BIBLICAL PHILOSOPHY OF MUSIC
SECTION 1 schedule

Music Education Ministries

Pastor Graham West

LESSON 1 pages 2-10 - *Essential Theory of Rhythm (Part 1)* interactive DVD

LESSON 2 pages 11-22 - *Essential Theory of Rhythm (Part 2)* interactive DVD

BIBLICAL PHILOSOPHY

OF MUSIC

Section 1: Lesson 1

Music Education Ministries

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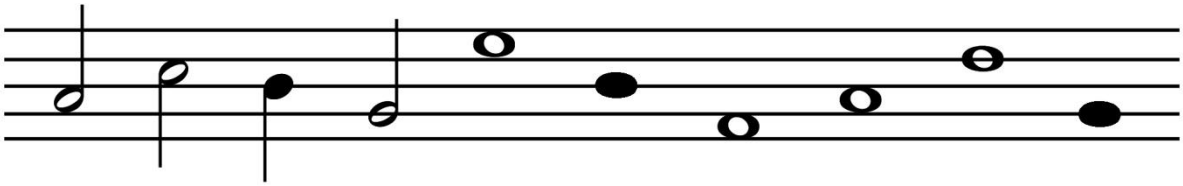
ESSENTIAL THEORY OF RHYTHM (Part 1)

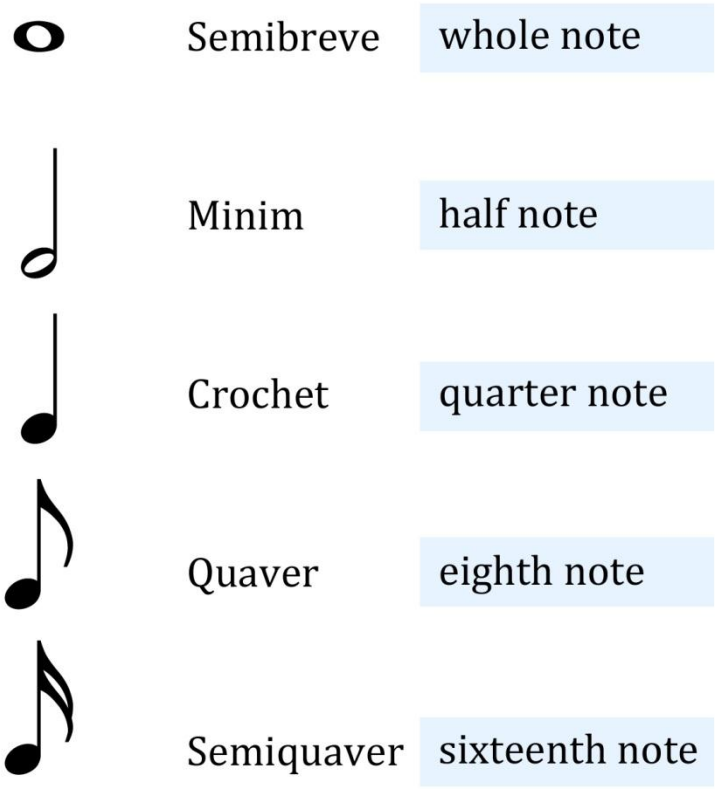
I RHYTHMIC DENOMINATION

A. Musical notation is basically a written indication of both the pitch (i.e. how high/low any given note is to be sung or played) and time values of individual notes within the context of a piece of music. In these two brief lessons we are not going to consider the aspect of musical pitch, which has to do with the rise and fall of the melody line.

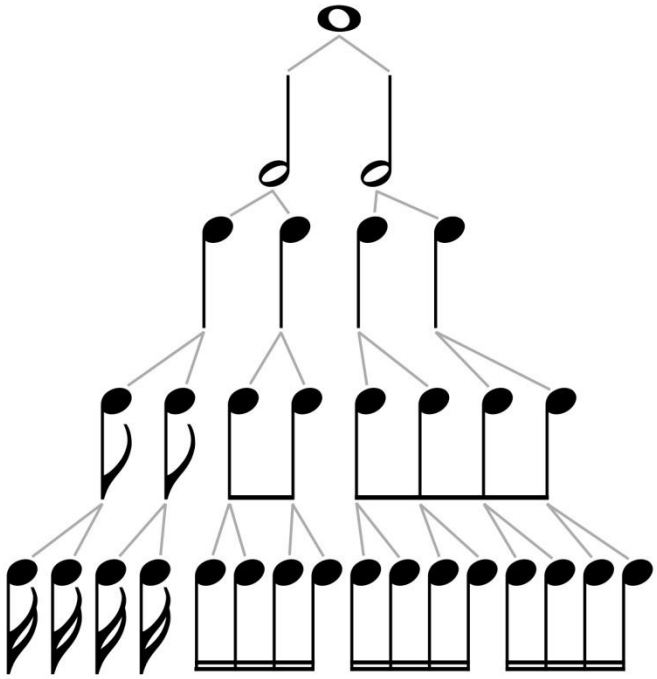
B. We are going to concentrate on several aspects of rhythmic notation. In order to notate rhythmic patterns correctly we need to understand the rule governing the notes stem direction. Notes that appear above the middle line on the ordinary musical staff have their stems hanging down from the left-hand side of the note, whereas notes that are below the middle line the staff have their stems going up on the right-hand side of those notes. Notes that are written on the middle line can have their stems going in either direction, down on the left or up on the right. Observe this rule in action in the first four notes in the diagram below and draw stems on the six remaining notes of the staff.



C. Let's start by introducing you to the five most common names that indicate notes of a specific time values. They are, from longest to shortest, the semi-breve, the minim, the crotchet, the quaver & the semiquaver. These are the English names. Their American equivalents are more logical, being whole note, half note, quarter note, 8th note & 16th note respectively.

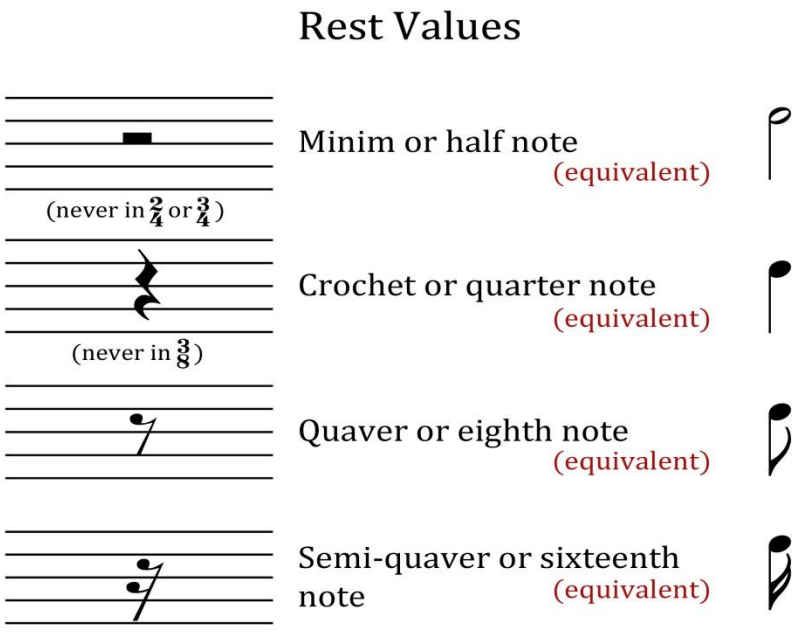


C. The following diagram displays the hierarchical relationship of the notes in five levels. At the highest level we have the semi-breve or whole note. At the next level down we have the half note or minim. Obviously there are 2 half notes in a whole note and if we go down to the next level, level three, we see the half notes dividing into 2 again, giving us quarter notes or crotchets. This process of dividing in half goes on every time we moved down a level.



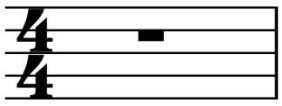
II REST VALUES

A. The notes that we've learned about above have their corresponding equivalent rests.

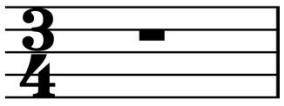


B. On the staves provided below, practice writing the rests as neatly as you can. Use each of the 4 lines to practice one of the different rests shown above. Pay careful attention to the exact placement on the staff.

C. The semi-breve or whole note rest is employed when the composer wants a whole bar of silence. Unlike the half note (minim) rest that sits squarely on the middle line of the staff, the whole note rest hangs from the second top line and is used to signify a whole bar of rest in any simple time signature (i.e. 4/4, 3/4, 2/4, 3/8. *For information on time signatures see IV.*).

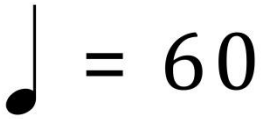


Semibreve (whole note) rest is used for a whole bar of silence in simple time.



III THE NECESSITY OF REGULAR TEMPO

A. In music speed is equivalent to tempo. Whether the tempo is slow or fast, the really important thing is that it must be even, like the ticking of the clock. In fact, let's think of the clock as an example. It ticks once every second. That is 60 times in 1 min. Now, imagine the quarter notes or crotchets in a given piece of music are moving along steadily at the rate of 60 crotchets to the minute. That is the speed the clock ticks at. The tempo marking for this would be, "crotchet = 60".



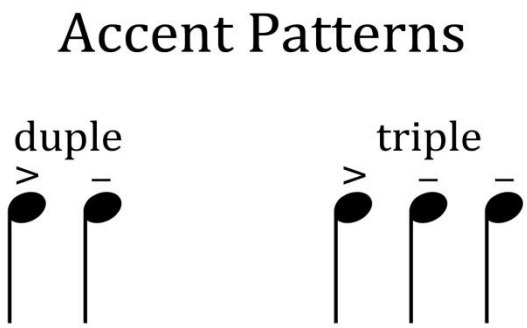
B. Musicians use a device called a metronome which ticks like a clock, but it is much louder so it can be heard above the sound of the music. Because it's "tick" is regular like the clock, it is often used in difficult rhythmic passages or fast running passages to ensure that the musician plays the notes as evenly as possible, without slowing down or speeding up to accommodate various difficulties. Over time this will help the musician to develop an accurate sense of rhythm. Metronomes have the capacity to be set at different tempos, fast or slow, depending on the requirements of the music. Sometimes, a metronome will be set going for a short time immediately before playing the music. This is to give the correct tempo of the piece, because it can be difficult, even for an experienced musician to know exactly how fast or slow to play a piece of music, especially if they haven't played it before.

Bach's ***Arioso in G*** is example of a well-known piece of music where this speed is very slow. It is marked Largo, which is about 46 crotchet beats to the minute**.**

III METER & ACCENT

A. When the human mind hears a regular beat in music, it tends to want to group those even pulses in groups of either two or three. And so there are two broad categories into which we divide music when it comes to meter. Those two categories are, ***duple*** and ***triple*** meter (or time). Triple meter can occur in either ***simple*** or ***compound*** time. In these lessons we will cover only simple time.

We distinguish duple from triple meter by their accent patterns. There are strong accents and weak accents, grouped into distinctive patterns as required for either duple or triple meter. One of the conventional signs for a strong accent is a "V" on its side. This is placed immediately above or below the note indicating that it should be played louder. We may use the tenuto sign to indicate the weak accents, once again above or below. The tenuto sign looks like a minus sign, "-".

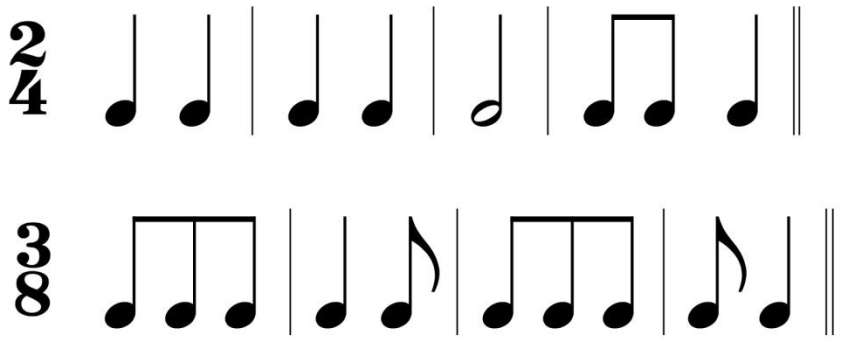


B. Most often, we see music written without any accent marks above the notes. Accents will are usually only used in music to indicate an accent pattern when that pattern is foreign to the time signature. We also employ them for teaching the student of music when he/she is learning about how accent patterns work in different time signatures. That is in fact what we are doing in this lesson.

C. In duple meter the two accented notes, the strong and the weak, taken together make up one formal unit called a bar. Americans would call a bar, a measure. In triple meter the 3 accents naturally conform to the following accent pattern: strong, weak, weak. Likewise, these 3 accents make up one bar. Bars or measures are separated from each other by bar lines. The bar lines do not interrupt the even, regular tempo, but they are placed before the first note of the bar to indicate that the first note is the one that receives the strong accent. In fact, the use of bar lines is the conventional way of indicating where the strong accent falls without having to use actual accent marks (i.e. the "V" on its side). Bar lines also help to give structure and order to the music, making it easier to understand and read. The first beat of the bar is called the downbeat. The term, "downbeat" comes from the actions of the conductor. Whatever meter he is conducting and at whatever speed (tempo), there will always be one movement of the hand or baton that is more decisive than the others. It is a strong downward stroke of the hand. That is the downbeat, marking the first note of every bar or measure.

IV TIME SIGNATURES & COUNTING

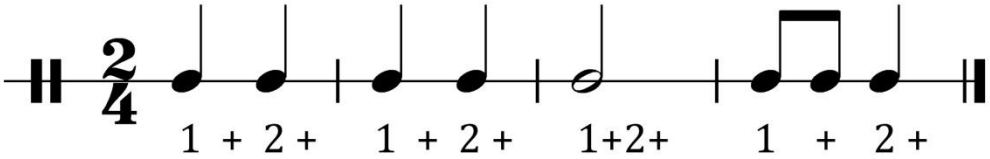
A. Both the meter and the accent are communicated by the time signature. Time signatures look like fractions, for example 2/4 or 3/8 or 3/4 or 4/4. [4/4 time can be denoted using a "C" (i.e. common time) in the place where the time signature usually goes]. The difference between time signatures and fractions is that when time signatures are actually written in music the numbers appear directly over one another in the same manner as fractions, but with the dividing line removed. The top numeral in the time signature indicates the ***number*** of beats in the bar, while the bottom numeral informs us what ***type*** of beats they are, (i.e. the value of each beat). For example, in our first time signature, 2/4, the top figure is telling us that there are 2 beats in the bar and the bottom figure is telling us that those beats are quarter note (or crotchet) beats. In our 2nd example, 3/8, the top figure is telling us that there are 3 beats in the bar and the bottom figure is telling us that those beats are 8th note (or quaver) beats.



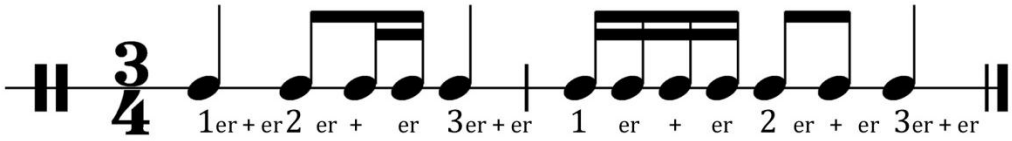
B. You will notice, for example, that in 2/4 time there will not always literally be two quarter notes in every bar. It is necessary, however that the total time value of all the notes in each bar adds up to exactly two quarter notes in 2/4 time. We see a similar principle operating in our 2nd example. There must be a total of 3 eighth notes in every bar in this case .

C. Many times a musician does not have access to a metronome or simply may choose to play without one, but he still needs a way of making sure the time values of the notes are all correct. So he counts as evenly as he can. Of course, counting will never be as accurate as a metronome, but if he concentrates and especially if he says it out loud while he is actually playing, then he can do a fairly good job of simulating a metronome. When he becomes familiar with the rhythmic pattern of the music, he no longer needs to count.

D. Usually, although not always, we would give one count per beat. For example in 2/4 time we would simply count "1 2 1 2 1 2 1 2 etc". If there is a place in the music where the beat is divided in half, such as is the case in the 4th bar of our first example here, then we should count the half beats as well as the main beats ***all the way through*** the music (especially through the long notes because having to articulate those divisions will help guard against shortening the time value of longer notes, which students are so apt to do when they don't count). We indicate the half beats by inserting the word "and" between the main counts. Typically, we would count aloud saying, "1 and 2 and 1 and 2 and etc". When we write out counting, underneath the music, we use a "+" to denote each half beat when we say "and". So our example would be written in this way: "1 + 2 + 1 + 2 + etc".



E. When the music contains 16th notes, the counting becomes very busy. We employ the use of the syllable "er" in between the main counts and the half counts.



BIBLICAL PHILOSOPHY

OF MUSIC

Section 1: Lesson 2

Music Education Ministries

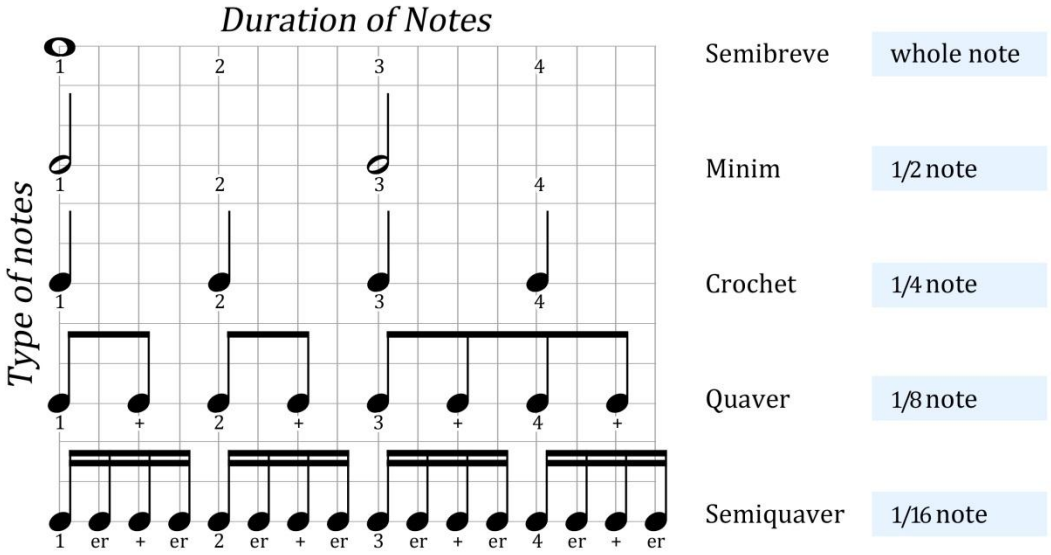
Pastor Graham West

ESSENTIAL THEORY OF RHYTHM (Part 2)

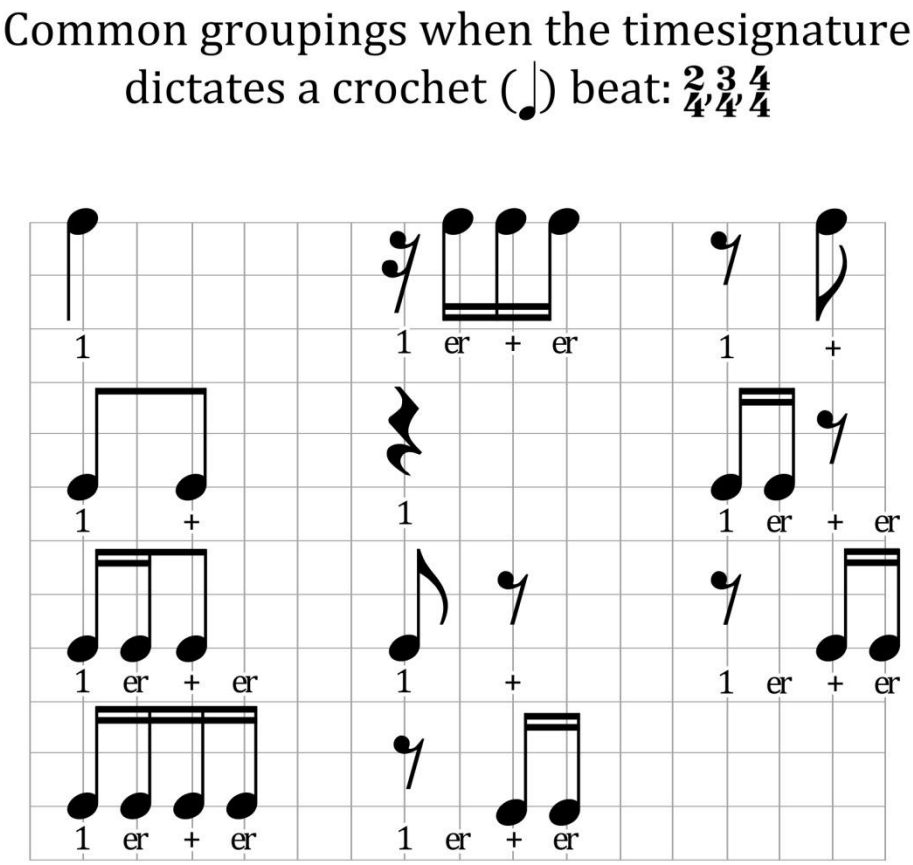
V NOTE RELATIONSHIPS & GROUPING IN SIMPLE TIME

A. Below I have used a grid to highlight the mathematical relationship between the 5 most common notes in music. Notice, there are exactly sixteen 16th notes in one whole note. There are exactly two 16th notes (double tails) in every 8th note (single tail) and four 16th notes in every quarter note. You will also notice the counting is written under the notes, in accordance with the exact positions on the grid. This has been done to provide you with a clear visual grasp of the mathematical relationships between the notes.

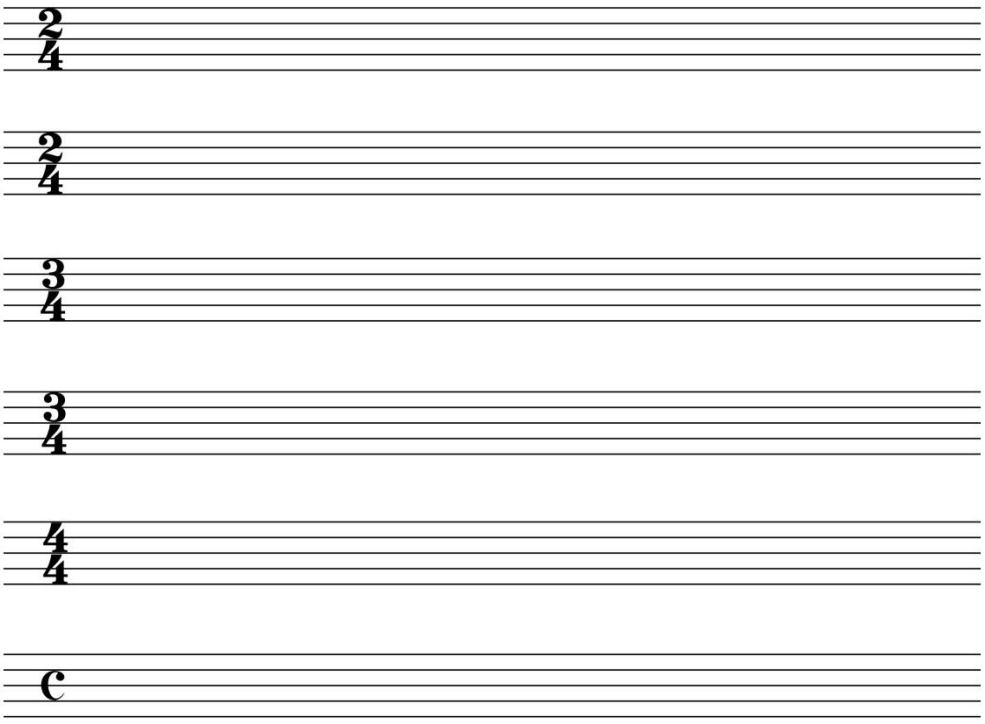
B. Notice also how the double tails of the 16th notes are all linked into groups of four, according to the crotchet beats. (This is not so in compound time, but that does not concern us here.) Following the same rule, the single tails of the 8th notes are grouped at least in pairs, once again, according to the crotchet beats.



C. When the time signature of the music has a "4" as the bottom figure, we know that our beats are going to be crotchet beats. This is often the case with many pieces of music. Listed below are some of the common combinations of notes/rests and notes where each unit is grouped according to the crotchet beat. The counting is also provided.



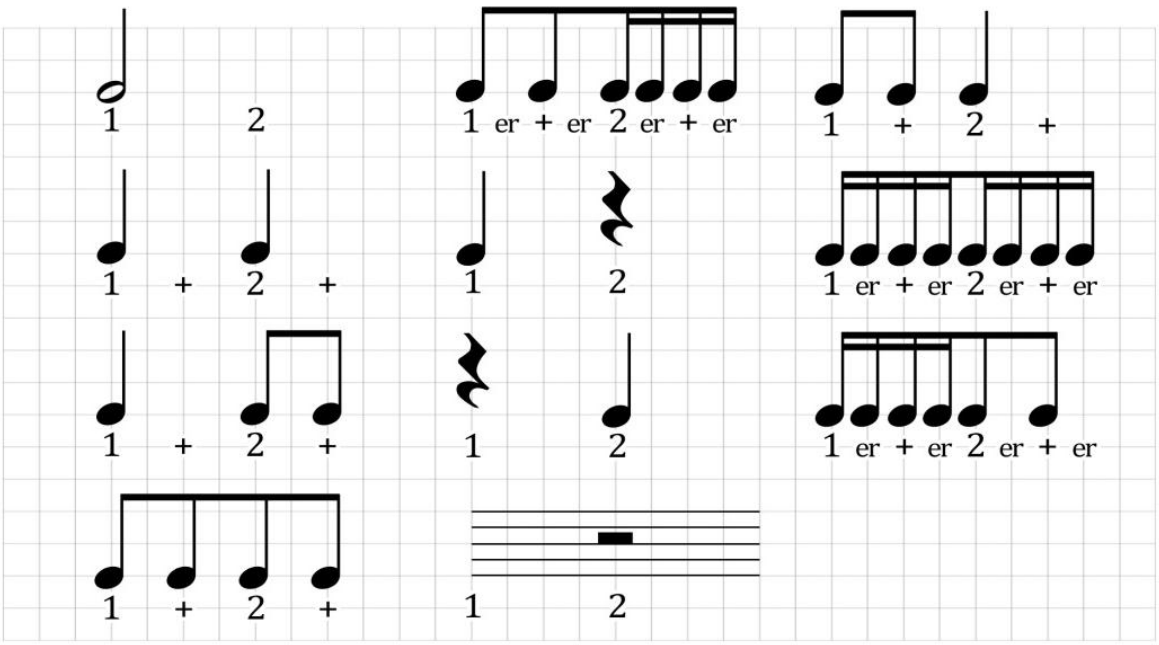
D. On the blank score provided, fill in each line with different combinations of the groups of notes and rests taken from the diagram above. You can put them in any order, just as long as you pay careful attention to the number of crotchet beats dictated by that particular time signature in each case.



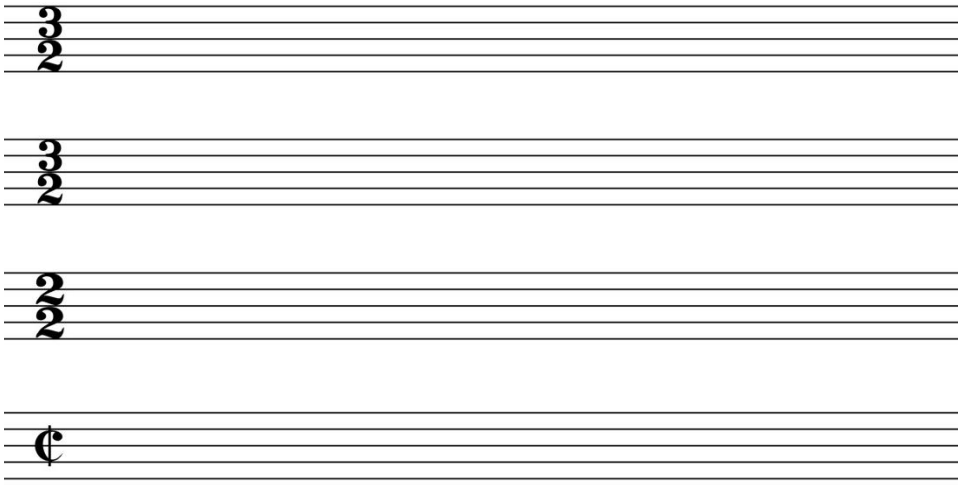
E. Now add the counting under each of the exercises that you have written. Then, place the accents over the top of the notes.

F. Usually in simple time the beats are crotchet beats, designated by a "4" as the bottom denominator of the time signature. However, also in simple time we frequently see music that employs minim beats. This is indicated by the use of a "2" as the bottom figure of the time signature. For example we see 3/2 or more commonly 2/2, which may also be indicated on the staff by a "C" with a strike, "|", marked vertically through it. This is sometimes referred to as "cut common time" or (alla breve time). In the diagram below we have listed some of the common combinations of notes/rests and notes where each unit is grouped according to the minim (or half note) beat.

Common groupings when the timesignature dictates a minim (𝅗𝅥) beat: $\frac{3}{2}, \frac{2}{2}, ¢$

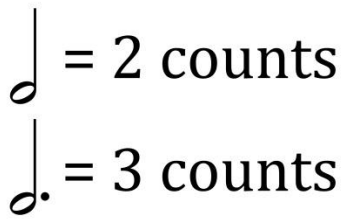


G. On the blank score provided on the next page, fill in each line with different combinations of the groups of notes and rests in the previous diagram. You can put them in any order, just as long as you pay careful attention to the number of minim beats dictated by the particular time signature at the beginning of each line.

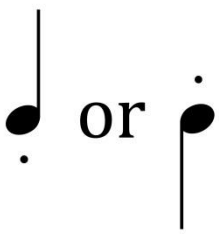


VI DOTTED NOTES & TRIPLETS

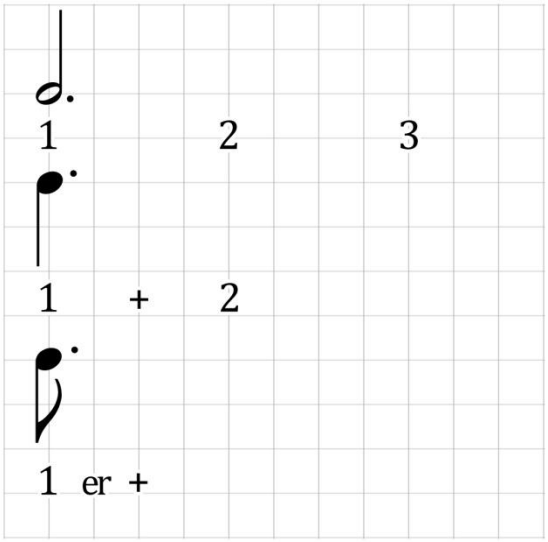
A. Dotted notes are notes with a full stop, dot, placed directly after them. This indicates that the time value of the note is half as long again as the value of the original note.



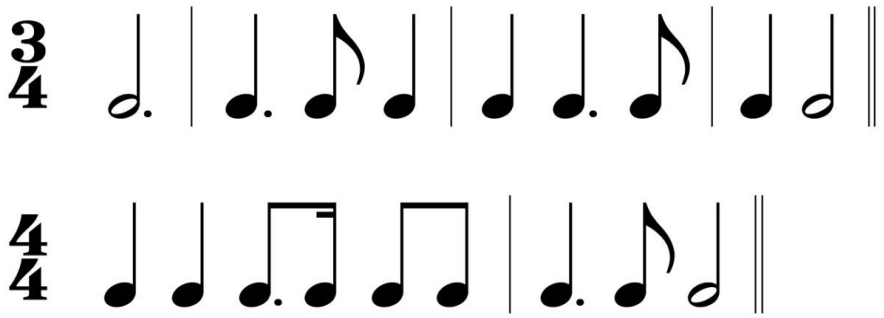
Dotted notes are not to be confused with staccato notes that are played in a detached manner. No actual shortening of the time between each note takes place. In the case of staccato, the dot is placed immediately under or above the note.



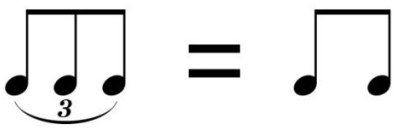
Below, there is a list provided of the most commonly used dotted (not staccato) notes.



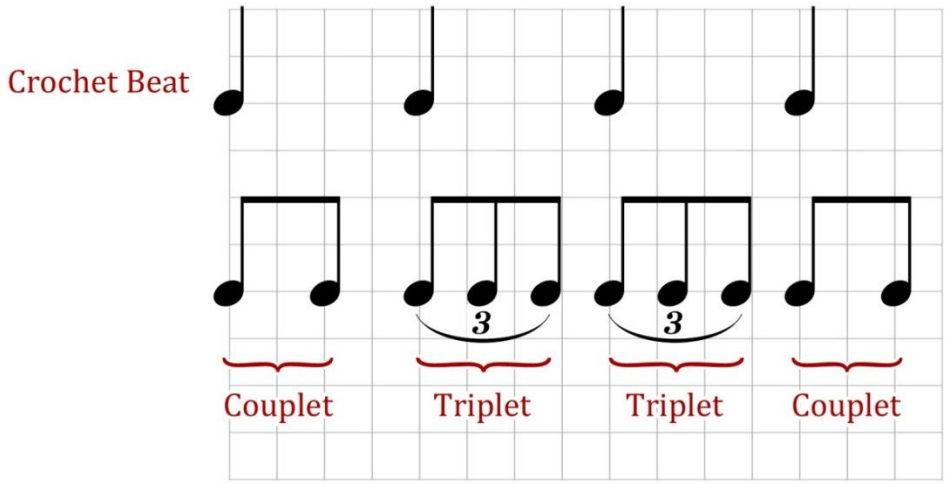
B. Write the counting under the following bars that incorporate the use of various dotted notes.



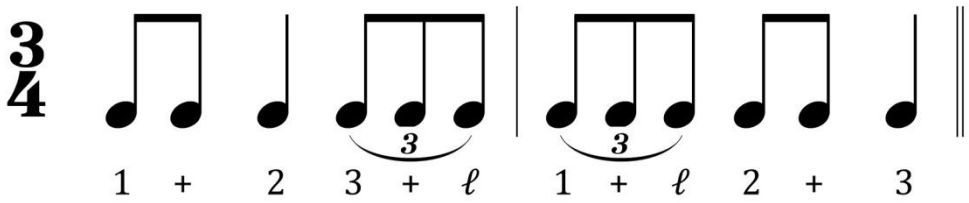
C. Triplets are indicated by the placement of a small curved line, called a slur, immediately above or below a group of 3 notes. Usually a little 3 is written between the note heads and the slur, directly above or below the middle note. The triplet is a group of 3 notes played in the time it usually takes to play 2 notes of the same value as the triplet.



Both the triplet and couplet (two notes of the same time value) are equal to the same beat value. Therefore, the triplets need to be slightly faster. For example, a quaver triplet in 4/4 time would be equivalent to a couplet of 2 ordinary quavers in that same time signature. Both of these, the quaver triplet and the ordinary quaver couplet, are equivalent to a crotchet.



D. Where there are quaver triplets and the beat is a crotchet beat, we may count the triplets like this: "1 + e"



E. On the staves provided over the page, using any one of the time signatures we have learned about, fill each line with 3 or 4 bars of rhythmic invention. You must use some dotted notes, triplets & semiquavers. Then mark in both, the counting and the accents.

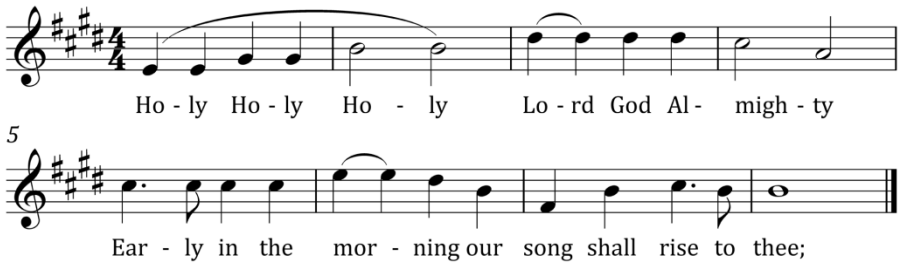
VII PHRASING MARKS, SLURS & TIES

A. Just as literature is made up of a series of sentences, some long, some short, so too is music made up of a series of similar building blocks called phrases. The phrase is one single unit of notes, or notes and rests that is complete within itself. That is it has a logical starting place and a logical finishing place. It has been called the smallest complete unit of musical form. God has made the human being intuitively musical. Not only does the mind need to grasp musical ideas one at a time, but the human instrument, the voice, can only articulate those ideas in linear sequence, i.e. one at a time. In between each of those musical ideas the human instrument must breathe. So conveniently, God has made man to both sing and understand musical phrases that are generally no longer than can be sung in one breath.

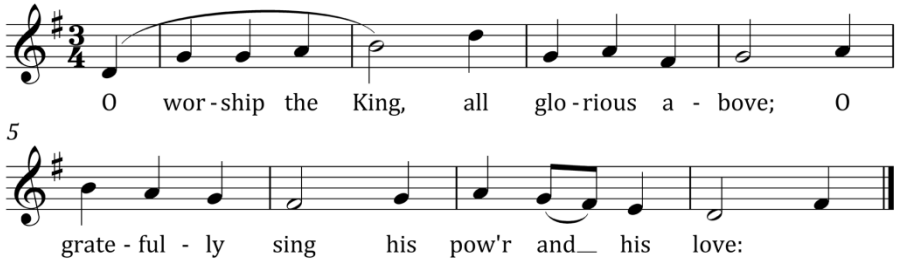
B. When phrases are marked, a curved line is employed, connecting the first and last notes and spanning everything in between. The placement of the phrase can be either above or underneath the group of notes it encompasses, depending on the physical layout of the printed music and other features of the score. An average length for a phrase is anything between 2 and 4 measures, although sometimes they can be longer and sometimes much shorter. Phrases are fairly easily identified in music with lyrics. Many times the end of a phrase is signalled when the singer breathes to begin the next phrase.

C. Phrases are not always marked in the music. Generally speaking this absence of the phrasing marks does not cause problems because most experienced musicians know intuitively where the phrases start and stop. In a similar way, most adults would be able to tell complete sentences from partial sentences without necessarily having to see the punctuation marks. Sometimes, there are several different ways that passages can be phrased and this can be a legitimate part of the individual performer's musical interpretation. In the following examples, some of the phrasing marks are left out. Write them in.

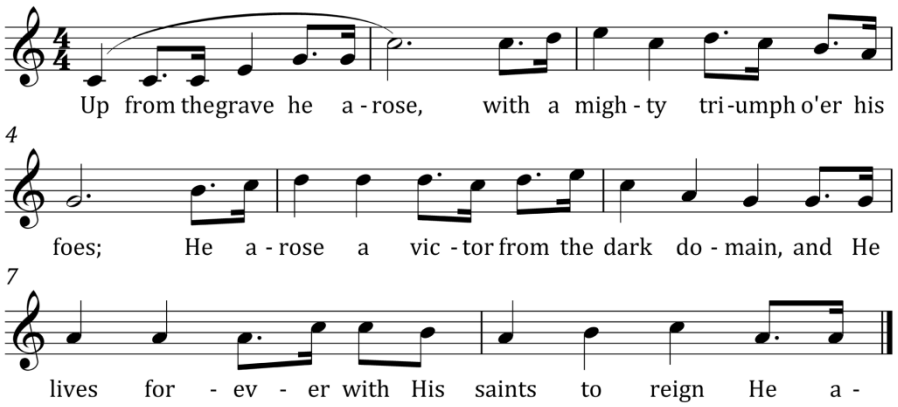
Holy, Holy Holy 1



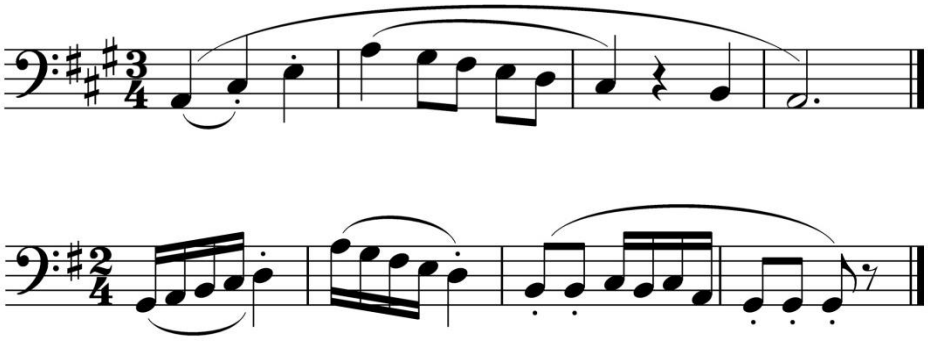
O Worship the King 2



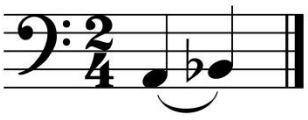
He Arose 3



D. It is very possible to get a small phrase confused with a slur. A slur simply means that all the notes contained within its compass must be played in a connected manner. The Italian word is "legato" - *to be played smoothly*. Usually the notes contained under a slur do not give the full musical idea and therefore they are just a small part of the larger unit that makes up the entire phrase. Slurs often encompass only 2, or 3 notes. After a slur there may be, for example, a series of other notes that complete that musical idea, but all those notes are not necessarily played smoothly (legato). In fact, sometimes we find staccato and even rests in the middle of a phrase. In the following examples mark the slurs with an "S", the phrasing marks with a "P" and write in the counts under the notes as well as marking the accents above.



E. The tie looks very similar to the slur. The big difference being, the slur usually encompasses notes of a different pitch, for example A to B flat,



whereas the tie joins notes of the same pitch, for example F to F,

In the case of the tie, the second note is not played again, rather it's time value is added to that of the first note, resulting in one single note that is sounded for the duration of the two notes that are tied together.

F. In the following examples mark the ties with a "T", the slurs with an "S", the phrasing marks with a "P" and write the counts under the notes as well as marking the accents above.