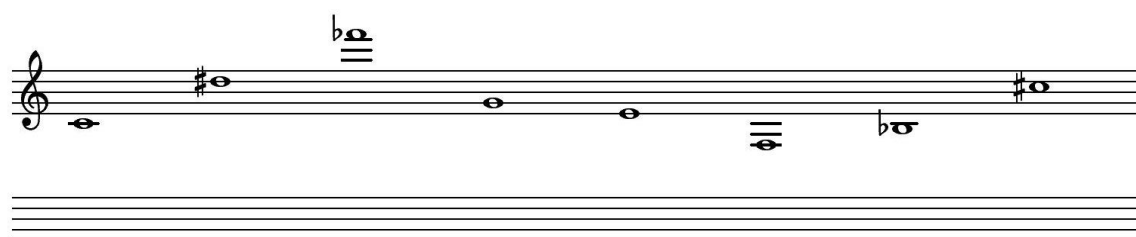
“Enharmonic” is just a big name for the different names that a single note can have. The note between A and B, for example, can be called either A-Sharp or B-flat. These are enharmonic equivalents.

You also need to be aware of double sharps and double flats, these move notes up or down by two semi-tones, which is called a whole tone.

The big trick to remember here is that E-sharp is F, and C-flat is B. Can you see why? (refer to the keyboard on pg. 48)

Exercise:

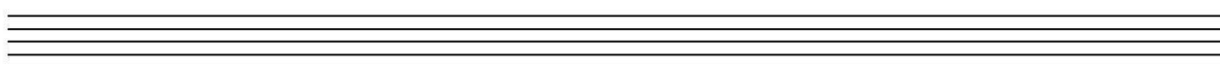
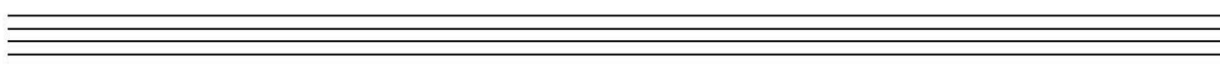
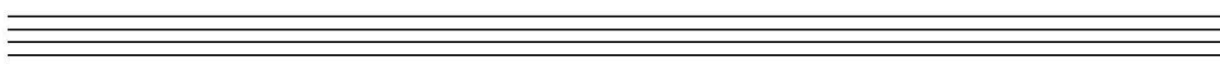
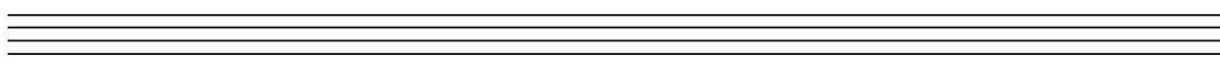
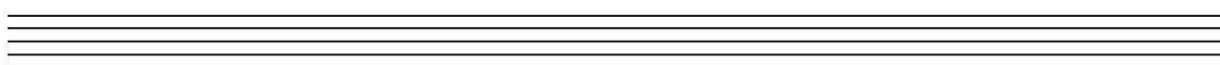
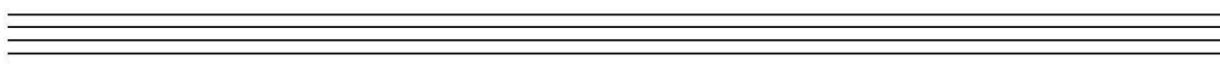
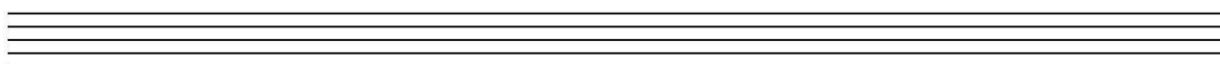
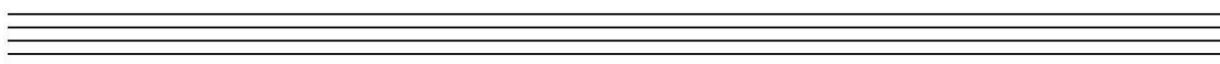
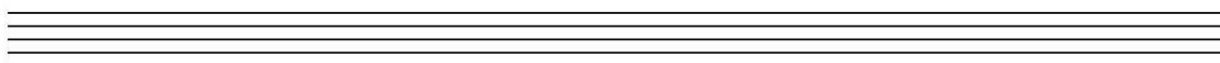
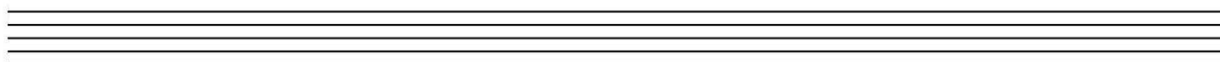
Write an enharmonic equivalent for each of these notes:



The chromatic scale consists of all the notes that make up the octave. The only problem is that there are twelve notes, but only seven letter names. That means that some, but not all letter names have to be doubled.

There is no single system for deciding which notes to double and which not to, but the most consistent approach is to have the tonic and dominant as single notes (for flats) or the third and seventh (for sharps). Can you see why?

Try a couple of variations of chromatic scales:



Technical Names

When we say that a piece is in a key, we are saying that the piece revolves around and comes to rest on a particular note. This note is called the tonic. It is not necessary that the tonic is the most frequently occurring or the final note of the piece (although this is most often the case), but a piece in C major will tend strongly toward the tonic, which is C. The tonic of a piece in G major is G, of D minor is D, and of “green elephant” major is “green elephant”.

I

The next most important note is the note on which the second tetrachord of the major scale starts, or the fifth note of the scale. This note is called the dominant. It is strident and demanding, moving the music away from the place of repose offered by the tonic.

D I D

On the other side is the note for which the tonic would be the dominant if that note was the tonic. This note is the sub-dominant note. If the dominant is five notes above the tonic, then the sub-dominant is five notes below (or note four notes above) the tonic. The sub-dominant is also the note immediately below the dominant. The sub-dominant moves the music along in a gentler manner than the dominant.

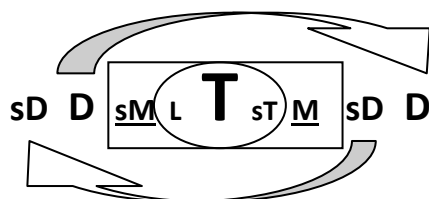
sD D I sD D

The mediant is the note in middle, between the tonic and the dominant. The submediant is the note in the middle, between the tonic and the sub-dominant. They are the third and sixth notes of the scale respectively. The mediant and sub-mediant gives flavour to the scale, these are the notes that are different in the minor mode.

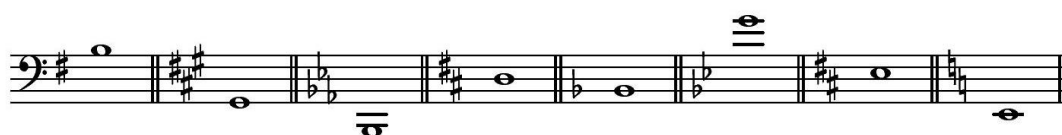
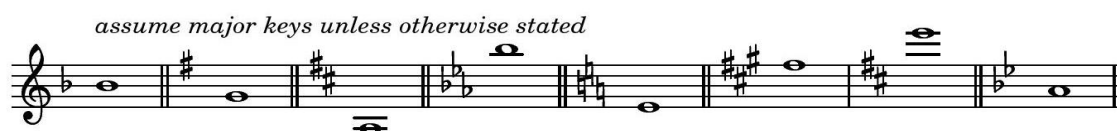
sD sM I M D

The second note of the scale, the one just above the tonic, is called the super-tonic. The note just below the tonic is the note that defines the key; it yearns for and leads to the tonic. This note is called the leading note. Ending on the leading note leaves a sense of incompleteness, which is only resolved by moving to the tonic.

L T sT



Exercise: Identify the technical names of the following notes:



Intervals

First, a couple of things to bear in mind:

1. When naming intervals we will be using the familiar sounding names major and minor, but in a rather different way. It is very easy to get confused by this so keep it in mind as we proceed.
2. Intervals are designated with two independent names: one for the absolute size as it appears in notation and one for the relative size as it would appear in the major scale.
3. We always measure an interval from the bottom note, irrespective of which is first in the music. We can measure it using the names or counting lines and spaces of the staff:



| | | | | | | | |
|-------|-------|-------|-------|-------|-------|-------|-------|
| C - C | C - D | C - E | C - F | C - G | C - A | C - B | C - C |
|-------|-------|-------|-------|-------|-------|-------|-------|

| | |
|------------|--|
| Unison (1) | |
| Second | |
| Third | |
| Fourth | |
| Fifth | |
| Sixth | |
| Seventh | |
| Octave (8) | |

Note that it doesn't matter what the actual distance is, only the apparent distance:



| | | | | | | | |
|------------|---------|--------|--------|--------|--------|--------|--------|
| C - C # | C - D ♭ | C - E♭ | C - F♭ | C - G# | C - A♭ | C - B♭ | C - C♭ |
| Unison (1) | | | | | | | |
| Second | | | | | | | |
| Third | | | | | | | |
| Fourth | | | | | | | |
| Fifth | | | | | | | |
| Sixth | | | | | | | |
| Seventh | | | | | | | |
| Octave (8) | | | | | | | |

Next we need to describe the quality of the interval. At this point it is important to note that we always read from the bottom note, regardless of which note appears first. We use the name “major” to describe any interval where the top note occurs in the major scale of the bottom note. This can be a little confusing, because major intervals also appear in the minor scale and “minor” intervals between different scale degrees in a major scale (between the mediant and dominant for example).

The basic principle is that we start from the lower note (let us use G as an example) and ask: “Is the upper note in found in G major

But wait!

This only works for the 2nd, 3rd, 6th and 7th. The 1st, 4th, 5th and 8th are special intervals which we will discuss in a moment.

So if we want to find out what the name is of an interval we first get the size. Say we have a C and a D right next to each other (assuming the C is the lower note), then the size would be a second. So we ask “is this interval a 2nd, 3rd, 6th or 7th?” Next we ask “In C major is there a D natural?” The answer to both these questions is “Yes!”. So this interval is a major second.

Try writing a few intervals now above and below these notes, remember to check what note will be in the major scale formed on the lower note, adding accidentals where necessary:

Major second



Major third



Major sixth



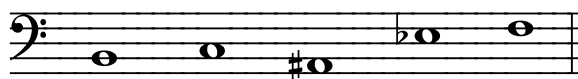
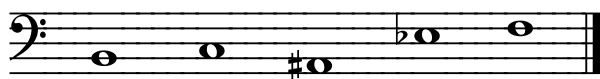
Major seventh



But what about the unison, fourth, fifth and octave? For these special intervals we use the name “Perfect” if the interval occurs in the major scale, try some (both above and below):

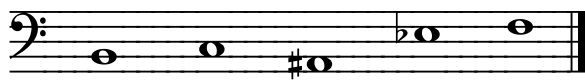
Perfect unison

Perfect Fourth



Perfect Fifth

Perfect Octave



So far so good, but what if the interval does not appear in the major scale? In that case we have to ask “Is this interval smaller than or larger than the interval we would have found in a major scale?”

Let us suppose we are asked to name this interval:



We have to ask: “In G major, is there an F natural?” The answer, of course, is no. But what would the

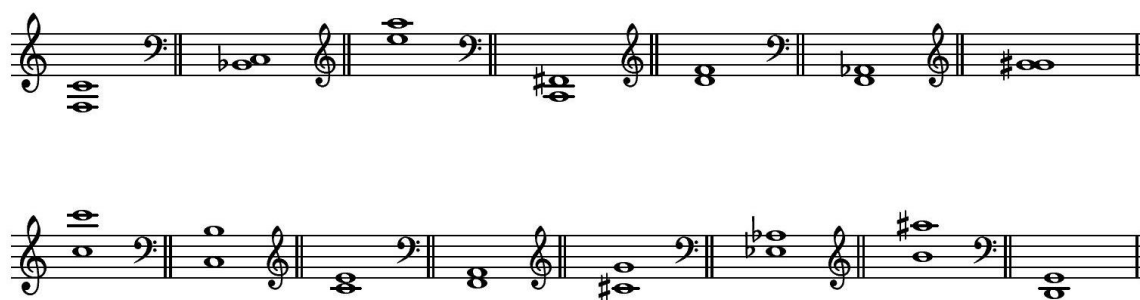
F be in G major? It would be an F#. So now we ask: “Is an F natural closer to G than an F# or further away?” It is closer isn’t it? So the interval is smaller.

How much smaller? One semi-tone, right?

Now refer to the table on the following page, find the column with the seventh in it and see the box labelled 1 smaller. So the name is Minor Seventh.

| 2 nd , 3 rd , 6 th & 7 th | Unison, 4 th , 5 th and Octave |
|---|--|
| AUGMENTED (1 larger) | AUGMENTED (1 larger) |
| MAJOR (normal size) | PERFECT (normal size) |
| MINOR (1 smaller) | |
| DIMINISHED (2 smaller) | DIMINISHED (1 smaller) |

It is all a little confusing when it is put in words, but it is a simple thing to master with only a little practice. Try naming some harmonic intervals (two notes at the same time) now:



Once this process is mastered there is one further detail to consider: What happens when two notes are more than an octave apart? In this case they are called compound intervals, and we can name them just like normal intervals, so that a major second above A is B and a major ninth above A will also be B (except one octave higher), and again a major sixteenth for the next octave. The trick in this case is to add seven to any interval if we want to expand it by an octave. We can also call a major ninth a “major compound second”.

Try identifying some intervals from the excerpts on the following pages or ask your teacher to pick out some interesting examples for you to name. Try it with both harmonic (simultaneous) and melodic (consecutive) intervals, and also try naming some larger ones across the staves.

Mark and number the intervals clearly and use the tables provided for your answers.

All examples in this section are taken from Alban Berg's "4 Stücke" For Clarinet and Piano, op. 5 (Universal Edition 1924)

Poco accel. - - - - - Rit. - - - - - *kurzer Halt* Sehr mäßiges Tempo. (♩=ca. 52)

f (flüchtig) *mf espress.* (ohne Ausdruck) *mp* *molto espress.*

dimin. *fff* 2 *p* 6 (flüchtig) - - - - -

| | |
|----|--|
| 1 | |
| 2 | |
| 3 | |
| 4 | |
| 5 | |
| 6 | |
| 7 | |
| 8 | |
| 9 | |
| 10 | |
| 11 | |
| 12 | |

sempre ppp Rit. - - - - *sehr lang*

Sehr hastig. (♩ = 176 - 192)
a tempo

sehr lang a tempo

dim. *ppp* (so rasch und leise als möglich) *ppp*

ped. * *ohne Ped.*

| | |
|----|--|
| 1 | |
| 2 | |
| 3 | |
| 4 | |
| 5 | |
| 6 | |
| 7 | |
| 8 | |
| 9 | |
| 10 | |
| 11 | |
| 12 | |

(♩) der Triole = circa 88)

zögernd - - - *zurücktreten*

ppp

zögernd - - -

poco espress.

ppp

molto legato

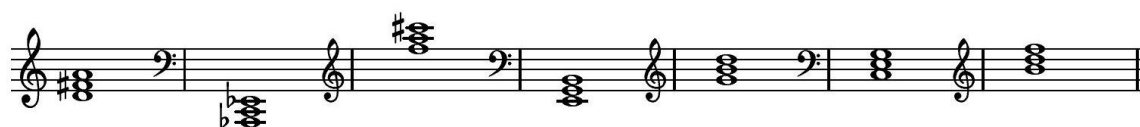
poco espr.

espr.

| | |
|----|--|
| 1 | |
| 2 | |
| 3 | |
| 4 | |
| 5 | |
| 6 | |
| 7 | |
| 8 | |
| 9 | |
| 10 | |
| 11 | |
| 12 | |

Triads

The fundamental building block of chords is the triad. A triad is, as the name suggests, made of three notes each a third apart. Here are some triads:



Like intervals, triads are always built from the bottom note up, so that the tonic triad of G major is built on G, the super-tonic triad of D major starts on E and the dominant triad of F major has C as its root.

Triads can be Major (M), minor (m), Augmented (A) or Diminished (D). To name a triad one needs to look at the quality of the intervals:

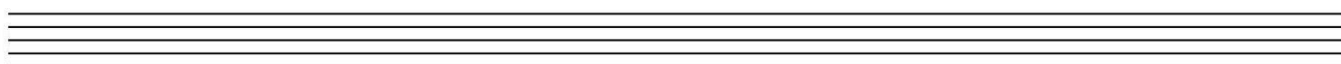
| | Major | Minor | Augmented | Diminished |
|--------------------------------|-------|-------|-----------|------------|
| Fifth (between bottom and top) | P | P | A | D |
| Top third | m | M | M | m |
| Bottom third | M | M | M | m |

Try naming the above triads as either Major, minor, Augmented or Diminished.

Using this information we can work out what quality each triad built on the notes of a major or minor scale will have. Major triads are written with capital Roman numerals and minor with small letters, diminished triads are denoted with a small letter and degree sign, while augmented triads are denoted with capital letter and plus sign:

| Major | I | ii | iii | IV | V | vi | vii° | I |
|-------|---|-----|------|----|---|----|------|---|
| Minor | i | ii° | III* | iv | v | VI | vii° | i |

Try to write a major scale with a triad built on each scale degree in this way:



An alternative way of naming triads, used in Jazz for example, is to simply name them according to the bottom note and the quality. This is not functional notation, i.e. a chord is called by the same name regardless of the key it appears in, but we will use a C major scale for example:

| | | | | | | | | |
|-------|----|------|------|----|---|----|------|---|
| Major | C | dm | em | F | G | am | bdim | C |
| Minor | Cm | ddim | eaug | fm | G | A | bdim | C |

Now identify these triads, the key is indicated by the letter (capitals for major and lower case for minors):

A: a: G: A6: C: A: e:

Triads are not always written in this simple way with one note on top of each other though, to understand what to do in these other cases we have to make the distinction between the bass note and the root note. The bass note is the note at the bottom of the triad, the lowest note.

To find the root note we have to “fix” the triad back into its normal position, we do this by simply arranging the notes back to one of the normal forms:

CEG, DFA, EGB, FAC, GBD, ACE, BDF

These forms are all in root position, the root note is the first note of these forms, or the note that would have been in the bass had the triad or chord been written in root position. Do note though for a chord to be in root position only the bass note matters, the other notes may appear in any order.

In the following triads, identify and write the bass note then re-arrange the note names into root position and identify the root note.

Root Position:

F: G: d: A: C: A: b: B6:

| | | | | | | | |
|-------|-------|-------|-------|-------|-------|-------|-------|
| Bass: | Bass: | Bass: | Bass: | Bass: | Bass: | Bass: | Bass: |
| Root: | Root: | Root: | Root: | Root: | Root: | Root: | Root: |

Chords or triads where the root note is not in the bass are called inversions. First inversion is where the third of the chord (the note one third above the root) is in the bass. Second inversion is where the fifth of the chord (the note one fifth above the root) is in the bass. When the root is in the bass it is called root position

There are three main ways of describing inversions. The first is to simply to call the root position a, first inversion b and second inversion c. So a C major chord in root position in C major would be called Ia, first inversion Ib and second inversion Ic.

The next way is the Jazz method. Here the bass note is simply stated, so a C major chord in root position is called simply C, first inversion C/E and second inversion C/G.

Finally one can name them using functional notation. This seems a bit more complex at first but it is the more flexible notation in the end. In this notation we ignore anything that is in “normal position”, i.e. anything that is a third or fifth above the bass, and then name the interval sizes above the bass for the rest. That means that root position is notated simply as I, first inversion as I₆ and second inversion as I₄.

Now fully describe the triads from the previous exercise.

Chords can be in closed position or open position, closed position is where all the notes are written as to close to one another as possible, open position is when there are gaps where more notes from the triad could have been fit in. It is not usually required to distinguish between open and closed position chords, but is necessarily to be able to correctly describe them regardless of position.

Now try to fully identify these open position triads:

a: F: D: c: C: g: f#: d:

Elementary Functional Harmony: Cadences

Music is divided into sections called phrases which are almost like sentences in speech. When we speak or write we need to use punctuation marks to help make sense of what we are saying, we need musical punctuation marks to help make sense of the music is saying. These punctuation marks are called cadences.

This analogy is not precise, but is nevertheless useful:

| | | |
|-------------------|-------------------------------------|---------------------------|
| Full Stop. | Plagal Cadence (Amen Cadence) | IV-I |
| Exclamation mark! | Perfect, Authentic or Final Cadence | V-I |
| Comma, | Imperfect or Half Cadence | (any chord)-V |
| Question mark? | Interrupted Cadence | V-vi (or any chord but I) |

Cadences usually have three chords in them, the two defining chords at the end plus one more that prepares the cadence.

Try writing the following triads in any clef and identify the cadence in each case:

Cadence : _____

Cadence : _____

A: IV V I

D: ii6 V vi6

Cadence : _____

Cadence : _____

d: i iv i

e: iv6 V6 i

Cadence : _____

Cadence : _____

B: vi I V

C: IV IV6 V

Cadence : _____

Cadence : _____

c: i6 V i

F: IV V vi6

Cadence : _____

Cadence : _____

d: i IV i

Eflat: IV V6 I

Cadence : _____

Cadence : _____

Bflat: IV6 V I

E: IV I V

PART III

Visual Glossary of Musical Terms

Fast

Veloce

Swift

Presto

Fast

Schnell (G)

Fast

Volante

Flying

Lively

Vite

Quick

Vif (F)

Lively

Vivace

Lively

Vivo

Lively

Anima

Spirited

Animato

Animated

Cheerful and Moving

Allegro

Cheerful

Bewegt (G)

Moving

Allegretto

*Little slower than
Allegro*

Frohlich (G)

Happy

Moderate

Moderato

Moderate

Modéré (F)

Moderate

Mässig (G)

Moderate

Comfortably Walking

Andantino

*A little faster
than **Andante***

Andante

At a walking pace

Comodo

*At a comfortable
speed*

Andantino

*A little slower
than **Andante***

Slow

Adagietto

*A little faster
than **Adagio***

Adagio

Slow (at ease)

Larghetto

Rather slow

Breit (G)

Broad

Largo

Slow, Stately (Broad)

Lento

Slow

Lent (F)

Slow

Langsam (G)

Slow

Energetic

Energico

Energetic

Agitato

Agitated

Ritmico

Rhythmical

Tosto

Swift, Rapid

Anima

Spirit

Forza

Force

Brio

Vigour

Fuoco

Fire

Humorous

Scherzando

Jokingly

Giocoso

Merry

Tender

Affetuoso

Tenderly

Teneramente

Tenderly

Zart

Tenderly

Semplice

Simple

Piacevole

Peacefully

Ruhig

Peaceful

Tranquillo

Peacefully

Sweet

Lusingando

Sweetly persuasive

Amabile

Amiable, Pleasant

Amore

Lovingly

Süss (G)

Sweetly

Douce (F)

Sweetly

Dolce

Sweetly

Expressive

Espressivo

Expressively

Ausdruck (G)

Expression

Apassionata

Passionately

Cantabile

In a singing style

Cantando

Singing

Sad

Mesto

Sad

Dolente

Sad

Dolore

Grief

Lacrimoso

Crying

Piangevole

Lamenting

Traurig (G)

Sadly

Serious

Grave

Serious

Maestoso

Majestically

Risoluto

With firm resolve

Nobilemente

With nobility

Largamente

Broadly

Tempo Changes

Speeding up

Accelerando

Gradually getting quicker

Stringendo

Gradually getting faster

Incalzando

Getting quicker

Presser (F)

Hurrying

Affretando

Hurrying

Doppio movimento

Double the speed

Tempo Giusto

In strict time

A Tempo

Return to the original tempo

L'istesso tempo

The same tempo

Tempo Rubato

With freedom in time

Slowing down

Rallentando

Gradually getting slower

Ritenuto

Held back

Ritardando

Gradually getting slower

Perdendosi

*Dying away
(slower and softer)*

Cédez (F)

Yielding, slowing down

Calando

Dying away

Morendo

Dying away

Estinto

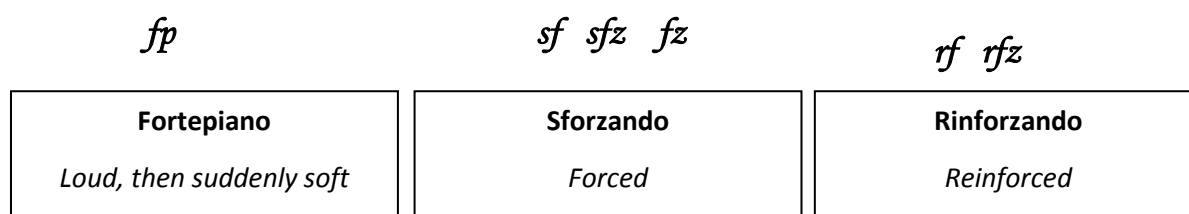
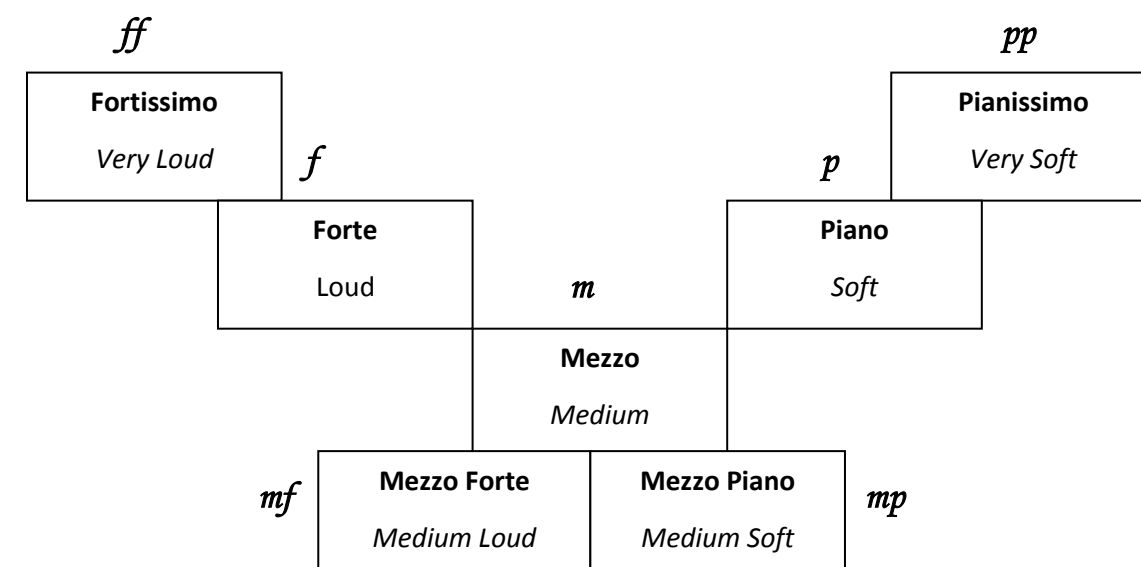
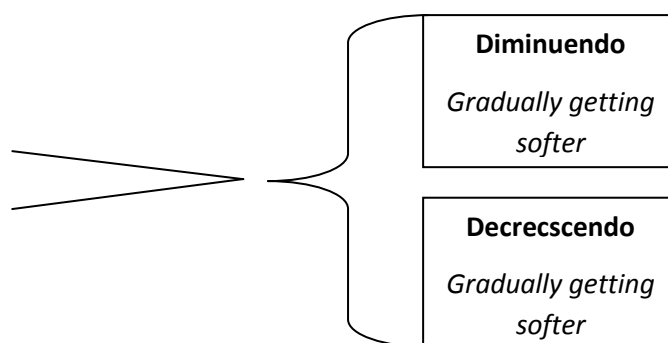
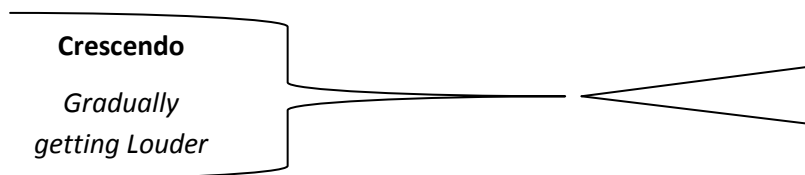
Dying away

Allargando

Broadening

Smorzando

Dying away



**Marcato**

*Emphatic,
Accented*

**Accent****Pesante**

Heavy

**Tenuto**

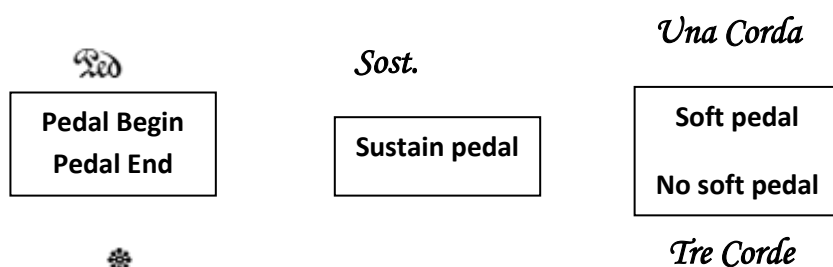
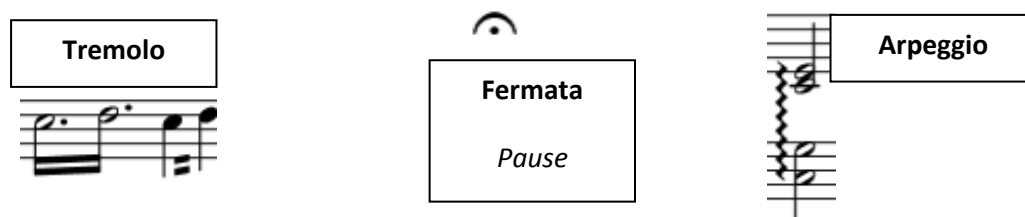
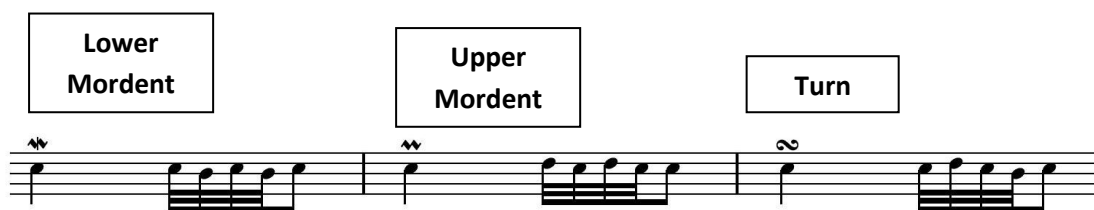
Held


Tie**Slur****Phrase****Staccato****Leggiero**

Lightly


**Semi-Staccato**

Staccatissimo





Repeats





Volta
Time (1st, 2nd etc.)

1st Time

2nd Time

1

2

| | |
|-----------|--|
| Da Capo | From the beginning |
| Dal Segno |  From the sign |
| Al Coda |  To the Coda |
| Al Fine | To the end <i>fine</i> |



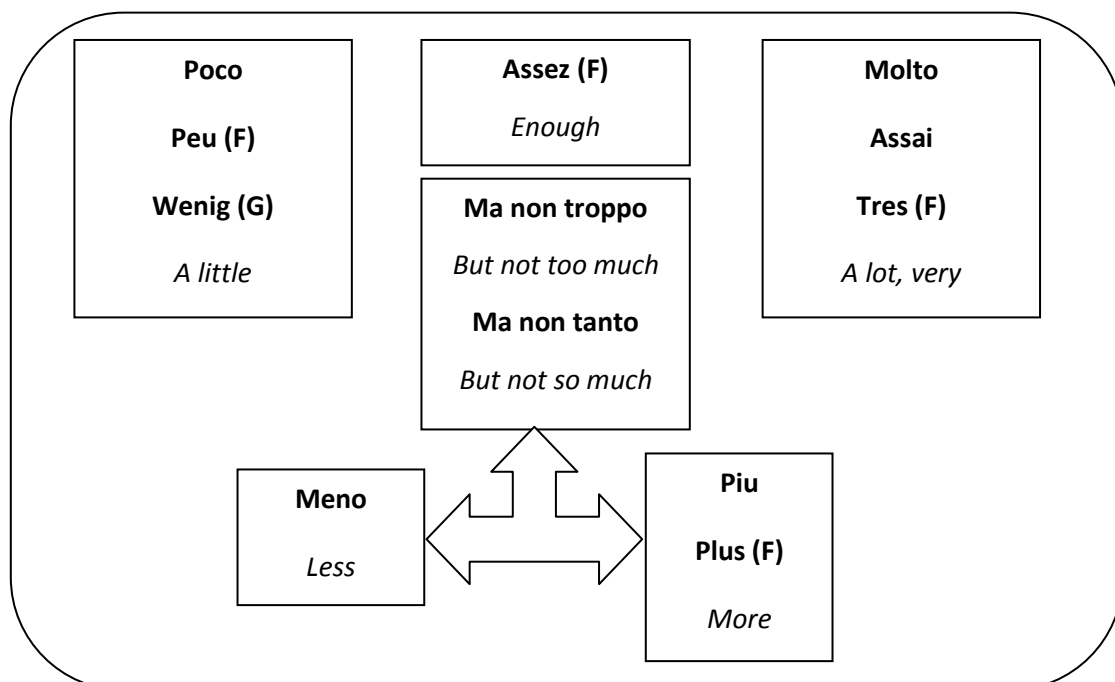
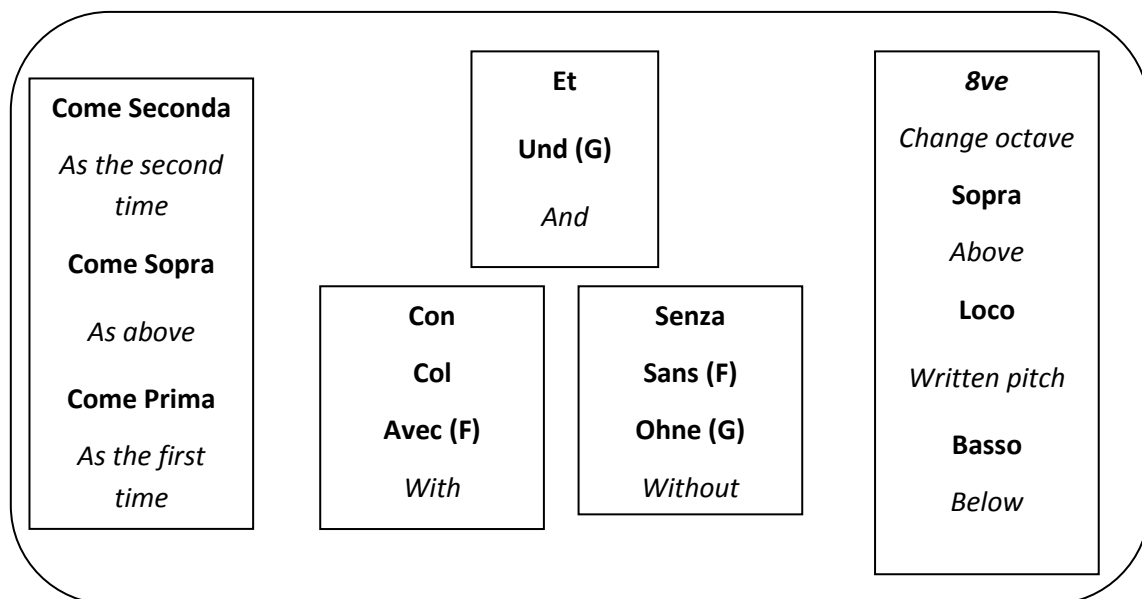
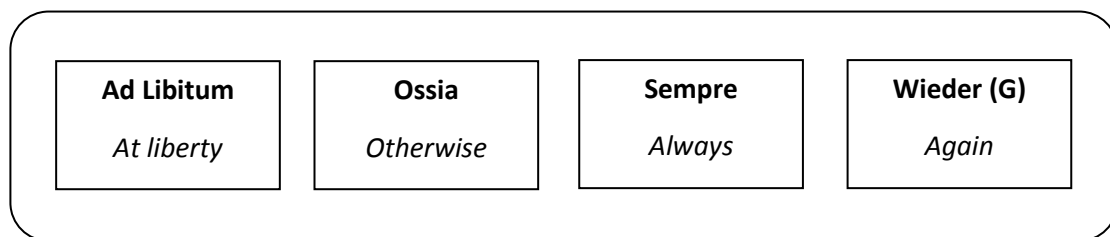
Repeat previous bar or
pattern

Attacca

Attach: Go immediately to the next section

Segue

Go straight on



Lunga

Long

Sonore

Sonorous

Sotto Voce

Half Voice

Quasi

Like

Alla

al

In the style of

Mosso

Movement

Subito

Suddenly

Ben

Good (Well)

Facile

Easy

Mano

Hand

Destra

Right

Sinestra

Left

En Dehors (F)

*Bring out the line,
make prominent*

Instruments and Voices

Transposition and transcription

| Instrument | Sounding Transposition | Usual Clef |
|-------------|------------------------|------------|
| Violin | | Treble |
| Viola | | Alto |
| 'Cello | | Bass |
| Double Bass | One Octave down | Bass |

Strings

| Instrument | Sounding Transposition | Usual Clef |
|------------------------|------------------------|---------------|
| -Piccolo | Perfect octave up | Treble |
| Flute | | <i>Treble</i> |
| Oboe | | Treble |
| -Cor Anglais (F) | Perfect fifth down | Treble |
| Clarinet -in Bflat | Whole tone down | Treble |
| -in A | Minor third down | Treble |
| -Bass Clarinet (Bflat) | Major ninth down | Bass |
| Bassoon | | Bass |
| -Double Bassoon | Perfect octave down | Bass |

Woodwinds

| Instrument | Sounding Transposition | Usual Clef |
|------------|------------------------|---------------|
| Trumpet | Whole tone down | Treble |
| Horn in F | Perfect Fifth down | <i>Treble</i> |
| Trombone | | Bass |
| Tuba | | Bass |

Brass

Winds

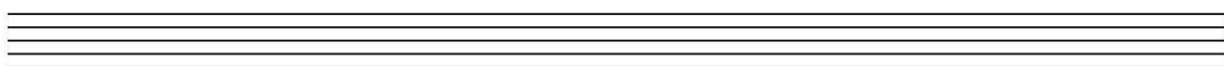
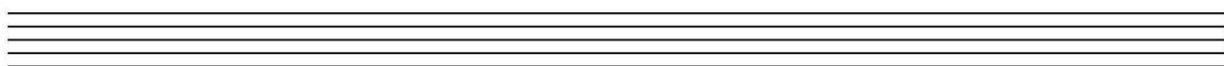
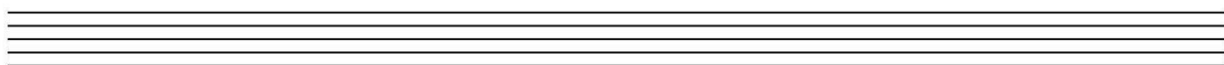
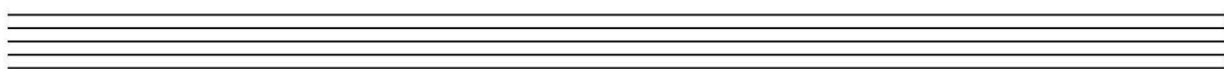
| Tuned (definite pitch) | Untuned (indefinite pitch) |
|-------------------------------------|----------------------------|
| Celesta | Castanets |
| Harp (questionable classification) | Snare Drum |
| Marimba | Tam-Tam Gong |
| Piano (questionable classification) | Tambourine |
| Steelpan | Triangle |
| Tubular Bells | Whistle |
| Xylaphone | Wood block |

Percussion (Selected List)

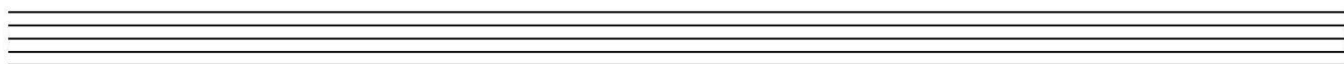
| Voice | Singer Type | Usual Clef |
|------------------------------|-----------------------------|-------------------|
| Soprano | High female | Treble |
| - <i>Mezzo Soprano</i> | Medium female | <i>Treble</i> |
| Contralto | Low female | Treble |
| - <i>Alto (Countertenor)</i> | Very high male (falsettist) | Treble |
| Tenor | High male | Treble (8ve down) |
| - <i>Baritone</i> | Medium male | Bass |
| Bass | Low male | Bass |

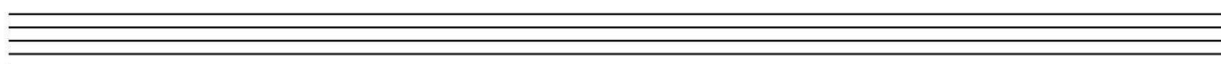
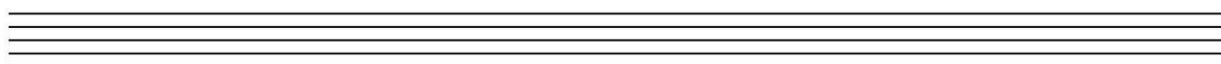
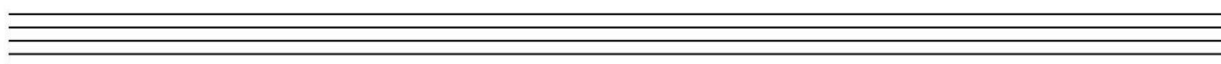
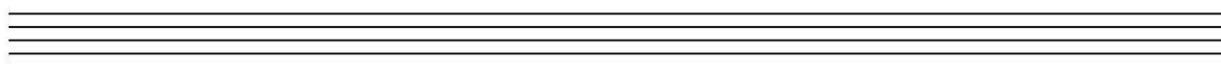
Voices

Exercise: Transcribe the following passage into open score (*see later exercises for examples of open score*)

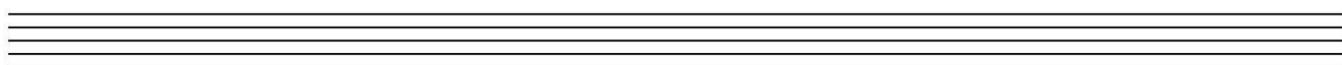


Now transpose the soprano line up a perfect fifth and rewrite it in compound time (retaining the relative values)

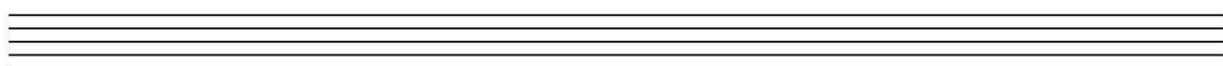
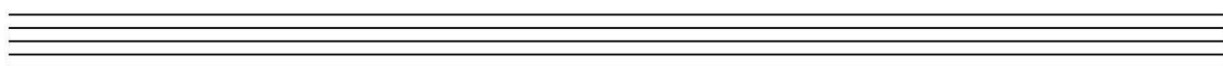
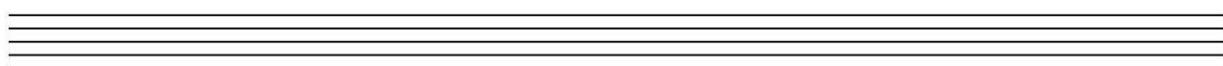
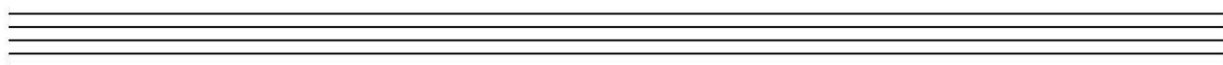




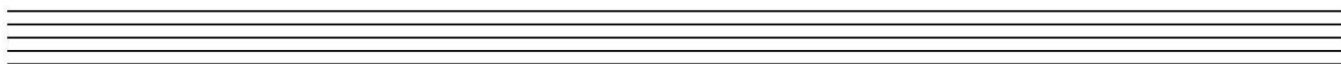
Transpose the Tenor line down a major second and write it in the tenor clef



from BWV 4 (J.S. Bach)

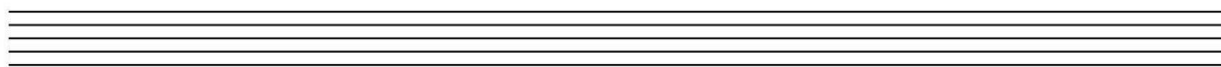
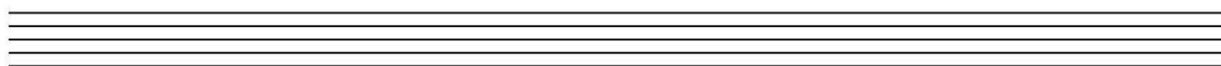


Rewrite the alto part at the same pitch in the bass clef, halve the note values

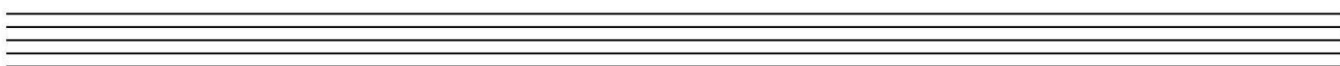


Exercise: Rewrite the following into short score (*note the use of stem direction to indicate voices in the earlier exercises*)

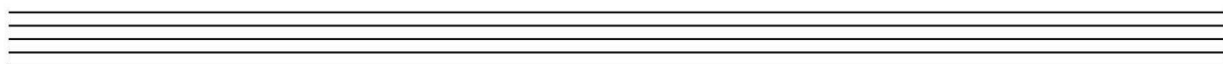
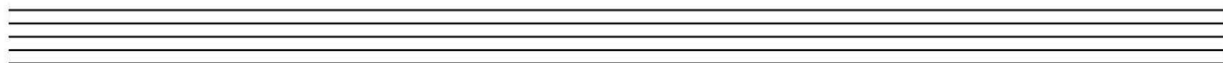
A musical score for four voices: Soprano, Alto, Tenor, and Bass. The Soprano part is in treble clef and contains a triplet of eighth notes. The Alto part is in treble clef. The Tenor part is in treble clef with an octave 8 below the staff. The Bass part is in bass clef. All parts end with a double bar line.



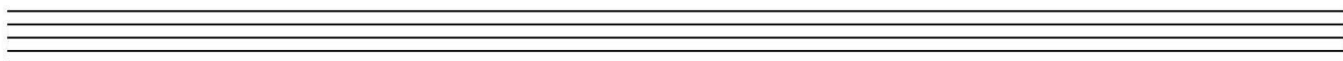
Transpose the Bass line up a major second



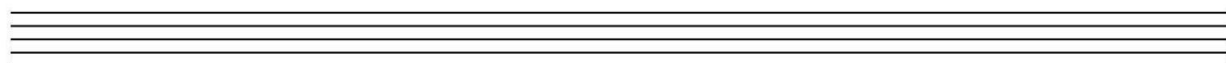
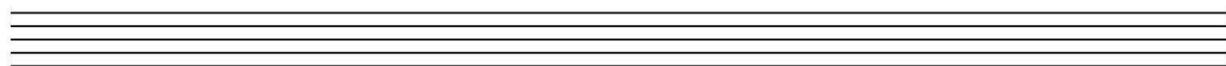
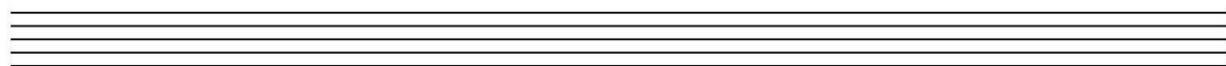
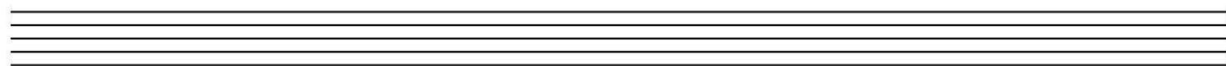
A musical score for four voices: Soprano, Alto, Tenor, and Bass. The key signature is D major (four sharps: F#, C#, G#, D#) and the time signature is 6/8. The Soprano part begins with a treble clef and a brace on the left. The Alto part also uses a treble clef. The Tenor part uses a treble clef with an '8' below it, indicating an octave lower. The Bass part uses a bass clef. All parts end with a double bar line. The Soprano part consists of two measures: the first has a half note D5 and a quarter note E5; the second has a half note F#5 and a quarter note G5. The Alto part has two measures: the first has a half note D4 and a quarter note E4; the second has a half note F#4 and a quarter note G4. The Tenor part has two measures: the first has a half note D4 and a quarter note E4; the second has a half note F#4 and a quarter note G4. The Bass part has two measures: the first has a half note D3 and a quarter note E3; the second has a half note F#3 and a quarter note G3.



Transpose the soprano part up a major third, change the time signature to simple time



from BWV 437 J.S. Bach



Transpose the soprano part down a major third and write in the alto clef, also double the note values

