Chapter 12 Triad Inversions, 1: Letters for Roots

In this chapter you will:
1. Invert triads
2. Identify inversions with Arabic numerals
3. Identify roots of inverted triads
4. Complete a chart about triad inversions
5. Review inversions and write abbreviated Arabic numerals
6. Notate inverted triads
7. Review inversions and Roman numerals

12.1 Invert Triads

- To <u>invert</u> a chord, raise the bottom note to a higher octave.
- A <u>root position</u> chord is stacked in thirds, as in previous chapters.
  See the first chord above.
- A <u>first inversion</u> chord is a root position chord which has been inverted once.
  See the second chord above.
- A <u>second inversion</u> chord is a root position chord which has been inverted twice.
  See the third chord above.
- <u>Letter names for the root, third and fifth</u> remain the same after inversion.
     Therefore an E chord (a chord whose root is E) remains an E chord after
     inversion. See the three E chords above and on the right.

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1. INVERT these triads.

2. a. CIRCLE the root of these triads.
   b. INVERT the triads.
   c. CIRCLE the root of the inversion.

12.2 Identify inversions with Arabic numerals
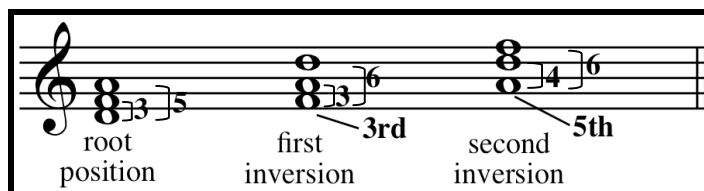
- <u>Root position</u> triads are given the numbers $\frac{5}{3}$. These numbers are often omitted.
- <u>First inversion</u> triads are given the numbers $^6/_3$, usually abbreviated 6.
- <u>Second inversion</u> triads are given the numbers $\frac{6}{4}$. They are never abbreviated.
- These numbers are called <u>Arabic numerals</u> (as distinguished from *Roman* numerals).
- Arabic numerals are <u>intervals between the bottom note and the other two notes</u> of the triad. See the bracketed intervals in the above illustration.
- The third is always on the bottom of a first inversion triad and the fifth is always on the bottom of a second inversion triad.

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1. a. IDENTIFY as root position, 1ˢᵗ or 2ⁿᵈ inversion.
   b. WRITE the full Arabic numerals (both numbers).

2nd inversion
$\frac{6}{4}$

2. a. IDENTIFY the triad as root position, 1ˢᵗ or 2ⁿᵈ inversion.
   b. IDENTIFY the bottom note as the root, third or fifth of the chord.

2nd inversion
bottom: *5th*   bottom: _____   bottom: _____   bottom: _____   bottom: _____

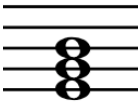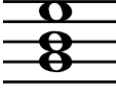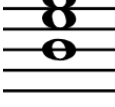3. WRITE full Arabic numerals under each triad in this arrangement of "Taps."

Reference Sheet

MEMORIZE the following chart.

On the staff			
Full Arabic numerals	$\begin{smallmatrix}5\\3\end{smallmatrix}$	$\begin{smallmatrix}6\\3\end{smallmatrix}$	$\begin{smallmatrix}6\\4\end{smallmatrix}$
Abbreviated Arabic numerals	(left blank)	6	$\begin{smallmatrix}6\\4\end{smallmatrix}$ (no abbreviation)
Name	Root position	First inversion	Second inversion
Bottom note	root	third	fifth

Gilbert DeBenedetti www.gmajormusictheory.org
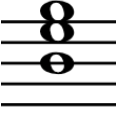
12.3 Identify roots of inverted triads
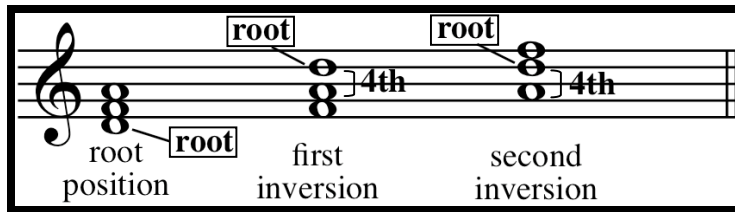
- Recall that the root is on the bottom of a root position triad.
- The root of an inverted triad is the top note of the interval of a fourth.
- The notes of a fourth are always one on a line and one in a space.

1. WRITE the letter of the root of these inverted and root position triads.
2. WRITE abbreviated Arabic numerals next to the letter (write no Arabic numerals for root position and recall that there is no abbreviation for second inversion).

12.4 Complete a chart

COMPLETE this chart from memory.

On the staff			
Full Arabic numerals			
Abbreviated Arabic numerals			$^6_4$ (no abbreviation)
Name			
Bottom note	root		

12.5 Review inversions and write abbreviated Arabic numerals

1. ANALYZE the following triads.
   a. IDENTIFY the triad as root pos., 1st Inv. or 2nd Inv.
   b. WRITE **ABBREVIATED** Arabic numerals (LEAVE BLANK for root position triads).
   c. WRITE the letter of the root.
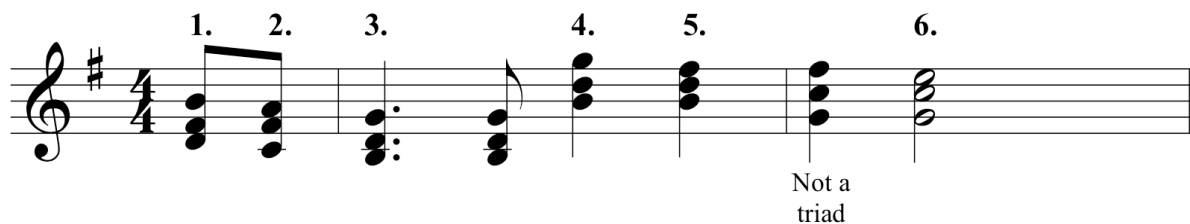   d. IDENTIFY the bottom note as the root, third or fifth of the triad.

a. _1st Inv._ b. _6_   a. _____ b. ____   a. _____ b. ____   a. _____ b. ____

c. _F_ d. _3rd_   c. ____ d. ____   c. ____ d. ____   c. ____ d. ____

a. _____ b. ____   a. _____ b. ____   a. _____ b. ____   a. _____ b. ____

c. ____ d. ____   c. ____ d. ____   c. ____ d. ____   c. ____ d. ____

2. ANALYZE the chords in the following folk song.
   a. WRITE letter names of roots and abbreviated Arabic numerals both in the same space below each triad.

1.   2.   3.   4.   5.   6.

Not a triad

____ ____ ____   ____ ____ ____   ____

   b. WRITE, for the above music, the scale degree name (tonic, supertonic…) of the roots of the triads with numbers above them.

Triad	Scale Degree Name	Triad	Scale Degree Name
1.		4.	
2.		5.	
3.		6.	

12.6 Notate inverted triads

1. Write a 2nd inversion triad, method 1   2. Alternate method

To write: A maj $^6_4$

Step 1   Step 2   Step 3

To write: A maj $^6_4$

Step 1   Step 2   Step 3

• A <u>chord tone</u> is a member of a chord with no specific octave.
   "Chord tone" is a general term, like "letter names" for notes.
• <u>Dots on the staff</u> represent chord tones.
• To write inverted triads <u>follow these steps carefully*</u>
   1. Write a root position triad with chord tone dots. See both illustrations above.
   2. Add sharps or flats for the given chord quality (major, minor, diminished or augmented).
   3. Invert the triad:
      For first inversion, invert once.
      For second inversion, EITHER invert twice (Illustration 1, above),
                     OR bring the fifth below the root (Illustration 2).

_____
*<u>Do not</u> immediately write an inverted triad with the given root as the bottom note. Your triad will have the wrong root and you will not be able to alter notes to get the correct chord quality.

NOTATE these triads.

F# min 6   G min $^6_4$ A♭ aug 6   B maj

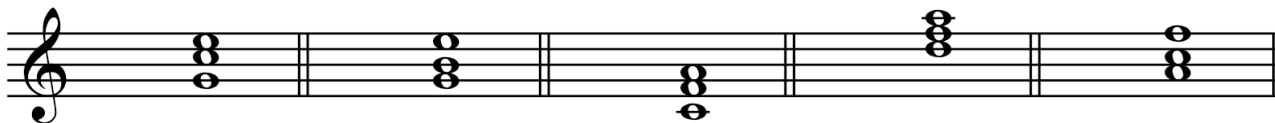C# dim 6   F# maj $^6_4$ A maj 6   D min $^6_4$ E Aug

12.7 Review inversions and Roman numerals

1. WRITE
   a. whether the triad is root position, 1st or 2nd inversion
   b. whether the root, 3rd or 5th is on the bottom
   c. the abbreviated Arabic numerals (if applicable)

a. ___ b. ___ c. ___   a. ___ b. ___ c. ___   a. ___ b. ___ c. ___   a. ___ b. ___ c. ___   a. ___ b. ___ c. ___

2. WRITE the key followed by a colon, and the Roman numeral.

   a. Major keys

still bass clef!

___ ___   ___ ___   ___ ___   ___ ___   ___ ___

   b. Minor keys

___ ___   ___ ___   ___ ___   ___ ___   ___ ___