

# Rhythm 3

## Music Fundamentals

14-119-T

You may have noticed that, at times, there are rhythmic patterns in music. The most noticeable example of this can be found in popular music, especially techno dance music. The predictable rhythmic patterns generally repeat every four beats in this style, and most likely, the first beat of the pattern is the strongest. You can generally count the beats, “1–2–3–4.” Beat one is the strongest, and beat three of the pattern is strong, but not as strong as beat one. These natural stresses in music help create patterns that can bring cohesion to music, and they can give music a sense of direction.

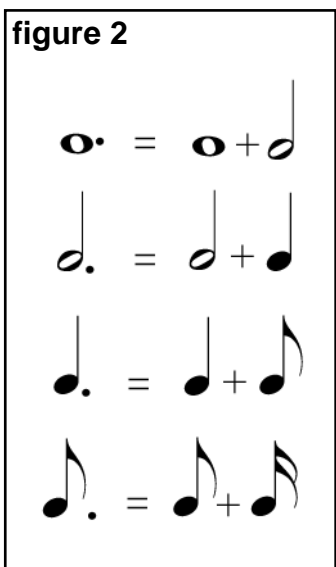
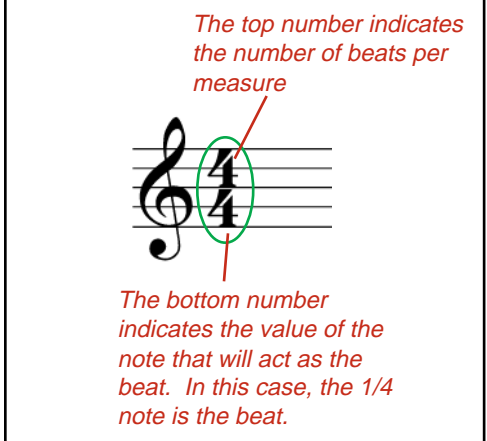
### Organizing Measures:

*Time signatures* are used in notation to show the natural stresses we create in music [see figure 1]. These indications are written to the right of the clef in music, and they tell us how many beats are in a measure, and what note value will serve as the beat. Figure 1 shows the most used time signature, 4-4 or “common time.” The numerator of the time signature indicates that there will be four beats per measure and that the 1/4 note will serve as the beat. Music that has time signatures whose denominator (the beat indicator) is two or four is called simple time.

### Extended Values:

In addition to the regular values as presented in the last lecture, we also find the use of a dot after the note. A “dotted note” is equal to 1.5 times the value of the note. In other words, the dot adds 1/2 the value of the note. Therefore, a 1/4 note followed by a dot will be worth 1 and 1/2 quarter notes, or three 1/8 notes. A dotted 1/2 note is worth three 1/4 notes. Figure 2 will clarify this equation.

figure 1



### Complex Time:

Music that has a time signature with an eight, sixteen, or thirty-second for the denominator is called complex time. These signatures are called complex since the beat can be either the denominator or a multiple of the denominator depending on the tempo. For example, a 6/8 time signature could be counted. “1,2,3,4,5,6” but more than likely, 6/8 will be counted, “1 . . 2 . .” [see figure 3].

Natural stresses of a measure are at times determined by the beaming of beats in the measure. Figure 3 shows three 1/8 notes beamed together in the first and second beat of the measure. This tells us that the natural stresses exist on 1/8 notes 1 and 4 of the measure.

figure 3



### Relationships:

Regardless of the time signature, the relationship between note values remains constant. For example, a 1/4 note is always equal to two 1/8 notes. All that changes is the natural stress points in the measure. For example, you may notice that 6/8 time and 3/4 time both have six 1/8 notes; however, the stress points are much different [see figure 4].

### Conclusion:

You may now begin to work with the time signature module and rhythmic patterns module found in the labs section of this course. Rhythm can be very complex. In the 20<sup>th</sup> century, we often see time signatures changing every measure. Probably the best-known and most accessible example of complicated rhythmic writing can be found in Igor Stravinsky's *Le Sacre du Printemps* (the Rite of Spring). This work, along with hundreds of other great musical works, is available in our library. I encourage you, at this point in your studies, to begin looking at musical scores, while listening to recordings. This is the best method for learning about music.

**figure 4**

The figure illustrates the relationship between note values in different time signatures. It shows two musical staves. The top staff is in 6/8 time, with a measure containing six eighth notes. Above the staff, two eighth notes are shown with a 'beat' label and an accent mark (>), indicating that the first and fourth notes are the primary stress points. Below the staff, the notes are numbered 1 through 6, with a sub-number (1) under the first note. The bottom staff is in 3/4 time, with a measure containing three quarter notes. Above the staff, three quarter notes are shown with a 'beat' label and an accent mark (>), indicating that the first and third notes are the primary stress points. Below the staff, the notes are numbered 1, &, 2, &, 3, &, where the quarter notes are numbered 1, 2, 3 and the eighth notes are marked with an ampersand (&).