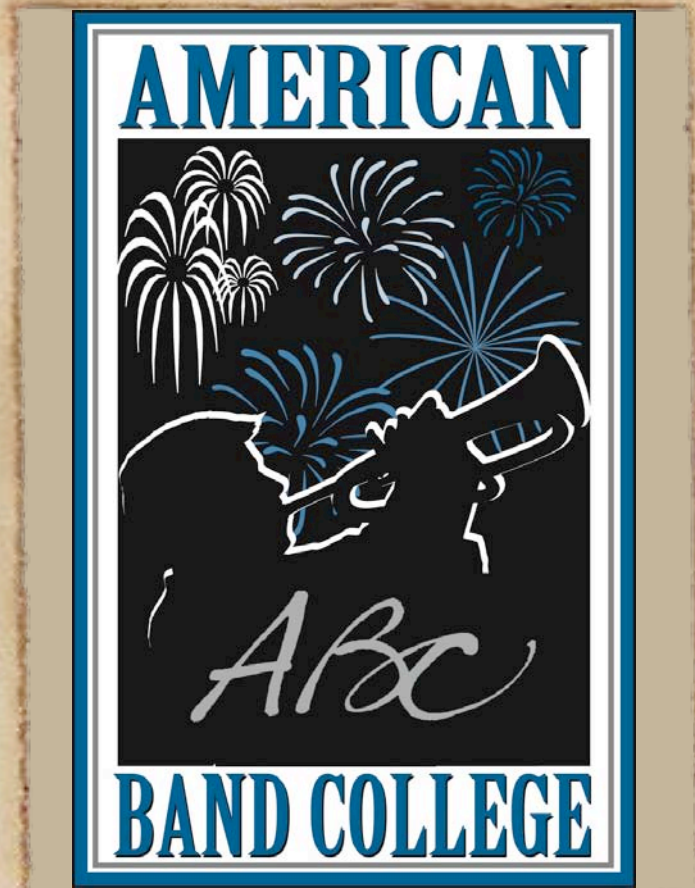


The Overtone Series

Max and Scott McKee

June 24, 2006 • 2:00 p.m

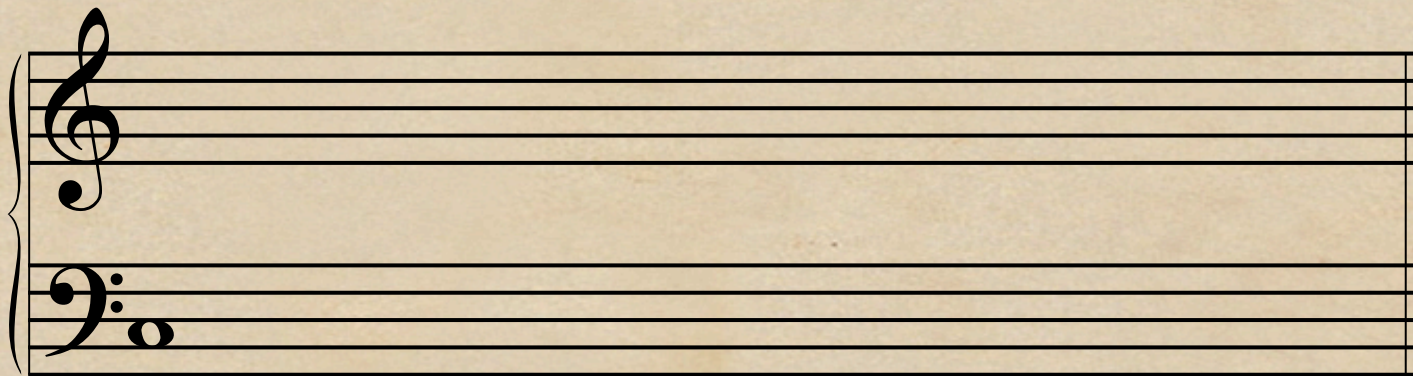


Overtone Series Part 1

BUILDING THE SERIES

Overtone Series

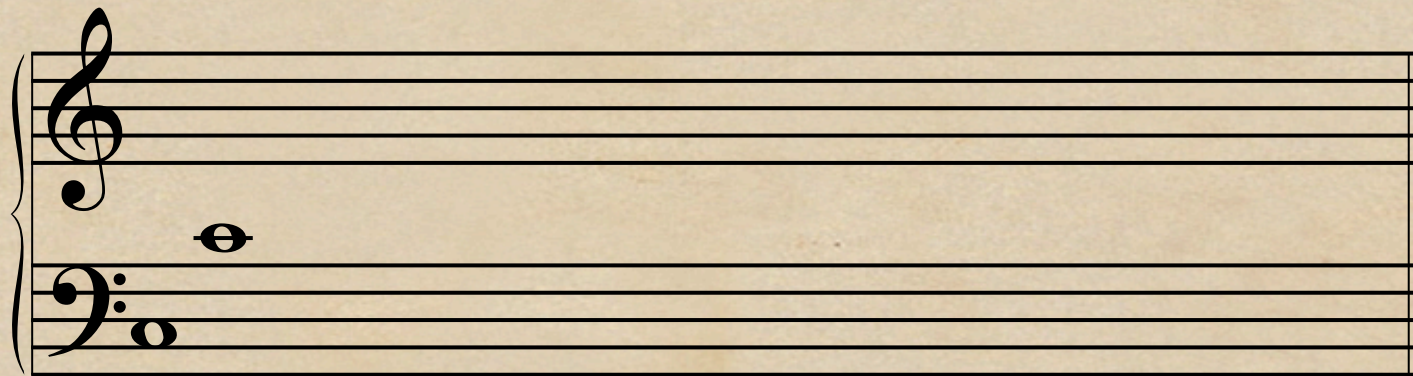
Building the Series



1

Overtone Series

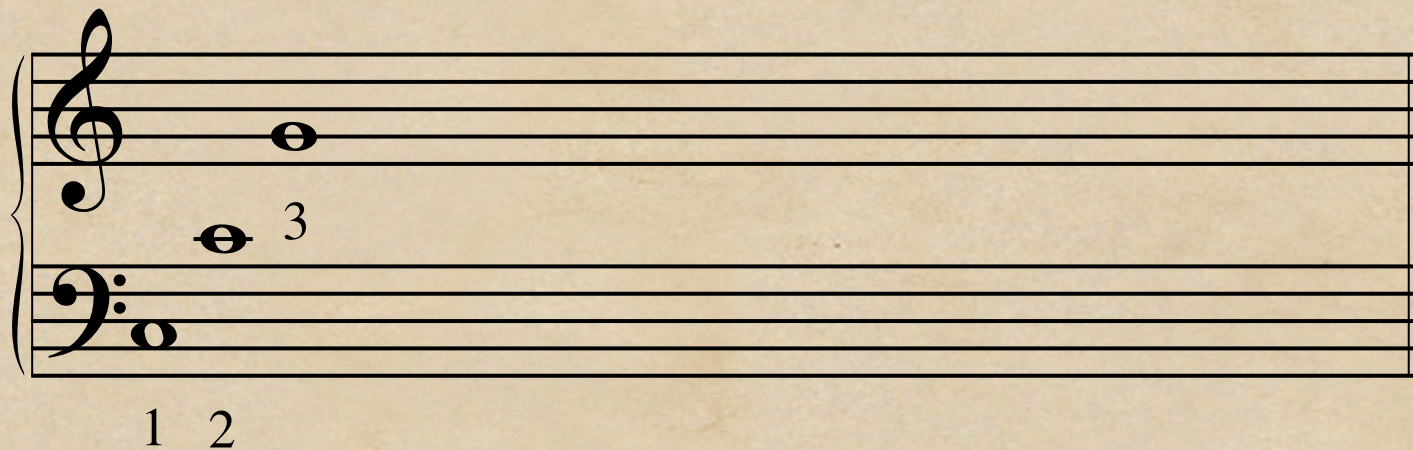
Building the Series



1 2

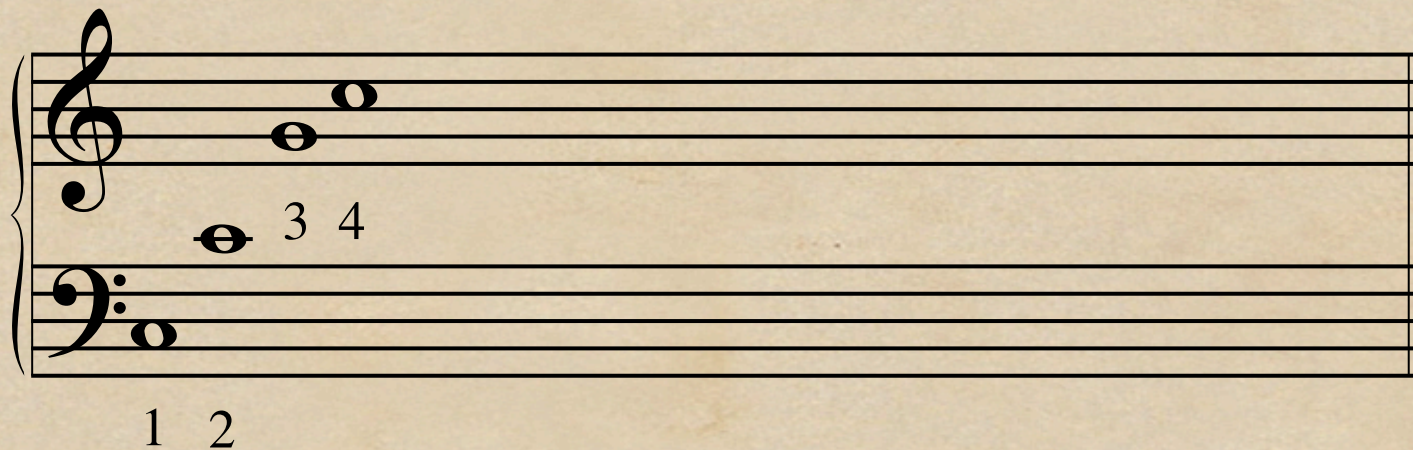
Overtone Series

Building the Series



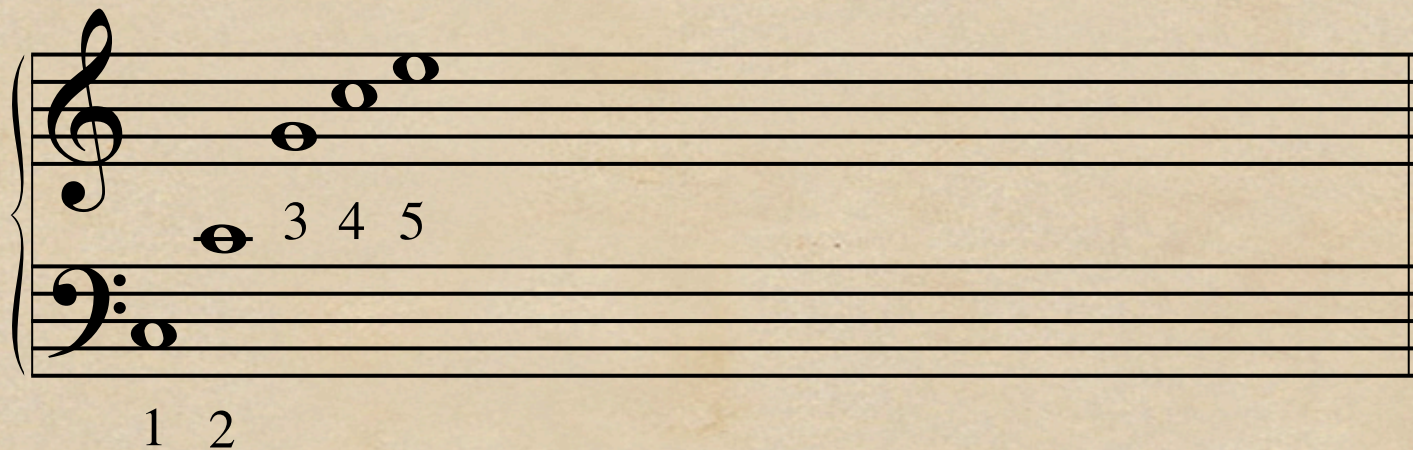
Overtone Series

Building the Series



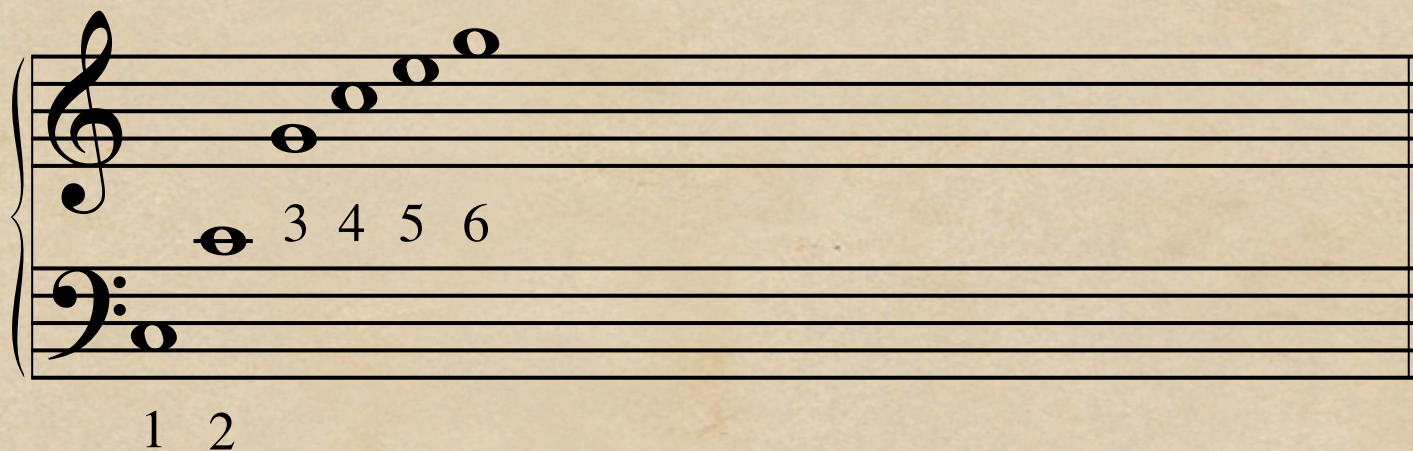
Overtone Series

Building the Series



Overtone Series

Building the Series



Overtone Series

Building the Series

A musical score on a grand staff (treble and bass clefs) illustrating the overtone series. The notes are as follows:

- Treble clef: G4 (first line), A4 (second line), B4 (second space), C5 (third line), D5 (third space), E5 (fourth line), F5 (fourth space, flat), G5 (fifth line).
- Bass clef: G3 (second space), A3 (third space), B3 (third space), C4 (second space), D4 (second space), E4 (second space), F4 (second space, flat), G4 (second space).

Below the bass clef, the numbers 1 through 7 are placed under the notes G3, A3, B3, C4, D4, E4, and F4 respectively. Below the treble clef, the numbers 1 and 2 are placed under the notes G4 and A4 respectively.

Overtone Series

Building the Series

A musical score on a grand staff (treble and bass clefs) illustrating the overtone series. The notes are as follows:

- Treble clef: G4 (first line), A4 (second line), B4 (third space), C5 (fourth line), D5 (first space), E5 (second space), F5 (third space), G5 (fourth space).
- Bass clef: G3 (second space), A3 (third space), B3 (fourth space), C4 (first line), D4 (second line), E4 (third line), F4 (third space), G4 (fourth space).

Below the notes are fingerings: '1 2' under the first two notes of the bass clef, and '3 4 5 6 7 8' under the notes of the bass clef starting from the second line (A3).

Overtone Series

Building the Series

A musical score on a grand staff (treble and bass clefs) illustrating the overtone series. The notes are as follows:

- Bass clef: C2 (labeled '1' below)
- Treble clef: C3 (labeled '2' below), G3 (labeled '3'), A3 (labeled '4'), B3 (labeled '5'), C4 (labeled '6'), D4 (labeled '7'), E4 (labeled '8'), F4 (labeled '9')

The notes are written as whole notes. The notes for 7, 8, and 9 are marked with a flat symbol (b) and are underlined. The notes for 8 and 9 are also double-underlined.

Overtone Series

Building the Series

A musical score on a grand staff (treble and bass clefs) illustrating the overtone series. The notes are as follows:

- 1: C2 (bass clef, 1st line)
- 2: C3 (bass clef, 2nd line)
- 3: G2 (bass clef, 3rd line)
- 4: F2 (bass clef, 4th line)
- 5: E2 (bass clef, 4th space)
- 6: D2 (bass clef, 5th space)
- 7: C3 (treble clef, 1st line)
- 8: B2 (treble clef, 1st space)
- 9: A2 (treble clef, 2nd space)
- 10: G2 (treble clef, 2nd line)

The notes 8, 9, and 10 are marked with a flat symbol (b) and are underlined. The numbers 1 through 10 are placed below the notes. The numbers 1 and 2 are placed below the first two notes of the bass clef.

Overtone Series

Building the Series

A musical score on a grand staff (treble and bass clefs) illustrating the overtone series. The notes are as follows:

- 1: C2 (bass clef, 1st line)
- 2: C3 (bass clef, 2nd line)
- 3: G2 (bass clef, 3rd line)
- 4: F2 (bass clef, 3rd space)
- 5: E2 (bass clef, 4th space)
- 6: D2 (bass clef, 4th space)
- 7: C3 (bass clef, 5th space)
- 8: B2 (bass clef, 5th space)
- 9: A2 (bass clef, 5th space)
- 10: G2 (bass clef, 5th space)
- 11: F2 (bass clef, 5th space)

The notes 7 through 11 are marked with accidentals: 7 is natural, 8 is flat, 9 is natural, 10 is natural, and 11 is sharp. The notes 3 through 6 are also marked with accidentals: 3 is natural, 4 is natural, 5 is natural, and 6 is natural. The notes 7 through 11 are marked with accidentals: 7 is natural, 8 is flat, 9 is natural, 10 is natural, and 11 is sharp.

1 2

Overtone Series

Building the Series

A musical score on a grand staff (treble and bass clefs) illustrating the overtone series. The notes are numbered 1 through 12. The notes are: 1 (C2), 2 (C3), 3 (G2), 4 (C3), 5 (E3), 6 (G3), 7 (Bb3), 8 (C4), 9 (D4), 10 (E4), 11 (F#4), 12 (G4). The notes are placed on the staff lines as follows: 1 on the first line of the bass clef, 2 on the first space, 3 on the second line, 4 on the second space, 5 on the third line, 6 on the third space, 7 on the fourth line, 8 on the fourth space, 9 on the first line of the treble clef, 10 on the first space, 11 on the second line, and 12 on the second space. The notes are connected by a curved line.

1 2

Overtone Series

Building the Series

A musical score on a grand staff (treble and bass clefs) illustrating the overtone series for the note C2. The notes are numbered 1 through 13. The notes are: 1 (C2), 2 (C3), 3 (G2), 4 (C3), 5 (E3), 6 (G3), 7 (Bb3), 8 (C4), 9 (D4), 10 (E4), 11 (F#4), 12 (G4), 13 (A4). The notes are placed on the staff lines as follows: 1 on the first line of the bass clef, 2 on the first line of the treble clef, 3 on the first space of the bass clef, 4 on the first space of the treble clef, 5 on the second space of the bass clef, 6 on the second space of the treble clef, 7 on the first space of the bass clef with a flat, 8 on the first space of the treble clef, 9 on the second space of the bass clef, 10 on the second space of the treble clef, 11 on the first space of the bass clef with a sharp, 12 on the second space of the treble clef, and 13 on the third space of the bass clef.

1 2

3 4 5 6 7 8 9 10 11 12 13

Overtone Series

Building the Series

A musical score on a grand staff (treble and bass clefs) illustrating the overtone series for the note C2. The notes are numbered 1 through 14. The notes are: 1 (C2), 2 (C3), 3 (G2), 4 (F2), 5 (E2), 6 (D2), 7 (B1), 8 (Bb1), 9 (A1), 10 (Ab1), 11 (G#1), 12 (G1), 13 (F#1), 14 (Fb1). The notes are written on the staff with their respective accidentals and are positioned above the staff lines. The numbers 1 and 2 are written below the first two notes.

1 2

Overtone Series

Building the Series

A musical score on a grand staff (treble and bass clefs) illustrating the overtone series. The notes are numbered 1 through 15. The notes are: 1 (C2), 2 (C3), 3 (G2), 4 (C3), 5 (E3), 6 (G3), 7 (Bb3), 8 (C4), 9 (D4), 10 (E4), 11 (F#4), 12 (G4), 13 (A4), 14 (Bb4), 15 (C5). The notes are written on the grand staff with a brace on the left. The notes 7 through 15 are written on the treble clef staff, while notes 1 through 6 are written on the bass clef staff. The notes are written as whole notes. The notes 7 through 15 are written on the treble clef staff, while notes 1 through 6 are written on the bass clef staff. The notes are written as whole notes. The notes 7 through 15 are written on the treble clef staff, while notes 1 through 6 are written on the bass clef staff. The notes are written as whole notes.

1 2

Overtone Series

Building the Series

A musical score on a grand staff (treble and bass clefs) illustrating the overtone series. The notes are numbered 1 through 16. The notes are: 1 (C2), 2 (C3), 3 (G2), 4 (C3), 5 (E3), 6 (F3), 7 (G3), 8 (A3), 9 (B3), 10 (C4), 11 (C#4), 12 (D4), 13 (E4), 14 (F4), 15 (F#4), 16 (G4). The notes are placed on the staff lines as follows: 1 on the first line of the bass clef, 2 on the first space of the bass clef, 3 on the first space of the treble clef, 4 on the first line of the treble clef, 5 on the first space of the treble clef, 6 on the first line of the treble clef, 7 on the first space of the treble clef, 8 on the first space of the treble clef, 9 on the first space of the treble clef, 10 on the first space of the treble clef, 11 on the first space of the treble clef, 12 on the first space of the treble clef, 13 on the first space of the treble clef, 14 on the first space of the treble clef, 15 on the first space of the treble clef, 16 on the first space of the treble clef.

1 2

Overtone Series

3, 6, 12 = Sharp

5, 10 = Flat

7, 14 = Very Flat

The image shows a musical staff with a treble clef and a bass clef. The notes of the overtone series are written on the staff, with some notes having accidentals. Below the staff, the notes are numbered 1 through 16. The notes are color-coded: 1 (brown circle), 2 (brown circle), 3 (red triangle), 4 (brown circle), 5 (blue square), 6 (red triangle), 7 (purple inverted triangle), 8 (brown circle), 9 (brown circle), 10 (blue square), 11 (brown circle), 12 (red triangle), 13 (brown circle), 14 (purple inverted triangle), 15 (brown circle), and 16 (brown circle). The notes are arranged in ascending order of frequency, with the first two notes (1 and 2) on the bass clef and the remaining notes (3-16) on the treble clef. The notes are: 1 (C2), 2 (C3), 3 (G2), 4 (C3), 5 (F3), 6 (G3), 7 (E3), 8 (C3), 9 (C3), 10 (F3), 11 (G3), 12 (G#3), 13 (A3), 14 (Bb3), 15 (C4), and 16 (C4).

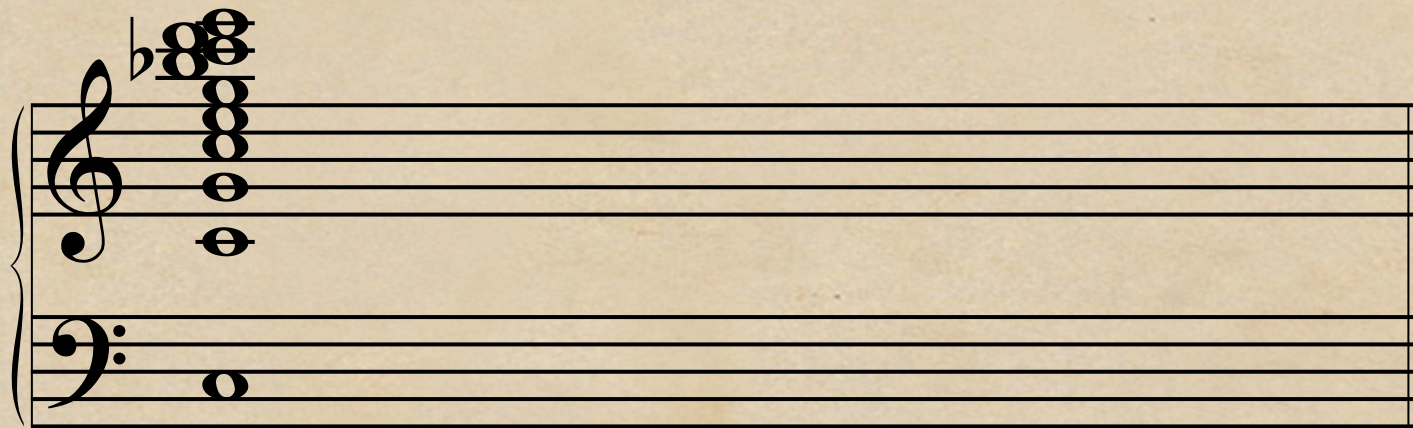
Overtone Series Part 2

THE SEVEN SERIES

Overtone Series



C Series (open)



OPEN

Overtone Series

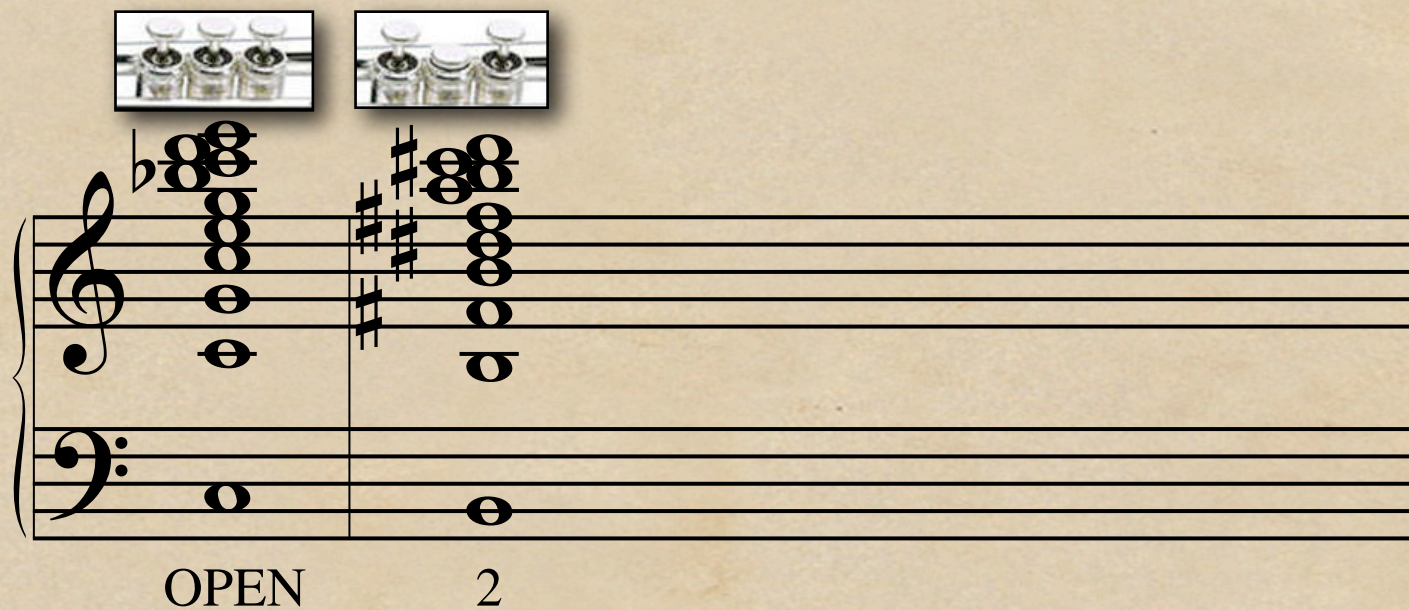


B Series (2nd Valve)

Musical notation for the B series overtone series. The notation is written on a grand staff with three staves: a treble clef staff, a middle staff, and a bass clef staff. The key signature has one flat (B-flat). The first measure shows the overtone series for the 'OPEN' position, with notes on the treble staff (B4, C5, D5, E5, F5, G5) and the bass staff (B2, B3). The second measure shows the overtone series for the '2'nd valve position, with notes on the treble staff (C5, D5, E5, F5, G5, A5) and the bass staff (C3, C4).

OPEN 2

Overtone Series



The image displays musical notation for the overtone series of an open string and the second fret. It consists of a grand staff with a treble clef and a bass clef. Above the treble clef, two small photographs show the fretboard of a stringed instrument. The first photograph shows the open string, and the second shows the second fret. The notation shows the following notes:

String	Open	2nd Fret
1st (Treble)	G ₄	A ₄
2nd (Treble)	B ₃	C ₅
3rd (Treble)	D ₄	E ₅
4th (Bass)	E ₃	F ₄

Labels "OPEN" and "2" are placed below the bass clef staff to indicate the fretting position for each series.

Overtone Series

Musical notation showing the overtone series for three different string lengths. The notation is written on a grand staff (treble and bass clefs).
1. **OPEN**: The first measure shows the overtone series for an open string. The bass clef has a single note (C2). The treble clef has notes at C3, E3, G3, B3, C4, E4, G4, B4, C5, E5, G5, B5, C6. The key signature has one flat (Bb).
2. **2**: The second measure shows the overtone series for a string shortened to 2/3 of its original length. The bass clef has a single note (C2). The treble clef has notes at C3, E3, G3, B3, C4, E4, G4, B4, C5, E5, G5, B5, C6. The key signature has two sharps (F# and C#).
3. **1**: The third measure shows the overtone series for a string shortened to 1/2 of its original length. The bass clef has a single note (C2). The treble clef has notes at C3, E3, G3, B3, C4, E4, G4, B4, C5, E5, G5, B5, C6. The key signature has two flats (Bb and Fb).

OPEN

2

1

Overtone Series



A Series (12 or 3)

OPEN 2 1 12
or 3

Overtone Series



The musical notation displays four columns of notes, each representing an overtone series for a specific fret position. The notes are arranged in a treble clef (top staff) and a bass clef (bottom staff). The first column is labeled 'OPEN' and shows a series of notes starting with a flat. The second column is labeled '2' and shows a series of notes starting with a sharp. The third column is labeled '1' and shows a series of notes starting with a flat. The fourth column is labeled '12 or 3' and shows a series of notes starting with a sharp.

OPEN

2

1

12
or 3

Overtone Series



Musical notation for the overtone series of an open string. The notation is written on a grand staff (treble and bass clefs). The first five notes are shown as whole notes on the treble clef staff, and the last two are shown as whole notes on the bass clef staff. The notes are: OPEN (C2), 2 (C3), 1 (G2), 12 (C3), and 23 (G2). The notes are accompanied by their respective overtone series, shown as clusters of notes on the treble clef staff. The overtone series for the 2nd fret (C3) is C4, E4, G4, Bb4, C5. The overtone series for the 1st fret (G2) is G3, Bb3, C4, D4, E4, F4, G4, Ab4, A4, Bb4, B4, C5. The overtone series for the 12th fret (C3) is C4, E4, G4, Bb4, C5. The overtone series for the 23rd fret (G2) is G3, Bb3, C4, D4, E4, F4, G4, Ab4, A4, Bb4, B4, C5.

OPEN

2

1

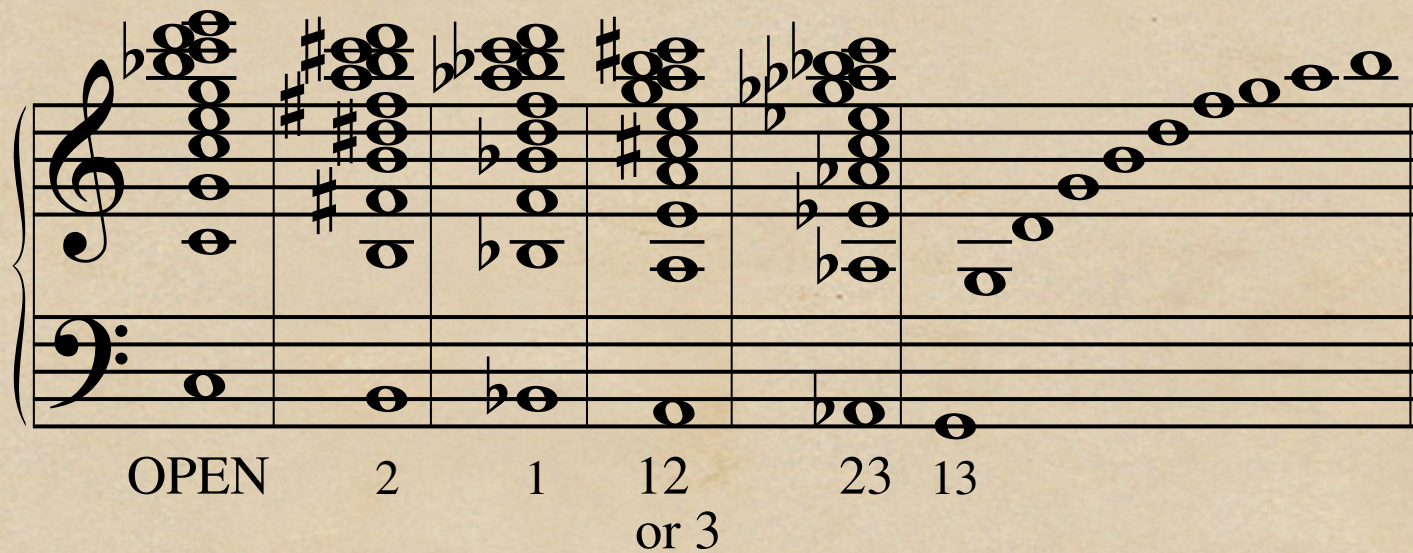
12
or 3

23

Overtone Series



G Series (13)



OPEN 2 1 12 23 13
or 3

Overtone Series



Gb Series (123)

Musical notation for the Gb overtone series, showing the first seven harmonics. The notation is written on a grand staff (treble and bass clefs) and includes fingering numbers (1, 2, 3) and the instruction "OPEN or 3".

OPEN 2 1 12 or 3 23 13 123

Overtone Series

Pitch Tendencies (valves)

The diagram illustrates the overtone series for a trumpet, showing the pitch tendencies for each valve. Above the musical notation, seven icons represent the valve settings: three 'ok' (brown circles), 's#' (red triangle), '*sb' (blue square), 'm#' (red triangle), and 'v#' (red triangle). Below these are seven small images of the trumpet's valves in their respective positions. The musical notation consists of a grand staff with a treble clef and a bass clef. The notes are arranged in a series of chords, with the bass clef notes being the fundamental frequencies and the treble clef notes being the overtones. The notes are: OPEN, 2, 1, 12, 23, 13, and 123. A blue square with '*sb' is placed below the '12' note.

OPEN 2 1 12 23 13 123

or 3 ^{*sb}

* Can vary depending on the manufacturer.

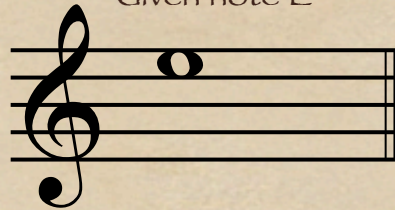
Overtone Series
Part 3a

ALL POSSIBLE FINGERINGS

Overtone Series

All possible fingerings

Given note E

A musical score consisting of seven measures. Each measure shows a different overtone series for the note E. The notes are arranged in a vertical stack on a treble clef staff. The bass clef staff below shows the given note E for each measure. Fingerings are indicated by numbers below the notes: OPEN, 2, 1, 12, 23, 13, and 123.

OPEN

2

1

12

23

13

123

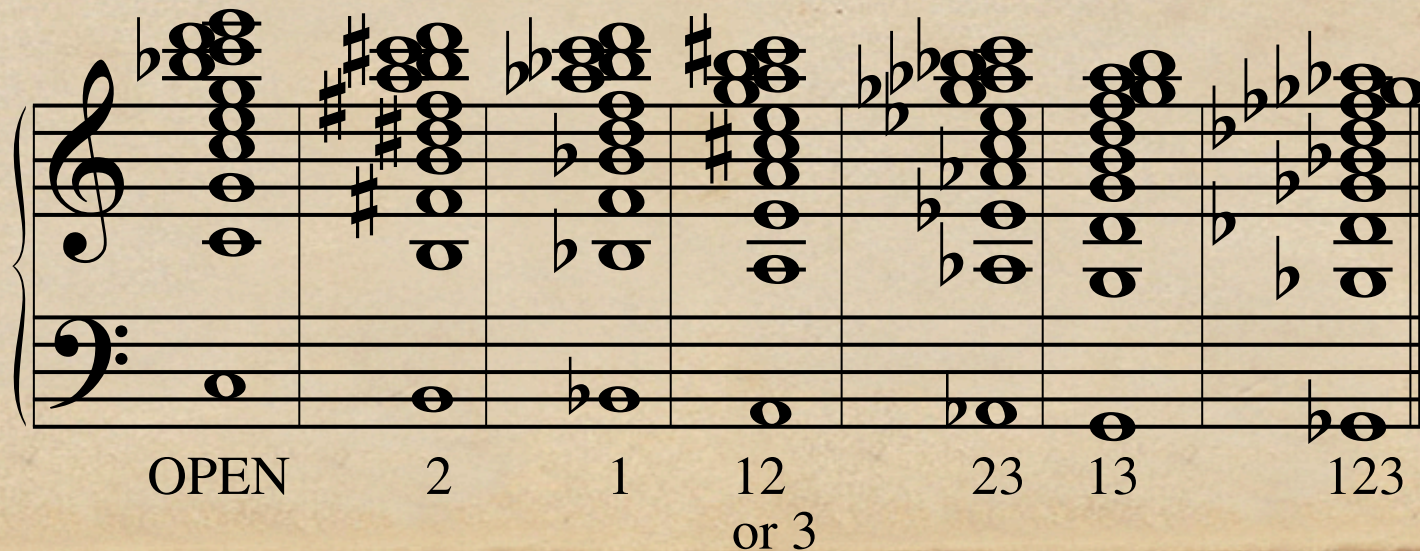
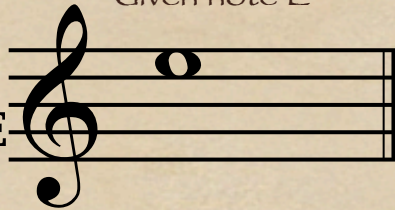
or 3

Overtone Series

All possible fingerings

Given note E

- ◆ Check for given note **NONE**



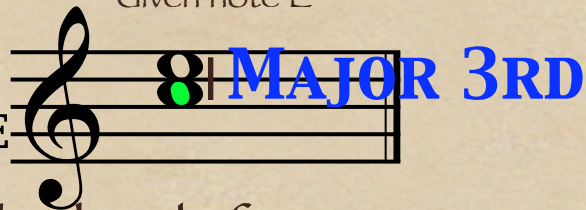
The image shows a musical score for seven chords, each with a specific fingering indicated below it. The chords are arranged in a sequence across two staves (treble and bass clef). The fingerings are: OPEN, 2, 1, 12 or 3, 23, 13, and 123.

Chord	Fingering
OPEN	OPEN
2	2
1	1
12	12 or 3
23	23
13	13
123	123

Overtone Series

All possible fingerings

Given note E



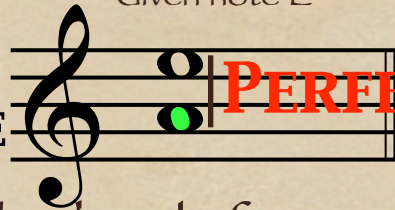
- ◆ Check for given note **NONE**
- ◆ Think down Major 3rd, check for series **OPEN**

OPEN 2 1 12
or 3 23 13 123

Overtone Series

All possible fingerings

Given note E



- ◆ Check for given note **NONE**
- ◆ Think down Major 3rd, check for series **OPEN**
- ◆ Think down Perfect 5th, check for series **12 OR 3**

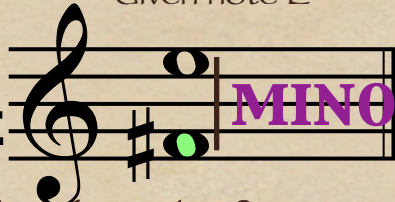


OPEN 2 1 12
or 3 23 13 123

Overtone Series

All possible fingerings

Given note E

- ◆ Check for given note **NONE**  **MINOR 7TH**
- ◆ Think down Major 3rd, check for series **OPEN**
- ◆ Think down Perfect 5th, check for series **12 OR 3**
- ◆ Think down minor 7th, check for series **123**



OPEN 2 1 12
or 3 23 13 123

Overtone Series
Part 3b

CHOOSE PREFERRED FINGERING

Overtone Series

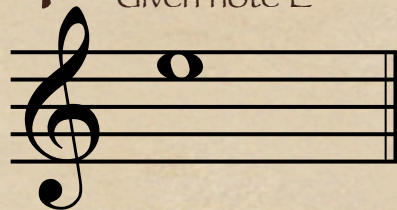
Choosing preferred fingering

- ◆ Least number of valves,
- ◆ Unless it involves 3rd valve,
- ◆ Or is the 7th partial

Overtone Series

Choosing preferred fingering

Given note E



- ◆ Least number of valves

OPEN 12 OR 3 123

A musical staff showing the overtone series for the given note E. The staff is divided into seven measures, each representing a different overtone. The notes are: E2 (bass clef), E3 (bass clef), E4 (treble clef), E5 (treble clef), E6 (treble clef), E7 (treble clef), and E8 (treble clef). Fingerings are indicated below the notes: OPEN, 2, 1, 12 or 3, 23, 13, and 123. The word 'OPEN' is highlighted in a green box.

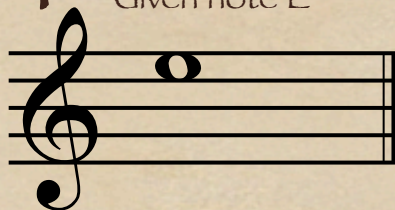
OPEN 2 1 12 23 13 123

or 3

Overtone Series

Choosing preferred fingering

Given note E



- ◆ Least number of valves,
- ◆ Unless it involves 3rd valve

OPEN ~~12 OR 3~~ 123

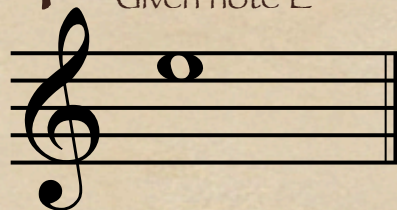
OPEN 2 1 12 23 13 123

or 3

Overtone Series

Choosing preferred fingering

Given note E



- ◆ Least number of valves,
- ◆ Unless it involves 3rd valve,
- ◆ Or is the 7th partial

OPEN ~~12 OR 3~~ ~~123~~

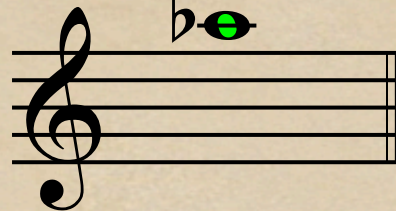
OPEN 2 1 12 23 13 123

or 3

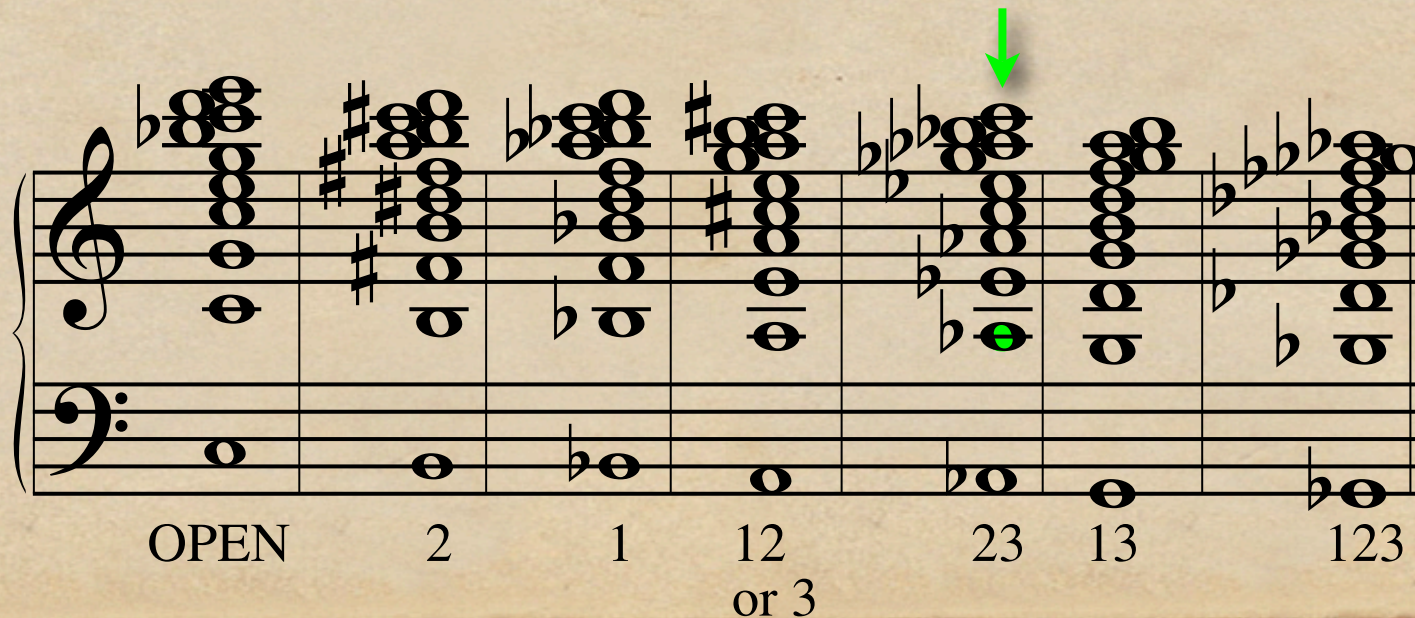
Overtone Series

All possible fingerings

Given note Ab



- ◆ Check for given note 23



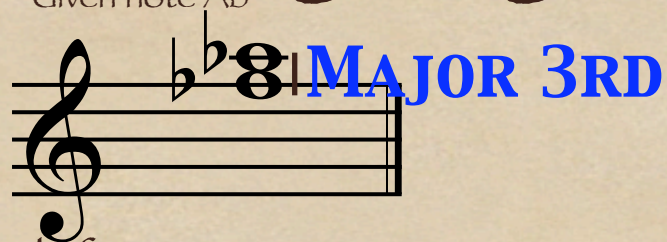
The image shows a musical score with seven chords. Each chord is represented by a treble clef staff with notes and accidentals. Below each chord, a fingering is indicated. A green arrow points to the fifth chord, which has a green dot on its lowest note.

Chord	Fingering
1	OPEN
2	2
3	1
4	12 or 3
5	23
6	13
7	123

Overtone Series

All possible fingerings

Given note Ab



- ◆ Check for given note 23
- ◆ Think down Major 3rd, check for series **NONE**

OPEN 2 1 12
or 3 23 13 123

Overtone Series

All possible fingerings

Given note Ab



- ◆ Check for given note 23
- ◆ Think down Major 3rd, check for series **NONE**
- ◆ Think down Perfect 5th, check for series **NONE**

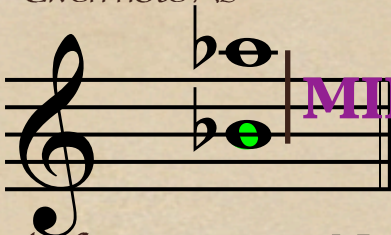
OPEN 2 1 12 23 13 123

or 3

Overtone Series

All possible fingerings

Given note Ab



MINOR 7TH

- ◆ Check for given note 23
- ◆ Think down Major 3rd, check for series NONE
- ◆ Think down Perfect 5th, check for series NONE
- ◆ Think down minor 7th, check for series 1

OPEN 2 1 12
or 3 23 13 123

Overtone Series

All possible fingerings

Given note Ab

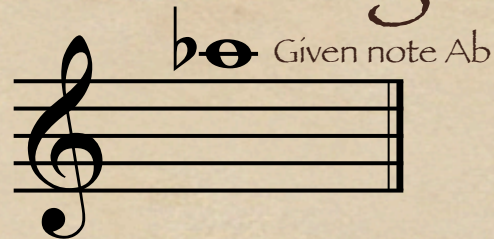
MAJOR 9TH

- ◆ Check for given note 23
- ◆ Think down Major 3rd, check for series **NONE**
- ◆ Think down Perfect 5th, check for series **NONE**
- ◆ Think down minor 7th, check for series **1**
- ◆ Think down Major 9th, check for series **123**

OPEN 2 1 12 or 3 23 13 123

Overtone Series

All possible fingerings



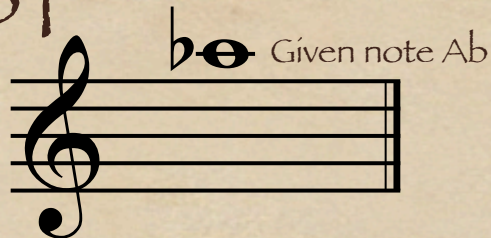
- ◆ There are 3 possible fingerings:

1
23
123

OPEN 2 1 12 or 3 23 13 123

Overtone Series

Choosing preferred fingering



- ◆ Least number of valves

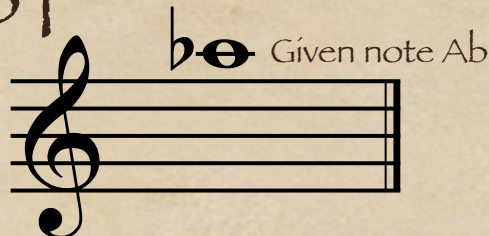
A musical staff with a treble clef showing seven chord voicings for the overtone series of Ab. The notes are arranged in a way that allows for different fingerings. The fingerings are indicated by numbers above the notes: 1, 2, 3, 12, 23, 13, and 123. A green box highlights the number '1' above the first chord voicing.

OPEN 2 1 12 23 13 123

or 3

Overtone Series

Choosing preferred fingering

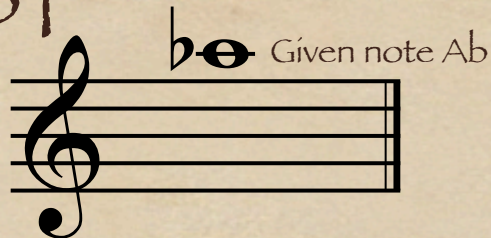


- ◆ Least number of valves
- ◆ Unless it involves 3rd valve

A musical staff with a treble clef and a bass clef. The staff shows seven chord voicings for the note Ab. The fingerings for each voicing are indicated by numbers above the notes. The first voicing has a green box around the number 1. The fingerings are: OPEN, 2, 1, 12 or 3, 23, 13, 123.

Overtone Series

Choosing preferred fingering



- ◆ Least number of valves
- ◆ Unless it involves 3rd valve
- ◆ Or is the 7th partial

A musical staff showing the overtone series for the given note Ab. The staff is divided into seven measures, each representing a partial of the series. Fingerings and valve indications are provided for each partial.

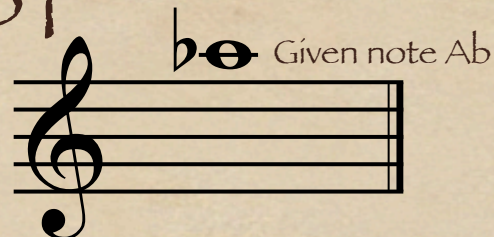
Partial	Fingering	Valves
1	1	0
2	2	1
3	1	0
4	12	1
5	23	2
6	13	0
7	123	3

Labels below the staff: OPEN, 2, 1, 12, 23, 13, 123

Additional label: or 3

Overtone Series

Choosing preferred fingering



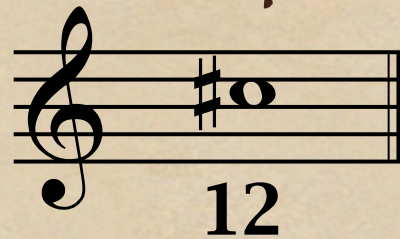
- ◆ Least number of valves
- ◆ Unless it involves 3rd valve
- ◆ Or is the 7th partial

A musical staff with a treble clef and a bass clef. Seven chord voicings are shown, each with a specific fingering indicated below. The voicings are: OPEN, 2, 1, 12 or 3, 23, 13, and 123. The 23 fingering is highlighted in a green box. A red 'X' is placed over the 1 fingering. The 23 fingering is also highlighted with a green dot on the note.

OPEN 2 1 12 or 3 23 13 123

Overtone Series

Pitch Tendencies (partials + valves)



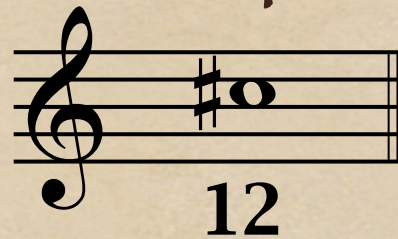
A musical score showing the overtone series for different valve combinations. The score consists of two staves: a treble clef staff and a bass clef staff. The notes are arranged in a series of chords, each with a key signature symbol above it. The notes are labeled with numbers 1 through 5, indicating their position in the overtone series. A green arrow points to the note labeled '5' in the fourth measure, which is a sharp sign (#) on the second line of the treble staff. Below the staves are the valve combinations: OPEN, 2, 1, 12, 23, 13, and 123. The number 12 is also labeled as 'or 3'.

OPEN 2 1 12 23 13 123

or 3

Overtone Series

Pitch Tendencies (partials + valves)



5, 10 = Flat

5th partial = flat
 12 valve combo = sharp

 Overall pitch = OK

OPEN 2 1 **12** 23 13 123

or 3

Overtone Series

Pitch Tendencies (partials + valves)

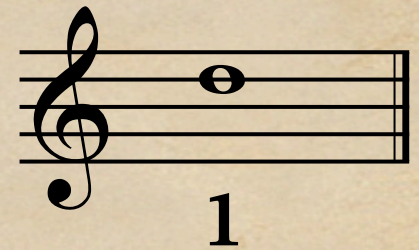


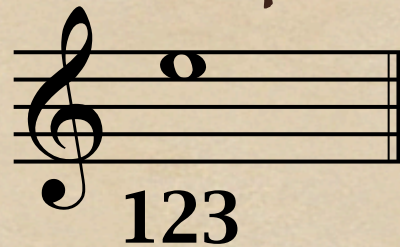
Diagram illustrating the overtone series for various valve combinations, showing the relationship between the fundamental pitch (partial 1) and the resulting partials (2, 3, 4, 5).

The diagram shows the overtone series for the following valve combinations: OPEN, 2, 1, 12, 23, 13, and 123. The fundamental pitch (partial 1) is shown in the bass clef, and the resulting partials (2, 3, 4, 5) are shown in the treble clef. Green arrows point to the partials 4, 5, and 4 in the first three series.

Labels below the diagram: OPEN, 2, 1, 12, 23, 13, 123, or 3

Overtone Series

Pitch Tendencies (partials + valves)



7th Partial Usage

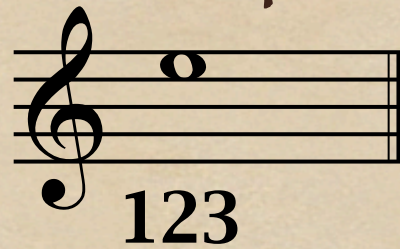
A musical score for trumpet showing overtone series for various fingerings. The score is written on a grand staff (treble and bass clefs). The notes are arranged in a series of chords, each corresponding to a specific fingering. A green arrow points to the 7th partial of the final fingering.

OPEN 2 1 12 23 13 123

or 3

Overtone Series

Pitch Tendencies (partials + valves)



7th Partial Usage

7, 14 = Very Flat

7th partial = very flat
 123 valve combo = v. sharp
 Overall pitch = OK

OPEN 2 1 12 or 3 23 13 123

Overtone Series Part 4

TRUMPET RELATED TO OTHER BRASS

Overtone Series

B.C. Baritone to Trumpet



12 OPEN

Go up Major 9th,
then think trumpet fingerings

Overtone Series

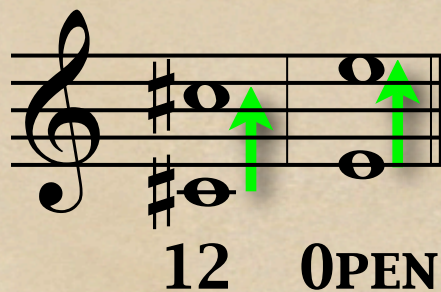
Tuba to Trumpet



Go up two Octaves + Major 2nd,
then think trumpet fingerings

Overtone Series

Horn (F side) to Trumpet



Go up Octave,
then think trumpet fingerings

Overtone Series

Horn (Bb side) to Trumpet



OPEN 12

Go up perfect 5th,
then think trumpet fingerings

Overtone Series

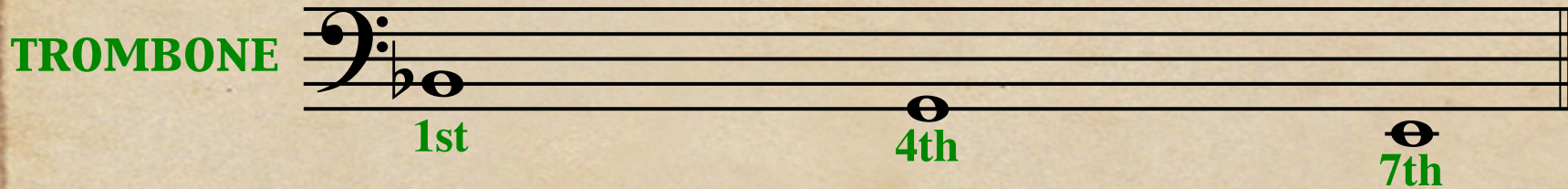
Trombone & Trumpet Relationship

The image displays two musical staves illustrating the overtone series for Trombone and Trumpet. The Trombone staff is in bass clef, and the Trumpet staff is in treble clef. Both staves are in a key signature of one flat (B-flat major / F minor). The notes are half notes with stems pointing up. The Trombone staff notes are labeled '1st' through '7th' in green. The Trumpet staff notes are labeled 'open', '2', '1', '12 or 3', '23', '13', and '123' in yellow. A brace on the left groups the two staves together.

Instrument	1st	2nd	3rd	4th	5th	6th	7th
Trombone	B \flat	D \flat	F	A \flat	C	E \flat	G
Trumpet	B \flat	D \flat	F	A \flat	C	E \flat	G

Overtone Series

Trombone Positions (1-4-7)



Overtone Series

Trombone Positions (1-4-7)

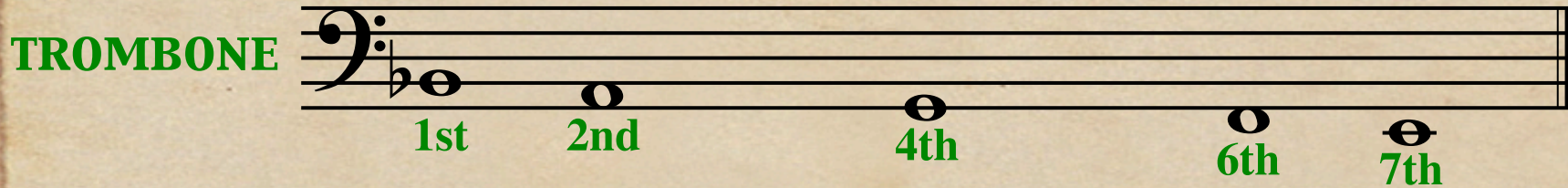
TROMBONE

A musical staff in bass clef with a key signature of one flat (B-flat). The staff contains five notes, each labeled with a position number in green text below it. The notes are: 1st (B-flat), 3rd (D), 4th (E-flat), 5th (F), and 7th (G). The notes are positioned on the staff as follows: 1st is on the first space (B-flat), 3rd is on the second space (D), 4th is on the second line (E-flat), 5th is on the third space (F), and 7th is on the fourth space (G). The staff ends with a double bar line.

1st 3rd 4th 5th 7th

Overtone Series

Trombone Positions (1-4-7)



The Overtone Series

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