

Arranging Barbershop Harmony

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(This excerpt covers the discussion about music theory and barbershop chords.
Purchase the complete book on my website: caroleprietto.com)

Theory Basics

Half step – Distance from any key on the keyboard to the very next key, up or down. On the keyboard, C to C# is a half-step; A to Bb is also a half-step. There are no black keys between the notes B/C and the notes E/F. These are also half-steps.

Whole step – Distance of 2 half-steps, such as C to D. Because there are no black keys between B/C, a whole step above B is C#. Because there are no black keys between E/F, a whole step above E is F#.

Interval – The distance between two tones. There are two parts to naming an interval.

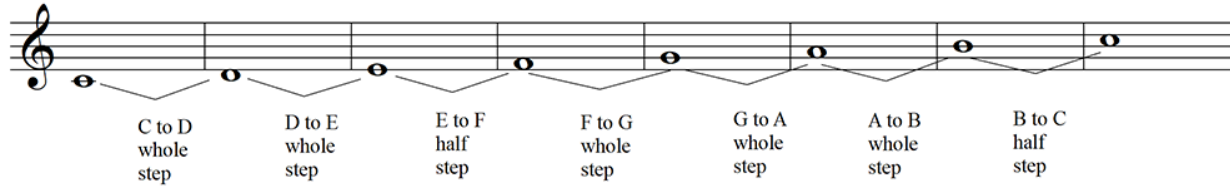
Number – the number of letter names taken up by the interval. Example: If you start at C, in order to have an interval of a 3rd, you must have some kind of E. C is 1, D is 2, and E is 3..

Quality – major (M), minor (m), perfect (P), augmented (aug), or diminished (dim). Finding the correct quality involves counting half-steps.

Interval qualities - Starting Note of C

Interval	Note	Number of 1/2 steps	Other name
Perfect Unison, or simply Unison (P1)	C	0	
Minor 2nd (m2)	Db	1	Half-step
Major 2nd (M2)	D	2	Whole-step
Minor 3rd (m3)	Eb	3	
Major 3rd (M3)	E	4	
Perfect 4th (P4)	F	5	
Augmented 4th (aug4) / Diminished 5th (dim5)	F#/Gb	6	Tri-tone
Perfect 5th (P5)	G	7	
Minor 6th (m6)	Ab	8	In some contexts, augmented 5th (G#)
Major 6th (M6)	A	9	In some contexts, diminished 7th (Bbb)
Minor 7th (m7)	Bb	10	
Major 7th (M7)	B	11	
Perfect Octave, or simply Octave (P8)	C	12	

Major scale – The tones of the major scale are made up of a pattern of whole (W) and half-steps (H) which looks like this:



Scale degrees, names, and Roman numerals. - Each tone of the scale is given a number, known as a scale degree, and a name. Example: C major scale

Scale tone	C	D	E	F	G	A	B	C
Scale degree	1	2	3	4	5	6	7	8 (1)
Name	Tonic	Supertonic	Mediant	Subdominant	Dominant	Sub-Mediant	Leading Tone	Tonic

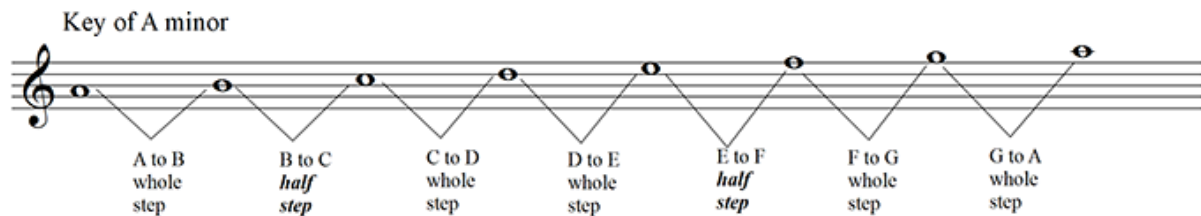
Triads can be built on each of these scale tones. Triads are made up of a Root (the lowest tone and the one which gives the chord its name); some kind of 3rd (major or minor) and some kind of 5th – usually perfect; occasionally augmented or diminished. In a C major triad, for example, C is the root, E is a major 3rd, and G is a perfect 5th. . Each triad is given a Roman numeral to indicate both the degree (which scale tone is the root) and its quality -- major, minor, or diminished.

- Triads based on scale tones 1, 4, and 5 are major. These are shown with an upper case Roman numeral.
- Triads based on scale tones 2, 3, and 6 are minor. These are shown with a lower case Roman numeral.
- The triad based on scale tone 7 is diminished. It is shown with a lower case Roman numeral 7 followed by a small superscript circle.



The pattern of major, minor, and diminished chords is the same for all major scales. Arabic numerals are used to describe 7ths and other four-note chords. These are the **diatonic** triads, meaning they are the triads which use only the notes that belong to the key signature..

Minor scale – There are three different forms of the minor scale. I'll focus on two, the **natural minor** and the **harmonic minor**. Here is the natural minor scale for the key of A minor, which has no sharps or flats. Like the major scale, the natural minor scale has a characteristic pattern of whole and half-steps.



The pattern of whole and half-steps that applies to the C major scale is the same for the A natural minor scale **if you start on the of A rather than C**

Natural Minor	A	B	C	D	E	F	G	A		
Major			C	D	E	F	G	A	B	C
Whole/Half Step		whole	half	whole	whole	half	whole	whole	whole	half

As in the major scale, scale tones for the minor scale have a scale degree and a name.

Scale tone (Natural Minor)	A	B	C	D	E	F	G	A
Scale Degree	1	2	3	4	5	6	7	8 (1)
Name	Tonic	Supertonic	Mediant	Subdominant	Dominant	Sub-Mediant	Leading Tone	Tonic

Each major key has a corresponding minor key which has the **same key signature**, known as the **relative minor**. The relative minor corresponds to scale tone 6 of the major scale. Similarly, minor keys have a **relative major**. The relative major corresponds to scale tone 3 of the minor scale. All the major keys, with their corresponding relative minor and key signatures, are shown below.

To build the triads of the minor scale, we need an alternate form of the natural minor scale, known as the **harmonic minor**. In the harmonic minor scale, **scale tone 7 of the natural minor is raised by 1/2 step**. Minor triads have their own characteristic pattern of major, minor, diminished, and augmented.

i
minor

ii°
diminished

III+
augmented

iv
minor

V
major

VI
major

#VII°
diminished

i
minor

Key Signatures: Major and Relative Minor - Flat Keys

C major A minor No sharps/ flats	F major D minor 1 flat: B	Bb major G minor 2 flats: B, E	Eb major C minor 3 flats: B, E, A	Ab major F minor 4 flats: B, E, A, D
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Db major Bb minor 5 flats: B, E, A, D, G	Gb major Eb minor 6 flats: B, E, A, D, G, C	Cb major Ab minor 7 flats: B, E, A, D, G, C, F
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Key Signatures: Major and Relative Minor - Sharp keys

C major
A minor
 No sharps/
 flats

G major
E minor
 1 sharp: F

D major
B minor
 2 sharps: F, C

A major
F# minor
 3 sharps: F, C, G

E major
C# minor
 4 sharps: F, C, G, D

B major
G# minor
 5 sharps: F, C, G, D, A

F# major
D# minor
 6 sharps: F, C, G, D, A, E

C# major
A# minor
 7 sharps: F, C, G, D, A, E, B

Root Position and Inversions -

Triads are made up of a root, some kind of 3rd, and some kind of 5th. Four-note chords such as the barbershop 7th are made up of a triad with a 4th tone added to it.

- If the root is on the bottom, the chord is in **root position**
- If the 3rd is on the bottom, the chord is in **1st inversion**
- If the 5th is on the bottom, the chord is in **2nd inversion**
- Four-note chords, such as the barbershop 7th, can have a 3rd inversion . If the 7th, or other added tone, is on the bottom, the chord is in **3rd inversion**

Inversion is not the same as voicing. If the root is at the bottom of the chord, the chord is in root position no matter how the notes above it are voiced. The same is true for 1st, 2nd, and 3rd inversion.

The image displays two systems of musical notation, each consisting of a treble and bass staff. The first system is labeled with chords: Gm, Gm, Gm/Bb, and Gm/Bb. The second system is labeled with chords: C7, C7, C7/G, and C7/G. The notation shows the chord voicings for each chord in both staves.

On the top staff, the first two chords are Gm triads in root position, with G (root) on the bottom. The second two are Gm triads in 1st inversion, with Bb (3rd) on the bottom.. On the bottom staff, the first two chords are C7 chords in root position, with C (root) on the bottom. The second two chords are C7 chords in 2nd inversion, with G (5th) on the bottom.

Analysis using Roman numerals: a (very brief) introduction

We saw above how Roman numerals are used to describe each of the tones of the scale and chords built on those tones. The purpose of analysis using Roman numerals is to see the relationship of chords to the home key. For example, take a G7 chord. If the home key is **G**, the analysis of a G7 chord is **I7** (upper case Roman numeral 1 followed by Arabic numeral 7). With major triads, the number 7 with no other suffix indicates a dominant 7th chord. The upper case 1 indicates that the chord is based on a major triad, built on scale tone 1 of the home key of G. In the key of **D**, the analysis of a G7 chord is **IV7** – A dominant 7th chord, built on scale tone 4 in the key of D. In the key of **C**, the analysis of a G7 chord is **V7** – A dominant 7th chord, built on scale tone 5 of the key of C. Roman numeral analysis takes in minor chords as well. For example, in the key of C, an Em chord is a **iii chord**, or minor triad (lower case) based on scale tone 3 in the key of C. An Em7 chord in the key of C is **iii7** – lower case Roman numeral means minor; 3 because it's built on scale tone 3 or the C scale and 7 to indicate a 7th chord.

Primary and secondary chords – In major keys, the primary chords are I, IV, and V. In minor keys, the primary chords are i, iv, and V. The others are considered secondary chords. (NOTE: The Sweet Adeline music category defines primary chords as major triad, barbershop 7th, and barbershop 9th).

Diatonic – Notes contained within a key signature. **Chromatic** refers to notes which fall outside of a key signature or a scale; also a series of notes moving in half-steps.

Enharmonic – Two different names for the same tone or the same chord. For example, C# is enharmonic with Db; G# is enharmonic with Ab. The minor 6th, the dominant 9th, and the half-diminished 7th chords are all enharmonic with each other, because all three chords have the same four tones.

Dominant and **Secondary Dominant** – Dominant has two meanings (1) Scale tone 5 of the major or minor scale (2) a particular chord voicing, made up of the major triad with a minor 7th tone above it (C-E-G-Bb). This voicing is known as a **Dominant 7th**. In barbershop we also call it the Barbershop 7th.

We saw earlier how you can build triads on all the degrees of the major scale. If you add one more note on top of those triads, you will get a 7th chord.

Cmaj7 Dm7 Em7 Fmaj7 **G7** Am7 Bm7(b5) Cmaj7
 I7 ii7 iii7 IV7 **V7** vi7 vii7(b5) I7

In any major key there will be only **one** dominant 7th chord that is diatonic to that key (diatonic = contained within the key signature). We can make dominant 7ths out of the others, but we have to add accidentals to them. For example, the ii7 chord (Dm7) can be made into a dominant 7th chord (II7) if we add an accidental, F#. The only one that is diatonic ("native" if you will) to any major key is the V7 chord (G7 in the key of C) – it's the only one that contains no accidentals. That's what a dominant 7th is, now what does the dominant 7th do? Put simply, the dominant (V7) wants to resolve to the tonic (I, or "home base" in the Dave Stevens example on page 11).

Secondary dominants are called secondary because they come from outside the home key. A secondary dominant is a **dominant 7th chord that is not diatonic to the home key**. It's a chord from outside the key whose function is to bring the music to a chord inside the key. In our 7ths diagram above, if we take the Dm7 (ii7) and make it a D7 (II7) by adding an F#, that II7 is a dominant of some other chord - in this case, D7 is dominant of G7 (V7). In Roman numerals that's expressed as "V7/V", the dominant 7th of a chord based on V. But secondary dominants don't stop there. If we start with the Em7 (iii7) make it an E7 chord by adding the G# (III7), that III7 is a secondary dominant, too. It's the dominant of Am, the vi chord. In Roman numerals, its V7/vi, the dominant of the chord based on vi. Now look at the Am7 chord (vi7). If we make that a A7 chord (VI7). is that a secondary dominant as well? Yes – It's the dominant of Dm; in Roman numerals, V7/ii. In fact, any dominant 7th can potentially be a secondary dominant except the IV chord in a major scale and the VI chord in a minor scale.

Barbershop Chord Vocabulary

There are 11 chords common to the chord vocabulary of Sweet Adelines and the Barbershop Harmony Society. These are indicated as (BHS/SAI). There are four additional chords which BHS accepts but Sweet Adelines does not; they are indicated as (BHS only).

- **Triads**
 - Major Triad (BHS/SAI)
 - Minor Triad (BHS/SAI)
 - Augmented Triad (BHS/SAI)
 - Diminished Triad (BHS only)
- **Seventh Chords**
 - Dominant (Barbershop) 7th (BHS/SAI)
 - Major 7th (BHS/SAI)
 - Minor 7th (BHS/SAI)
 - Diminished 7th (BHS/SAI)
 - Half-Diminished 7th (BHS only)
 - Augmented 7th (BHS only)
 - Dominant 7th with flatted 5th (BHS only)
- **Ninth Chords**
 - Dominant (Barbershop) 9th (BHS/SAI)
 - Major 9th (BHS/SAI)
- **Sixth Chords**
 - Major 6th (BHS/SAI)
 - Minor 6th (BHS/SAI)

Construction, voicing, doubling, and spelling for these chords are summarized below.

Triads

Major Triad (BHS/SAI)

- **Construction:** Root, Major 3rd, Perfect 5th
- **Voicing:** Strongest with bass on root
- **Doubling:** The major triad is a three-note chord. Because we sing four parts, one tone must be doubled. The strongest tone to double is the root

Spellings – Major Triad

= sharp b = flat bb = double flat x = double sharp

Chord	Root	Major 3rd	Perfect 5th	Doubled Root
C	C	E	G	C
C#	C#	E#	G#	C#
Db	Db	F	Ab	Db
D	D	F#	A	D
D#	D#	Fx	A#	D#
Eb	Eb	G	Bb	Eb
E	E	G#	B	E
F	F	A	C	F
F#	F#	A#	C#	F#
Gb	Gb	Bb	Db	Gb
G	G	B	D	G
G#	G#	B#	D#	G#
Ab	Ab	C	Eb	Ab
A	A	C#	E	A
Bb	Bb	D	F	Bb
B	B	D#	F#	B

Minor Triad (BHS/SAI)

- **Construction:** Root, Minor 3rd, Perfect 5th
- **Voicing:** Two possibilities for strongest voicing, depending on how the chord is functioning.
 - Bass on root if minor triad is the primary harmony.
 - Bass on 3rd when the minor triad is substituting for its relative major (for example, C-E-A-C substituting for C-E-G-C. This is a common substitution. This chord is sometimes referred to as a "substitute 6th" chord, because it's the same as a major 6th chord without the 5th. .
- **Doubling:** The minor triad is a three-note chord. Because we sing four parts, we must double a tone. Again we have two possibilities
 - Double the root if the minor triad is the primary harmony
 - Double the 3rd when the minor triad is being used as a substitute chord

Spellings – Minor Triad

b = flat bb = double flat # =sharp x=double sharp

Chord	Root	Minor 3rd	Perfect 5th	Doubled Tone
Cm	C	Eb	G	C or Eb
C#m	C#	E	G#	C# or E
Dbm	Db	Fb	Ab	Db or Fb
Dm	D	F	A	D or F
D#m	D#	F#	A#	D# or F#
Ebm	Eb	Gb	Bb	Eb or Gb
Em	E	G	B	E or G
Fm	F	Ab	C	F or Ab
F#m	F#	A	C#	F# or A
Gbm	Gb	Bbb	Db	Gb or Bbb
Gm	G	Bb	D	G or Bb
G#m	G#	B	D#	G# or B
Abm	Ab	Cb	Eb	Ab or Cb
Am	A	C	E	A or C
Bbm	Bb	Db	F	Bb or Db
Bm	B	D	F#	B or D

Augmented Triad (BHS/SAI)

- **Construction:** Root, Major 3rd, **Augmented 5th (Perfect 5th raised 1/2 step)**
- **Voicing:** Like the diminished 7th, the augmented triad is also a symmetrical chord, meaning that the intervals that make up the chord are all the same. The augmented triad is made up of all major 3rd intervals. Bass can be on any tone
- **Doubling:** The augmented triad is a three-note chord. Because we sing four parts, one tone must be doubled. The strongest choice is to double the bass note.

Spellings: Augmented Triad

b = flat # = sharp bb = double flat x = double sharp

Chord	Root	Major 3rd	Augmented 5th
Caug	C	E	G#
C#aug	C#	E#	Gx
Dbaug	Db	F	A
Daug	D	F#	A#
D#aug	D#	Fx	Ax
Ebaug	Eb	G	B
Eaug	E	G#	B#
Faug	F	A	C#
F#aug	F#	A#	Cx
Gbaug	Gb	Bb	D
Gaug	G	B	D#
Abaug	Ab	C	E
Aaug	A	C#	E#
Bbaug	Bb	D	F#
Baug	B	D#	Fx

Diminished Triad (BHS only)

- **Construction:** Root, Minor 3rd, **Diminished 5th (perfect 5th lowered 1/2 step).**
- Sweet Adelines accepts the Diminished 7th but not the Diminished Triad.

Chord	Root	Minor 3rd	Diminished 5th
Cdim	C	E \flat	G \flat
C#dim	C#	E	G
Dbdim	D \flat	F \flat	A $\flat\flat$
Ddim	D	F	A \flat
D#dim	D#	F#	A
Ebdim	E \flat	G \flat	B $\flat\flat$
Edim	E	G	B \flat
Fdim	F	A \flat	C \flat
F#dim	F#	A	C
Gbdim	G \flat	B $\flat\flat$	D $\flat\flat$
Gdim	G	B \flat	D \flat
G#dim	G#	B	D
Abdim	A \flat	C \flat	E $\flat\flat$
Adim	A	C	E \flat
Bbdim	B \flat	D \flat	F \flat
Bdim	B	D	F

Seventh Chords

Dominant (Barbershop) 7th (BHS/SAI)

- **Construction:** Root, Major 3rd, Perfect 5th, Minor 7th
- **Voicing:** Strongest with bass on root or 5th
- **Doubling:** None – all four tones must be present

Spellings - Dominant 7th

= sharp b = flat bb = double flat x = double sharp

Chord	Root	Major 3rd	Perfect 5th	Minor 7th
C7	C	E	G	Bb
C#7	C#	E#	G#	B
Db7	Db	F	Ab	Cb
D7	D	F#	A	C
D#7	D#	Fx	A#	C#
Eb7	Eb	G	Bb	Db
E7	E	G#	B	D
F7	F	A	C	Eb
F#7	F#	A#	C#	E
Gb7	Gb	Bb	Db	Fb
G7	G	B	D	F
G#7	G#	B#	D#	F#
Ab7	Ab	C	Eb	Gb
A7	A	C#	E	G
Bb7	Bb	D	F	Ab
B7	B	D#	F#	A

Major 7th (BHS/SAI)

- **Construction:** Root, Major 3rd, Perfect 5th, Major 7th
- **Voicing:** Strongest with bass on root.
- **Doubling:** None. All four tones must be present

Spellings – Major 7th

= sharp b = flat bb = double flat x = double sharp

Chord	Root	Major 3rd	Perfect 5th	Major 7th
CM7	C	E	G	B
C#M7	C#	E#	G#	B#
DbM7	Db	F	Ab	C
DM7	D	F#	A	C#
D#M7	D#	Fx	A#	Cx
EbM7	Eb	G	Bb	D
EM7	E	G#	B	D#
FM7	F	A	C	E
F#M7	F#	A#	C#	E#
GbM7	Gb	Bb	Db	F
GM7	G	B	D	F#
G#M7	G#	B#	D#	Fx
AbM7	Ab	C	Eb	G
AM7	A	C#	E	G#
BbM7	Bb	D	F	A
BM7	B	D#	F#	A#

Minor 7th (BHS/SAI)

- **Construction:** Root, Minor 3rd, Perfect 5th, Minor 7th
- **Voicing:** Strongest with bass on root or 5th
- **Doubling:** None. All tones must be present.

Spellings – Minor 7th

b = flat bb = double flat # = sharp x = double sharp

Chord Name	Root	Minor 3rd	Perfect 5th	Minor 7th
Cm7	C	Eb	G	Bb
C#m7	C#	E	G#	B
Dbm7	Db	Fb	Ab	Cb
Dm7	D	F	A	C
D#m7	D#	F#	A#	C#
Ebm7	Eb	Gb	Bb	Db
Em7	E	G	B	D
F#m7	F#	A	C#	E
Gbm7	Gb	Bbb	Db	Fb
Gm7	G	Bb	D	F
G#m7	G#	B	D#	F#
Abm7	Ab	Cb	Eb	Gb
Am7	A	C	E	G
Bbm7	Bb	Db	F	Ab
Bm7	B	D	F#	A

Diminished 7th (BHS/SAI)

- **Construction:** Root, minor 3rd, **diminished 5th (perfect 5th lowered by 1/2 step), diminished 7th (minor 7th lowered 1/2 step)**
- **Voicing:** The diminished 7th is a symmetrical chord, meaning that all the intervals which make up the chord are the same -- all minor 3rd intervals. Because the chord is symmetrical, the bass can be on any tone and any tone can be considered the root. However, the tones are not interchangeable. When using the diminished 7th in chord progressions there will be a correct note for the bass. Context and your ear will tell you where the bass note should go.
- **Doubling:** None -- all four tones must be present.

Spellings - Diminished 7th

= sharp b = flat bb= double flat x= double sharp

Chord	Root	Minor 3rd	Diminished 5th	Diminished 7th
Cdim7	C	E ^b	G ^b	B ^{bb}
C#dim7	C [#]	E	G	B ^b
Dbdim7	D ^b	F ^b	A ^{bb}	C ^{bb}
Ddim7	D	F	A ^b	C ^b
D#dim7	D [#]	F [#]	A	C
Ebdim7	E ^b	G ^b	B ^{bb}	D ^{bb}
Edim7	E	G	B ^b	D ^b
Fdim7	F	A ^b	C ^b	E ^{bb}
F#dim7	F [#]	A	C	E ^b
Gbdim7	G ^b	B ^{bb}	D ^{bb}	F ^{bb}
Gdim7	G	B ^b	D ^b	F ^b
G#dim7	G [#]	B	D	F
Abdim7	A ^b	C ^b	E ^{bb}	G ^{bb}
Adim7	A	C	E ^b	G ^b
Bbdim7	B ^b	D ^b	F ^b	A ^{bb}
Bdim7	B	D	F	A ^b

Half-Diminished 7th (BHS only)

- **Construction:** Root, Minor 3rd, **Diminished 5th (perfect 5th lowered 1/2 step)**, **Minor 7th**.
- The half-diminished 7th chord is not formally recognized as a barbershop chord in the Sweet Adelines chord vocabulary. However, it has the same four tones as the rootless dominant 9th and the minor 6th.
- What distinguishes the Half-Diminished 7th from the Diminished 7th is the 7th interval – a minor 7th above the bottom tone instead of a diminished 7th above the bottom tone.

Spellings: Half-Diminished 7th

b = flat # = sharp bb = double flat x = double sharp

Chord	Root	Minor 3rd	Diminished 5th	Minor 7th
C half-dim7	C	Eb	Gb	Bb
C# half-dim7	C#	E	G	B
Db half-dim7	Db	Fb	Abb	Cb
D half-dim7	D	F	Ab	C
D# half-dim7	D#	F#	A	C#
Eb half-dim7	Eb	Gb	Bbb	Db
E half-dim7	E	G	Bb	D
F half-dim7	F	Ab	Cb	Eb
F# half-dim7	F#	A	C	E
Gb half-dim7	Gb	Bbb	Dbb	Fb
G half-dim7	G	Bb	Db	F
G# half-dim7	G#	B	D	F#
Ab half-dim7	Ab	Cb	Ebb	Gb
A half-dim7	A	C	Eb	G
Bb half-dim7	Bb	Db	Fb	Ab
B half-dim7	B	D	F	A

Dominant 7th With Flatted 5th (BHS only)

Construction: Root, Major 3rd, Diminished 5th, Minor 7th (Start with a Dominant 7th chord and lower the 5th by 1/2 step)

Spellings: Dominant 7 with Flatted 5th

b = flat # = sharp bb = double flat x = double sharp

Chord	Root	Major 3rd	Diminished 5th	Minor 7th
C7b5	C	E	Gb	Bb
C#7 b5	C#	E#	G	B
Db7 b5	Db	F	Abb	Cb
D7 b5	D	F#	Ab	C
D#7 b5	D#	Fx	A	C#
Eb7 b5	Eb	G	Bbb	Db
E7 b5	E	G#	Bb	D
F7 b5	F	A	Cb	Eb
F#7 b5	F#	A#	C	E
Gb7 b5	Gb	Bb	Dbb	Fb
G7b5	G	B	Db	F
G#7 b5	G#	B#	D	F#
Ab7 b5	Ab	C	Ebb	Gb
A7b5	A	C#	Eb	G
Bb7b5	Bb	D	E	Ab
B7b5	B	D#	F	A

Augmented 7th (Dominant 7th with Augmented 5th) (BHS only)

Construction: Root, Major 3rd, Augmented 5th, Minor 7th (Start with a Dominant 7th chord and raise the 5th by 1/2 step)

Spellings: Augmented 7th

b = flat # = sharp bb = double flat x = double sharp

Chord	Root	Major 3rd	Augmented 5th	Minor 7th
Caug7	C	E	G#	Bb
C#aug7	C#	E#	Gx	B
Dbaug7	Db	F	A	Cb
Daug7	D	F#	A#	C
D#aug7	D#	Fx	Ax	C#
Ebaug7	Eb	G	B	Db
Eaug7	E	G#	B#	D
Faug7	F	A	C#	Eb
F#aug7	F#	A#	Cx	E
Gbaug7	Gb	Bb	D	Fb
Gaug7	G	B	D#	F
G#aug7	G#	B#	Dx	F#
Abaug7	Ab	C	E	Gb
Aaug7	A	C#	E#	G
Bbaug7	Bb	D	F#	Ab
Baug7	B	D#	Fx	A

Ninth Chords

Dominant (Barbershop) 9th (BHS/SAI)

- **Construction:** The dominant 9th is a 5 note chord. It consists of: Root, Major 3rd, Perfect 5th, Minor 7th, and Major 9th. Another way to describe it is, the four tones of a dominant 7th with an added major 9th tone.
- **Voicing:** Because barbershop has only four parts, we must omit a tone. The most common tone to omit is the root. If the root is omitted, the strongest voicing has bass on the 5th. Another, less common, voicing, is to omit the 5th. When the 5th is omitted, the strongest voicing is bass on the root.
- **Doubling:** None. The 3rd, 7th, 9th must be present. The fourth tone can be either the 5th (no root) or the root (no 5th). The most common voicing omits the root.

Spellings – Dominant 9th

= sharp b = flat bb = double flat x = double sharp.

In chord symbols, 7(9) is a way to indicate the rootless dominant 9th.

Chord	Root (usually omitted)	Major 3rd	Perfect 5th	Minor 7th	Major 9th
C7(9)	C	E	G	Bb	D
C#7(9)	C#	E#	G#	B	D#
Db7(9)	Db	F	Ab	Cb	Eb
D7(9)	D	F#	A	C	E
D#7(9)	D#	Fx	A#	C#	E#
Eb7(9)	Eb	G	Bb	Db	F
E7(9)	E	G#	B	D	F#
F7(9)	F	A	C	Eb	G
F#7(9)	F#	A#	C#	E	G#
Gb7(9)	Gb	Bb	Db	Fb	Ab
G7(9)	G	B	D	F	A
G#7(9)	G#	B#	D#	F#	A#
Ab7(9)	Ab	C	Eb	Gb	Bb
A7(9)	A	C#	E	G	B
Bb7(9)	Bb	D	F	Ab	C
B7(9)	B	D#	F#	A	C#

Major 9th (Major Triad with added 9th) (BHS/SAI)

- **Construction:** Root, Major 3rd, Perfect 5th, Major 9th
- **Voicing:** Strongest with bass on root.
- **Doubling:** None. All four tones must be present

Spellings – Major 9th

= sharp b = flat bb = double flat x = double sharp

Chord	Root	Major 3rd	Perfect 5th	Major 9th
CM9	C	E	G	D
C#M9	C#	E#	G#	D#
DbM9	Db	F	Ab	Eb
DM9	D	F#	A	E
D#M9	D#	Fx	A#	E#
EbM9	Eb	G	Bb	F
EM9	E	G#	B	F#
FM9	F	A	C	G
F#M9	F#	A#	C#	G#
GbM9	Gb	Bb	Db	Ab
GM9	G	B	D	A
G#M9	G#	B#	D#	A#
AbM9	Ab	C	Eb	Bb
AM9	A	C#	E	B
BbM9	Bb	D	F	C
BM9	B	D#	F#	C#

Sixth Chords

Major 6th (BHS/SAI)

- **Construction:** Root, Major 3rd, Perfect 5th, Major 6th
- **Voicing:** Strongest with bass on root
- **Doubling:** None – all four tones must be present
- The complete major 6th chord is somewhat rare in barbershop because it has a very "modern" flavor.. Much more common is to use the 6th without the 5th, sometimes known as the "substitute 6th chord". This construction has the same tones as the minor triad in first inversion.

Spellings – Major 6th

= sharp b = flat bb = double flat x = double sharp

Chord	Root	Major 3rd	Perfect 5th	Major 6th
CM6	C	E	G	A
C#M6	C#	E#	G#	A#
DbM6	Db	F	Ab	Bb
DM6	D	F#	A	B
D#M6	D#	Fx	A#	B#
EbM6	Eb	G	Bb	C
EM6	E	G#	B	C#
FM6	F	A	C	D
F#M6	F#	A#	C#	D#
GbM6	Gb	Bb	Db	Eb
GM6	G	B	D	E
G#M6	G#	B#	D#	E#
AbM6	Ab	C	Eb	F
AM6	A	C#	E	F#
BbM6	Bb	D	F	G
BM6	B	D#	F#	G#

Minor 6th (BHS/SAI)

- **Construction:** Root, Minor 3rd, Perfect 5th, Major 6th. The minor 6th has the same four tones as the rootless dominant 9th and the half-diminished 7th. The difference between the three is not spelling or voicing. The difference between the two is context and the chord's relationship to the other chords around it.
- **Voicing:** Strongest with bass on root
- **Doubling:** None – all four tones must be present

Spellings – Minor 6th

b = flat bb = double flat # =sharp x=double sharp

Chord	Root	Minor 3rd	Perfect 5th	Major 6th
Cm6	C	Eb	G	A
C#m6	C#	E	G#	A#
Dbm6	Db	Fb	Ab	Bb
Dm6	D	F	A	B
D#m6	D#	F#	A#	B#
Ebm6	Eb	Gb	Bb	C
Em6	E	G	B	C#
Fm6	F	Ab	C	D
F#m6	F#	A	C#	D#
Gbm6	Gb	Bbb	Db	Eb
Gm6	G	Bb	D	E
G#m6	G#	B	D#	E#
Abm6	Ab	Cb	Eb	F
Am6	A	C	E	F#
Bbm6	Bb	Db	F	G
Bm6	B	D	F#	G#