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THE  
IVAN GALAMIAN  
SCALE SYSTEM  
FOR  
VIOLONCELLO

Part I: Scale and Arpeggio Exercises

with

Part II: Bowing and Rhythm Patterns

ARRANGED AND EDITED

BY

HANS JØRGEN JENSEN

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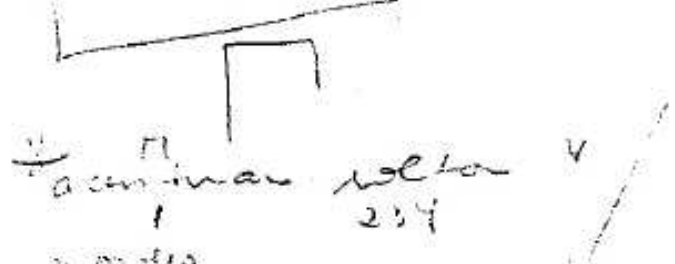
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## THE IVAN GALAMIAN SCALE SYSTEM FOR VIOLONCELLO

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*\* Corradini*

*add. late 12*  
*add. to plate 21/13*



V

*\* m... ben...  
diminu a velocid... do  
arco p/ musca*

*accinuar solto*  
*1*  
*234*  
*moder.*

### INTRODUCTION TO THE VIOLONCELLO EDITION

*in...  
mailador...  
e transfer...  
transiente*

As a student of Leonard Rose at the Juilliard School of Music I was first introduced to some of Ivan Galamian's principles of string playing. One of the great cellists and pedagogues of this century, Mr. Rose was very much influenced by Mr. Galamian's teaching. During the summers from 1953 until 1966 Rose taught together with Galamian at the Meadowmount School of Music, which Galamian founded. Over the past 15 years I have used the Galamian scale system as an integral part of my own teaching method and I have always felt that there was a strong need to formally adapt this method to the violoncello.

The Galamian scale system is not only a great aid in developing agility and control in the left hand, but is also an invaluable tool for building important basic skills of the bow arm and in developing coordination between the hands. Scale and arpeggio practice is important on all string instruments for the development of strong mental images and a solid physical, tactile sense of fingerboard spacing. Although one can study this book in many different ways it is most effective to practice each chapter in its entirety to gain a clear understanding of the fingering concepts presented. Wherever possible, fingerings have been organized so that they are consistent within each chapter. Once a particular fingering system is understood, keys in any given chapter can be learned in any order. In addition, each individual player should take the time to explore his or her own fingerings since no two people are alike.

Most of Galamian's violin method is very easily adapted to the cello. Chapters 10 through 13 (Scales and Arpeggios in One Position), however, offer the greatest technical challenge to cellists due to the large handshapes and stretches presented. These four chapters can be very helpful in developing the use of the thumb in the low as well as in the high registers. It is nevertheless important to keep in mind that sustained stretching and extending of the hand can be very harmful. Practice chapters 10 through 13 very carefully, always releasing tensions caused through stretching by relaxing the hand immediately after extending it. If any pain or discomfort is felt, stop immediately and rest the hand for a few minutes before continuing.

Read and study the Preface by Ivan Galamian and Frederick Neumann very carefully in order to fully understand the system of bowings and rhythm patterns. The rhythm and bowing patterns can be employed in a great variety of ways and should be customized to suit each individual player's particular needs.

Including the Galamian scale system as an important part of one's daily practice routine will help develop a sound technical foundation. In order to play scales and arpeggios well it is necessary to have complete control in three areas: the spacing of the hand within one position, the lifting and dropping motion of the fingers, and finally, shifting. There are many fine exercise books by such cellists as Cossmann, Klengel, Feuillard and Starker which are devoted to developing those skills. Those books are all very useful companions to the Galamian scale system.



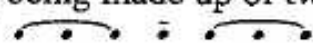
My deepest gratitude and special thanks is given to cellist Edward Goldsmith for his invaluable suggestions and help in proofreading. Thanks also go to cellists Charles Jacot and Andrew Talle for their constructive suggestions. I would also like to thank my cello students at Northwestern University for their helpful comments.

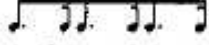

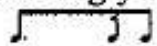
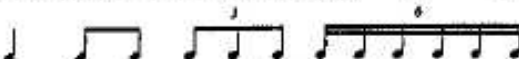
Hans Jørgen Jensen  
Northwestern University 1994

## PREFACE

Scales and arpeggios are in the Galamian Scale System integrated in an entirely new way with a system of bowing and rhythm patterns. By application to the exercises, the patterns are designed to help the student derive greater and quicker benefit from his scale and arpeggio practice.

Since technical mastery depends more upon control of mind over muscle than upon mere agility of fingers, the direct way to such mastery lies through working procedures which present a constant challenge to the student's thinking processes. For this reason new problems must always be faced and solved. To provide such new problems in almost inexhaustible supply is the chief purpose of these patterns.

The patterns are in two categories: Bowings (designated by B) and Rhythms (designated by R). Each category is divided into sections, coded B1 to B16 for bowings, and R1 to R16 for rhythms. The numbers indicate the number of notes in each pattern. For example, the following bowing pattern  is regarded as a two-note pattern, being made up of two-note components  and is therefore listed under B2. The design  is a four-note pattern and appears under B4.


The same principle applies to the Rhythms. The following example  derives from the two-note rhythmical figure . Accordingly it is referred to as a two-note rhythm pattern and is listed under R2. The figure  is a three-note pattern (R3). The figure  is a twelve-note pattern (R12).

The following illustrations derived from Chapter 4, will demonstrate the method of combining the exercises with the patterns. The applicable patterns are:



B1, B2, B3, B4, B6, and B12  
R1, R2, R3, R4, R6, and B12



First Primary pattern: 




Example of exercise: 




Application of its first primary pattern: 

\*The guiding idea of this integration is explained in Ivan Galamian's book, *Principles of Violin Playing and Teaching*, Prentice-Hall, Inc., Englewood Cliffs, New Jersey, 1962.

Application of B3, 2)  with first primary pattern: 

Application of R2, 1)  a) *detache* b) *legato* 

Combined with B3, 2)  and R2, 1)  

Combined with B4, 3)  and R12, 8)   


At the head of each chapter in this scale book B and R code numbers are listed to indicate the applicable patterns. Primary patterns in which the exercise should first be practiced are also given.

All three-note patterns can be applied to any exercise employing groups of three notes or any of their multiples. In an eight-note exercise, all patterns of B1, B2, B4 and B8 can be combined with all patterns of R1, R2, R4 and R8. In twelve-note exercises, all B and R patterns of 1, 2, 3, 4, 6 and 12 can be combined. This versatility of application permits a single pattern to be used for several different exercises. Innumerable combinations of B and R patterns can be utilized, as well.

To facilitate the use of various bowings, rhythms and their combinations, all note-heads in the exercises are printed without stems. Bowing patterns are shown by note-heads which do not indicate any specific time value, meter or rhythm. Rhythm patterns are presented without any indications for specific bowings.

The teacher will be the best judge of which bowings, rhythms and their combinations will most usefully serve the needs of each student. It is suggested that the patterns be utilized in a diversified fashion and that the rhythms and bowings be employed in constantly changing combinations to stimulate continuous interest.

We hope this approach to the problems of contemporary cello technique will provide interesting and profitable results for both teacher and student.

Ivan Galamian

Frederick Neumann

Additions and Changes to the Violoncello Edition  
from the Original Version of  
Contemporary Violin Technique  
By Ivan Galamian and Frederick Neumann

The Violoncello Edition has been organized into a format more suitable for the cello. The following changes have therefore been necessary:

1. Chapters 1, 2 and 3 have been added in order to give less experienced players an introduction to scale and arpeggio study. The keys in these chapters have been arranged in the order of the circle of fifths so as to provide a basic understanding of key relationships for the younger player. This will serve as a preparation for learning the three and four octave studies in subsequent chapters.
2. Chapter 5, *Broken Thirds in Three-Octaves* and Chapter 8, *Chromatic Scales in Four-Octaves* have been added in an effort to make this book more comprehensive.
3. Chapter 9, *Four-Octave Arpeggios* has been expanded from the original four to include eight arpeggios in each key. Unlike the original violin version however, the cello edition includes the fifth scale degree in all diminished seventh and dominant seventh chords. As a result these arpeggios contain sixteen notes rather than the usual twelve notes found in the other chords. The addition of the fifth scale degree also applies in Chapter 6, *Three-Octave Arpeggios*.

The Violoncello Edition has been organized into six (6) broad sections — Two-Octave Studies, Three-Octave Studies, Four-Octave Studies, Studies in One Position, Studies on One String and Unusual Scales and Arpeggios.

# 1 Scales in Two Octaves

Groups of eight notes. PATTERNS: *B1, B2, B4, B8, B16*  
*R1, R2, R4, R8, R16*

Primary Patterns:



Two octave scales should also be studied as acceleration exercises 2, 4, 8, 16 and 32 notes to the bow. For an explanation of acceleration exercises please turn to page 11.

C Major



A Melodic Minor



F Major



D Melodic Minor



B-Flat Major



G Melodic Minor





E-Flat Major

2 0 4 2 4 0 1 2 | 4 0 1 2 1 2 4 1 | 3 4 3 1 4 2 1 2 | 1 0 4 2 1 0 4 2 |

1 4 2 1 2 0 | 0 2 1 0 1 2 4 0 | 1 3 4 0 1 2 4 1 | 3 4 2 1 4 2 1 0 | 4 2 1 0 4 2 1 0 |

C Melodic Minor

0 2 1 0 1 2 4 0 | 1 3 4 0 1 2 4 1 | 3 4 2 1 4 2 1 0 | 4 2 1 0 4 2 1 0 |

A-Flat Major

1 4 2 1 2 4 1 2 | 4 1 2 4 1 2 4 1 | 3 4 3 1 4 2 1 4 | 2 1 4 2 1 4 2 1 |

F Melodic Minor

1 4 3 1 3 4 1 2 | 4 1 2 4 1 2 4 1 | 3 4 2 1 4 2 1 4 | 2 1 4 3 1 4 3 1 |

D-Flat Major

1 4 2 1 2 4 1 2 | 4 1 2 4 1 2 4 1 | 3 4 3 1 4 2 1 4 | 2 1 4 2 1 4 2 1 |

I II

B-Flat Melodic Minor

1 4 3 1 3 4 1 2 | 4 0 1 2 1 2 4 1 | 2 3 2 1 4 2 1 4 | 2 1 4 3 1 4 3 1 |

G-Flat Major

1 4 2 1 2 4 1 2 | 4 1 2 4 1 2 4 1 | 3 4 3 1 4 2 1 4 | 2 1 4 2 1 4 2 1 |

I

E-Flat Melodic Minor

1 4 3 1 3 4 1 2 | 4 0 1 2 1 2 4 1 | 3 4 2 1 4 2 1 4 | 2 1 4 3 1 4 3 1 |

B Major

1 4 2 1 2 4 1 2 | 4 1 2 4 1 2 4 1 | 2 3 2 1 4 2 1 4 | 2 1 4 2 1 4 2 1 |

I I

G-Sharp Melodic Minor

E Major

C-Sharp Melodic Minor

A Major

F-Sharp Melodic Minor

D Major

B Melodic Minor

G Major

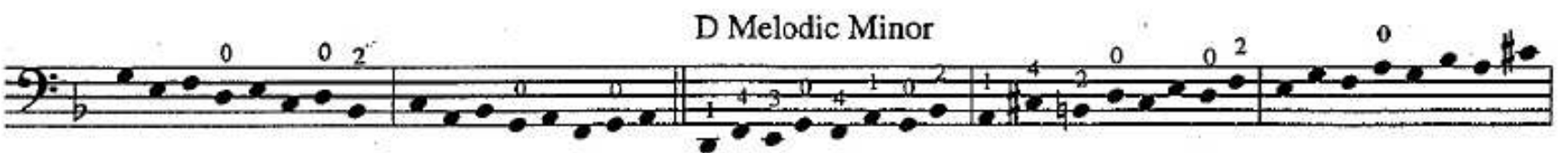
E Melodic Minor

# 2

## Broken Thirds In Two Octaves

Groups of eight notes. PATTERNS: *B1, B2, B4, B8*  
*R1, R2, R4, R8*

Primary Patterns:



B-Flat Major

Handwritten musical notation for B-Flat Major, featuring a bass clef, a key signature of two flats, and a series of notes with fingerings (0, 2, 0, 0, 2, 0, 0, 2, 2, 1, 4, 2, 2, 1, 3, 2, 2, 1, 3, 2, 2, 3, 1, 2, 2, 4, 1, 2, 2, 4, 1).

G Melodic Minor

Handwritten musical notation for G Melodic Minor, featuring a bass clef, a key signature of one flat, and a series of notes with fingerings (0, 0, 0, 0, 0, 0, 2, 0, 0, 3, 0, 0, 2, 2, 1, 4).

E-Flat Major

Handwritten musical notation for E-Flat Major, featuring a bass clef, a key signature of three flats, and a series of notes with fingerings (2, 0, 0, 0, 0, 2, 2, 1, 4, 2, 2, 1, 4, 2, 2, 1, 4, 2, 2, 4, 1, 2, 2, 4, 1, 2, 2, 4, 1).

C Melodic Minor

Handwritten musical notation for C Melodic Minor, featuring a bass clef, a key signature of no sharps or flats, and a series of notes with fingerings (0, 0, 0, 0, 0, 0, 3, 0, 0, 2, 2, 1, 4).

A-Flat Major

Handwritten musical notation for A-Flat Major, featuring a bass clef, a key signature of four flats, and a series of notes with fingerings (1, 2, 1, 3, 2, 2, 1, 4, 2, 2, 1, 3, 2, 2, 1, 4, 2, 2, 1, 4, 2, 2, 1, 4, 2, 2, 1, 3, 2, 2, 4, 1, 2, 2, 4, 1, 2, 2, 4, 1).

F Melodic Minor

Handwritten musical notation for F Melodic Minor, featuring a bass clef, a key signature of one flat, and a series of notes with fingerings (2, 2, 3, 2, 2, 4, 1, 2, 2, 3, 1, 2, 4, 4, 2, 1, 4, 2, 2, 1, 3, 2, 2, 1, 3, 2, 2, 1, 3, 2, 2, 1, 4, 2, 2, 1, 4).

D-Flat Major

3 1 4 3 III II I

B-Flat Melodic Minor

3 4 1 3 II I

3 4 1 3 I II

F-Sharp Major

4 3 1 4 3 III II I

D-Sharp Melodic Minor

3 4 1 3 III IV III II

II III IV

B Major

3 1 4 3 III II I

G-Sharp Melodic Minor

3 4 1 3 II I

I II



G Major

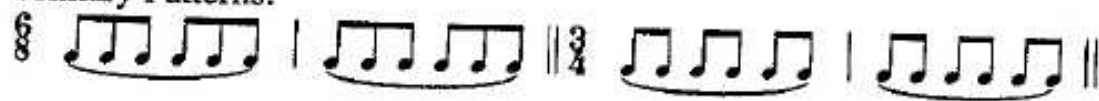
E Melodic Minor

# 3

## Arpeggios In Two Octaves

Groups of six notes. PATTERNS: *B1, B2, B3, B6*  
*R1, R2, R3, R6*

Primary Patterns:



Arpeggios in two octaves for the following keys:

- C Major**:  $\underline{C4} \underline{D4} E4 F4 G4 A4$  |  $\underline{C5} \underline{D5} E5 F5 G5 A5$
- A Minor**:  $\underline{A3} \underline{B3} C4 D4 E4 F4$  |  $\underline{A4} \underline{B4} C5 D5 E5 F5$
- F Major**:  $\underline{F3} \underline{G3} A3 B3 C4$  |  $\underline{F4} \underline{G4} A4 B4 C5$
- D Minor**:  $\underline{D3} \underline{E3} F3 G3 A3 B3$  |  $\underline{D4} \underline{E4} F4 G4 A4 B4$
- B-Flat Major**:  $\underline{Bb3} \underline{Cb3} D3 Eb3 F3 G3$  |  $\underline{Bb4} \underline{Cb4} D4 Eb4 F4 G4$
- G Minor**:  $\underline{G3} \underline{Ab3} Bb3 C4 D4 Eb4$  |  $\underline{G4} \underline{Ab4} Bb4 C5 D5 Eb5$
- E-Flat Major**:  $\underline{Eb3} \underline{Fb3} G3 Ab3 Bb3 C4$  |  $\underline{Eb4} \underline{Fb4} G4 Ab4 Bb4 C5$
- C Minor**:  $\underline{C3} \underline{Db3} Eb3 F3 G3 Ab3$  |  $\underline{C4} \underline{Db4} Eb4 F4 G4 Ab4$



A-Flat Major 4 2 1 3 2 3 1 2 4 1 F Minor 2 1 4 2 4 1 2

D-Flat Major 4 1 4 2 4 1 4 B-Flat Minor 1 3 2 3 1 2 4 1

F-Sharp Major 2 1 4 2 4 1 2 D-Sharp Minor 4 2 4 1 4

B Major 4 1 4 2 1 3 2 3 1 2 4 1 G-Sharp Minor 1 3 2 3 1 2 4 1

IV

E Major 4 1 4 2 4 1 4 C-Sharp Minor 4 2 4 1 4

A Major 4 2 1 3 2 3 1 2 4 1 F-Sharp Minor 1 4 2 4 1 2 4 1

D Major 4 1 4 2 4 1 4 B Minor 4 2 1 3 2 3 1 2 4 1

G Major 4 2 1 3 2 3 1 2 4 1 E Minor 4 1 4 2 4 1 4



f metronomo = manus



= metronomo regular  
funcion

$\text{♩} = 43$

# 4

## Three-Octave Scales

*mudanza de posición*

Groups of twelve notes. PATTERNS: *B1, B2, B3, B4, B6, B12*  
*R1, R2, R3, R4, R6, R12*

*instantánea!*

Primary Patterns:



In addition to these patterns, practice all three-octave scales with the *Acceleration Exercise* as shown in the following example. Make sure the value of the quarter note remains the same throughout. Choose a slow tempo at first ( $\text{♩} = 50-60$ ), then gradually increase it. The exercise may also be practiced in reverse as a *Retardation Exercise* by starting at the end with the thirty-second notes and finishing with the quarter notes.



Note: Please look at page 19 for alternate fingering systems for the three octave scales.

C Major

Two staves of musical notation for the C Major scale. The bass staff shows the scale from C2 to C4 with fingerings: 0, 3, 1, 0, 1, 0, 1, 0, 1. The treble staff shows the scale from C4 to C5 with fingerings: 1, 3, 1, 2, 1, (2), 3, 2, 1, 2, 1.

C Melodic Minor

Two staves of musical notation for the C Melodic Minor scale. The bass staff shows the scale from C2 to C4 with fingerings: 0, 2, 1, 0, 1, 0, 1, 0, 1. The treble staff shows the scale from C4 to C5 with fingerings: 3, 4, 2, 3, 1, (2), 2, 0, 4, 0, 4.

C Harmonic Minor

Two staves of musical notation for the C Harmonic Minor scale. The bass staff shows the scale from C2 to C4 with fingerings: 0, 2, 1, 0, 1, 4, 1, 0, 1. The treble staff shows the scale from C4 to C5 with fingerings: 3, 4, 2, 2, 1, 2, 4, 4, 1, 0, 4.

D-Flat Major

Two staves of musical notation for the D-Flat Major scale. The bass staff shows the scale from D2 to D4 with fingerings: 1, 4, 2, 1, 1, 1, 3, 1. The treble staff shows the scale from D4 to D5 with fingerings: 3, 2, (2), 4, 4, 4, 4, 4.

C-Sharp Melodic Minor

Two staves of musical notation for the C-Sharp Melodic Minor scale. The bass staff shows the scale from C2 to C4 with fingerings: 1, 4, 3, 1, 1, 1, 1, 1. The treble staff shows the scale from C4 to C5 with fingerings: 3, 2, 2, 1, 2, (3), 2, 0, 4, 4, 4.

Note: The lower fingering in the harmonic minor keys avoids the large stretch between the 6th and 7th degree of the scale. This fingerings is more suitable for cellists with smaller hands.

C-Sharp Harmonic Minor

Two staves of musical notation for the C-Sharp Harmonic Minor scale. The bass staff (left) shows the scale descending from C#5 to C#1 with fingerings 1, 4, 3, 2, 1, 4, 3, 2, 1, 4, 3, 2, 1. The treble staff (right) shows the scale ascending from C#1 to C#5 with fingerings 1, 2, 4, 1, 1, 2, 4, 1, 1. A circled '2' is above the final note in the treble staff.

D Major

Two staves of musical notation for the D Major scale. The bass staff (left) shows the scale descending from D5 to D1 with fingerings 1, 4, 3, 2, 1, 4, 3, 2, 1, 4, 3, 2, 1. The treble staff (right) shows the scale ascending from D1 to D5 with fingerings 1, 2, 4, 1, 1, 2, 4, 1, 1. A circled '2' is above the final note in the treble staff.

D Melodic Minor

Two staves of musical notation for the D Melodic Minor scale. The bass staff (left) shows the scale descending from D5 to D1 with fingerings 1, 4, 3, 2, 1, 4, 3, 2, 1, 4, 3, 2, 1. The treble staff (right) shows the scale ascending from D1 to D5 with fingerings 1, 2, 4, 1, 1, 2, 4, 1, 1. A circled '2' is above the final note in the treble staff.

D Harmonic Minor

Two staves of musical notation for the D Harmonic Minor scale. The bass staff (left) shows the scale descending from D5 to D1 with fingerings 1, 4, 3, 2, 1, 4, 3, 2, 1, 4, 3, 2, 1. The treble staff (right) shows the scale ascending from D1 to D5 with fingerings 1, 2, 4, 1, 1, 2, 4, 1, 1. A circled '2' is above the final note in the treble staff.

E-Flat Major

Two staves of musical notation for the E-Flat Major scale. The bass staff (left) shows the scale descending from E♭5 to E♭1 with fingerings 1, 4, 3, 2, 1, 4, 3, 2, 1, 4, 3, 2, 1. The treble staff (right) shows the scale ascending from E♭1 to E♭5 with fingerings 1, 2, 4, 1, 1, 2, 4, 1, 1. A circled '2' is above the final note in the treble staff.

E-Flat Melodic Minor

Two staves of musical notation for the E-flat Melodic Minor scale. The bass staff shows the ascending scale with fingerings 1, 2, 4, 1, 1. The treble staff shows the descending scale with fingerings 3, 2, 2, 4, 4, 4.

E-Flat Harmonic Minor

Two staves of musical notation for the E-flat Harmonic Minor scale. The bass staff shows the ascending scale with fingerings 1, 2, 4, 1, 1. The treble staff shows the descending scale with fingerings 3, 2, 2, 4, 4, 4.

E Major

Two staves of musical notation for the E Major scale. The bass staff shows the ascending scale with fingerings 1, 4, 2, 1, 1. The treble staff shows the descending scale with fingerings 3, 2, (3), 4, 4, 4.

E Melodic Minor

Two staves of musical notation for the E Melodic Minor scale. The bass staff shows the ascending scale with fingerings (0), 1, 1, 1. The treble staff shows the descending scale with fingerings 3, 2, 2, 4, 4, 4.

E Harmonic Minor

Two staves of musical notation for the E Harmonic Minor scale. The bass staff shows the ascending scale with fingerings (0), 1, 1, 1. The treble staff shows the descending scale with fingerings 3, 2, 2, 4, 4, 4.

*Primo*  
*3224 0507*  
*Aug*

*Assistent*  
*3224 0507*  
*Aug*

F Major

F Melodic Minor

F Harmonic Minor

F-Sharp Major

F-Sharp Melodic Minor

F-Sharp Harmonic Minor

First system of musical notation for F-Sharp Harmonic Minor. It consists of a bass staff and a treble staff. The bass staff has a key signature of two sharps (F# and C#) and a 4/4 time signature. The treble staff has a key signature of two sharps and a 4/4 time signature. Fingerings are indicated by numbers 0-4 above or below notes.

Second system of musical notation for F-Sharp Harmonic Minor. It consists of a treble staff and a bass staff. The treble staff has a key signature of two sharps and a 4/4 time signature. The bass staff has a key signature of two sharps and a 4/4 time signature. Fingerings are indicated by numbers 0-4 above or below notes.

G Major

First system of musical notation for G Major. It consists of a bass staff and a treble staff. The bass staff has a key signature of one sharp (F#) and a 4/4 time signature. The treble staff has a key signature of one sharp and a 4/4 time signature. Fingerings are indicated by numbers 0-4 above or below notes.

Second system of musical notation for G Major. It consists of a treble staff and a bass staff. The treble staff has a key signature of one sharp and a 4/4 time signature. The bass staff has a key signature of one sharp and a 4/4 time signature. Fingerings are indicated by numbers 0-4 above or below notes.

G Melodic Minor

First system of musical notation for G Melodic Minor. It consists of a bass staff and a treble staff. The bass staff has a key signature of two flats (Bb and Eb) and a 4/4 time signature. The treble staff has a key signature of two flats and a 4/4 time signature. Fingerings are indicated by numbers 0-4 above or below notes.

Second system of musical notation for G Melodic Minor. It consists of a treble staff and a bass staff. The treble staff has a key signature of two flats and a 4/4 time signature. The bass staff has a key signature of two flats and a 4/4 time signature. Fingerings are indicated by numbers 0-4 above or below notes.

G Harmonic Minor

First system of musical notation for G Harmonic Minor. It consists of a bass staff and a treble staff. The bass staff has a key signature of two flats and a 4/4 time signature. The treble staff has a key signature of two flats and a 4/4 time signature. Fingerings are indicated by numbers 0-4 above or below notes.

Second system of musical notation for G Harmonic Minor. It consists of a treble staff and a bass staff. The treble staff has a key signature of two flats and a 4/4 time signature. The bass staff has a key signature of two flats and a 4/4 time signature. Fingerings are indicated by numbers 0-4 above or below notes.

A-Flat Major

First system of musical notation for A-Flat Major. It consists of a bass staff and a treble staff. The bass staff has a key signature of three flats (Bb, Eb, and Ab) and a 4/4 time signature. The treble staff has a key signature of three flats and a 4/4 time signature. Fingerings are indicated by numbers 0-4 above or below notes.

Second system of musical notation for A-Flat Major. It consists of a treble staff and a bass staff. The treble staff has a key signature of three flats and a 4/4 time signature. The bass staff has a key signature of three flats and a 4/4 time signature. Fingerings are indicated by numbers 0-4 above or below notes.

G-Sharp Melodic Minor

Musical notation for G-Sharp Melodic Minor scale, bass and treble clefs, with fingering numbers.

G-Sharp Harmonic Minor

Musical notation for G-Sharp Harmonic Minor scale, bass and treble clefs, with fingering numbers and Roman numerals.

A Major

Musical notation for A Major scale, bass and treble clefs, with fingering numbers and handwritten notes.

A Melodic Minor

Musical notation for A Melodic Minor scale, bass and treble clefs, with fingering numbers.

A Harmonic Minor

Musical notation for A Harmonic Minor scale, bass and treble clefs, with fingering numbers.



B-Flat Major

B-Flat Melodic Minor

B-Flat Harmonic Minor

B Major

B Melodic Minor

## B Harmonic Minor

The image shows the B Harmonic Minor scale in two systems. The first system shows the ascending scale with fingering: 4, 3, (0), 4, 1, 1, 4, 1, 2, 3, 1, 1, 1, 2. The second system shows the descending scale with fingering: 3, 2, 2, 3, 2, 1, 4, 2, 4, 4, (0), 4, 3, 1, 2.

### Alternate Fingering Systems for Three-Octave Scales.

The scale fingerings suggested previously in this chapter make use of open strings wherever possible. It is of utmost importance, however, to know and master a variety of fingerings.

Jean Louis Duport (1749-1819) was the first cellist and pedagogue to organize cello technique into a comprehensive and logical system. In his book, *Essay on Fingering the Violoncello*, Duport advocates two fingering systems which can be applied to all keys, both major and minor. To retain consistency throughout his fingering systems open strings are not used in any key (with the exception of those beginning on open C.)

#### Duport's System 1--Groups of three notes for the first two octaves.

Play groups of three notes from the beginning. In C and C-Sharp end the second octave with the 4th finger on the D-string. In D, E-Flat, E, F, F-Sharp, G, and A-Flat end the second octave with the 4th finger on the A-string. In A, B-Flat and B end the second octave with the 3rd finger on the A-string. The third octave in all keys employs the fingering 1-2-1-2-1-2-3.

#### Duport's System 2--Groups of three notes for all three octaves.

Play in groups of three notes from the beginning. In C and C-Sharp end the second octave with the 4th finger on the D-string. All other keys end the second octave on the D-string with the 3rd finger. The fingering for the third octave is 1-2-3 on the D-string and thumb-1-2-3 on the A-string. This fingering is excellent for developing the octave hand shape in the higher registers.

### Examples:

#### C Major

##### System 1:

The image shows the C Major scale in two systems. The first system shows the ascending scale with fingering: 1, 2, 3, 4, 1, 2, 3, 4, 1, 2, 3, 4, 1, 2, 3, 4. The second system shows the descending scale with fingering: 1, 2, 3, 4, 1, 2, 3, 4, 1, 2, 3, 4, 1, 2, 3, 4.

##### System 2:

The image shows the C Major scale in two systems. The first system shows the ascending scale with fingering: 3, 2, 1, 0, 3, 2, 1, 0, 3, 2, 1, 0, 3, 2, 1, 0. The second system shows the descending scale with fingering: 3, 2, 1, 0, 3, 2, 1, 0, 3, 2, 1, 0, 3, 2, 1, 0.

#### F-Sharp Melodic Minor

##### System 1:

The image shows the F-Sharp Melodic Minor scale in two systems. The first system shows the ascending scale with fingering: 1, 2, 3, 4, 1, 2, 3, 4, 1, 2, 3, 4, 1, 2, 3, 4. The second system shows the descending scale with fingering: 1, 2, 3, 4, 1, 2, 3, 4, 1, 2, 3, 4, 1, 2, 3, 4.

##### System 2:

The image shows the F-Sharp Melodic Minor scale in two systems. The first system shows the ascending scale with fingering: 3, 2, 1, 2, 1, 3, 2, 1, 2, 1, 3, 2, 1, 2, 1, 3. The second system shows the descending scale with fingering: 3, 2, 1, 2, 1, 3, 2, 1, 2, 1, 3, 2, 1, 2, 1, 3.

# 5

## Broken Thirds In Three Octaves

*♩ = 60*

Groups of eight notes. PATTERNS: *B1, B2, B4, B8*  
*R1, R2, R4, R8*

Primary Patterns:



C Major

A Melodic Minor

F Major

D Melodic Minor

First system of the D Melodic Minor scale in bass clef. The notes are D, E, F, G, A, B, C, D. Fingering: 1, 2, 3, 4, 1, 2, 3, 4.

Second system of the D Melodic Minor scale in bass clef. The notes are E, F, G, A, B, C, D, E. Fingering: 1, 2, 3, 4, 1, 2, 3, 4.

B-Flat Major

First system of the B-Flat Major scale in bass clef. The notes are Bb, C, D, Eb, F, G, Ab, Bb. Fingering: 1, 2, 3, 4, 1, 2, 3, 4.

Second system of the B-Flat Major scale in bass clef. The notes are C, D, Eb, F, G, Ab, Bb, C. Fingering: 1, 2, 3, 4, 1, 2, 3, 4.

G Melodic Minor

First system of the G Melodic Minor scale in bass clef. The notes are G, A, Bb, C, D, Eb, F, G. Fingering: 1, 2, 3, 4, 1, 2, 3, 4.

Second system of the G Melodic Minor scale in bass clef. The notes are A, Bb, C, D, Eb, F, G, A. Fingering: 1, 2, 3, 4, 1, 2, 3, 4.

E-Flat Major

First system of the E-Flat Major scale in bass clef. The notes are Eb, F, G, Ab, Bb, C, Db, Eb. Fingering: 1, 2, 3, 4, 1, 2, 3, 4.

Second system of the E-Flat Major scale in bass clef. The notes are F, G, Ab, Bb, C, Db, Eb, F. Fingering: 1, 2, 3, 4, 1, 2, 3, 4.

II

C Melodic Minor

I

II

A-Flat Major

II I

III II

F Melodic Minor

II I

III II

D-Flat Major

III II I

III II IV

B-Flat Melodic Minor

II I 3 1 4 3 II III

F-Sharp Major

III II I 3 1 4 3 III II III

D-Sharp Melodic Minor

III II I 1 4 3 3 1 4 3 II III IV

B Major

III II I 1 4 3 II III III II

G-Sharp Melodic Minor

E Major

C-Sharp Melodic Minor

A Major

**F-Sharp Melodic Minor**

III II I

III

**D Major**

**B Melodic Minor**

II I

II

**G Major**

**E Melodic Minor**

II II I

II III IV



# 6 Three-Octave Arpeggios

Groups of nine notes. PATTERNS: *B1, B3, B9*  
*R1, R3, R9*

Primary Patterns:



Key of C

**C Minor**      **Flat Submediant Six**

**Augmented**

**Relative Minor Six**      **Dominant Seventh of F**

**Subdominant Six-four**

**Minor Subdominant Six-Four**      **C with Four-three Suspension**

**C Major**

III II I

II III IV

**Note:** The Dominant Seventh Arpeggios contain twelve notes in each measure rather than nine like the other arpeggios. Adjust the bowings accordingly. For additional information and an explanation of the Three Octave Arpeggios please see page 38 at the end of this chapter.

Dominant Seventh of D-Flat

Musical notation for the Dominant Seventh of D-Flat chord. The notation is on a bass clef staff with a key signature of two flats (B-flat and E-flat). The notes are D-flat, F, A-flat, and C-flat. Fingerings are indicated by numbers 1-4 above the notes. A barre is shown at the 4th fret.

Key of D-Flat

D-Flat Minor

Flat Submediant Six

Musical notation for the D-Flat Minor scale and the Flat Submediant Six chord. The notation is on a bass clef staff with a key signature of two flats. The scale is shown in two directions. The Flat Submediant Six chord is shown with notes B-flat, D-flat, F, and A-flat. Fingerings and a barre are indicated.

Augmented

Musical notation for the Augmented chord. The notation is on a treble clef staff with a key signature of two flats. The notes are D-flat, F, and A-flat. Fingerings and a barre are indicated.

Relative Minor Six

Dominant Seventh of G-Flat

Musical notation for the Relative Minor Six chord and the Dominant Seventh of G-Flat chord. The notation is on a bass clef staff with a key signature of two flats. The Relative Minor Six chord is shown with notes B-flat, D-flat, F, and A-flat. The Dominant Seventh of G-Flat chord is shown with notes G-flat, B-flat, D-flat, and F. Fingerings and a barre are indicated.

Subdominant Six-four

Musical notation for the Subdominant Six-four chord. The notation is on a treble clef staff with a key signature of two flats. The notes are B-flat, D-flat, F, and A-flat. Fingerings and a barre are indicated.

Minor Subdominant Six-Four

D-Flat with Four-three Suspension

Musical notation for the Minor Subdominant Six-Four chord and the D-Flat with Four-three Suspension chord. The notation is on a bass clef staff with a key signature of two flats. The Minor Subdominant Six-Four chord is shown with notes B-flat, D-flat, F, and A-flat. The D-Flat with Four-three Suspension chord is shown with notes D-flat, F, and A-flat. Fingerings and a barre are indicated.

D-Flat Major

Musical notation for the D-Flat Major scale. The notation is on a treble clef staff with a key signature of two flats. The scale is shown in two directions. Fingerings and a barre are indicated.

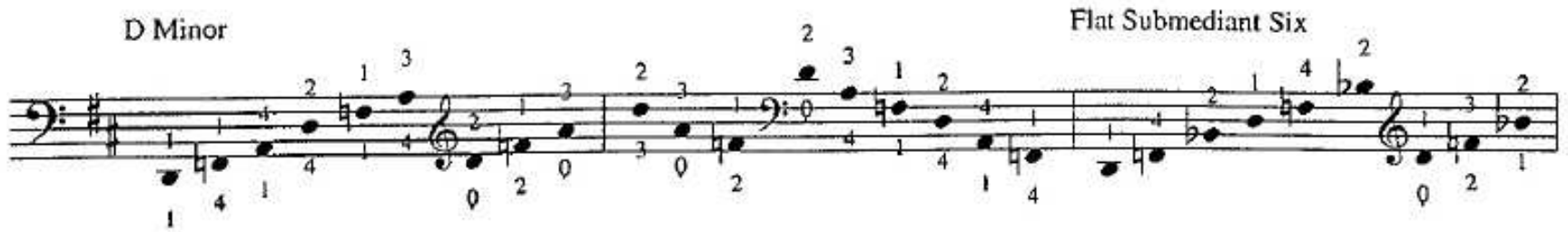
Dominant Seventh of D

Musical notation for the Dominant Seventh of D chord. The notation is on a bass clef staff with a key signature of two sharps (F-sharp and C-sharp). The notes are D, F-sharp, A, and C. Fingerings and a barre are indicated.

Key of D

D Minor

Flat Submediant Six

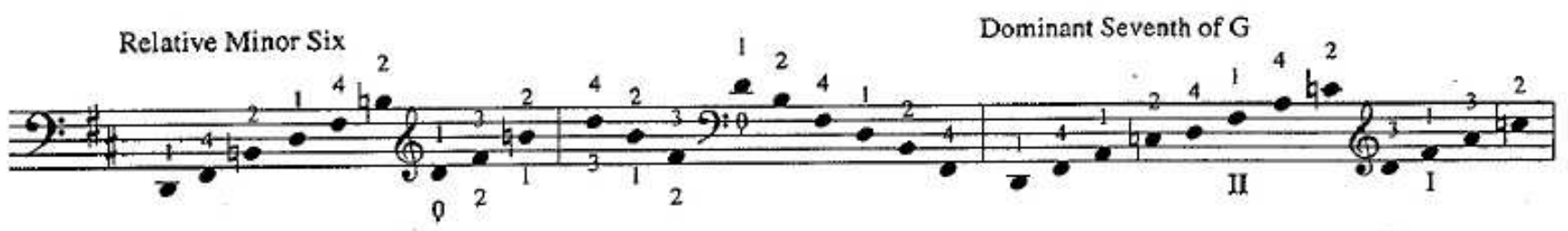


Augmented



Relative Minor Six

Dominant Seventh of G



Subdominant Six-four

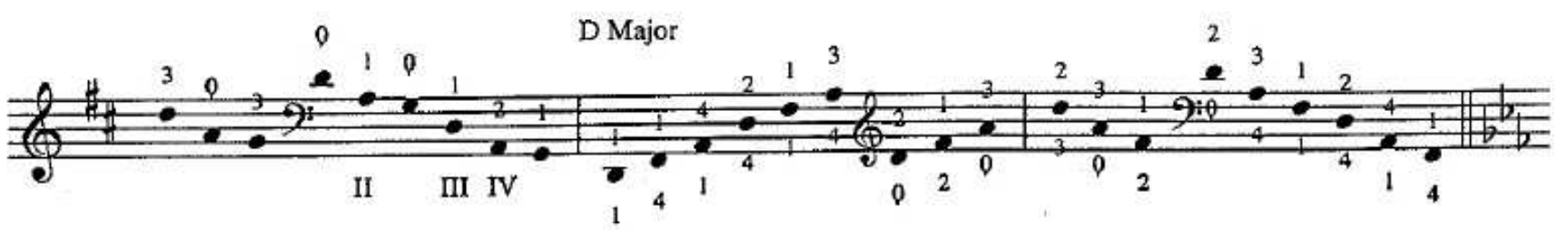


Minor Subdominant Six-four

D with Four-three Suspension



D Major



Dominant Seventh of E-Flat



Key of E-Flat

E-Flat Minor

Musical notation for the E-Flat Minor scale in bass clef. The scale is written across two staves. Fingerings are indicated by numbers 1-4 above or below notes. The notes are: E-flat, F, G, A-flat, B-flat, C, D, E-flat.

Flat Submediant Six

Musical notation for the Augmented scale in treble clef. The scale is written across two staves. Fingerings are indicated by numbers 1-4 above or below notes. The notes are: E-flat, F, G, A-flat, B-flat, C, D, E-flat, F-sharp, G-sharp, A-flat, B-flat, C, D, E-flat.

Augmented

Relative Minor Six

Musical notation for the Relative Minor Six scale in bass clef. The scale is written across two staves. Fingerings are indicated by numbers 1-4 above or below notes. The notes are: E-flat, F, G, A-flat, B-flat, C, D, E-flat, F, G, A-flat, B-flat, C, D, E-flat.

Dominant Seventh of A-Flat

Musical notation for the Subdominant Six-four scale in treble clef. The scale is written across two staves. Fingerings are indicated by numbers 1-4 above or below notes. The notes are: E-flat, F, G, A-flat, B-flat, C, D, E-flat, F, G, A-flat, B-flat, C, D, E-flat.

Subdominant Six-four

Minor Subdominant Six-four

Musical notation for the Minor Subdominant Six-four scale in bass clef. The scale is written across two staves. Fingerings are indicated by numbers 1-4 above or below notes. The notes are: E-flat, F, G, A-flat, B-flat, C, D, E-flat, F, G, A-flat, B-flat, C, D, E-flat.

E-Flat with Four-three Suspension

Musical notation for the E-Flat Major scale in treble clef. The scale is written across two staves. Fingerings are indicated by numbers 1-4 above or below notes. The notes are: E-flat, F, G, A-flat, B-flat, C, D, E-flat, F, G, A-flat, B-flat, C, D, E-flat. Roman numerals II, III, IV are shown below the first staff.

E-Flat Major

Dominant Seventh of E

Musical notation for the Dominant Seventh of E scale in bass clef. The scale is written across two staves. Fingerings are indicated by numbers 1-4 above or below notes. The notes are: E, F-sharp, G-sharp, A, B, C, D, E, F-sharp, G-sharp, A, B, C, D, E.

Key of E

E Minor

Flat Submediant Six

This block contains two guitar fretboard diagrams. The first diagram is for the E minor chord, showing the bass clef with notes G2, B2, and D3 on the 1st, 2nd, and 3rd strings. The second diagram is for the Flat Submediant Six chord (E-flat minor), showing the bass clef with notes G-flat2, B-flat2, and D-flat3 on the 1st, 2nd, and 3rd strings. Both diagrams include fingerings and string numbers.

Augmented

This block contains two guitar fretboard diagrams for the Augmented chord (E major with a raised third). The first diagram shows the treble clef with notes G4, B4, and D5 on the 1st, 2nd, and 3rd strings. The second diagram shows the bass clef with notes G2, B2, and D3 on the 1st, 2nd, and 3rd strings. Both diagrams include fingerings and string numbers.

Relative Minor Six

Dominant Seventh of A

This block contains two guitar fretboard diagrams. The first diagram is for the Relative Minor Six chord (E-flat major), showing the bass clef with notes G2, B-flat2, and D3 on the 1st, 2nd, and 3rd strings. The second diagram is for the Dominant Seventh of A chord (A7), showing the bass clef with notes C3, E3, G3, and B2 on the 1st, 2nd, 3rd, and 4th strings. Both diagrams include fingerings and string numbers.

Subdominant Six-four

This block contains two guitar fretboard diagrams for the Subdominant Six-four chord (E-flat major with a raised fourth). The first diagram shows the treble clef with notes G4, B4, and D5 on the 1st, 2nd, and 3rd strings. The second diagram shows the bass clef with notes G2, B2, and D3 on the 1st, 2nd, and 3rd strings. Both diagrams include fingerings and string numbers.

Minor Subdominant Six-four

E with Four-three Suspension

This block contains two guitar fretboard diagrams. The first diagram is for the Minor Subdominant Six-four chord (E-flat major with a raised fourth and lowered third), showing the bass clef with notes G2, B-flat2, and D3 on the 1st, 2nd, and 3rd strings. The second diagram is for the E with Four-three Suspension chord, showing the bass clef with notes G2, B2, and D3 on the 1st, 2nd, and 3rd strings. Both diagrams include fingerings and string numbers.

E Major

This block contains two guitar fretboard diagrams for the E major chord. The first diagram shows the treble clef with notes G4, B4, and D5 on the 1st, 2nd, and 3rd strings. The second diagram shows the bass clef with notes G2, B2, and D3 on the 1st, 2nd, and 3rd strings. Both diagrams include fingerings and string numbers.

Dominant Seventh of F

This block contains two guitar fretboard diagrams for the Dominant Seventh of F chord (F7). The first diagram shows the bass clef with notes A2, C3, E3, and G3 on the 1st, 2nd, 3rd, and 4th strings. The second diagram shows the bass clef with notes A2, C3, E3, and G3 on the 1st, 2nd, 3rd, and 4th strings. Both diagrams include fingerings and string numbers.

Key of F

F Minor

Flat Submediant Six

Musical notation for F Minor and Flat Submediant Six chords. The F Minor section is in bass clef, and the Flat Submediant Six section is in treble clef. Both include fingerings (1-4, 1-3, 2-3, 2-4, 3-4) and a capo position of 0.

Augmented

Musical notation for the Augmented chord in F Minor. It is in treble clef and includes fingerings (1-2, 1-3, 1-4, 2-3, 2-4, 3-4).

Relative Minor Six

Dominant Seventh of B-Flat

Musical notation for Relative Minor Six and Dominant Seventh of B-Flat chords. The Relative Minor Six section is in bass clef, and the Dominant Seventh of B-Flat section is in treble clef. Both include fingerings and a capo position of 0. Roman numerals IV, III, II, and I are indicated below the Dominant Seventh section.

Subdominant Six-four

Musical notation for the Subdominant Six-four chord in F Minor. It is in treble clef and includes fingerings (1-2, 1-3, 1-4, 2-3, 2-4, 3-4).

Minor Subdominant Six-four

F with Four-three Suspension

Musical notation for Minor Subdominant Six-four and F with Four-three Suspension chords. The Minor Subdominant Six-four section is in bass clef, and the F with Four-three Suspension section is in treble clef. Both include fingerings and a capo position of 0. Roman numerals IV, III, II, and I are indicated below the F with Four-three Suspension section.

F Major

Musical notation for the F Major chord in F Minor. It is in treble clef and includes fingerings (1-2, 1-3, 1-4, 2-3, 2-4, 3-4) and a capo position of 0. Roman numerals II, III, and IV are indicated below the chord.

Dominant Seventh of F-Sharp

Musical notation for the Dominant Seventh of F-Sharp chord in F Minor. It is in bass clef and includes fingerings (1-2, 1-3, 1-4, 2-3, 2-4, 3-4) and a capo position of 0.

Key of F-Sharp

F-Sharp Minor Flat Submediant Six

This block contains two staves of music. The first staff is in bass clef and shows the F-Sharp Minor scale and its first six frets. The second staff is in treble clef and shows the Flat Submediant Six chord (F#m6) and its first six frets. Fingering numbers are provided for each note.

Augmented

This block shows the Augmented chord (F#dim) in both bass and treble clefs. The notation includes the chord structure and its first six frets with fingering numbers.

Relative Minor Six Dominant Seventh of B

This block contains two staves. The first staff is in bass clef and shows the Relative Minor Six chord (F#m6) and its first six frets. The second staff is in treble clef and shows the Dominant Seventh of B chord (B7) and its first six frets. Roman numerals IV, III, II, and I are placed below the notes.

Subdominant Six-four

This block shows the Subdominant Six-four chord (F#m6/4) in both bass and treble clefs. The notation includes the chord structure and its first six frets with fingering numbers.

Minor Subdominant Six-four F-Sharp with Four-three Suspension

This block contains two staves. The first staff is in bass clef and shows the Minor Subdominant Six-four chord (F#m6/4) and its first six frets. The second staff is in treble clef and shows the F-Sharp with Four-three Suspension chord (F#sus4) and its first six frets. Roman numerals IV, III, II, and I are placed below the notes.

F-Sharp Major

This block shows the F-Sharp Major chord (F#) in both bass and treble clefs. The notation includes the chord structure and its first six frets with fingering numbers. Roman numerals II, III, and IV are placed below the notes.

Dominant Seventh of G

This block shows the Dominant Seventh of G chord (G7) in both bass and treble clefs. The notation includes the chord structure and its first six frets with fingering numbers.

Key of G

G Minor

Flat Submediant Six

Musical notation for the G Minor scale and Flat Submediant Six scale. The G Minor scale is shown in the bass clef, and the Flat Submediant Six scale is shown in the treble clef. Both scales include fingering numbers (1-4) and a capo position (0).

Augmented

Musical notation for the Augmented scale, shown in the treble clef. It includes fingering numbers (1-4) and a capo position (0).

Relative Minor Six

Dominant Seventh of C

Musical notation for the Relative Minor Six and Dominant Seventh of C scales. The Relative Minor Six scale is in the bass clef, and the Dominant Seventh of C scale is in the treble clef. The Dominant Seventh of C scale includes Roman numerals IV, III, II, and I.

Subdominant Six-four

Musical notation for the Subdominant Six-four scale, shown in the treble clef. It includes fingering numbers (1-4) and a capo position (0).

Minor Subdominant Six-four

G with Four-three Suspension

Musical notation for the Minor Subdominant Six-four and G with Four-three Suspension scales. The Minor Subdominant Six-four scale is in the bass clef, and the G with Four-three Suspension scale is in the treble clef. The G with Four-three Suspension scale includes Roman numerals IV, III, II, and I.

G Major

Musical notation for the G Major scale, shown in the treble clef. It includes Roman numerals II, III, and IV, and a capo position (0).

Dominant Seventh of A-Flat

Musical notation for the Dominant Seventh of A-Flat scale, shown in the bass clef. It includes a capo position (3).



Key of A-Flat

**A-Flat Minor** **Flat Submediant Six**

**Augmented**

**Relative Minor Six** **Dominant Seventh of D-Flat**

**Subdominant Six-four**

**Minor Subdominant Six-four** **A-Flat with Four-three Suspension**

**A-Flat Major**

**Dominant Seventh of A**

Key of A

A Minor III I Flat Submediant Six

IV III II I

Augmented

IV III II I

Relative Minor Six Dominant Seventh of D

IV III II I IV III II I

Subdominant Six-four

II III

Minor Subdominant Six-four A with Four-three Suspension

IV III II I

A Major

II III IV

Dominant Seventh of B-Flat

IV

Key of B-Flat

B-Flat Minor III IV III II I Flat Submediant Six

IV III II I

Augmented

IV III II I

Relative Minor Six Dominant Seventh of E-Flat

IV III II I IV III II I

Subdominant Six-four

II III

Minor Subdominant Six-four B-Flat with Four-three Suspension

IV III II I

B-Flat Major

II III IV I

Dominant Seventh of B

IV

Key of B

This page provides guitar chord diagrams for the key of B. Each diagram shows the chord name, its Roman numeral, and the specific fingerings for both the bass and treble clefs. The chords are arranged in seven rows, each containing two staves. The first row includes B Minor, Flat Submediant Six, and Augmented. The second row includes Relative Minor Six and Dominant Seventh of E. The third row includes Subdominant Six-four. The fourth row includes Minor Subdominant Six-four and B with Four-three Suspension. The fifth row includes B Major. The sixth row includes Dominant Seventh of C. The diagrams use numbers 1-4 for fingers and 'x' for muted strings. Roman numerals are placed below the staves to identify the chords.

**B Minor** (IV III II I)      **Flat Submediant Six** (IV III II I)      **Augmented** (IV III II I)

**Relative Minor Six** (IV III II I)      **Dominant Seventh of E** (IV III II I)

**Subdominant Six-four** (II III)

**Minor Subdominant Six-four**      **B with Four-three Suspension** (IV III II I)

**B Major** (II III IV)

**Dominant Seventh of C** (IV)

An explanation of fingerings for the Major and Minor Arpeggios in Chapter 6, "Three-Octave Arpeggios":

A) *Above the Staff*

The fingerings above the staff are the standard fingerings used for the Three-Octave Arpeggios. They are also very useful for the Four-Octave Arpeggios in Chapter 9. (These standard fingerings appear below the staff in the Four-Octave Arpeggios.). See page 55, "B) *Below the Staff*", in chapter 9 for further explanation.

B) *Below the Staff*

The fingerings below the staff utilize the thumb. It is important in modern cello playing to be able to shift effortlessly from the lower to the higher positions using the thumb.

In addition to the fingerings notated in this chapter, fingerings given in the examples below will work for all major and minor arpeggios in root position.

Examples:

D Major



F Minor



B Major



# 7

## Four-Octave Scales

Groups of eight notes. PATTERNS: *B1, B2, B4, B8*  
*R1, R2, R4, R8*

Primary Patterns:



C Major



C Harmonic Minor



C Melodic Minor



Note: Please look at page 48 for alternate fingering systems for the four octave scales.

C-Sharp Major

First system of C-Sharp Major scale: Bass clef, Treble clef. Fingering: 1, 1, 1, (2), 1, 1, 1, 3, 2. Includes a bar line and repeat sign.

Second system of C-Sharp Major scale: Treble clef, Bass clef. Fingering: 2, 3, 2, (2), 3, 4, 4, 4. Includes a bar line and repeat sign.

C-Sharp Harmonic Minor

First system of C-Sharp Harmonic Minor scale: Bass clef, Treble clef. Fingering: 1, 0, 1, 2, 4, 1, 1, 1, 3, 2. Includes a bar line and repeat sign.

Second system of C-Sharp Harmonic Minor scale: Treble clef, Bass clef. Fingering: 2, 3, 4, 4, 2, 1, 0, 4, 4. Includes a bar line and repeat sign.

C-Sharp Melodic Minor

First system of C-Sharp Melodic Minor scale: Bass clef, Treble clef. Fingering: 1, 1, 1, 1, 1, 1, 1, 3, 2. Includes a bar line and repeat sign.

Second system of C-Sharp Melodic Minor scale: Treble clef, Bass clef. Fingering: 2, 3, 2, 2, 2, 0, 4, 4. Includes a bar line and repeat sign.

D Major

First system of D Major scale: Bass clef, Treble clef. Fingering: 0, 1, 0, 1, (2), 1, 1, 1, 3, 2. Includes a bar line and repeat sign.

Second system of D Major scale: Treble clef, Bass clef. Fingering: 2, 3, 2, (2), 3, 4, 0, 4, 0, 4. Includes a bar line and repeat sign.



D Harmonic Minor

First system of musical notation for D Harmonic Minor. The bass staff (left) shows the descending scale with fingerings 1, 2, 3, 4, 1. The treble staff (right) shows the ascending scale with fingerings 1, 2, 3, 1, 1, 2, 3, 4, 1. A capo or barre symbol is placed above the first measure of the treble staff.

D Melodic Minor

First system of musical notation for D Melodic Minor. The bass staff (left) shows the descending scale with fingerings 1, 2, 3, 4, 1. The treble staff (right) shows the ascending scale with fingerings 1, 2, 3, 4, 1, 2, 3, 4, 1. A capo or barre symbol is placed above the first measure of the treble staff.

E-Flat Major

First system of musical notation for E-Flat Major. The bass staff (left) shows the descending scale with fingerings 1, 2, 4, 0, 1, 1, 2, 4. The treble staff (right) shows the ascending scale with fingerings 2, 1, 1, 1, 1, 3, 2. A triplet (3) is indicated over the first three notes of the treble staff.

E-Flat Harmonic Minor

First system of musical notation for E-Flat Harmonic Minor. The bass staff (left) shows the descending scale with fingerings 1, 2, 1, 3, 4, 1. The treble staff (right) shows the ascending scale with fingerings 1, 2, 3, 1, 1, 2, 3, 1, 1, 2, 3, 4, 1. A triplet (3) is indicated over the first three notes of the treble staff.







F-Sharp Harmonic Minor

0 1 3 4 1 2 3 1 1 1 3 2

2 3 2 2 3 2 4 3 2 4 3 2

F-Sharp Melodic Minor

0 1 3 4 1 2 3 1 1 1 3 2

2 3 2 2 3 2 4 3 2 4 3 2

G Major

0 1 2 3 4 1 2 3 1 1 1 3 2

2 3 2 2 3 2 4 3 2 4 3 2

G Harmonic Minor

0 1 4 1 2 3 1 1 1 3 2

2 3 2 2 3 2 4 3 2 4 3 2

G Melodic Minor

Bass clef staff showing the first two measures of the G Melodic Minor scale. The notes are G2, A2, B2, C3, D3, E3, F#3, G3. Fingering: 0, 1, 0, 1.

Treble clef staff showing the first two measures of the G Melodic Minor scale. The notes are G4, A4, B4, C5, D5, E5, F#5, G5. Fingering: 2, 3, 2, 2.

A-Flat Major

Bass clef staff showing the first two measures of the A-Flat Major scale. The notes are A2, Bb2, C3, D3, E3, F3, G3, Ab3. Fingering: 1, 1, (2 3), 1, 1.

Treble clef staff showing the first two measures of the A-Flat Major scale. The notes are A4, Bb4, C5, D5, E5, F5, G5, Ab5. Fingering: 2, 3, 2, 2, (3 2), 4, 4.

G-Sharp Harmonic Minor

Bass clef staff showing the first two measures of the G-Sharp Harmonic Minor scale. The notes are G2, A2, B2, C#3, D3, E3, F#3, G#3. Fingering: 1, 1, 2, 4, 1, 2, 3, I. Roman numerals: II, I.

Treble clef staff showing the first two measures of the G-Sharp Harmonic Minor scale. The notes are G4, A4, B4, C#5, D5, E5, F#5, G#5. Fingering: 2, 3, 2, 2, 4, 3, 1, 4, 2, 2, 4, 4. Roman numeral: II.

G-Sharp Melodic Minor

Bass clef staff showing the first two measures of the G-Sharp Melodic Minor scale. The notes are G2, A2, B2, C#3, D3, E3, F#3, G#3. Fingering: 1, 1, (2 3), 1, 1.

Treble clef staff showing the first two measures of the G-Sharp Melodic Minor scale. The notes are G4, A4, B4, C#5, D5, E5, F#5, G#5. Fingering: 2, 3, 2, 2, 4, 4.

A Major

First system of musical notation for the A Major scale in bass clef. The scale is written across two staves. The bass staff contains the notes A2, B2, C3, D3, E3, F#3, G#3, A3 with fingerings 0, 1, 3, 1, 3. The treble staff contains the notes A3, B3, C4, D4, E4, F#4, G#4, A4 with fingerings 1, 1, 1, 1, 1, 1, 1, 3, 2.

Second system of musical notation for the A Major scale in treble clef. The scale is written across two staves. The treble staff contains the notes A4, B4, C5, D5, E5, F#5, G#5, A5 with fingerings 2, 3, 2, 2, 3, 1, 3. The bass staff contains the notes A3, B3, C4, D4, E4, F#4, G#4, A4 with fingerings 2, 3, 4, 3, 1, 0, 4.

A Harmonic Minor

First system of musical notation for the A Harmonic Minor scale in bass clef. The scale is written across two staves. The bass staff contains the notes A2, B2, C3, D3, E3, F#3, G#3, A3 with fingerings 0, 1, 1, 2, 4. The treble staff contains the notes A3, B3, C4, D4, E4, F#4, G#4, A4 with fingerings 2, 3, 1, 1, 2, 3, 1, 1, 1, 3, 2.

Second system of musical notation for the A Harmonic Minor scale in treble clef. The scale is written across two staves. The treble staff contains the notes A4, B4, C5, D5, E5, F#5, G#5, A5 with fingerings 2, 3, 2, 2, 3, 2, 1, 4, 2. The bass staff contains the notes A3, B3, C4, D4, E4, F#4, G#4, A4 with fingerings 2, 2, 2, 3, 4, 2, 1, 0.

A Melodic Minor

First system of musical notation for the A Melodic Minor scale in bass clef. The scale is written across two staves. The bass staff contains the notes A2, B2, C3, D3, E3, F#3, G#3, A3 with fingerings 0, 1, 2, 1, 3. The treble staff contains the notes A3, B3, C4, D4, E4, F#4, G#4, A4 with fingerings 3, 1, 1, 1, 1, 1, 1, 3, 2.

Second system of musical notation for the A Melodic Minor scale in treble clef. The scale is written across two staves. The treble staff contains the notes A4, B4, C5, D5, E5, F#5, G#5, A5 with fingerings 2, 3, 2, 2, 3, 1, 0, 4. The bass staff contains the notes A3, B3, C4, D4, E4, F#4, G#4, A4 with fingerings 2, 1, 2, 1, 4, 2.

B-Flat Major

First system of musical notation for the B-Flat Major scale in bass clef. The scale is written across two staves. The bass staff contains the notes Bb2, C3, D3, Eb3, F3, G3, Ab3, Bb3 with fingerings 2, 4, 0, 1. The treble staff contains the notes Bb3, C4, D4, Eb4, F4, G4, Ab4, Bb4 with fingerings 1, 2, 4, 1, 1, 1, 1, 1, 1, 3, 2.

Second system of musical notation for the B-Flat Major scale in treble clef. The scale is written across two staves. The treble staff contains the notes Bb4, C5, D5, Eb5, F5, G5, Ab5, Bb5 with fingerings 2, 3, 2, 2, 3, 2, 0, 4. The bass staff contains the notes Bb3, C4, D4, Eb4, F4, G4, Ab4, Bb4 with fingerings 2, 3, 4, 2, 0, 4, 4, 2.

B-Flat Harmonic Minor

B-Flat Harmonic Minor scale, bass clef. The scale is written on a bass staff with a key signature of two flats (B-flat and E-flat). The notes are B-flat, C, D, E-flat, F, G, A, and B-flat. The scale is shown in both ascending and descending directions with fingering numbers (1-4) above the notes.

B-Flat Harmonic Minor scale, treble clef. The scale is written on a treble staff with a key signature of two flats (B-flat and E-flat). The notes are B-flat, C, D, E-flat, F, G, A, and B-flat. The scale is shown in both ascending and descending directions with fingering numbers (1-4) above the notes.

B-Flat Melodic Minor

B-Flat Melodic Minor scale, bass clef. The scale is written on a bass staff with a key signature of two flats (B-flat and E-flat). The notes are B-flat, C, D, E-flat, F, G, A, and B-flat. The scale is shown in both ascending and descending directions with fingering numbers (1-4) above the notes.

B-Flat Melodic Minor scale, treble clef. The scale is written on a treble staff with a key signature of two flats (B-flat and E-flat). The notes are B-flat, C, D, E-flat, F, G, A, and B-flat. The scale is shown in both ascending and descending directions with fingering numbers (1-4) above the notes.

B Major

B Major scale, bass clef. The scale is written on a bass staff with a key signature of two sharps (F-sharp and C-sharp). The notes are B, C, D, E, F-sharp, G, A, and B. The scale is shown in both ascending and descending directions with fingering numbers (1-4) above the notes.

B Major scale, treble clef. The scale is written on a treble staff with a key signature of two sharps (F-sharp and C-sharp). The notes are B, C, D, E, F-sharp, G, A, and B. The scale is shown in both ascending and descending directions with fingering numbers (1-4) above the notes.

B Harmonic Minor

B Harmonic Minor scale, bass clef. The scale is written on a bass staff with a key signature of two sharps (F-sharp and C-sharp). The notes are B, C, D, E, F-sharp, G, A, and B. The scale is shown in both ascending and descending directions with fingering numbers (1-4) above the notes.

B Harmonic Minor scale, treble clef. The scale is written on a treble staff with a key signature of two sharps (F-sharp and C-sharp). The notes are B, C, D, E, F-sharp, G, A, and B. The scale is shown in both ascending and descending directions with fingering numbers (1-4) above the notes.

B Melodic Minor

The image shows the B Melodic Minor scale in two systems. The first system is in bass clef, starting on the D string (B2) and ending on the D string (B4). The second system is in treble clef, starting on the D string (B4) and ending on the D string (B6). Fingerings are indicated by numbers 1-4 and 0 for open strings.

*Alternate Fingering Systems for Four-Octave Scales.*

In addition to the fingerings notated previously in this chapter there are two fingering systems shown in the examples below which can be applied to all four-octave scales, both major and minor. To retain consistency throughout these two systems open strings are not used in any key (with the exception of those beginning on open C.)

*System 1 -- Groups of three notes for the entire scale.*

The third note in the scale should be played with the first finger. Thereafter, play in groups of three notes.

*System 2 -- Groups of three notes for the first two octaves.*

Play in groups of three notes from the beginning. For the keys of C and C-Sharp end the second octave with the 4th finger on the D-string. For the keys of D, E-Flat, E, F, F-Sharp, G and A-Flat end the second octave with the 4th finger on the A-string. For the keys of A, B-Flat and B end the second octave with the 3rd finger on the A-string. The upper two octaves are always fingered 1 - 2 - 1 - 2 - 1 - 2 - 3.

Examples:

C Major

System 1:

System 1: Musical notation for C Major scale, System 1, showing two systems of fingering. The first system is in bass clef and the second in treble clef. Fingerings are indicated by numbers 1-4.

System 2:

D Major

System 1:

System 1: Musical notation for D Major scale, System 1, showing two systems of fingering. The first system is in bass clef and the second in treble clef. Fingerings are indicated by numbers 1-4.

System 2:

D Harmonic Minor

System 1:

System 1: Musical notation for D Harmonic Minor scale, System 1, showing two systems of fingering. The first system is in bass clef and the second in treble clef. Fingerings are indicated by numbers 1-4.

System 2:

D Melodic Minor

System 1:

System 1: Musical notation for D Melodic Minor scale, System 1, showing two systems of fingering. The first system is in bass clef and the second in treble clef. Fingerings are indicated by numbers 1-4.

System 2:

# 8

## Chromatic Scales in Four Octaves

Groups of twelve notes. PATTERNS: *B1, B2, B3, B4, B6, B12*  
*R1, R2, R3, R4, R6, R12*

Primary Patterns:



*Also slur two measures.*

C

The C major chromatic scale is presented in four octaves across four staves. The first two staves are in bass clef, and the last two are in treble clef. Each staff shows the ascending and descending chromatic scale with fingerings (0-3) and slurs. The notes are: C, C#, D, D#, E, E#, F, F#, G, G#, A, A#, B, B#, C.

C-Sharp / D-Flat

The C-Sharp / D-Flat chromatic scale is presented in four octaves across four staves. The first two staves are in bass clef, and the last two are in treble clef. Each staff shows the ascending and descending chromatic scale with fingerings (0-3) and slurs. The notes are: C#, C, D, D#, E, E#, F, F#, G, G#, A, A#, B, B#, C.



D

Bass clef staff showing the D major scale. Fingerings: (1 2) 2 3 1 2 3 0 1 2 3 1 2 3 0 1 2 3 1 2 3 0 1 2 3 1. Accents: #F, #C.

Treble clef staff showing the D major scale. Fingerings: 2 3 1 2 3 1 2 3 1 2 3 1 2 3 1 2 3 1 2 3 1 2 3 1. Accents: #F, #C.

Treble clef staff showing the D major scale with slurs and fingerings. Fingerings: 2 1 3 2 1 3 2 1 3 2 1 3 2 1 3 2 1 3 2 1 3 2 1 3 2 1. Accents: #F, #C.

Bass clef staff showing the D major scale with slurs and fingerings. Fingerings: 2 1 3 2 1 0 3 2 1 3 2 1 0 3 2 1 3 2 1 0 3 2 1 3 2 1. Accents: #F, #C.

E-Flat

Bass clef staff showing the E-flat major scale. Fingerings: (2) 3 1 2 3 0 1 2 3 1 2 3 0 1 2 3 1 2 3 0 1 2 3 1 2. Accents: #F, #C.

Treble clef staff showing the E-flat major scale. Fingerings: 3 1 2 3 1 2 3 1 2 3 1 2 3 1 2 3 1 2 3 1 2 3 1 2. Accents: #F, #C.

Treble clef staff showing the E-flat major scale with slurs and fingerings. Fingerings: 3 2 1 3 2 1 3 2 1 3 2 1 3 2 1 3 2 1 3 2 1 3 2 1. Accents: #F, #C.

Bass clef staff showing the E-flat major scale with slurs and fingerings. Fingerings: 3 2 1 3 2 1 0 3 2 1 3 2 1 0 3 2 1 3 2 1 0 3 2 1 3 2. Accents: #F, #C.



**E**

**F**

F-Sharp / G-Flat

The image displays a musical score for guitar, divided into two sections: F-Sharp / G-Flat and G. Each section consists of four staves: a bass clef staff, a treble clef staff, a second treble clef staff, and a third treble clef staff. The F-Sharp / G-Flat section includes various fingerings (0-3) and accidentals (sharps and flats) across the notes. The G section also includes fingerings and accidentals. The notation is presented in a standard musical format with a key signature of one sharp (F#) and a time signature of 3/4.



# G-Sharp / A-Flat

2 3 1 2 3 0 1 2 3 1 2 3 0 1 2 3 1 2 3

Fingerings: 2, 3, 1, 2, 3, 0, 1, 2, 3, 1, 2, 3, 0, 1, 2, 3, 1, 2, 3

2 3 1 2 3 1 2 3 1 2 3 1 2 3 1 2 3 1 2 3 1 2 3 1 2 3 1 2 3 1 2 3 1 2 3 1

Fingerings: 2, 3, 1, 2, 3, 1, 2, 3, 1, 2, 3, 1, 2, 3, 1, 2, 3, 1, 2, 3, 1, 2, 3, 1, 2, 3, 1, 2, 3, 1, 2, 3, 1

2 1 2 1 2 1 2 1 3 2 1 3 2 1 3 2 1 3 2 1 3 2 1 3 2 1 3 2 1 3 2 1 3 2 1 3 2 1 3

Fingerings: 2, 1, 2, 1, 2, 1, 2, 1, 3, 2, 1, 3, 2, 1, 3, 2, 1, 3, 2, 1, 3, 2, 1, 3, 2, 1, 3, 2, 1, 3, 2, 1, 3

3 2 1 0 3 2 1 3 2 1 0 3 2 1 3 2

Fingerings: 3, 2, 1, 0, 3, 2, 1, 3, 2, 1, 0, 3, 2, 1, 3, 2

A

(1 2) 2 3 0 1 2 3 1 2 3 0 1 2 3

Fingerings: (1, 2), 2, 3, 0, 1, 2, 3, 1, 2, 3, 0, 1, 2, 3

3 1 2 3 1 2 3 1 2 3 1 2 3 1 2 3 1 2 3 1 2 3 1 2 3 1 2 3 1 2 3 1 2 3 1 2 3 1 2 3 1

Fingerings: 3, 1, 2, 3, 1, 2, 3, 1, 2, 3, 1, 2, 3, 1, 2, 3, 1, 2, 3, 1, 2, 3, 1, 2, 3, 1, 2, 3, 1, 2, 3, 1, 2, 3, 1

3 2 1 2 1 2 1 2 1 3 2 1 3 2 1 3 2 1 3 2 1 3 2 1 3 2 1 3 2 1 3 2 1 3 2 1 3 2 1 3 2 1 3

Fingerings: 3, 2, 1, 2, 1, 2, 1, 2, 1, 3, 2, 1, 3, 2, 1, 3, 2, 1, 3, 2, 1, 3, 2, 1, 3, 2, 1, 3, 2, 1, 3, 2, 1, 3, 2, 1, 3

0 3 2 1 3 2 1 0 3 2 1 3 2 1 3 2 1 (2)

Fingerings: 0, 3, 2, 1, 3, 2, 1, 0, 3, 2, 1, 3, 2, 1, 3, 2, 1, (2)

B-Flat (Three Octave)

Musical notation for the B-Flat (Three Octave) exercise. It consists of three systems of two staves each. The first system shows the initial ascending and descending runs in both bass and treble clefs. The second system continues the ascending runs, with the treble clef staff including a four-fingered run (4 3 2 1) in the final measure. The third system shows the final descending runs, with the bass clef staff including a four-fingered run (1 0 3 2) in the final measure.

B (Three Octave)

Musical notation for the B (Three Octave) exercise. It consists of three systems of two staves each. The first system shows the initial ascending and descending runs in both bass and treble clefs. The second system continues the ascending runs, with the treble clef staff including a four-fingered run (2 1 3 2) in the final measure. The third system shows the final descending runs, with the bass clef staff including a four-fingered run (2 1 0 3) in the final measure.



## 9 Four-Octave Arpeggios

Groups of twelve notes. PATTERNS: *B1, B2, B3, B4, B6, B12*  
*R1, R2, R3, R4, R6, R12*

Primary Patterns:



*Four-octave arpeggios should also be studied as acceleration exercises. For arpeggios containing twelve notes use 2, 3, 6 and 12 notes to the bow. For arpeggios containing sixteen notes (Diminished Seventh and Dominant Seventh) use 2, 4, 8 and 16 notes to the bow. For an explanation of acceleration exercises please turn to page 11.*

*Explanation of Fingerings:*

I. The Major and Minor Arpeggios have two basic fingering systems notated :

A) *Above the Staff*

For the top octave two different fingerings are suggested: 1 - 3 - 1 - 3 and thumb - 1 - 2 - 3 . The second of these is notated only in the keys of C and D-Flat (pages 56 and 57) but should be used in all keys.

B) *Below the Staff (These fingerings are also used in Chapter 6, "Three Octave Arpeggios.")*

These fingerings are the standard fingerings for the Four-Octave Arpeggios and are the same for all keys. Play three notes on the C string, three notes on the G string, three notes on the D string, and the last four notes on the A string. Two fingerings can be used for the last four notes on the A-string: 2 - 1 - 2 - 3 or 2 - 1 - 2 - 4 . The second of these is notated only in the keys of C and D-Flat (pages 56 and 57) but should be used in all keys.

II. The Subdominant Six-Four and the Minor Subdominant Six-Four

*Below the staff:* These fingerings are created to develop the use of the thumb.

Key of C

C Minor

C Major

Augmented

Relative Minor Six

Subdominant Six-four

Minor Subdominant Six-four

Diminished Seventh of D-Flat

Dominant Seventh of D-Flat

Key of D-Flat

D-Flat Minor

Musical notation for the D-Flat Minor scale, showing the sequence of notes and their corresponding fret numbers on a guitar. The scale is presented in two systems: the first system covers the first four frets, and the second system covers the fifth to eighth frets. The notes are: Bb (1), Cb (1), Db (4), Eb (1), Fb (3), Gb (1), Ab (3), Bb (1), Cb (4), Db (1), Eb (4).

D-Flat Major

Musical notation for the D-Flat Major scale, showing the sequence of notes and their corresponding fret numbers on a guitar. The scale is presented in two systems: the first system covers the first four frets, and the second system covers the fifth to eighth frets. The notes are: Bb (1), Cb (1), Db (4), Eb (1), Fb (3), Gb (1), Ab (3), Bb (1), Cb (4), Db (1), Eb (4).

Augmented

Musical notation for the Augmented scale in D-flat, showing the sequence of notes and their corresponding fret numbers on a guitar. The scale is presented in two systems: the first system covers the first four frets, and the second system covers the fifth to eighth frets. The notes are: Bb (1), Cb (1), Db (4), Eb (1), Fb (3), Gb (1), Ab (3), Bb (1), Cb (4), Db (1), Eb (4).

Relative Minor Six

Musical notation for the Relative Minor Six scale in D-flat, showing the sequence of notes and their corresponding fret numbers on a guitar. The scale is presented in two systems: the first system covers the first four frets, and the second system covers the fifth to eighth frets. The notes are: Bb (1), Cb (1), Db (4), Eb (1), Fb (3), Gb (1), Ab (3), Bb (1), Cb (4), Db (1), Eb (4).

Subdominant Six-four

Musical notation for the Subdominant Six-four scale in D-flat, showing the sequence of notes and their corresponding fret numbers on a guitar. The scale is presented in two systems: the first system covers the first four frets, and the second system covers the fifth to eighth frets. The notes are: Bb (1), Cb (1), Db (4), Eb (1), Fb (3), Gb (1), Ab (3), Bb (1), Cb (4), Db (1), Eb (4).

Minor Subdominant Six-four

Musical notation for the Minor Subdominant Six-four scale in D-flat, showing the sequence of notes and their corresponding fret numbers on a guitar. The scale is presented in two systems: the first system covers the first four frets, and the second system covers the fifth to eighth frets. The notes are: Bb (1), Cb (1), Db (4), Eb (1), Fb (3), Gb (1), Ab (3), Bb (1), Cb (4), Db (1), Eb (4).

Diminished Seventh of D

Musical notation for the Diminished Seventh of D scale, showing the sequence of notes and their corresponding fret numbers on a guitar. The scale is presented in two systems: the first system covers the first four frets, and the second system covers the fifth to eighth frets. The notes are: Bb (1), Cb (1), Db (4), Eb (1), Fb (3), Gb (1), Ab (3), Bb (1), Cb (4), Db (1), Eb (4).

Dominant Seventh of D

Musical notation for the Dominant Seventh of D scale, showing the sequence of notes and their corresponding fret numbers on a guitar. The scale is presented in two systems: the first system covers the first four frets, and the second system covers the fifth to eighth frets. The notes are: Bb (1), Cb (1), Db (4), Eb (1), Fb (3), Gb (1), Ab (3), Bb (1), Cb (4), Db (1), Eb (4).



Key of D

D Minor

D Minor scale in bass and treble clefs. Bass clef: D4 (1), E4 (1), F4 (4), G4 (2), A4 (1), B4 (3), C5 (1), D5 (3), E5 (1), F5 (3), G5 (1), A5 (2), B5 (4), C6 (1), D6 (4). Treble clef: D4 (2), E4 (1), F4 (3), G4 (2), A4 (1), B4 (3), C5 (2), D5 (1), E5 (2), F5 (3), G5 (2), A5 (1), B5 (3), C6 (2), D6 (1).

D Major

D Major scale in bass and treble clefs. Bass clef: D4 (1), E4 (1), F4 (4), G4 (2), A4 (1), B4 (3), C5 (1), D5 (3), E5 (1), F5 (3), G5 (1), A5 (2), B5 (4), C6 (1), D6 (4). Treble clef: D4 (2), E4 (1), F4 (3), G4 (2), A4 (1), B4 (3), C5 (2), D5 (1), E5 (2), F5 (3), G5 (2), A5 (1), B5 (3), C6 (2), D6 (1).

Augmented

Augmented D scale in bass and treble clefs. Bass clef: D4 (1), E4 (1), F4 (4), G4 (2), A4 (1), B4 (3), C5 (1), D5 (3), E5 (1), F5 (3), G5 (1), A5 (2), B5 (4), C6 (1), D6 (4). Treble clef: D4 (2), E4 (1), F4 (3), G4 (2), A4 (1), B4 (3), C5 (2), D5 (1), E5 (2), F5 (3), G5 (2), A5 (1), B5 (3), C6 (2), D6 (1).

Relative Minor Six

Relative Minor Six scale in bass and treble clefs. Bass clef: D4 (1), E4 (1), F4 (4), G4 (2), A4 (1), B4 (3), C5 (1), D5 (3), E5 (1), F5 (3), G5 (1), A5 (2), B5 (4), C6 (1), D6 (4). Treble clef: D4 (2), E4 (1), F4 (3), G4 (2), A4 (1), B4 (3), C5 (2), D5 (1), E5 (2), F5 (3), G5 (2), A5 (1), B5 (3), C6 (2), D6 (1).

Subdominant Six-four

Subdominant Six-four scale in bass and treble clefs. Bass clef: D4 (1), E4 (1), F4 (4), G4 (2), A4 (1), B4 (3), C5 (1), D5 (3), E5 (1), F5 (3), G5 (1), A5 (2), B5 (4), C6 (1), D6 (4). Treble clef: D4 (2), E4 (1), F4 (3), G4 (2), A4 (1), B4 (3), C5 (2), D5 (1), E5 (2), F5 (3), G5 (2), A5 (1), B5 (3), C6 (2), D6 (1). Roman numerals: III, II, I.

Minor Subdominant Six-four

Minor Subdominant Six-four scale in bass and treble clefs. Bass clef: D4 (1), E4 (1), F4 (4), G4 (2), A4 (1), B4 (3), C5 (1), D5 (3), E5 (1), F5 (3), G5 (1), A5 (2), B5 (4), C6 (1), D6 (4). Treble clef: D4 (2), E4 (1), F4 (3), G4 (2), A4 (1), B4 (3), C5 (2), D5 (1), E5 (2), F5 (3), G5 (2), A5 (1), B5 (3), C6 (2), D6 (1). Roman numerals: III, II, I.

Diminished Seventh of E-Flat

Diminished Seventh of E-Flat scale in bass and treble clefs. Bass clef: D4 (1), E4 (1), F4 (4), G4 (2), A4 (1), B4 (3), C5 (1), D5 (3), E5 (1), F5 (3), G5 (1), A5 (2), B5 (4), C6 (1), D6 (4). Treble clef: D4 (2), E4 (1), F4 (3), G4 (2), A4 (1), B4 (3), C5 (2), D5 (1), E5 (2), F5 (3), G5 (2), A5 (1), B5 (3), C6 (2), D6 (1). Roman numerals: III.

Dominant Seventh of E-Flat

Dominant Seventh of E-Flat scale in bass and treble clefs. Bass clef: D4 (1), E4 (1), F4 (4), G4 (2), A4 (1), B4 (3), C5 (1), D5 (3), E5 (1), F5 (3), G5 (1), A5 (2), B5 (4), C6 (1), D6 (4). Treble clef: D4 (2), E4 (1), F4 (3), G4 (2), A4 (1), B4 (3), C5 (2), D5 (1), E5 (2), F5 (3), G5 (2), A5 (1), B5 (3), C6 (2), D6 (1). Roman numerals: III, II, I, II, III, IV.



# Key of E-Flat

**E-Flat Minor**

Two staves of music showing the E-flat minor scale. The bass staff starts on E-flat and the treble staff starts on B-flat. The scale is written in a sequence of eighth notes across two measures. Fingering numbers (1-4) are written above the notes.

**E-Flat Major**

Two staves of music showing the E-flat major scale. The bass staff starts on E-flat and the treble staff starts on B-flat. The scale is written in a sequence of eighth notes across two measures. Fingering numbers (1-4) are written above the notes.

**Augmented**

Two staves of music showing the augmented scale. The bass staff starts on E-flat and the treble staff starts on B-flat. The scale is written in a sequence of eighth notes across two measures. Fingering numbers (1-4) are written above the notes.

**Relative Minor Six**

Two staves of music showing the Relative Minor Six scale. The bass staff starts on E-flat and the treble staff starts on B-flat. The scale is written in a sequence of eighth notes across two measures. Fingering numbers (1-4) are written above the notes.

**Subdominant Six-four**

Two staves of music showing the Subdominant Six-four scale. The bass staff starts on E-flat and the treble staff starts on B-flat. The scale is written in a sequence of eighth notes across two measures. Fingering numbers (1-4) and Roman numerals (I, II, III) are written below the notes.

**Minor Subdominant Six-four**

Two staves of music showing the Minor Subdominant Six-four scale. The bass staff starts on E-flat and the treble staff starts on B-flat. The scale is written in a sequence of eighth notes across two measures. Fingering numbers (1-4) and Roman numerals (I, II, III, IV) are written below the notes.

**Diminished Seventh of E**

Two staves of music showing the Diminished Seventh of E scale. The bass staff starts on E and the treble staff starts on B. The scale is written in a sequence of eighth notes across two measures. Fingering numbers (1-4) and Roman numerals (I, II, III, IV) are written below the notes.

**Dominant Seventh of E**

Two staves of music showing the Dominant Seventh of E scale. The bass staff starts on E and the treble staff starts on B. The scale is written in a sequence of eighth notes across two measures. Fingering numbers (1-4) and Roman numerals (I, II, III, IV) are written below the notes.

# Key of E

## E Minor



Musical notation for the E Minor scale, showing the ascending and descending lines with fingering numbers (1-4) indicated below the notes.

## E Major



Musical notation for the E Major scale, showing the ascending and descending lines with fingering numbers (1-4) indicated below the notes.

## Augmented



Musical notation for the Augmented scale (E major with raised fourth), showing the ascending and descending lines with fingering numbers (1-4) indicated below the notes.

## Relative Minor Six



Musical notation for the Relative Minor Six scale (F minor), showing the ascending and descending lines with fingering numbers (1-4) indicated below the notes.

## Subdominant Six-four



Musical notation for the Subdominant Six-four scale (A major), showing the ascending and descending lines with fingering numbers (1-4) and Roman numerals (I, II, III, IV) indicated below the notes.

## Minor Subdominant Six-four



Musical notation for the Minor Subdominant Six-four scale (A minor), showing the ascending and descending lines with fingering numbers (1-4) and Roman numerals (I, II, III, IV) indicated below the notes.

## Diminished Seventh of F



Musical notation for the Diminished Seventh of F scale, showing the ascending and descending lines with fingering numbers (1-4) indicated below the notes.

## Dominant Seventh of F



Musical notation for the Dominant Seventh of F scale, showing the ascending and descending lines with fingering numbers (1-4) and Roman numerals (I, II, III, IV) indicated below the notes.

Key of F

F Minor

Musical notation for the F Minor scale, showing the sequence of notes and their corresponding fingering numbers (1-4) on both the bass and treble clefs.

F Major

Musical notation for the F Major scale, showing the sequence of notes and their corresponding fingering numbers (1-4) on both the bass and treble clefs.

Augmented

Musical notation for the Augmented scale, showing the sequence of notes and their corresponding fingering numbers (1-4) on both the bass and treble clefs.

Relative Minor Six

Musical notation for the Relative Minor Six scale, showing the sequence of notes and their corresponding fingering numbers (1-4) on both the bass and treble clefs.

Subdominant Six-four

Musical notation for the Subdominant Six-four scale, showing the sequence of notes and their corresponding fingering numbers (1-4) on both the bass and treble clefs. Roman numerals I, II, III, IV are indicated below the notes.

Minor Subdominant Six-four

Musical notation for the Minor Subdominant Six-four scale, showing the sequence of notes and their corresponding fingering numbers (1-4) on both the bass and treble clefs. Roman numerals I, II, III, IV are indicated below the notes.

Diminished Seventh of F-Sharp

Musical notation for the Diminished Seventh of F-Sharp scale, showing the sequence of notes and their corresponding fingering numbers (1-4) on both the bass and treble clefs.

Dominant Seventh of F-Sharp

Musical notation for the Dominant Seventh of F-Sharp scale, showing the sequence of notes and their corresponding fingering numbers (1-4) on both the bass and treble clefs. Roman numerals I, II, III, IV are indicated below the notes.

# Key of F-Sharp

**F-Sharp Minor**

**F-Sharp Major**

**Augmented**

**Relative Minor Six**

**Subdominant Six-four**

**Minor Subdominant Six-four**

**Diminished Seventh of G**

**Dominant Seventh of G**

Key of G

G Minor

Two staves of music showing the G Minor scale. The bass staff starts with a G2 and the treble staff starts with a G4. The scale is written in a single line across both staves. Fingering numbers (1-4) are placed above or below notes. The key signature has one sharp (F#).

G Major

Two staves of music showing the G Major scale. The bass staff starts with a G2 and the treble staff starts with a G4. The scale is written in a single line across both staves. Fingering numbers (1-4) are placed above or below notes. The key signature has one sharp (F#).

Augmented

Two staves of music showing the augmented scale. The bass staff starts with a G2 and the treble staff starts with a G4. The scale is written in a single line across both staves. Fingering numbers (1-4) are placed above or below notes. The key signature has two sharps (F# and C#).

Relative Minor Six

Two staves of music showing the Relative Minor Six scale. The bass staff starts with a G2 and the treble staff starts with a G4. The scale is written in a single line across both staves. Fingering numbers (1-4) are placed above or below notes. The key signature has one sharp (F#).

Subdominant Six-four

Two staves of music showing the Subdominant Six-four scale. The bass staff starts with a G2 and the treble staff starts with a G4. The scale is written in a single line across both staves. Fingering numbers (1-4) are placed above or below notes. Roman numerals I, II, III, IV are placed above or below notes. The key signature has one sharp (F#).

Minor Subdominant Six-four

Two staves of music showing the Minor Subdominant Six-four scale. The bass staff starts with a G2 and the treble staff starts with a G4. The scale is written in a single line across both staves. Fingering numbers (1-4) are placed above or below notes. Roman numerals I, II, III, IV are placed above or below notes. The key signature has two sharps (F# and C#).

Diminished Seventh of A-flat

Two staves of music showing the Diminished Seventh of A-flat scale. The bass staff starts with a G2 and the treble staff starts with a G4. The scale is written in a single line across both staves. Fingering numbers (1-4) are placed above or below notes. Roman numerals I, II, III, IV are placed above or below notes. The key signature has two flats (Bb and Eb).

Dominant Seventh of A-Flat

Two staves of music showing the Dominant Seventh of A-Flat scale. The bass staff starts with a G2 and the treble staff starts with a G4. The scale is written in a single line across both staves. Fingering numbers (1-4) are placed above or below notes. Roman numerals I, II, III, IV are placed above or below notes. The key signature has two flats (Bb and Eb).

Key of A-Flat

A-Flat Minor

Two-staff musical notation for the A-Flat Minor scale. The bass staff contains the descending scale with fingerings 2, 1, 3, 2, 1, 3, 2, 1, 3, 2, 1, 3, 2, 1, 3, 2, 1, 3, 2, 1. The treble staff contains the ascending scale with fingerings 1, 2, 3, 4, 2, 1, 3, 2, 1, 3, 2, 1, 3, 2, 1, 3, 2, 1, 3, 2, 1. The key signature has two flats.

A-Flat Major

Two-staff musical notation for the A-Flat Major scale. The bass staff contains the descending scale with fingerings 2, 1, 3, 2, 1, 3, 2, 1, 3, 2, 1, 3, 2, 1, 3, 2, 1, 3, 2, 1, 3, 2, 1. The treble staff contains the ascending scale with fingerings 1, 2, 3, 4, 2, 1, 3, 2, 1, 3, 2, 1, 3, 2, 1, 3, 2, 1, 3, 2, 1, 3, 2, 1. The key signature has two flats.

Augmented

Two-staff musical notation for the Augmented scale in A-flat. The bass staff contains the descending scale with fingerings 4, 1, 4, 1, 4, 1, 4, 1, 4, 1, 4, 1, 4, 1, 4, 1, 4, 1, 4, 1, 4, 1, 4, 1. The treble staff contains the ascending scale with fingerings 1, 2, 3, 4, 1, 2, 3, 4, 1, 2, 3, 4, 1, 2, 3, 4, 1, 2, 3, 4, 1, 2, 3, 4. The key signature has two flats.

Relative Minor Six

Two-staff musical notation for the Relative Minor Six scale in A-flat. The bass staff contains the descending scale with fingerings 4, 1, 4, 1, 4, 1, 4, 1, 4, 1, 4, 1, 4, 1, 4, 1, 4, 1, 4, 1, 4, 1, 4, 1. The treble staff contains the ascending scale with fingerings 1, 2, 3, 4, 1, 2, 3, 4, 1, 2, 3, 4, 1, 2, 3, 4, 1, 2, 3, 4, 1, 2, 3, 4. The key signature has two flats.

Subdominant Six-four

Two-staff musical notation for the Subdominant Six-four scale in A-flat. The bass staff contains the descending scale with fingerings 4, 1, 4, 1, 4, 1, 4, 1, 4, 1, 4, 1, 4, 1, 4, 1, 4, 1, 4, 1, 4, 1, 4, 1. The treble staff contains the ascending scale with fingerings 1, 2, 3, 4, 1, 2, 3, 4, 1, 2, 3, 4, 1, 2, 3, 4, 1, 2, 3, 4, 1, 2, 3, 4. The key signature has two flats.

Minor Subdominant Six-four

Two-staff musical notation for the Minor Subdominant Six-four scale in A-flat. The bass staff contains the descending scale with fingerings 4, 1, 4, 1, 4, 1, 4, 1, 4, 1, 4, 1, 4, 1, 4, 1, 4, 1, 4, 1, 4, 1, 4, 1. The treble staff contains the ascending scale with fingerings 1, 2, 3, 4, 1, 2, 3, 4, 1, 2, 3, 4, 1, 2, 3, 4, 1, 2, 3, 4, 1, 2, 3, 4. The key signature has two flats.

Diminished Seventh of A

Two-staff musical notation for the Diminished Seventh of A scale. The bass staff contains the descending scale with fingerings 4, 1, 4, 1, 4, 1, 4, 1, 4, 1, 4, 1, 4, 1, 4, 1, 4, 1, 4, 1, 4, 1, 4, 1. The treble staff contains the ascending scale with fingerings 1, 2, 3, 4, 1, 2, 3, 4, 1, 2, 3, 4, 1, 2, 3, 4, 1, 2, 3, 4, 1, 2, 3, 4. The key signature has three sharps.

Dominant Seventh of A

Two-staff musical notation for the Dominant Seventh of A scale. The bass staff contains the descending scale with fingerings 4, 1, 4, 1, 4, 1, 4, 1, 4, 1, 4, 1, 4, 1, 4, 1, 4, 1, 4, 1, 4, 1, 4, 1. The treble staff contains the ascending scale with fingerings 1, 2, 3, 4, 1, 2, 3, 4, 1, 2, 3, 4, 1, 2, 3, 4, 1, 2, 3, 4, 1, 2, 3, 4. The key signature has three sharps.

Key of A

A Minor

Musical notation for the A Minor chord. The bass clef part shows a root position triad (A2, C3, E3) with fingerings 1, 4, 1. The treble clef part shows a root position triad (A4, C4, E4) with fingerings 0, 1, 3. Additional voicings are shown with fingerings 2, 1, 3 and 2, 1, 3.

A Major

Musical notation for the A Major chord. The bass clef part shows a root position triad (A2, C#3, E3) with fingerings 1, 4, 1. The treble clef part shows a root position triad (A4, C#4, E4) with fingerings 0, 1, 3. Additional voicings are shown with fingerings 2, 1, 3 and 2, 1, 3.

Augmented

Musical notation for the Augmented chord. The bass clef part shows a root position triad (A2, C#3, E3) with fingerings 1, 4, 1. The treble clef part shows a root position triad (A4, C#4, E4) with fingerings 0, 1, 3. Additional voicings are shown with fingerings 2, 1, 3 and 2, 1, 3.

Relative Minor Six

Musical notation for the Relative Minor Six chord. The bass clef part shows a root position triad (A2, C3, E3) with fingerings 1, 4, 2. The treble clef part shows a root position triad (A4, C4, E4) with fingerings 0, 1, 3. Additional voicings are shown with fingerings 2, 1, 3 and 2, 1, 3.

Subdominant Six-four

Musical notation for the Subdominant Six-four chord. The bass clef part shows a root position triad (A2, C3, E3) with fingerings 1, 4, 2. The treble clef part shows a root position triad (A4, C4, E4) with fingerings 0, 1, 3. Additional voicings are shown with fingerings 2, 1, 3 and 2, 1, 3.

Minor Subdominant Six-four

Musical notation for the Minor Subdominant Six-four chord. The bass clef part shows a root position triad (A2, C3, E3) with fingerings 1, 4, 2. The treble clef part shows a root position triad (A4, C4, E4) with fingerings 0, 1, 3. Additional voicings are shown with fingerings 2, 1, 3 and 2, 1, 3.

Diminished Seventh of B-Flat

Musical notation for the Diminished Seventh of B-Flat chord. The bass clef part shows a root position triad (Bb2, D3, F3) with fingerings 1, 4, 1. The treble clef part shows a root position triad (Bb4, D4, F4) with fingerings 0, 1, 3. Additional voicings are shown with fingerings 2, 1, 3 and 2, 1, 3.

Dominant Seventh of B-Flat

Musical notation for the Dominant Seventh of B-Flat chord. The bass clef part shows a root position triad (Bb2, D3, F3) with fingerings 1, 4, 1. The treble clef part shows a root position triad (Bb4, D4, F4) with fingerings 0, 1, 3. Additional voicings are shown with fingerings 2, 1, 3 and 2, 1, 3.



Key of B-Flat

B-Flat Minor

(4)

B-Flat Major

(4)

Augmented

Relative Minor Six

IV III II I

Subdominant Six-four

III II I

Minor Subdominant Six-four

III II I

Diminished Seventh of B

III II I IV

Dominant Seventh of B

III II I II III IV

Key of B

B Minor

Musical notation for the B Minor scale. The scale is written on a grand staff (treble and bass clefs). Fingerings are indicated by numbers 1-4 above or below notes. A (4) marking is present below the first measure.

B Major

Musical notation for the B Major scale. The scale is written on a grand staff. Fingerings are indicated by numbers 1-4 above or below notes. A (4) marking is present below the first measure.

Augmented

Musical notation for the Augmented scale. The scale is written on a grand staff. Fingerings are indicated by numbers 1-4 above or below notes. 'x' markings are present above some notes, indicating natural harmonics.

Relative Minor Six

Musical notation for the Relative Minor Six scale. The scale is written on a grand staff. Roman numerals IV, III, II, and I are placed below the notes to indicate their positions in the scale.

Subdominant Six-four

Musical notation for the Subdominant Six-four scale. The scale is written on a grand staff. Roman numerals III, II, I, and IV are placed below the notes to indicate their positions in the scale.

Minor Subdominant Six-four

Musical notation for the Minor Subdominant Six-four scale. The scale is written on a grand staff. Roman numerals III, II, I, and IV are placed below the notes to indicate their positions in the scale.

Diminished Seventh of C

Musical notation for the Diminished Seventh of C scale. The scale is written on a grand staff. Roman numerals III, II, I, and IV are placed below the notes to indicate their positions in the scale.

Dominant Seventh of B

Musical notation for the Dominant Seventh of B scale. The scale is written on a grand staff. Roman numerals III, II, I, and IV are placed below the notes to indicate their positions in the scale.

# 10

## Scales in One Position

Groups of eight notes. PATTERNS: *B1, B2, B4, B8, B16*  
*R1, R2, R4, R8, R16*

Primary Patterns:



*Practice each line on page 68 and 69 as a major and minor scale using the first note as the tonic.\*  
 In addition, practice each line in all other keys.\*\**

\* Example: D Major D Melodic Minor

*The higher positions.*

C-string G-string D-string A-string

This staff shows the first four strings of a guitar in 3/4 time. The C-string (top) has a whole note chord (0). The G-string has a quarter note chord (0). The D-string has a quarter note chord (0). The A-string has a quarter note chord (0). The staff is divided into four measures by a double bar line.

This staff continues the musical exercise for the first four strings in 3/4 time, showing a sequence of notes and chords across four measures.

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This staff continues the musical exercise for the first four strings in 3/4 time, showing a sequence of notes and chords across four measures.

**\*\* Example:**      B Major      C Harmonic Minor

IV III II I      etc.      IV III II I      etc.

This example shows two scales on a single staff. The first scale is B Major, with fingerings IV, III, II, I and an 'etc.' marking. The second scale is C Harmonic Minor, with fingerings IV, III, II, I and an 'etc.' marking.

# 11

## The Chromatic Scale In One Position

Groups of twelve notes. PATTERNS: *B1, B2, B3, B4, B6, B12*  
*R1, R2, R3, R4, R6, R12*

Primary Patterns:

Three primary patterns are shown: a 4/4 pattern with four groups of three notes, a 3/4 pattern with three groups of four notes, and a 6/8 pattern with two groups of six notes. Each group is marked with a '3' and a slur, indicating a triplet.

The main score consists of six systems of two staves each. Each system represents a different key signature. The first staff of each system shows the ascending chromatic scale with fingerings (0-3) and accidentals. The second staff shows the descending chromatic scale with fingerings (3-0) and accidentals. The systems correspond to the following key signatures: D major, C major, B minor, A minor, G major, and F major.

Two staves of musical notation for guitar. The top staff is in bass clef and contains a sequence of notes with fret numbers: 0, 1, 2, 3, 1, 2, 3, 0, 1, 2, 2, 3, 3, 0, 1, 1, 2, 2, 3, 3, 0, 1, 1, 2, 2, 3, 3, 0, 1, 2. The bottom staff is also in bass clef and contains notes with fret numbers: 3, 2, 1, 0, 3, 3, 2, 2, 1, 1, 0, 3, 3, 2, 2, 1, 1, 0, 3, 3, 2, 2, 1, 0, 3, 2, 1, 3, 2, 1.

Two staves of musical notation for guitar. The top staff is in bass clef and contains a sequence of notes with fret numbers: 0, 1, 2, 3, 1, 2, 3, 0, 1, 2, 2, 3, 3, 0, 1, 1, 2, 2. The bottom staff is in bass clef and contains notes with fret numbers: 2, 3, 0, 1, 2, 3, 1, 2, 3, 0, 1, 2.

Two staves of musical notation for guitar. The top staff is in treble clef and contains notes with fret numbers: 3, 2, 1, 0, 3, 3, 2, 2, 1, 1, 0, 3, 3, 2, 2, 1, 0, 3. The bottom staff is in bass clef and contains notes with fret numbers: 3, 2, 2, 1, 1, 0, 3, 3, 2, 2, 1, 0, 3, 2, 1, 3, 2, 1.

Two staves of musical notation for guitar. The top staff is in bass clef and contains a sequence of notes with fret numbers: 0, 1, 2, 3, 1, 2, 3, 0, 1, 2, 2, 3, 3, 0, 1, 1, 2, 2. The bottom staff is in bass clef and contains notes with fret numbers: 2, 3, 0, 1, 2, 3, 1, 2, 3, 0, 1, 2.

Two staves of musical notation for guitar. The top staff is in treble clef and contains notes with fret numbers: 3, 2, 1, 0, 3, 3, 2, 2, 1, 1, 0, 3, 3, 2, 2, 1, 0, 3. The bottom staff is in bass clef and contains notes with fret numbers: 3, 2, 2, 1, 1, 0, 3, 3, 2, 2, 1, 0, 3, 2, 1, 3, 2, 1.

Two staves of musical notation for guitar. The top staff is in bass clef and contains a sequence of notes with fret numbers: 0, 1, 2, 3, 1, 2, 3, 0, 1, 2, 2, 3, 3, 0, 1, 1, 2, 2. The bottom staff is in bass clef and contains notes with fret numbers: 2, 3, 0, 1, 2, 3, 1, 2, 3, 0, 1, 2.

Two staves of musical notation for guitar. The top staff is in treble clef and contains notes with fret numbers: 3, 2, 1, 0, 3, 3, 2, 2, 1, 1, 0, 3, 3, 2, 2, 1, 0, 3. The bottom staff is in bass clef and contains notes with fret numbers: 3, 2, 2, 1, 1, 0, 3, 3, 2, 2, 1, 0, 3, 2, 1, 3, 2, 1.

0 1 1 2 2 3 3 0 1 1 2 2  
0 1 2 3 1 2 3 0 1 2 3 1  
2 3 0 1 2 3 1 2 3 0 1 2

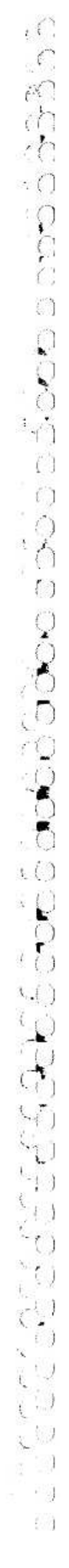
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0 1 2 3 1 2 3 0 1 2 3 1 2 3 0 1 2 3 1 2 3 3 0 1 2

3 2 1 0 3 3 2 2 1 1 0 3 3 2 2 1 0 3 3 2 2 1 0



# Broken Thirds and Fourths in One Position

## Broken Thirds in One Position

Groups of twelve notes. PATTERNS: B1, B2, B3, B4, B6, B12  
R1, R2, R3, R4, R6, R12

Primary Patterns:



Also slur two measures.

All exercises in this chapter should be practiced in all the keys. Start with D Major in the first exercise, F Major in the second and A Major in the third etc. using the first note as the tonic. Begin all exercises on the C-string.

Lower Positions



Higher Positions

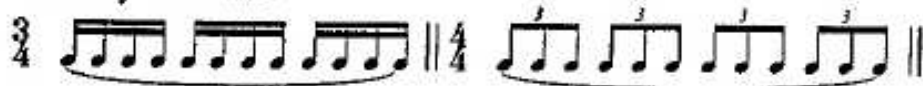


This may be continued into higher positions.

## Broken Fourths in One Position

Groups of twelve notes. PATTERNS: *B1, B2, B3, B4, B6, B12*  
*R1, R2, R3, R4, R6, R12*

Primary Patterns:



*Also slur two measures.*

*Practice in all the keys.*



*This may be continued into higher positions.*

# 13

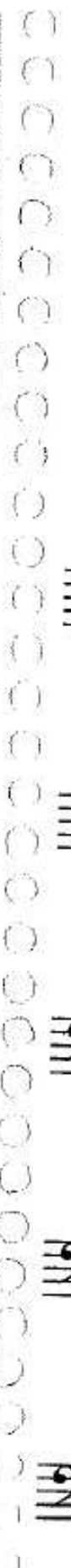
## Arpeggios in One Position (Using the Thumb in the Lower Registers)

Groups of twelve notes. PATTERNS: *B1, B2, B3, B4, B6, B12*  
*R1, R2, R3, R4, R6, R12*

Primary Patterns:



Six staves of musical notation for arpeggios in one position. Each staff contains two measures of music. The notation includes notes, rests, and fingerings (1-4) above the notes. Some notes have accents (^) above them. The staves are arranged in a vertical column, with the first staff starting with a treble clef and a key signature of two sharps (F# and C#). The subsequent staves continue the patterns in the same key signature.



First line of musical notation in bass clef. It features a key signature of one flat (B-flat) and a common time signature. The notation includes various note values, rests, and fingerings. Fingerings are indicated by numbers 1, 2, 3, and 4 above the notes. Some notes are grouped with parentheses, such as (4) and (3). The line concludes with a double bar line.

Second line of musical notation in bass clef, continuing the piece. It maintains the one-flat key signature and common time. The notation includes complex rhythmic patterns and fingerings. A key signature change to two flats (B-flat and E-flat) is indicated by two flat symbols at the beginning of the second measure. The line ends with a double bar line.

Third line of musical notation in bass clef. The key signature remains two flats. The notation includes various note values and rests, with fingerings clearly marked above the notes. The line concludes with a double bar line.

Fourth line of musical notation in bass clef. This line features a key signature change to two sharps (F# and C#), indicated by two sharp symbols. The notation includes various note values and rests, with fingerings marked above the notes. The line ends with a double bar line.

Fifth line of musical notation in bass clef, continuing in the two-sharp key signature. The notation includes various note values and rests, with fingerings marked above the notes. The line ends with a double bar line.

Sixth line of musical notation in bass clef. The key signature remains two sharps. The notation includes various note values and rests, with fingerings marked above the notes. The line ends with a double bar line.

Seventh line of musical notation in bass clef. The key signature changes back to one flat (B-flat), indicated by one flat symbol. The notation includes various note values and rests, with fingerings marked above the notes. The line ends with a double bar line.

Eighth line of musical notation in bass clef, continuing in the one-flat key signature. The notation includes various note values and rests, with fingerings marked above the notes. The line ends with a double bar line.

This page contains ten staves of musical notation for guitar, all in bass clef. The notation includes various chords, triplets, and specific fingerings. The first staff begins with a key signature of two sharps (F# and C#) and a 3/4 time signature. The music is written in a style typical of guitar tablature, with numbers 0-4 indicating fret positions and circled numbers (4, 3, 2) indicating triplet or groupings. The notation includes many beamed eighth and sixteenth notes, as well as some accidentals like flats and naturals. The key signature changes to one sharp (F#) in the second staff, and then to one flat (Bb) in the seventh staff. The page concludes with a double bar line and a repeat sign.







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Musical staff 1: Treble clef, 3/4 time signature, key signature of three sharps (F#, C#, G#). The staff contains a sequence of notes with fingerings: 0, 2, 0, 3, 1, 3, 1, 3, 0, 2, 0, 0, 1, 0, 3, 0, 3, 0, 3, 0, 1, 0.

Musical staff 2: Treble clef, 3/4 time signature, key signature of three sharps. The staff contains a sequence of notes with fingerings: 1, 3, 0, 2, 0, 3, 0, 2, 0, 1, 0, 2, 0, 3, 0, 2, 0.

Musical staff 3: Treble clef, 3/4 time signature, key signature of three sharps. The staff contains a sequence of notes with fingerings: 1, 3, 0, 2, 0, 3, 0, 2, 0, 1, 3, 2, 0, 2, 1, 3, 1, 2, 0, 2, 3.

Musical staff 4: Treble clef, 3/4 time signature, key signature of three sharps. The staff contains a sequence of notes with fingerings: (4) 3, 2, 0, 3, 1, 4, 1, 3, 0, 2, (4) 3, 2, 0, 2, 1, 3, 1, 2, 0, 2, 3.

Musical staff 5: Treble clef, 3/4 time signature, key signature of three sharps. The staff contains a sequence of notes with fingerings: 1, 3, 2, 0, 3, 2, 4, 2, 3, 0, 2, 0, 2, 0, 3, 1, 3, 1, 3, 0, 2, 0.

Musical staff 6: Treble clef, 3/4 time signature, key signature of three sharps. The staff contains a sequence of notes with fingerings: 1, 0, 2, 0, 3, 1, 3, 1, 3, 0, 2, 0, 0, 1, 0, 3, 0, 3, 0, 3, 0, 1, 0.

Musical staff 7: Treble clef, 3/4 time signature, key signature of three sharps. The staff contains a sequence of notes with fingerings: 1, 3, 0, 2, 0, 3, 0, 2, 0, 1, 3, 0, 2, 0, 0, 2, 0, 3, 0, 2, 0.

Musical staff 8: Treble clef, 3/4 time signature, key signature of three sharps. The staff contains a sequence of notes with fingerings: 1, 3, 0, 2, 0, 3, 0, 2, 0, 1, 3, 2, 0, 2, 1, 3, 1, 2, 0, 2, 3.



Musical staff 1: Treble clef, 3/4 time signature, key signature of two sharps (F# and C#). The staff contains a sequence of notes with various fingerings indicated by numbers 1-4 and 0. A (4) is written above the first measure. The notes are: G4 (fingering 3), A4 (fingering 2), B4 (fingering 0), C#5 (fingering 3), D5 (fingering 1), E5 (fingering 4), F#5 (fingering 1), G5 (fingering 3), A5 (fingering 0), B5 (fingering 2), C#6 (fingering 0), D6 (fingering 2), E6 (fingering 1), F#6 (fingering 3), G6 (fingering 1), A6 (fingering 2), B6 (fingering 0), C#7 (fingering 2).

Musical staff 2: Treble clef, 3/4 time signature, key signature of two sharps. The staff contains a sequence of notes with various fingerings indicated by numbers 1-4 and 0. The notes are: G4 (fingering 2), A4 (fingering 0), B4 (fingering 3), C#5 (fingering 2), D5 (fingering 4), E5 (fingering 2), F#5 (fingering 3), G5 (fingering 0), A5 (fingering 2), B5 (fingering 0), C#6 (fingering 3), D6 (fingering 1), E6 (fingering 3), F#6 (fingering 1), G6 (fingering 3), A6 (fingering 0), B6 (fingering 2), C#7 (fingering 0).

Musical staff 3: Treble clef, 3/4 time signature, key signature of two sharps. The staff contains a sequence of notes with various fingerings indicated by numbers 1-4 and 0. The notes are: G4 (fingering 0), A4 (fingering 2), B4 (fingering 0), C#5 (fingering 3), D5 (fingering 1), E5 (fingering 3), F#5 (fingering 0), G5 (fingering 2), A5 (fingering 0), B5 (fingering 0), C#6 (fingering 3), D6 (fingering 0), E6 (fingering 3), F#6 (fingering 0), G6 (fingering 3), A6 (fingering 0), B6 (fingering 1), C#7 (fingering 0).

Musical staff 4: Treble clef, 3/4 time signature, key signature of two sharps. The staff contains a sequence of notes with various fingerings indicated by numbers 1-4 and 0. The notes are: G4 (fingering 1), A4 (fingering 3), B4 (fingering 0), C#5 (fingering 3), D5 (fingering 0), E5 (fingering 2), F#5 (fingering 0), G5 (fingering 1), A5 (fingering 3), B5 (fingering 0), C#6 (fingering 3), D6 (fingering 0), E6 (fingering 2), F#6 (fingering 0), G6 (fingering 2), A6 (fingering 0), B6 (fingering 1), C#7 (fingering 0).

Musical staff 5: Treble clef, 3/4 time signature, key signature of two sharps. The staff contains a sequence of notes with various fingerings indicated by numbers 1-4 and 0. A (4) is written above the second measure. The notes are: G4 (fingering 0), A4 (fingering 2), B4 (fingering 0), C#5 (fingering 3), D5 (fingering 0), E5 (fingering 2), F#5 (fingering 0), G5 (fingering 1), A5 (fingering 3), B5 (fingering 0), C#6 (fingering 3), D6 (fingering 1), E6 (fingering 3), F#6 (fingering 1), G6 (fingering 2), A6 (fingering 0), B6 (fingering 2), C#7 (fingering 0).

Musical staff 6: Treble clef, 3/4 time signature, key signature of two sharps. The staff contains a sequence of notes with various fingerings indicated by numbers 1-4 and 0. A (4) is written above the first measure. The notes are: G4 (fingering 3), A4 (fingering 2), B4 (fingering 0), C#5 (fingering 3), D5 (fingering 1), E5 (fingering 4), F#5 (fingering 1), G5 (fingering 3), A5 (fingering 0), B5 (fingering 2), C#6 (fingering 0), D6 (fingering 2), E6 (fingering 1), F#6 (fingering 3), G6 (fingering 1), A6 (fingering 2), B6 (fingering 0), C#7 (fingering 2).

Musical staff 7: Treble clef, 3/4 time signature, key signature of two sharps. The staff contains a sequence of notes with various fingerings indicated by numbers 1-4 and 0. The notes are: G4 (fingering 2), A4 (fingering 0), B4 (fingering 3), C#5 (fingering 2), D5 (fingering 4), E5 (fingering 2), F#5 (fingering 3), G5 (fingering 0), A5 (fingering 2), B5 (fingering 0), C#6 (fingering 3), D6 (fingering 1), E6 (fingering 3), F#6 (fingering 1), G6 (fingering 3), A6 (fingering 0), B6 (fingering 2), C#7 (fingering 0).

Musical staff 8: Treble clef, 3/4 time signature, key signature of two sharps. The staff contains a sequence of notes with various fingerings indicated by numbers 1-4 and 0. The notes are: G4 (fingering 0), A4 (fingering 2), B4 (fingering 0), C#5 (fingering 3), D5 (fingering 1), E5 (fingering 3), F#5 (fingering 0), G5 (fingering 2), A5 (fingering 0), B5 (fingering 0), C#6 (fingering 3), D6 (fingering 0), E6 (fingering 3), F#6 (fingering 0), G6 (fingering 3), A6 (fingering 0), B6 (fingering 1), C#7 (fingering 0).



Musical staff 1: Treble clef, 3/4 time signature, key signature of one sharp (F#). The staff contains a sequence of notes with fingerings: 1, 0, 2, 0, 3, 0, 2, 0, 1, 3, 1, 0, 2, 0, 3, 0, 2, 0, 1, 3.

Musical staff 2: Treble clef, 3/4 time signature, key signature of two flats (Bb, Eb). The staff contains a sequence of notes with fingerings: 3, 1, 0, b2, 0, 3, 0, 2, 0, 1, 3, 2, 0, b2, b1, (4)3, 1, 2, 0, 2, 3.

Musical staff 3: Treble clef, 3/4 time signature, key signature of two flats (Bb, Eb). The staff contains a sequence of notes with fingerings: (4)2, 0, b3, b1, 4, 1, 3, 0, 2, (4)3, 2, 0, 2, b1, 3, 1, 2, 0, 2, 3.

Musical staff 4: Treble clef, 3/4 time signature, key signature of two flats (Bb, Eb). The staff contains a sequence of notes with fingerings: 2, 0, 3, b2, 4, 2, 3, 0, 2, 3, 0, 2, 0, 3, 1, 3, 1, 3, 0, 2, 0.

Musical staff 5: Treble clef, 3/4 time signature, key signature of two flats (Bb, Eb). The staff contains a sequence of notes with fingerings: 0, 2, 0, 3, b1, 3, 1, 3, 0, 2, 0, 0, 1, 0, 3, 0, 3, 0, 3, 0, 1, 0.

Musical staff 6: Treble clef, 3/4 time signature, key signature of two flats (Bb, Eb). The staff contains a sequence of notes with fingerings: 3, 1, 0, 2, 0, 3, 0, 2, 0, 1, 3, 1, 0, 2, 0, 3, 0, 2, 0, 1, 3.

Musical staff 7: Treble clef, 3/4 time signature, key signature of three sharps (F#, C#, G#). The staff contains a sequence of notes with fingerings: 3, 1, 0, b2, 0, 3, 0, 2, 0, 1, 3, 2, 0, b2, b1, (4)3, 1, 2, 0, 2, 3.

Musical staff 8: Treble clef, 3/4 time signature, key signature of three sharps (F#, C#, G#). The staff contains a sequence of notes with fingerings: (4)2, 0, 3, b1, 4, 1, 3, 0, 2, (4)3, 2, 0, 2, #1, 3, 1, 2, 0, 2, 3.

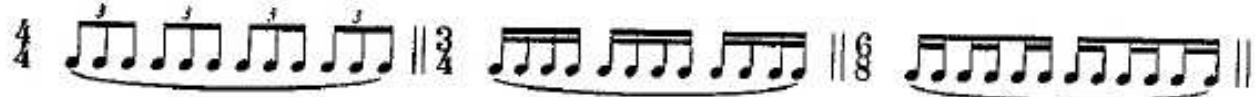


# 14

## Scales on One String

Groups of twelve notes. PATTERNS: *B1, B2, B3, B4, B6, B12*  
*R1, R2, R3, R4, R6, R12*

Primary Patterns:



Practice this exercise on all four strings in all the major and minor keys.

### ONE-FINGER SCALES

Written for the C-string. Practice on all four strings.

Five staves of one-finger scales on the C-string, each with a different fingering pattern (0, 1, 2, 3, 4). Each staff shows an ascending and descending scale with slurs and fingerings.

### TWO-FINGER SCALES

Written for the A-string. Practice on all four strings.

Two staves of two-finger scales on the A-string, each with a different fingering pattern (1, 2, 4, 2, 3, 2). Each staff shows an ascending and descending scale with slurs and fingerings.



**FOUR-FINGER SCALES** *Written for the G-string. Practice on all four strings.*

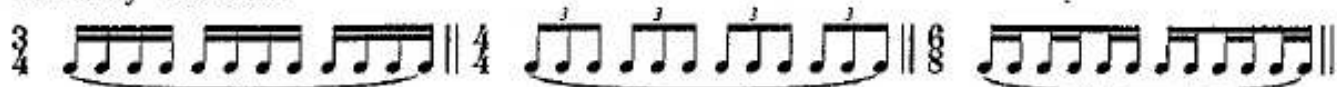
# 15

## Broken Thirds, Fourths, Fifths and Sixths on One String

### THIRDS ON ONE STRING

Groups of twelve notes. PATTERNS: *B1, B2, B3, B4, B6, B12*  
*R1, R2, R3, R4, R6, R12*

Primary Patterns:



*Also slur two measures.*

*Practice in all the keys.* Seven different fingerings are given and can be applied to any string. The two fingerings shown on the first system are the standard fingerings for broken thirds. These should be mastered before experimenting with the other fingerings shown later. In the first bar, depending upon the key, use either 3 - 2 or 4 - 2 on the notes where no fingerings are given.

A-String

A musical staff for the A-string showing a sequence of notes with various fingerings indicated by numbers 1, 2, 3, and 4. The notes are grouped into measures, and the fingerings are placed above or below the notes to indicate which finger to use.

A-String

A musical staff for the A-string showing a sequence of notes with various fingerings indicated by numbers 0, 2, 3, and 4. The notes are grouped into measures, and the fingerings are placed above or below the notes to indicate which finger to use.

A-String

A musical staff for the A-string showing a sequence of notes with various fingerings indicated by numbers 3, 4, and 1. The notes are grouped into measures, and the fingerings are placed above or below the notes to indicate which finger to use.

A-String

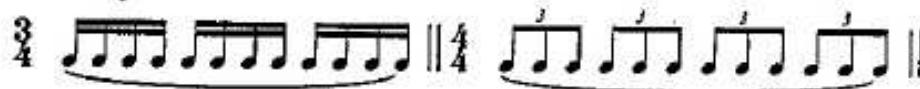
A musical staff for the A-string showing a sequence of notes with various fingerings indicated by numbers 0, 2, 3, and 4. The notes are grouped into measures, and the fingerings are placed above or below the notes to indicate which finger to use. Some notes are marked with "etc." to indicate continuation.

## FOURTHS ON ONE STRING

(Preparatory exercises for fourth interval artificial harmonics)

Groups of twelve notes. PATTERNS: *B1, B2, B3, B4, B6, B12*  
*R1, R2, R3, R4, R6, R12*

Primary Patterns:



*Also slur two measures.*

*Practice in all the keys. All four of the following fingerings may be applied to any string.*

*C-String*



*G-String*



*D-String*



*A-String*





# FIFTHS ON ONE STRING

(Preparatory exercises for fifth interval artificial harmonics)

Groups of eight notes. PATTERNS: *B1, B2, B4, B8*  
*R1, R2, R4, R8*

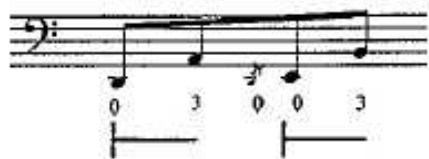
Primary Patterns:



Also slur two measures.

Practice in all the keys. This exercise can be played in two different ways:

- 1) by shifting in the traditional manner and maintaining the stretch of a fifth throughout.



- 2) with "creeping" fingering. (Distance between the thumb and the third finger varies).

C-String



G-String



D-String



A-String



## SIXTHS ON ONE STRING

Groups of eight notes. PATTERNS: *B1, B2, B4, B8*  
*R1, R2, R4, R8*

Primary Patterns:



Practice in all the keys. This exercise can be played in three different ways:

- 1) shifting one step while maintaining the stretch of a *fifth*



- 2) maintaining the stretch of a *sixth* throughout (in the manner of tenths)  
This is only possible for cellists with large hands.

- 3) "creeping" fingering (distance between thumb and third finger varies)



# 16

## Arpeggios on One String

### TRIADS

Groups of twelve notes. PATTERNS: *B1, B2, B3, B4, B6, B12*  
*R1, R2, R3, R4, R6, R12*

Primary Patterns:



*Written for the C-string, the exercises in this section are to be practiced on all four strings.*

<p>C Major</p>	<p>C Minor</p>
<p>Diminished</p>	<p>Augmented</p>
<p>D-Flat Major</p>	<p>D-Flat Minor</p>
<p>Diminished</p>	<p>Augmented</p>
<p>D Major</p>	<p>D Minor</p>
<p>Diminished</p>	<p>Augmented</p>

E-Flat Major

E-Flat Minor

Two bass clef staves showing the scales for E-flat Major and E-flat Minor. The E-flat Major scale is on the left, and the E-flat Minor scale is on the right. Both scales are written in a single line with a key signature of two flats (B-flat and E-flat). The scales are: E-flat Major: B-flat, C, D, E-flat, F, G, A-flat, B-flat; E-flat Minor: B-flat, C, D, E-flat, F, G, A-flat, B-flat. Fingerings are indicated by numbers 1-4. A circled number (2) is placed above the first measure of each scale.

Diminished

Augmented

Two bass clef staves showing the Diminished and Augmented scales. The Diminished scale is on the left, and the Augmented scale is on the right. The Diminished scale is: B-flat, C, D, E-flat, F, G, A-flat, B-flat. The Augmented scale is: B-flat, C, D, E-flat, F, G, A-flat, B-flat. Fingerings are indicated by numbers 1-4. A circled number (2) is placed above the first measure of each scale.

E Major

E Minor

Two bass clef staves showing the scales for E Major and E Minor. The E Major scale is on the left, and the E Minor scale is on the right. The E Major scale is: E, F-sharp, G, A, B, C, D, E. The E Minor scale is: E, F, G, A, B, C, D, E. Fingerings are indicated by numbers 1-4. A circled number (3) is placed above the first measure of each scale.

Diminished

Augmented

Two bass clef staves showing the Diminished and Augmented scales. The Diminished scale is on the left, and the Augmented scale is on the right. The Diminished scale is: E, F-sharp, G, A, B, C, D, E. The Augmented scale is: E, F-sharp, G, A, B, C, D, E. Fingerings are indicated by numbers 1-4. A circled number (3) is placed above the first measure of each scale.

F Major

F Minor

Two bass clef staves showing the scales for F Major and F Minor. The F Major scale is on the left, and the F Minor scale is on the right. The F Major scale is: F, G, A, B-flat, C, D, E, F. The F Minor scale is: F, G, A, B-flat, C, D, E, F. Fingerings are indicated by numbers 1-4. A circled number (4) is placed above the first measure of each scale.

Diminished

Augmented

Two bass clef staves showing the Diminished and Augmented scales. The Diminished scale is on the left, and the Augmented scale is on the right. The Diminished scale is: F, G, A, B-flat, C, D, E, F. The Augmented scale is: F, G, A, B-flat, C, D, E, F. Fingerings are indicated by numbers 1-4. A circled number (4) is placed above the first measure of each scale.

F-Sharp Major

F-Sharp Minor

Two bass clef staves showing the scales for F-sharp Major and F-sharp Minor. The F-sharp Major scale is on the left, and the F-sharp Minor scale is on the right. The F-sharp Major scale is: F-sharp, G-sharp, A, B, C, D, E, F-sharp. The F-sharp Minor scale is: F-sharp, G, A, B, C, D, E, F-sharp. Fingerings are indicated by numbers 1-4. A circled number (4) is placed above the first measure of each scale.

Diminished

Augmented

Two bass clef staves showing the Diminished and Augmented scales. The Diminished scale is on the left, and the Augmented scale is on the right. The Diminished scale is: F-sharp, G-sharp, A, B, C, D, E, F-sharp. The Augmented scale is: F-sharp, G-sharp, A, B, C, D, E, F-sharp. Fingerings are indicated by numbers 1-4. A circled number (4) is placed above the first measure of each scale.



B Major  
(4)

B Minor  
(4)

Diminished  
(4)

Augmented  
(4)

# DIMINISHED SEVENTHS

Groups of eight notes. PATTERNS: *B1, B2, B4, B8, B16*  
*R1, R2, R4, R8, R16*

Primary Patterns:



*Written for the C-string, the exercises in this section are to be practised on all four strings.*

# DOMINANT SEVENTHS

Groups of eight notes. PATTERNS: *B1, B2, B4, B8, B16*  
*R1, R2, R4, R8, R16*

Primary Patterns:



Written for the C-string, the exercises in this section are to be practiced on all four strings.

Seven staves of musical exercises for dominant seventh chords, each with fingering numbers. The exercises are written in bass clef and 4/4 time. Each staff contains two measures of music, with the first measure starting on the C-string and the second measure starting on the G-string. The exercises are as follows:

- Staff 1: G4, A4, B4, C5, B4, A4, G4, F4 (fingering: 1, 2, 3, 2, 1, 3, 4, 2, 2); G4, A4, B4, C5, B4, A4, G4, F4 (fingering: 3, 1, 2, 3, 2, 1, 3, 4, 2, 4).
- Staff 2: G4, A4, B4, C5, B4, A4, G4, F4 (fingering: 1, 2, 3, 2, 1, 3, 4, 2, 2); G4, A4, B4, C5, B4, A4, G4, F4 (fingering: 3, 1, 2, 3, 2, 1, 3, 4, 2, 4).
- Staff 3: G4, A4, B4, C5, B4, A4, G4, F4 (fingering: 1, 2, 3, 2, 1, 3, 4, 2, 2); G4, A4, B4, C5, B4, A4, G4, F4 (fingering: 3, 1, 2, 3, 2, 1, 3, 4, 2, 4).
- Staff 4: G4, A4, B4, C5, B4, A4, G4, F4 (fingering: 1, 2, 3, 2, 1, 3, 4, 2, 2); G4, A4, B4, C5, B4, A4, G4, F4 (fingering: 3, 1, 2, 3, 2, 1, 3, 4, 2, 4).
- Staff 5: G4, A4, B4, C5, B4, A4, G4, F4 (fingering: 1, 2, 3, 2, 1, 3, 4, 2, 2); G4, A4, B4, C5, B4, A4, G4, F4 (fingering: 3, 1, 2, 3, 2, 1, 3, 4, 2, 4).
- Staff 6: G4, A4, B4, C5, B4, A4, G4, F4 (fingering: 1, 2, 3, 2, 1, 3, 4, 2, 2); G4, A4, B4, C5, B4, A4, G4, F4 (fingering: 3, 1, 2, 3, 2, 1, 3, 4, 2, 4).
- Staff 7: G4, A4, B4, C5, B4, A4, G4, F4 (fingering: 1, 2, 3, 2, 1, 3, 4, 2, 2); G4, A4, B4, C5, B4, A4, G4, F4 (fingering: 3, 1, 2, 3, 2, 1, 3, 4, 2, 4).



# 17

## Scales of Varied Length and Different Groups of Notes

Groups of five notes. PATTERNS: *B1, B5*  
*R1, R5*

Primary Patterns:



*Practice these scales in all the major and melodic minor keys. The fingerings notated should be applied to all keys.*

The image contains four staves of musical notation, each representing a scale exercise. The first two staves are in bass clef, and the last two are in treble clef. Each staff shows a sequence of notes with fingerings indicated by numbers 1, 3, and 4. The exercises are designed to practice the primary patterns in various keys.

Groups of seven notes. PATTERNS: *B1, B7*  
*R1, R7*

Primary Patterns:



Groups of nine notes. PATTERNS: *B1, B3, B9*  
*R1, R3, R9*

Primary Patterns:

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# 18

## The Whole-Tone Scale

Groups of twelve notes. PATTERNS: *B1, B2, B3, B4, B6, B12*  
*R1, R2, R3, R4, R6, R12*

Primary Patterns:

Three musical patterns for the whole-tone scale in bass clef. The first pattern is in 4/4 time, the second in 3/4 time, and the third in 6/8 time. Each pattern consists of a sequence of notes with fingerings indicated by numbers 1, 2, and 3.

*Also slur two measures.*

### ON ONE STRING

First line of musical notation for the 'ON ONE STRING' section, showing a sequence of notes with fingerings (1, 2, 3) and a double bar line.

Second line of musical notation for the 'ON ONE STRING' section, showing a sequence of notes with fingerings (1, 2, 3, 4) and a double bar line.

Third line of musical notation for the 'ON ONE STRING' section, showing a sequence of notes with fingerings (1, 2, 3, 4) and a double bar line.

### ACROSS THE STRINGS

First line of musical notation for the 'ACROSS THE STRINGS' section, showing a sequence of notes with fingerings (0, 1, 2, 3, 4) and a double bar line.

Second line of musical notation for the 'ACROSS THE STRINGS' section, showing a sequence of notes with fingerings (0, 1, 2, 3) and string positions (IV, III, II, I, II, III, IV) indicated below the staff.

Third line of musical notation for the 'ACROSS THE STRINGS' section, showing a sequence of notes with fingerings (0, 1, 2, 3) and string positions (IV, III, II, I, II, III, IV) indicated below the staff.

**THREE-OCTAVE SCALE**

Groups of nine notes. PATTERNS: *B1, B3, B9*  
*R1, R3, R9*

Primary Patterns:





The page contains eight systems of musical notation, each consisting of a bass staff and a treble staff. The notation includes notes, rests, and various fingerings (1-4) and techniques like double stops and trills. Roman numerals I, II, and III are placed below the staves to indicate fret positions. The key signature has one sharp (F#) and the time signature is 4/4.

System 1: Bass staff starts with a double stop (1, 1) and a trill (2, 4). Treble staff starts with a double stop (3, 2) and a trill (1, 3). Roman numerals: I, II, I.

System 2: Bass staff starts with a double stop (4, 2) and a trill (1, 4). Treble staff starts with a double stop (4, 2) and a trill (1, 4). Roman numerals: II, III.

System 3: Bass staff starts with a double stop (2, 4) and a trill (1, 2). Treble staff starts with a double stop (2, 3) and a trill (1, 2). Roman numerals: III, II, I.

System 4: Bass staff starts with a double stop (3, 2) and a trill (1, 3). Treble staff starts with a double stop (4, 2) and a trill (1, 4). Roman numerals: II, III.

System 5: Bass staff starts with a double stop (2, 4) and a trill (1, 2). Treble staff starts with a double stop (2, 3) and a trill (1, 2). Roman numerals: III, II, I.

System 6: Bass staff starts with a double stop (3, 2) and a trill (1, 3). Treble staff starts with a double stop (4, 2) and a trill (1, 4). Roman numerals: II, III.

System 7: Bass staff starts with a double stop (0, 1) and a trill (2, 4). Treble staff starts with a double stop (2, 3) and a trill (1, 2). Roman numeral: I.

System 8: Bass staff starts with a double stop (3, 2) and a trill (1, 3). Treble staff starts with a double stop (4, 2) and a trill (1, 4). Roman numeral: II.

# 19

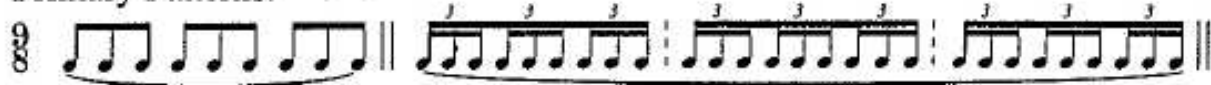
## A Few Non-Traditional Scales and Arpeggios

The scales and arpeggios in this section are intended as introductory study material for contemporary music. Each exercise is built from a basic interval or series of intervals indicated by the lower bracket and regularly repeated at a definite interval-distance shown by the upper bracket. The resulting non-traditional sequences provide a technical basis for an approach to present-day music. In addition this chapter is also a great tool for developing fine intonation.

### SCALES

Groups of nine notes. PATTERNS: *B1, B3, B9*  
*R1, R3, R9*

Primary Patterns:



Six systems of musical notation for scales and arpeggios. Each system consists of a bass clef staff and a treble clef staff. The scales are written in a non-traditional sequence. Fingerings (1-4) and accents are indicated throughout. The scales are: 1. Bass: G4, A4, B4, C5, D5, E5, F5, G5, A5; Treble: G5, A5, B5, C6, D6, E6, F6, G6, A6. 2. Bass: G4, A4, B4, C5, D5, E5, F5, G5, A5; Treble: G5, A5, B5, C6, D6, E6, F6, G6, A6. 3. Bass: G4, A4, B4, C5, D5, E5, F5, G5, A5; Treble: G5, A5, B5, C6, D6, E6, F6, G6, A6. 4. Bass: G4, A4, B4, C5, D5, E5, F5, G5, A5; Treble: G5, A5, B5, C6, D6, E6, F6, G6, A6. 5. Bass: G4, A4, B4, C5, D5, E5, F5, G5, A5; Treble: G5, A5, B5, C6, D6, E6, F6, G6, A6. 6. Bass: G4, A4, B4, C5, D5, E5, F5, G5, A5; Treble: G5, A5, B5, C6, D6, E6, F6, G6, A6.

This page of guitar sheet music consists of eight systems, each with two staves. The notation includes treble and bass clefs, various notes, accidentals, and fingerings. Fingerings are indicated by numbers 1-4 and 0. Some systems have brackets under the bass staff. The music is written in a key with two flats and a 4/4 time signature.



0 1 2 1 2 1 1 2 1 2 1 0 1 3 1 1

3 3 3 3 4 2 1 3 1 0 4 4 4 2 1

1 2 4 1 3 4 0 1 1 1 1

3 3 3 4 4 2 1 4 3 1 4 2 1 2 1 0 4

1 2 3 0 2 3 1 2 3 4 1 2 1 2 3 1 2 3 1

3 3 3 3 2 1 4 3 4 3 2 0 4 3 2 1



Groups of twelve notes. PATTERNS: *B1, B2, B3, B4, B6, B12*  
*R1, R2, R3, R4, R6, R12*

Primary Patterns:



*Also slur two measures.*



Musical staff 1: Bass clef. Notes: B2 (fing. 2), B2 (fing. 0), B2 (fing. 1), C3 (fing. 0), D3, E3, F3 (fing. 1), G3 (fing. 1), A3 (fing. b).

Musical staff 2: Treble clef. Notes: B3 (fing. 3), B3 (fing. 3), C4 (fing. 3), D4 (fing. 3), E4 (fing. 4), F4 (fing. 4), G4, A4, B4.

Musical staff 3: Bass clef. Notes: B2 (fing. 1), C3 (fing. 3), D3 (fing. 4), E3 (fing. 0), F3 (fing. 1), G3 (fing. 4), A3 (fing. 1), B3 (fing. 2), C4 (fing. 4), D4 (fing. 1), E4 (fing. 2), F4 (fing. 4), G4 (fing. 0), A4 (fing. 2), B4 (fing. 3), C5 (fing. 1), D5 (fing. 2).

Musical staff 4: Treble clef. Notes: B3 (fing. 3), C4 (fing. 3), D4 (fing. 0), E4 (fing. 4), F4 (fing. 2), G4 (fing. 1), A4 (fing. 4), B4 (fing. 1), C5 (fing. 4), D5 (fing. 0), E5 (fing. 4), F5 (fing. 4), G5 (fing. 4).

Musical staff 5: Bass clef. Notes: B2 (fing. 2), C3 (fing. 4), D3 (fing. 1), E3 (fing. 3), F3 (fing. 4), G3 (fing. 1), A3 (fing. 4), B3 (fing. 1), C4 (fing. 2), D4 (fing. 3), E4 (fing. 0), F4 (fing. 2), G4 (fing. 3), A4 (fing. 1), B4 (fing. 2).

Musical staff 6: Treble clef. Notes: B3 (fing. 3), C4 (fing. 2), D4 (fing. 1), E4 (fing. 3), F4 (fing. 2), G4 (fing. 0), A4 (fing. 3), B4 (fing. 2), C5 (fing. 1), D5 (fing. 0), E5 (fing. 4), F5 (fing. 3), G5 (fing. 1), A5 (fing. 0), B5 (fing. 4), C6 (fing. 2), D6 (fing. 1).



# ARPEGGIOS

Groups of twelve notes. PATTERNS: *B1, B2, B3, B4, B6, B12*  
*R1, R2, R3, R4, R6, R12*

Primary Patterns:

Three musical phrases illustrating primary arpeggio patterns. The first is in 3/4 time, the second in 4/4 time, and the third in 6/8 time. Each phrase consists of a sequence of notes slurred together.

*Also slur two measures.*

Six staves of musical notation, each containing a 12-note arpeggio exercise. Each exercise is written in a grand staff (treble and bass clefs) and includes detailed fingering numbers (1-4) above the notes. The exercises are variations of the primary patterns, including some with natural and flat accidentals.

First musical staff with bass and treble clefs, 4/4 time signature. It contains a complex melodic line with numerous accidentals and fingering numbers (1, 3, 4) above the notes.

Second musical staff, similar to the first. It includes the Roman numerals IV, III, II, and I positioned below the bass staff, indicating specific fret positions for a guitar.

Third musical staff, continuing the melodic sequence with various accidentals and fingering instructions.

Fourth musical staff, featuring a mix of eighth and sixteenth notes with complex fingering.

Fifth musical staff, showing a continuation of the intricate melodic pattern.

Sixth musical staff, maintaining the complex rhythmic and melodic structure.

Seventh musical staff, with various accidentals and fingering numbers throughout.

Eighth musical staff, the final line of music on the page, ending with a double bar line.





Musical score consisting of eight systems of two staves each (bass and treble clef). The score includes various musical notations such as notes, rests, accidentals, and fingerings (1, 2, 3, 4). Roman numerals I and II are used to indicate fret positions. The key signature is one flat (B-flat), and the time signature is 4/4.

This page of musical notation is for guitar and consists of eight systems. Each system contains a bass staff and a treble staff. The notation includes various chords, scales, and technical markings such as fingerings (1-4), triplets (3), and slurs. Roman numerals II, III, and IIII are used to indicate fret positions. The key signature has one sharp (F#) and the time signature is 4/4.

Two staves of musical notation for guitar. The first staff shows a sequence of notes with fingerings (III, II, I) and fret numbers (0, 1, 2, 3, 4). The second staff continues the sequence with similar fingerings and fret numbers.

Groups of nine notes. PATTERNS: *B1, B3, B9*  
*R1, R3, R9*

Primary Patterns:

A musical staff showing a primary pattern of nine notes in 9/8 time, slurred together.

*Also slur two measures.*

Three staves of musical notation for guitar, each showing a sequence of notes with fingerings and fret numbers.