

## Music Math: 2 + 2 = 3!

**Tri** is Greek for three, therefore, **triad harmony** is spelled with **three different letters**. Now, if triad harmony, **arpeggio** or **chord**, has three different letters, then it will also have three different “scale degree tone numbers”. Here’s something surprising. There are only **nine triads** upon which **all** harmonies are based! These nine triads are created by combining 3rd and 5th **intervals**. There are three types of 3rd intervals: **major**, **minor** and **suspended**; and three types of 5th intervals: **perfect**, **diminished** and **augmented**. When these six intervals are added together - nine triads is the result. See **Bass EncycloMedia** page 10.

This brings us to **music math**: 2 + 2 = 3! Let’s think about that. If we add the **two** tones of the major 3rd interval (1 and 3), with the **two** tones of the perfect 5th interval (1 and 5), the result is **three** - the **major triad** (1 3 5). Remember, no matter how many tone 1’s you add together - the result will always be 1. In other words, in **music math**: 1 + 1 = 1! Let’s illustrate the nine triads.

In the following nine triad harmonies: C is tone 1, the **arpeggio** form is “circle four-two”, and the **chord** form is “circle four-one”.

Triad Names	Tones	Harmony Symbols	Letters	④ 2 and ④ 1 Tone Numbers
Major Major Flat Five Major Sharp Five	1 3 5 1 3 b5 1 3 #5	C Cmajb5 Cmaj#5, Caug, C+	C E G C E Gb C E G#	<p>Diagram showing fretboard for Major triad (C). Tones 1, 3, 5 are marked. Octave equivalents 10, 8, 5 are also marked. The 4th string is labeled ④ 2 and ④ 1.</p>
Minor Minor Flat Five Minor Sharp Five	1 b3 5 1 b3 b5 1 b3 #5	C Cmb5, Cdim, C <sup>o</sup> Cm#5	C Eb G C Eb Gb C Eb G#	<p>Diagram showing fretboard for Minor triad (C). Tones 1, b3, 5 are marked. Octave equivalents 10, 8, 5 are also marked. The 4th string is labeled ④ 2 and ④ 1.</p>
Suspended Suspended Flat Five Suspended Sharp Five	1 #3 5 1 #3 b5 1 #3 #5	Csus, Csus4 Csusb5 Csus#5	C E# G C E# Gb C E# G#	<p>Diagram showing fretboard for Suspended triad (C). Tones 1, #3, 5 are marked. Octave equivalents 10, 8, 5 are also marked. The 4th string is labeled ④ 2 and ④ 1.</p>

**Enharmonic** means the same pitch, but not the same letter or tone number. For example, tone #3 (E#) “sounds the same” as tone 4 (F), but as we will learn in a later lesson, tone 4’s octave: tone 11, is used in **dominant eleven** harmony. See **Bass Fretboard Facts** page 102.

There are many other arpeggio and chord harmonies, but they are really just the nine triads with other tone numbers added. See **Bass EncycloMedia** pages 11 and 12. These other arpeggio and chord harmonies may also be thought of as the nine triads added together. See **Bass EncycloMedia** pages 301 through 308.

Till next time, have some nine triad harmony fun - now that you can add...I’ll be listening.

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