Theory

Steps for Finding a Set's Prime Form

- (1) Identify a pitch segment.
- (2) Remove redundant pitch classes (pcs).
- (3) Arrange the pcs in an ascending scale that spans an octave
- (4) Find the largest interval between adjacent notes in the scale.

(5) Remove the redundant pitch class and begin the set on the upper note of that largest interval. This is the normal order (N.O.).

(6) To each note in the N.O., assign a number which represents the distance in ascending half steps above the lowest note.

(7) Find the inversion by counting the <u>descending</u> half steps <u>below</u> the <u>highest</u> note.

(8) For the sake of comparison, the original form may be rewritten beginning on the same pitch as the original form but following the interval succession of the inverted form.

(9) Determine which of the two sets is more compressed intervallically by comparing the lowest note to each upper note in both the original and inverted forms.

(10) The more intervallically compressed form is the best normal order (B.N.O). The prime form, which is always enclosed in parentheses, is the numbers which accompany the B.N.O.



Steps for Finding a Set's Interval Vector

The interval vector for a particular set may be found by taking an inventory of all the intervals of the set.

(1) Identify the interval from the lowest note to each upper note in a m3 sets' B.N.O. bo m2 M2 (2) Identify the interval from the second lowest note to each note above it. (3) Write the interval inventory left to right. Exaggerate the lower m2 m3 M2 case "m" in relation to the upper case "M" so that you can easily tell them apart. (4) Enter the number of occurences of each interval class into the [111000] interval vector. Cross out each interval as you enter it so that none of the intervals are counted twice. The interval vector is always enclosed in straight brackets.

The table below indicates the total number of intervals possible for each set cardinal 3 through 9.

36

NUMBER OF ELEMENTS IN A SET (Cardinal Number)	TOTAL NUMBER OF INTERVALS
3	3
4	6
5	10
6	15

7 21 8 28

9