

3.1 Inversion

By now, you will probably have noticed that the cadence for a counterpoint **below** a cantus firmus can usually be formed simply by taking the cadence that would be written **above** that cantus firmus and transposing it an Octave lower. Thus, with a cantus firmus ending $e'-d'$, the first-species cadence $c''\sharp-d''$ above becomes $c'\sharp-d'$ below. This process, which transforms the interval pattern $| 6 | 8 ||$ into $| 3 | 1 ||$, is known as **inversion**.

(Note that we are concerned here with the inversion of **harmonic** intervals, which you must not confuse with the process of thematic inversion that transforms the melody $e' \rightarrow f' \rightarrow a' \rightarrow c''$ into $f' \rightarrow e' \rightarrow c' \rightarrow a$.)

Nearly all third-species cadences, and all fourth species ones, embody inversion: $| 3456 | 8 ||$ inverts to $| 6543 | 1 ||$; $| _7 6 | 8 ||$ inverts to $| _2 3 | 1 ||$. But this is not so with second-species cadences, because $| 5 6 | 8 ||$ cannot invert to $| 4 3 | 1 ||$. Therefore, when writing second-species invertible exercises, you must substitute the usual cadence with a fourth-species one.

Question—Which third-species cadence is not an inversion, and why?