Workbook

Reading Lessons with Gregg Bissonette, Joe Porcaro and Don Lombardi

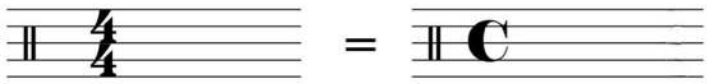
Lesson 3

Theory of Time Signatures

① Time Signatures tell us how many beats there are in each bar, and the type (value) of each beat. Four-four (4/4) time is often written with the sign of "C", meaning Common Time.

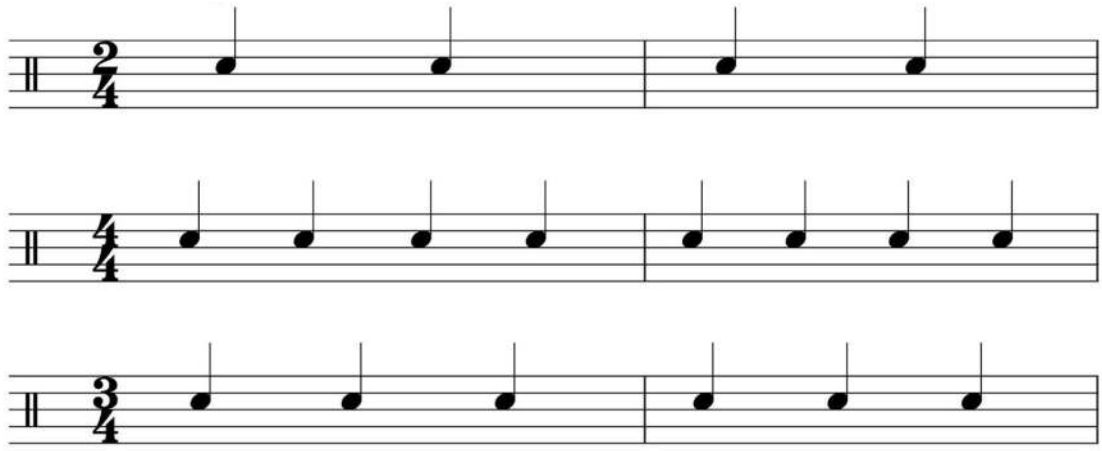
②

Number of beats
Fraction (Value) of each beat

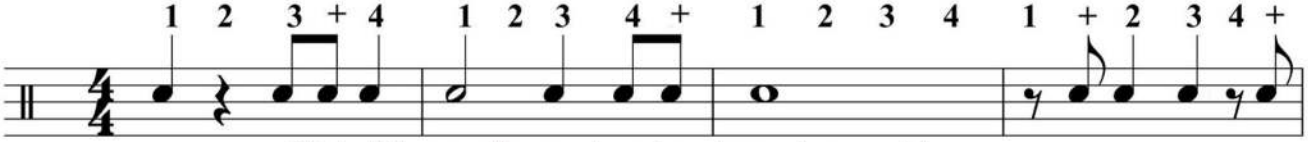


♩ = 120 Over the composition, there will be a tempo marking such as a quarter note = 120 beat per minute (bpm), that sets the tempo or pulse.

In the 2/4 time signature below, the top number tells us that there are two beats in a bar. The bottom number tells us which note value gets the beat. It is a 4 so the note value would be a quarter note. There are four quarter note values in a 4/4 time signature and three quarter note values in a 3/4 time signature.



The time signature refers to the number of beats, not the number of notes, in each bar. Notes and rests of any length may be mixed together in a bar of music, as long as they add up to the number of beats indicated by the time signature.



Note: More on these note values in a subsequent lesson.

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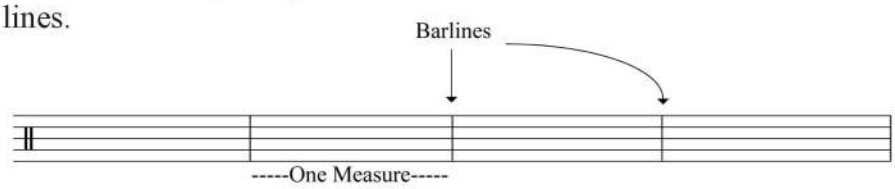
Lesson 3

Theory of Time Signatures

Detailed explanation on how notes and beats are divided

From this point on, when we refer to notes, it is to be understood that we mean both notes and/or rests.

As we discussed in the principles of music notation, music is divided into measures by bar lines.



These bar lines will separate the notes and beats into groups. These lines are very important to the beginner as they help in keeping his or her place. Only the advanced reader will give less importance to these lines, as he or she will be reading groups of notes called phrases, much as one would speed read in English.

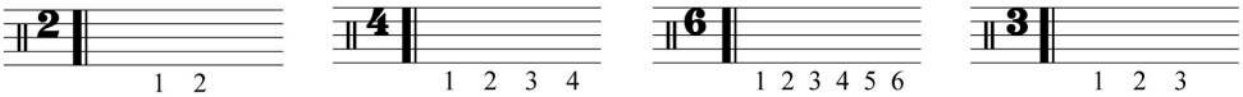
The two numbers that appear at the begining of any exercise or piece of music is called the time signature.

The time signature tells us how the notes and the beats are to be divided in each measure.

The time signature is not a fraction, the numbers are simply placed one on top of the other.

Time Signatures

THE TOP NUMBER: Tells us how many beats (or pulse) there will be in each measure. If the top number is a "4", then there will be four even spaced beats in each measure. If it is a "2", there will be two even spaced beats...and so on.



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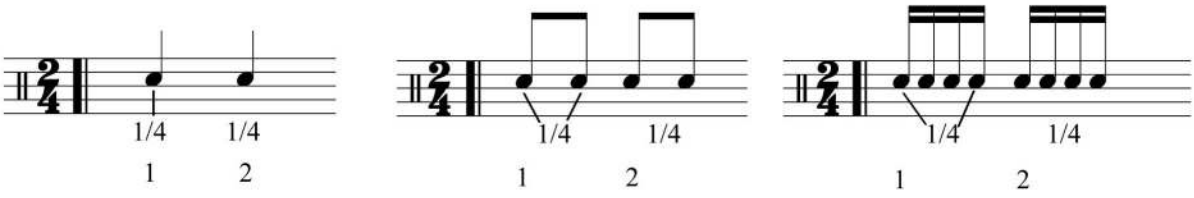
Theory of Time Signatures

Detailed explanation on how notes and beats are divided

THE BOTTOM NUMBER: Tells us what fraction value (1/4, 1/8, 1/16, etc.) each beat must equal. By placing a one over the bottom number, we make a fraction, which represents the fraction value each beat must equal.

If the time signature in (2/4), the top number (2) tells us there must be two beats in a bar. The bottom number (4) tells us that each of those two beats must add up to, or equal a quarter (1/4) note.



In the first example, it is easy to see that each beat is equal to a quarter. In the second example, each beat also equals a quarter ♩. In the third example, each beat again equals one quarter ♩. Just remember, if the bottom number of the time signature is a four, no matter what the combination of notes may be, each beat will equal one quarter. Also, remember that a beat takes up only a split second of time; the numbers in the above exercises show exactly where the beat falls at the beginning of each quarter group.

Here is a rule so you will be able to find exactly where the beginning of each beat is in any measure of music so long as the bottom number of the time signature is a four. (We will cover less common time signatures later).

RULE: The first note or rest in a bar is the beginning of the first beat. If it is a quarter note, then the very next note or rest is the beginning of the next beat.

If it is not a quarter note, then you must add that note to the next and continue until you have enough to add up to one quarter, and then the very next note or rest is the beginning of the next beat, and so on.

Do not be concerned with how to play these notes now. That will be explained in Lesson 4.

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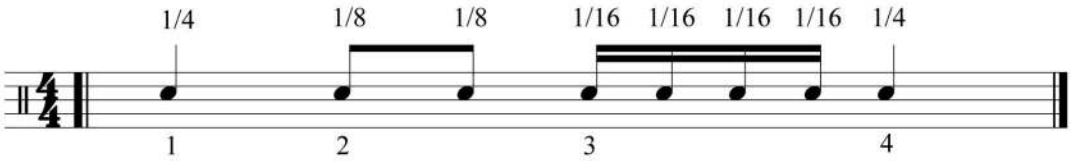
Theory of Time Signatures

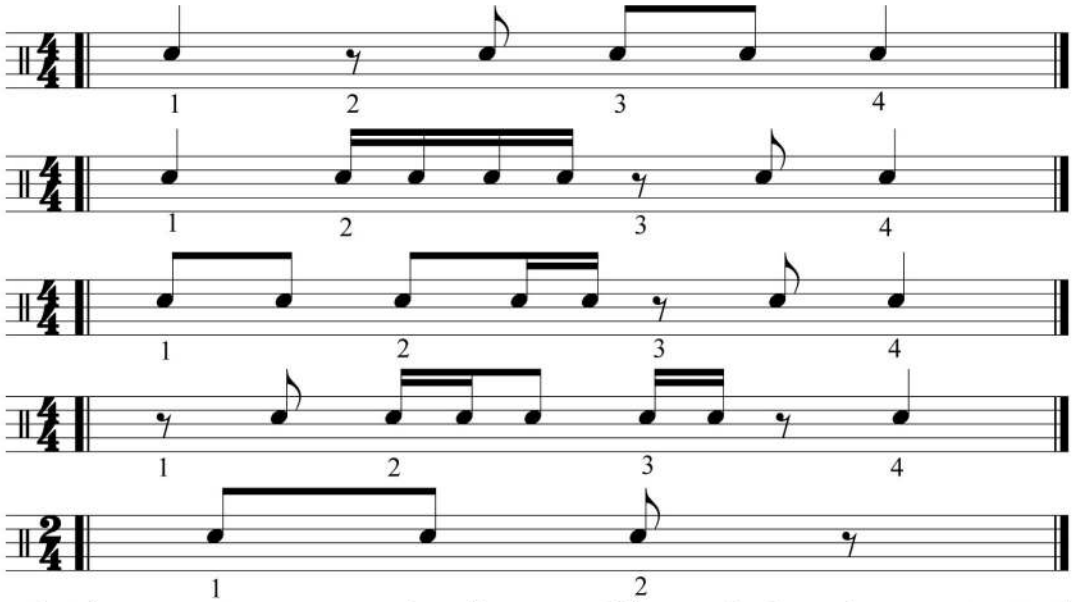
Detailed explanation on how notes and beats are divided



The above is one measure of 4/4.
The first note in our example is a quarter note. We know from the time signature that each beat must equal one quarter, so we know that whatever comes next in the bar (note or rest) must be the beginning of the second beat. The next note is an eighth note, which is 2. That note must be added to the next, another eighth, to make up a quarter and complete the second beat. Again, the next note or rest will be the beginning of the third beat. It is a sixteenth note, followed by three more, which make four sixteenth (equals one quarter) at the next note will fall on the beginning of the next beat, which is "4", and it is a quarter note.

We can now find the beginning of each beat. In the next section, we will see exactly where to place all the notes, which come between the beats.

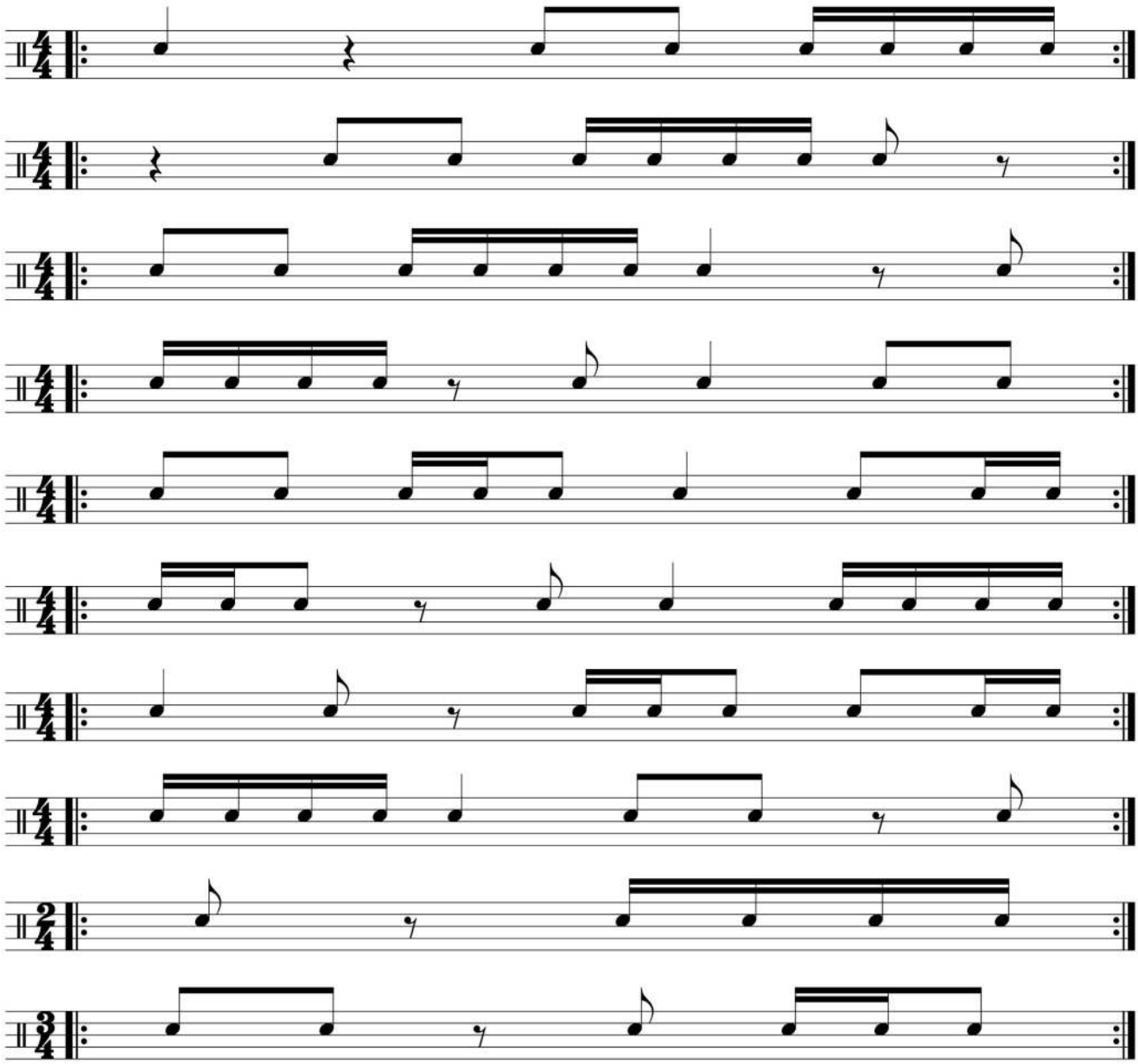
Be sure you understand the following examples. If they are not easily understood, reread this section. Take each example step-by-step, note-by-note as we did in our previous example using the rule on page (3).



Do not let the way notes are grouped confuse you. When analyzing, take one note at a time. Also, remember the last example is in two four.

PRACTICE EXERCISES

Analyze these measures into beats, placing the numbers directly under the note or rest where it belongs. Should there be many mistakes, reread this section before completing worksheet and continuing. Answers will be found on page 7.



Worksheet on Time Signatures

1. The time signature tells us how to divide the _____ and _____ in the measure.

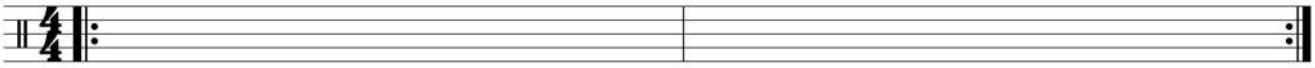
2. The top number of the time signature tells you_____.

3. The bottom number of the time signature tells you_____.

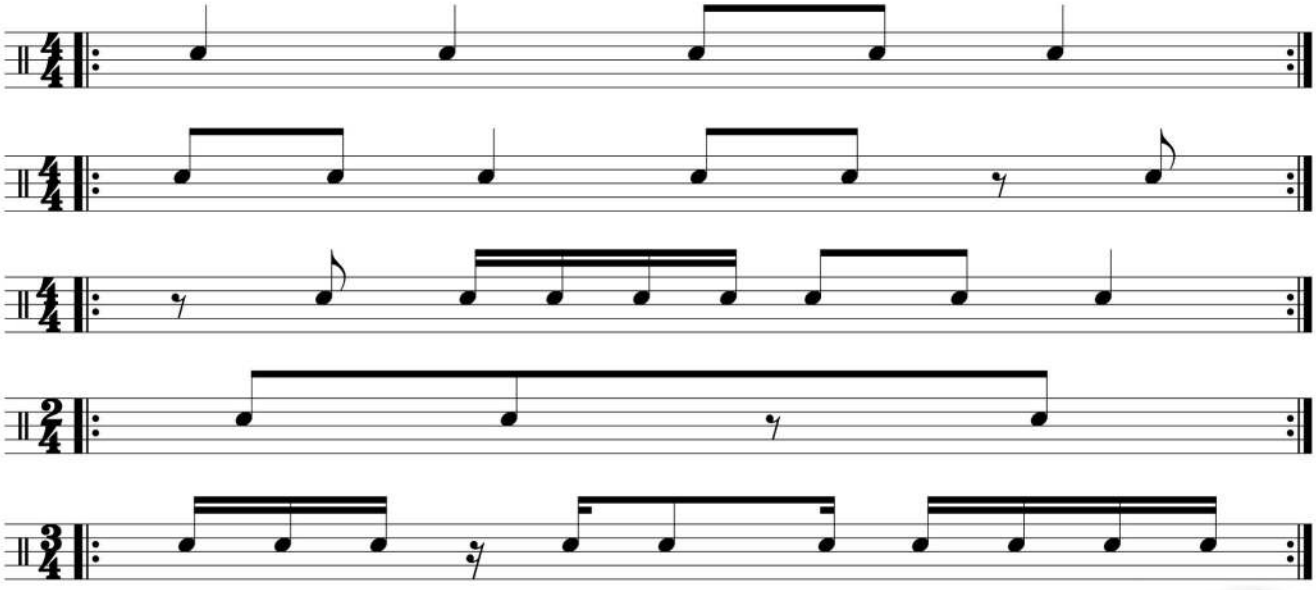
4. If the time signature is 5/4, how many beats in a measure? _____.

5. If the time signature is 6/4, how many beats in a measure?_____.

6. Write two different measures of 4/4 using combinations of notes and rests.



7. Divide the following measures into beats. Be careful to place the number of the beat directly under the note or rest where it falls.



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Worksheet

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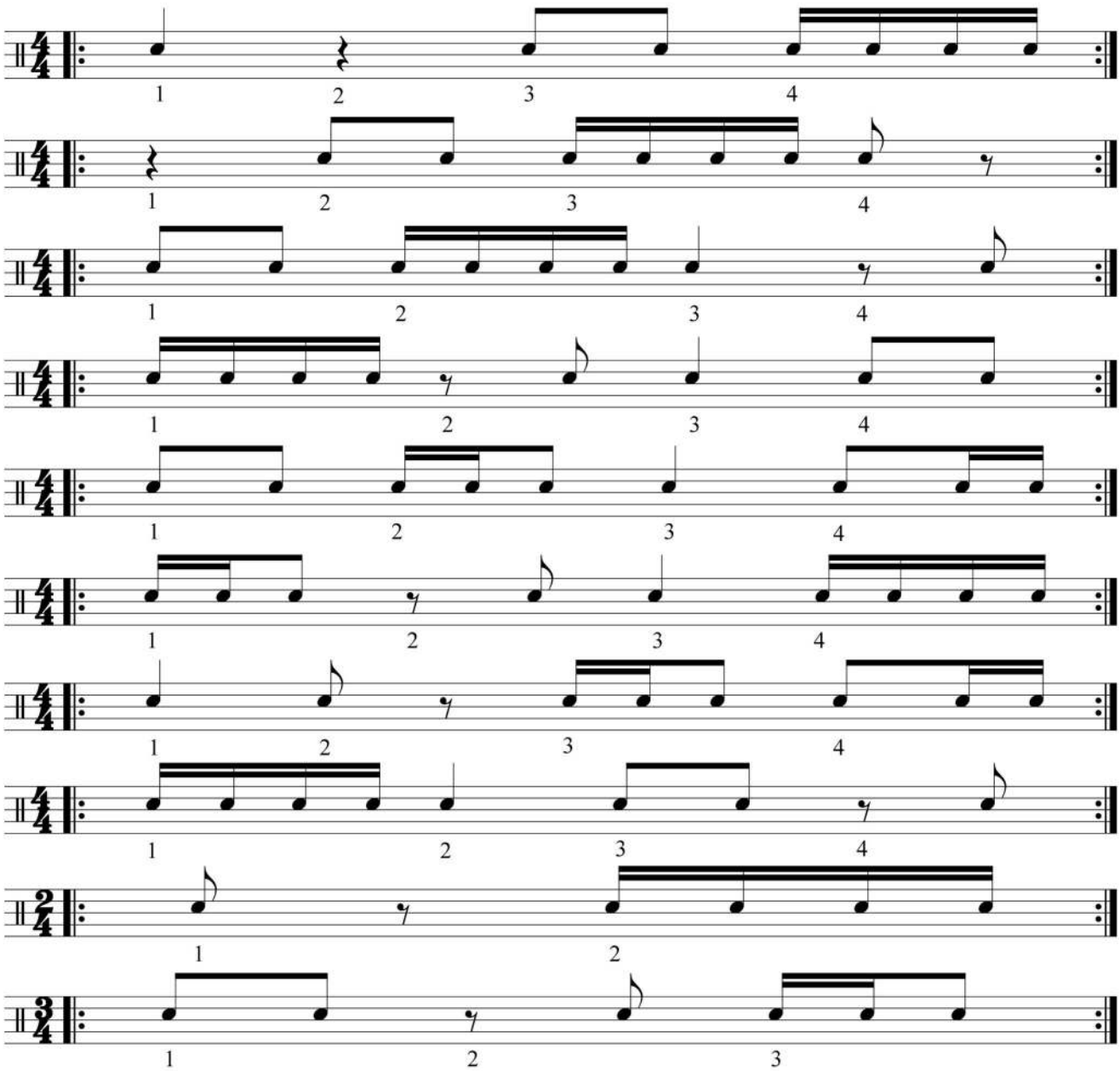
PRACTICE EXERCISES

(Answers to page 5)

Analyze these measures into beats, placing the numbers directly under the note or rest where it belongs. Should there be many mistakes, reread this section before completing worksheet and continuing.



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