

An Introduction to Figured Bass

Figured bass is a shorthand notation that allows musicians to generate inner voices from a bass line. Sometimes the soprano line can be generated from figured bass notation as well. The **bass voice** is harmonically the most important voice in any homophonic texture. Figured bass tells the performer which scale degrees to add above a given bass note, whether they are chromatically inflected, and sometimes about their specific contrapuntal behavior.

Below, we introduce the rudiments of **figured bass notation**. Every instance of figured bass notation has two parts:

- **A note on a bass staff.** (This is NOT necessarily the root of a chord.)
- **Numerals** of some sort, indicating which **scale steps** need to be added above the bass note to create the desired chord type.

In the exercises we do, very often both the bass note AND a soprano (top melodic voice note) will be provided. It will be your job to add notes in the INNER voices that **realize** the figured bass notation.

It's important to note that the musicians who developed figured bass notation in the 16th and 17th centuries **took no notice of the concept of chord roots**. Any reference to such a concept is for your convenience, and is not historically based.

FIGURED BASS: TRIADS

Example 1

Example 1 illustrates the way that figured bass is used to voice triads. The notation shows four variations (a, b, c, d) of a triad in a bass clef with a key signature of one flat (B-flat). Each variation shows a bass note on a staff with a treble clef above it. The bass notes are: (a) G2, (b) F2, (c) E2, and (d) D2. The numerals below the bass notes are: (a) 5, 3 (often omitted), (b) 6, 3, (c) 6, and (d) 6, 4. The treble clef staff shows four different voicings for each variation, with the notes of the triad placed on the lines and spaces of the staff. Variation (a) shows four different voicings of a G2 triad. Variation (b) shows two voicings of an F2 triad, with "(etc.)" above the second. Variation (c) shows two voicings of an E2 triad, with "(etc.)" above the second. Variation (d) shows two voicings of a D2 triad, with "(etc.)" above the second.

Example 1 illustrates the way that figured bass is used to voice triads. The most common sonority is a 5/3 (“root position”) triad. If a bass note appears with **no numerals** below it, or with the numbers 5 and 3, or sometimes just the number 5, the diatonic scale degrees a fifth and a third above the bass note should be added. Note that they may be added in any voicing and register that makes sense with regard to the musical context, and there is no fixed number of voices that must be added; the four upper-voice realizations at (a) are all technically correct.

Note that figured bass shows what scale degrees appear above the bass. Intervals between upper voices (the fourth between two of the upper voices in example 1(a), e.g.) are NOT shown in figured bass notation.

Figured Bass (cont'd)

The next most common sonority is the 6/3 (“first inversion”) sonority (see (c) for an example with two of many possible voicings). It is often marked only with the numeral 6, as a kind of shorthand.

The last type of triadic sonority is the 6/4 (“second inversion”) chord. Note that because of the fourth that occurs in this chord between the bass and one of the upper voices, it is a **dissonant** sonority. It is the least common of the three triad positions; the “6/4” indication is never abbreviated.

Chromatic alterations of diatonic triads—the raising or lowering of a triad’s root, third, or fifth—is indicated in figured bass by adding an accidental before (or, less commonly, after) the numeral that denotes the scale degree that needs to be altered. (See example 2; the notations used for (a) through (c) all mean the same thing.) Sometimes a slash through a numeral, a plus sign (+), or a sort of tail, is added (as in 2(e)); these have the same meaning as a sharp before the numeral, as shown at (d).

Example 2

Example 2 shows five figured bass examples (a) through (e) on a grand staff. Each example consists of a treble clef staff and a bass clef staff. Above each staff are notes representing a triad. Below each staff is a figured bass symbol. Examples (a), (b), and (c) show a 5/3 triad with different voicings. Examples (d) and (e) show a 6/3 triad with different voicings. Example (d) has a sharp sign before the 6 and a bracketed 3 below it. Example (e) has a slash through the 6 and a bracketed 3 below it. The symbols below the staves are: (a) b, (b) b3, (c) 5 b, (d) #6 [3], (e) 6/ [3].

To summarize:

1. Any of the following numeral combinations indicate a 5/3 (root position) triad:

5 5
3 , , 3

Either of the following combinations indicate a 6/3 (first inversion) triad:

6 6
3 ,

The only way to indicate a 6/4 (second inversion) triad is

6
4

2. An accidental without a number next to it indicates a chromatic alternation (a raising or lowering) of the note **a compound third above the bass** (which, if and only if the triad in question is in root (5/3) position, is also the third of the triad). This usually means a tenth or a tenth plus an octave.

Figured Bass (cont'd)

3. An accidental beside a number indicates chromatic alteration of the interval above the bass that the number implies: the diatonic second, fourth, fifth, sixth, or seventh raised or lowered by chromatic semitone.

FIGURED BASS: SEVENTH CHORDS

The following are the figured bass symbols for each position of seventh chord. The full version of each numeral is given on the left, the most common abbreviated form on the right. Two possible upper voice realizations, from among the many possible, are given for each.

Root position	First inversion	Second inversion	Third inversion
$\begin{matrix} 7 & \text{or} & 7 \\ 5 & & \\ 3 & & \end{matrix}$	$\begin{matrix} 6 & \text{or} & 6 \\ 5 & & 5 \\ 3 & & \end{matrix}$	$\begin{matrix} 6 & & \\ 4 & \text{or} & 4 \\ 3 & & 3 \end{matrix}$	$\begin{matrix} 6 & & \\ 4 & \text{or} & 4 \\ 2 & & 2 & \text{or} & 2 \end{matrix}$

The same rules for chromatic alteration apply to seventh chord symbols as to triads.

FIGURED BASS: VOICE LEADING PATTERNS

Certain common voice leading patterns, many of which involve dissonant **suspensions**, have distinctive figured bass combinations. In such patterns, “5” by itself stands for “5/3” and “6” by itself stands for “6/3.” Horizontal lines that connect two numerals show that the notes those numerals represent should appear in the same voice.

5-6 patterns are usually part of a harmonic sequence:

$5 \text{ — } 6$	$5 \text{ — } 6$	$=$	$\begin{matrix} 5 & 6 \\ 3 & 3 \end{matrix} \quad \text{♯}$

7-6, 4-3, and 9-8 patterns indicate dissonant suspensions. Note that in the latter, “8” implies 5/3 harmony. Below, the notation at (a) is an abbreviation for the notation as (b); likewise (c) and (d), (e) and (f) are equivalent.

Figured Bass (cont'd)

(a) $7—6 = \begin{matrix} 7 & 6 \\ 5 & 3 \end{matrix}$

(b) $\begin{matrix} 7 & 6 \\ 5 & 3 \end{matrix}$

(c) $4—3 = \begin{matrix} 5 & 5 \\ 4 & 3 \end{matrix}$

(d) $\begin{matrix} 5 & 5 \\ 4 & 3 \end{matrix}$

(e) $9—8 = \begin{matrix} 9 & 8 \\ 5 & 5 \\ 3 & 3 \end{matrix}$

(f) $\begin{matrix} 9 & 8 \\ 5 & 5 \\ 3 & 3 \end{matrix}$

There are other strange creatures in the figured bass bestiary—bass suspensions, for example—but with a sense of musical context and the basics presented above, you should be ready to figure them out. Remember also that sometimes Baroque musicians would play from **unfigured basses**, i.e. bass parts with *no* figured bass numbers—a good player, it was assumed, would make the right choices in realizing the bass.