### 3.3 Invertible Counterpoint at the Tenth

This interval of transposition results in the following inversions:

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| 10 | 9 | 8 | 7 | 6 | 5 | 4 | 3 | 2 | 1 |

Here it is the imperfect consonances that require special treatment: because they invert to perfect consonances, they may be approached only in contrary or oblique motion. Similar motion is thus nowhere possible.

To achieve a fully invertible counterpoint, avoid intervals greater than the Tenth, and do not allow the voices to cross. The major Sixth $f^{\prime}+d^{\prime \prime}$ above the cantus firmus, which inverts to the diminished Fifth $b+f^{\prime}$, must either be treated as a dissonance, or have its inversion converted to a perfect Fifth $b b+f^{\prime}$.
Question-Why must upward leaps of a minor Sixth, and all leaps involving ' $D$ ' and ' $A$ ' be avoided above the cantus firmus?

Because all perfect consonances here invert to imperfect ones, it is impossible in this type of counterpoint to observe the custom of opening with a perfect consonance. For the same reason, cadences are problematical - as you will quickly discover if you try to write an exercise in 'D', ' $F$ ', ' $G$ ', or ' $A$ '. Stick to cantus firmi in ' $E$ ' and ' $C$ ', and end on the Octave above and the Third below.

Note that a diminished Fifth (b+f' or g\#+d') will occur in fourth-species cadences below the cantus firmus, |, 4 5| 3 ||. This is the only instance in two-voice counterpoint where that interval may be treated as a consonance.

Sample Workings


An intriguing property of this type of double counterpoint is that a third voice can always be added to it simply by shadowing one of the voices in Thirds:


