Please note that not all pages are included. This is purposely done in order to protect our property and the work of our esteemed composers.

If you would like to see this work in its entirety, please order online or call us at 800-647-2117.

TABLE OF CONTENTS

Introduction fo the Violoncello Edition iii

Preface iv, v

Additions and Changes to the Violoncello Edition from the Original Version of Contemporary Violin Technique vi

PART I: SCALE AND ARPEGGIO EXERCISES

TWO-OCTAVE STUDIES
1. Scales in Two Octaves 1
2. Broken Thirds in Two Octaves 4
3. Arpeggios in Two Octaves 9

THREE-OCTAVE STUDIES
4. Scales in Three Octaves 11
5. Broken Thirds in Three Octaves 20
6. Arpeggios in Three Octaves 26

FOUR-OCTAVE STUDIES
7. Scales in Four Octaves 39
8. Chromatic Scales in Four Octaves 49
9. Arpeggios in One Position 55

STUDIES IN ONE POSITION
10. Scales in One Position 68
11. The Chromatic Scale in One Position 70
12. Broken Thirds and Fourths in One Position 74
13. Arpeggios in One Position 76

VI.STUDIES ON ONE STRING
14. Scales on One String 85
15. Broken Thirds, Fourths, Fifths, and Sixths on One String 88
16. Arpeggios on One String 92

VII. UNUSUAL SCALES AND ARPEGGIOS
17. Scales of Varied Length 98
18. The Whole Tone Scale 101
19. A Few Non-Traditional Scales and Arpeggios 104

PART II: BOWING AND RHYTHM PATTERNS

BOWING PATTERNS 116
- One-Note, Two-Note, Three-Note 117
- Four-Note 118
- Five-Note 119
- Six-Note 120
- Seven-Note 121
- Eight-Note 123
- Nine-Note 125
- Twelve-Note 128
- Sixteen-Note 133

RHYTHM PATTERNS 134
- One-Note 135
- Two-Note 136
- Three-Note 137
- Four-Note 138
- Five-Note 139
- Six-Note 141
- Seven-Note 143
- Eight-Note 145
- Nine-Note 147
- Twelve-Note 149
- Sixteen-Note 152

INTRODUCTION TO THE VIOLONCELLO EDITION

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 Medowmount 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.

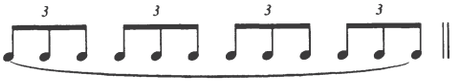
Since technical mastery depends more upon control of mind over muscle than upon mere agility of fingers, the direct way to such mastery lies through working procedures which present a constant challenge to the student's thinking processes. For this reason new problems must always be faced and solved.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

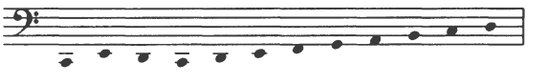
The patterns are in two categories: Bowings (designated by B) and Rhythms (designated by R). Each category is divided into sections, coded B1 to B 16 for bowings, and R1 to R16 for rhythms. The numbers indicate the number of notes in each pattern. For example, the following bowing pattern is regarded 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.

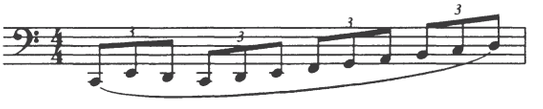
The same principle applies to the Rhythms. The following example derives from the two-note rhythmical figure . Accordingly it is referred to as a two-note rhythm pattern and is listed under R2. The figure is a three-note pattern (R3). The figure is a twelve-note pattern (R12).

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

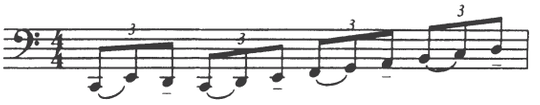
B1, B2, B3, B4, B6, and B12
R1, R2, R3, R4, R6, and B12

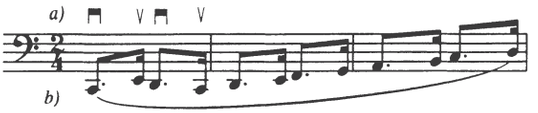
First Primary pattern: 

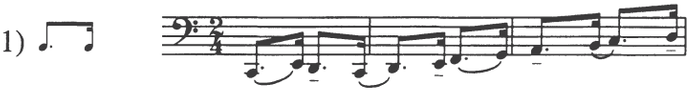
Example of exercise: 

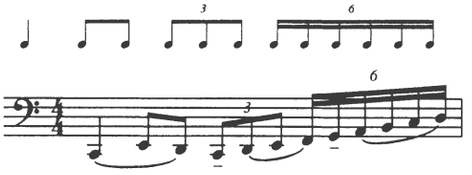
Application of its first primary pattern: 

*The guiding idea of this integration is explained in Ivan Galamian's book, *Principles of Violin Playing and Teaching, Prentice-Hall, Inc., Englewwod 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.

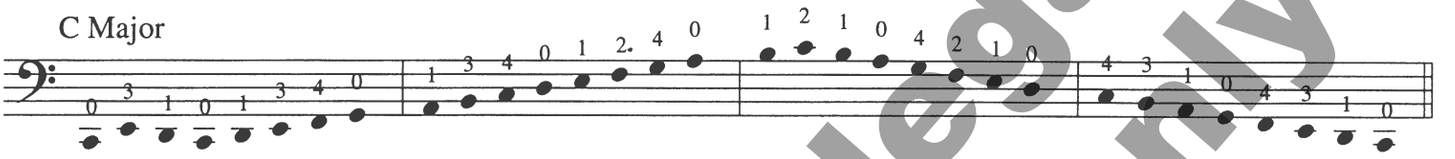
1
Scales in Two Octaves

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

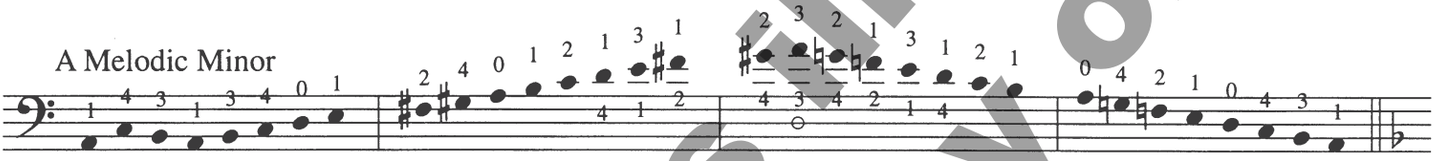
Primary Patterns:

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.

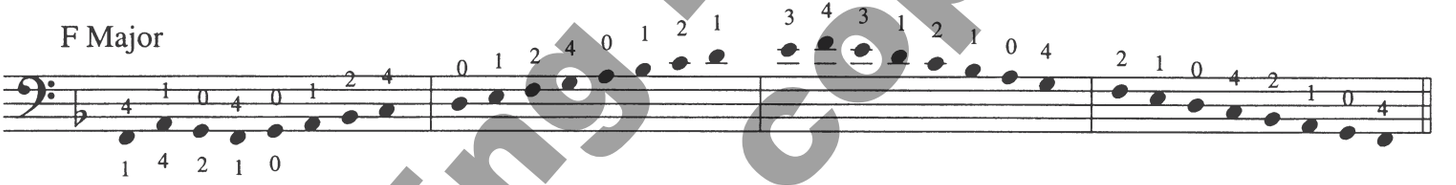
C Major



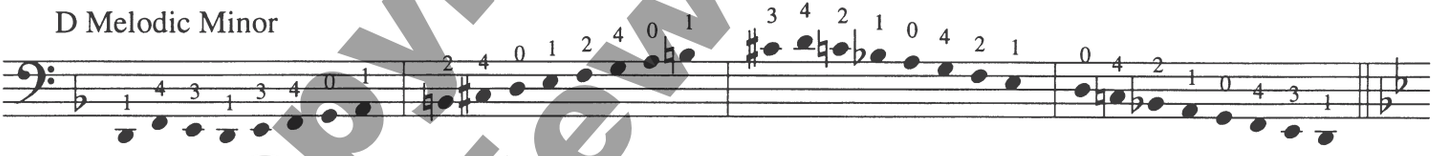
A Melodic Minor



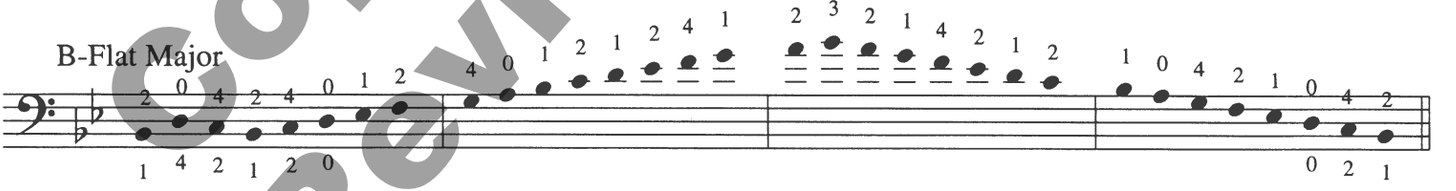
F Major



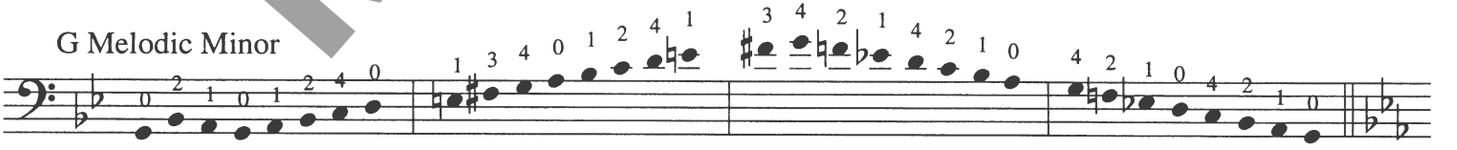
D Melodic Minor



B-Flat Major

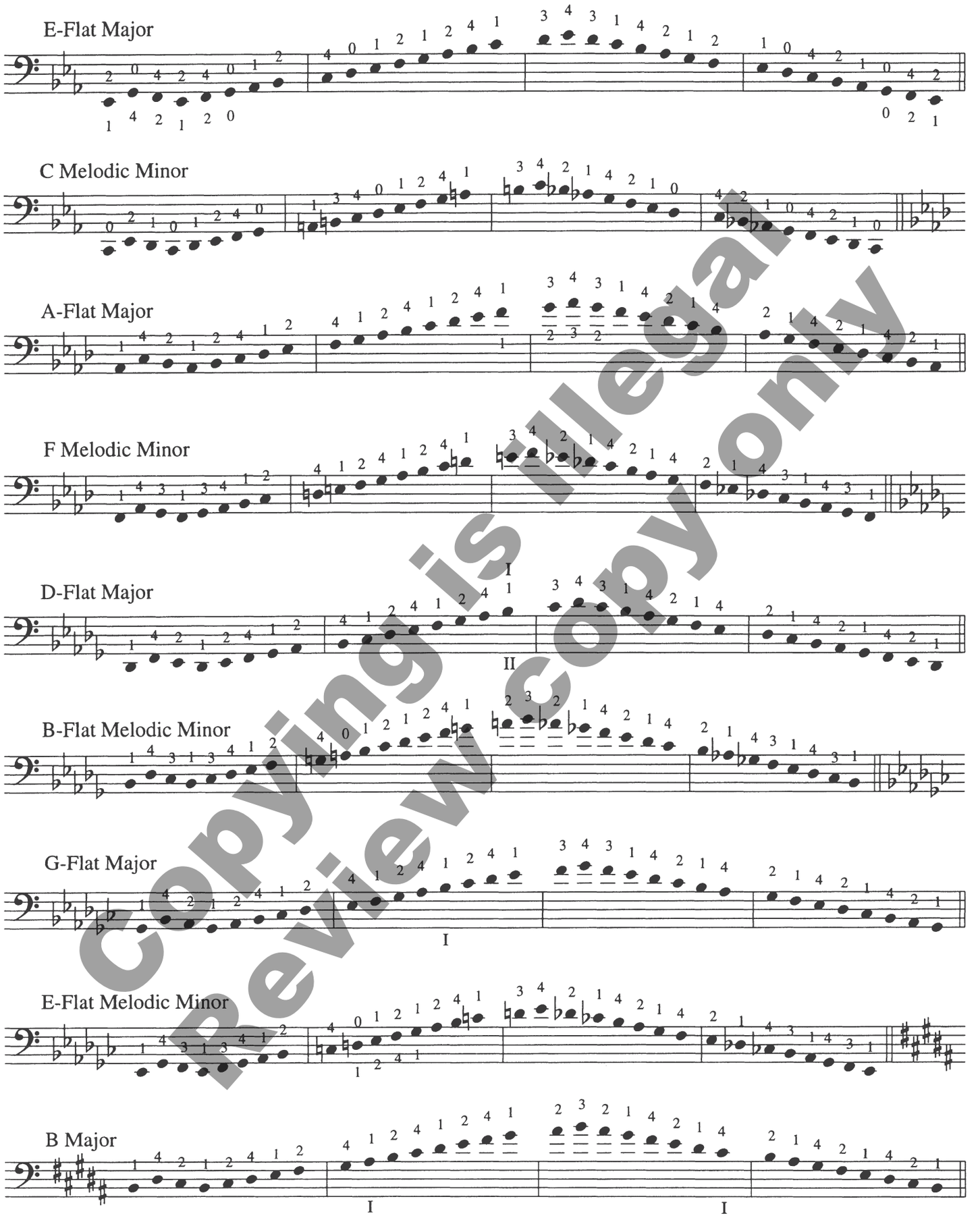


G Melodic Minor



Copying is illegal
Review copy only

© Copyright 1994 by Galaxy Music Corporation. A division of
ECS Pubishing, Boston, Massachusetts. All rights reserved.



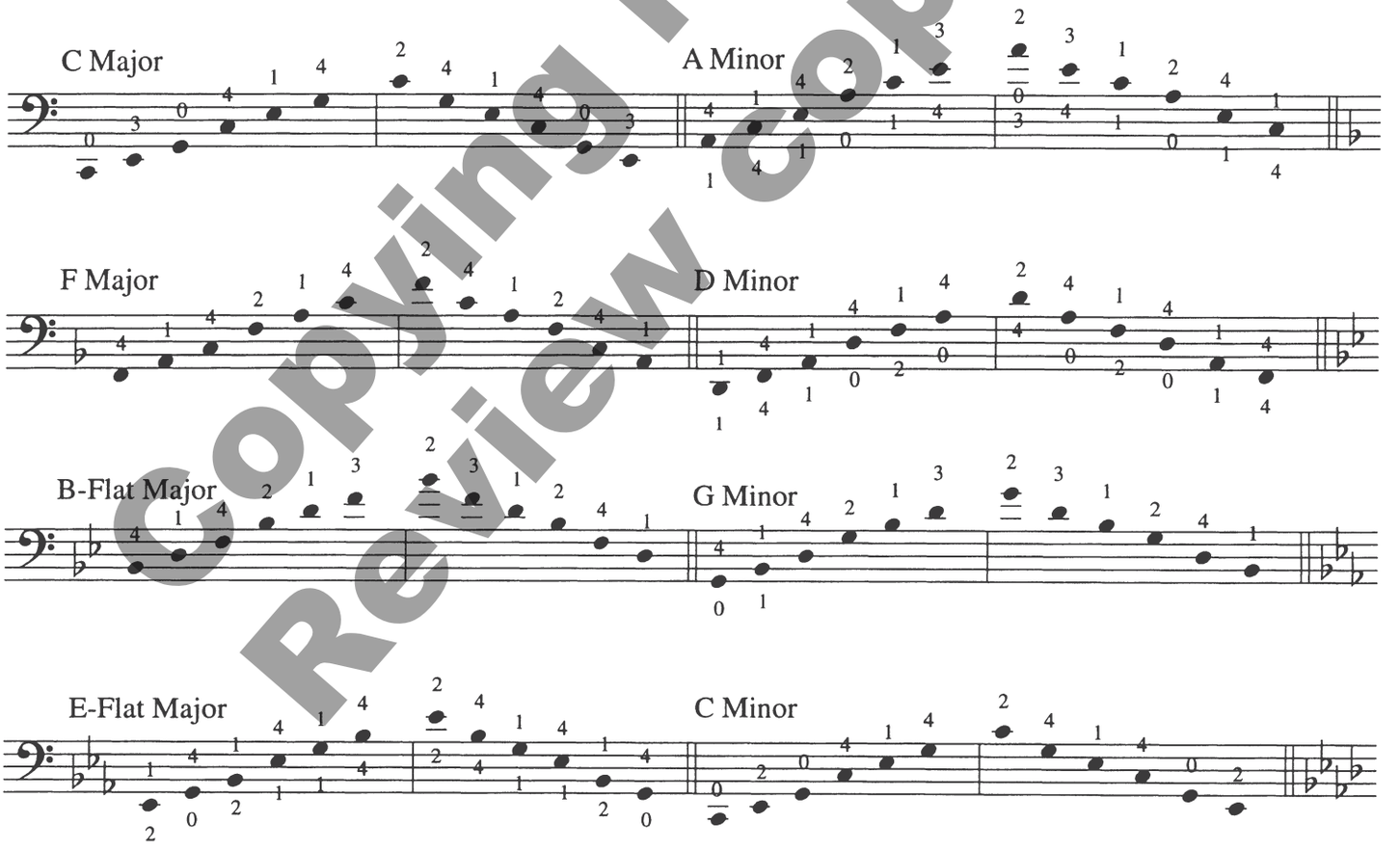
Copying is illegal
Review copy only

3

Arpeggios In Two Octaves

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

Primary Patterns:



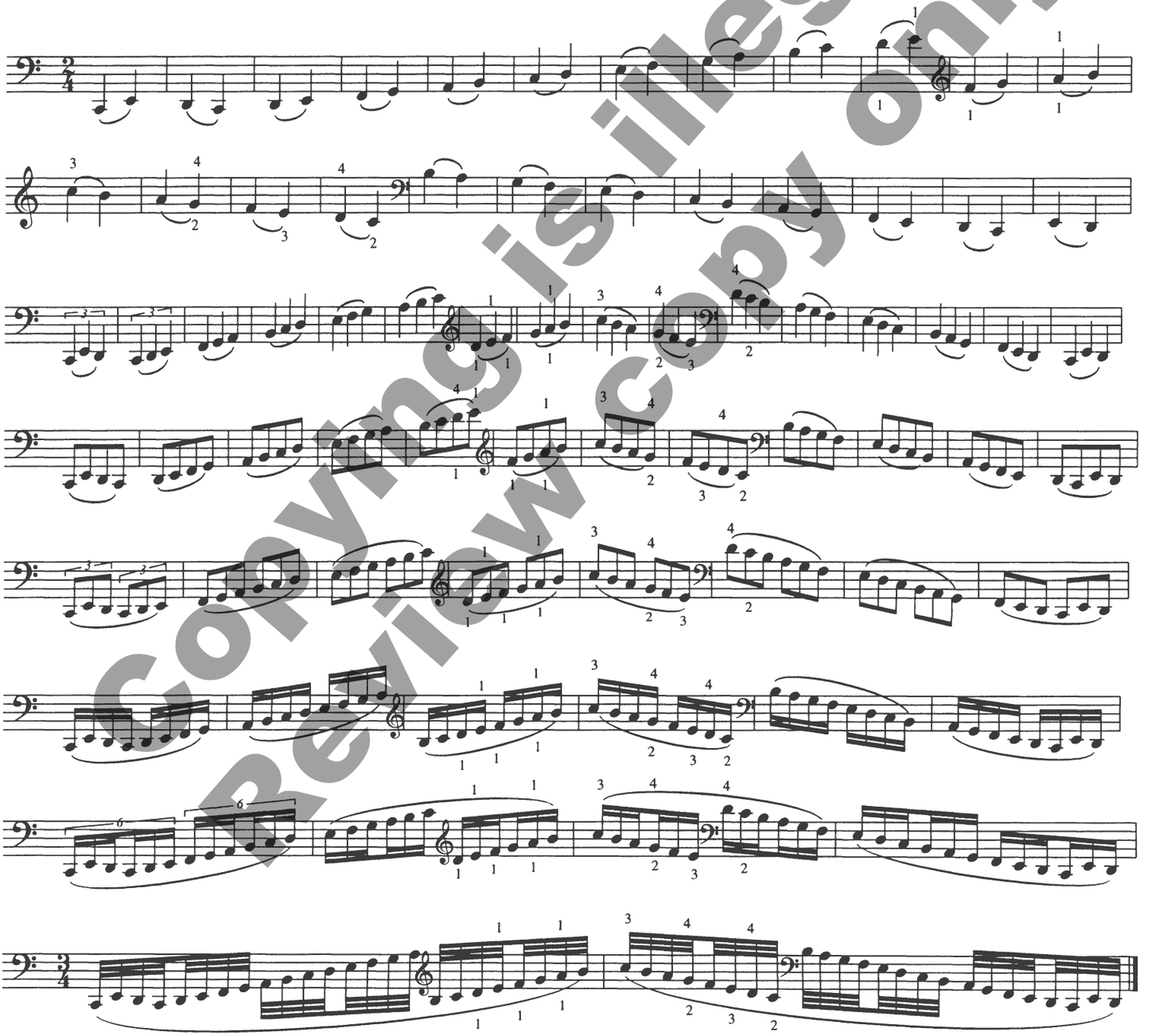
Copying is illegal
Review copy only

4
Three-Octave Scales

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

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 (♩ = 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.



Copying is illegal
Review copy only

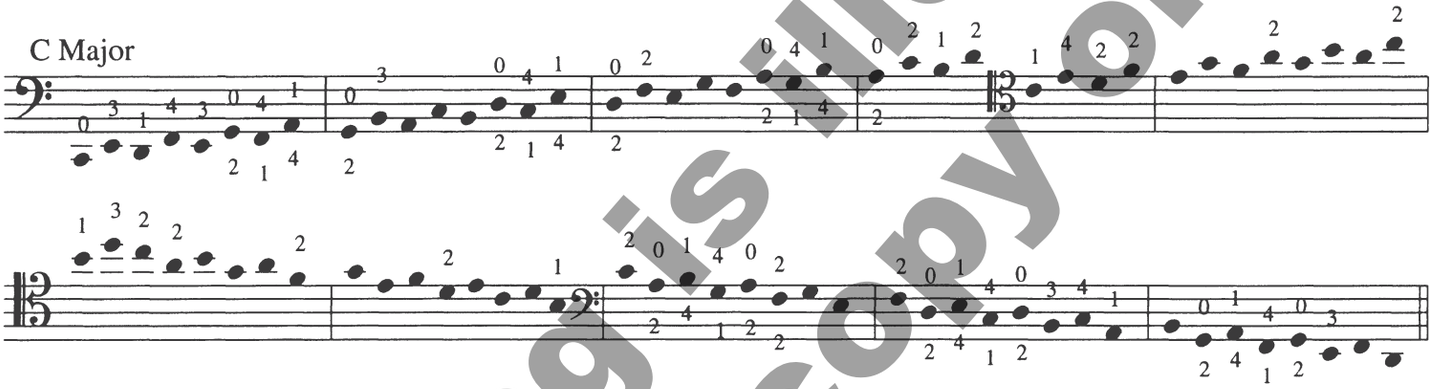
Note: Please look at page 19 for alternate fingering systems for the three octave scales.

5
Broken Thirds In Three Octaves

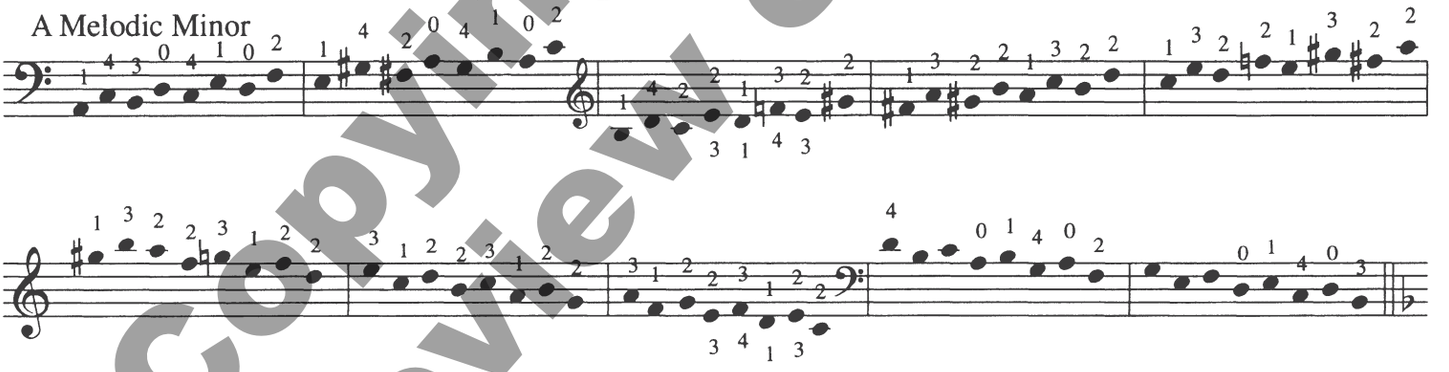
Groups of eight notes. PATTERNS: ***B1, B2, B4, B8***
R1, R2, R4, R8

Primary Patterns:

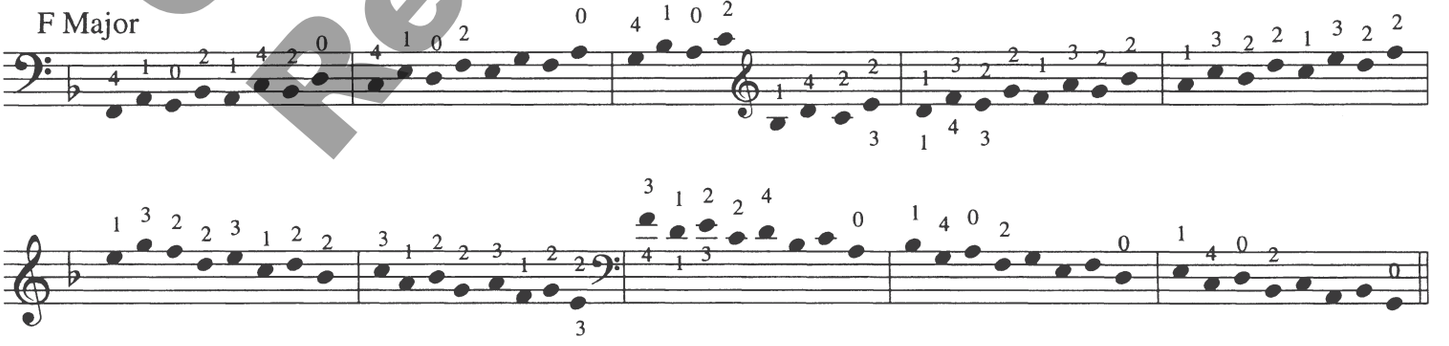
C Major



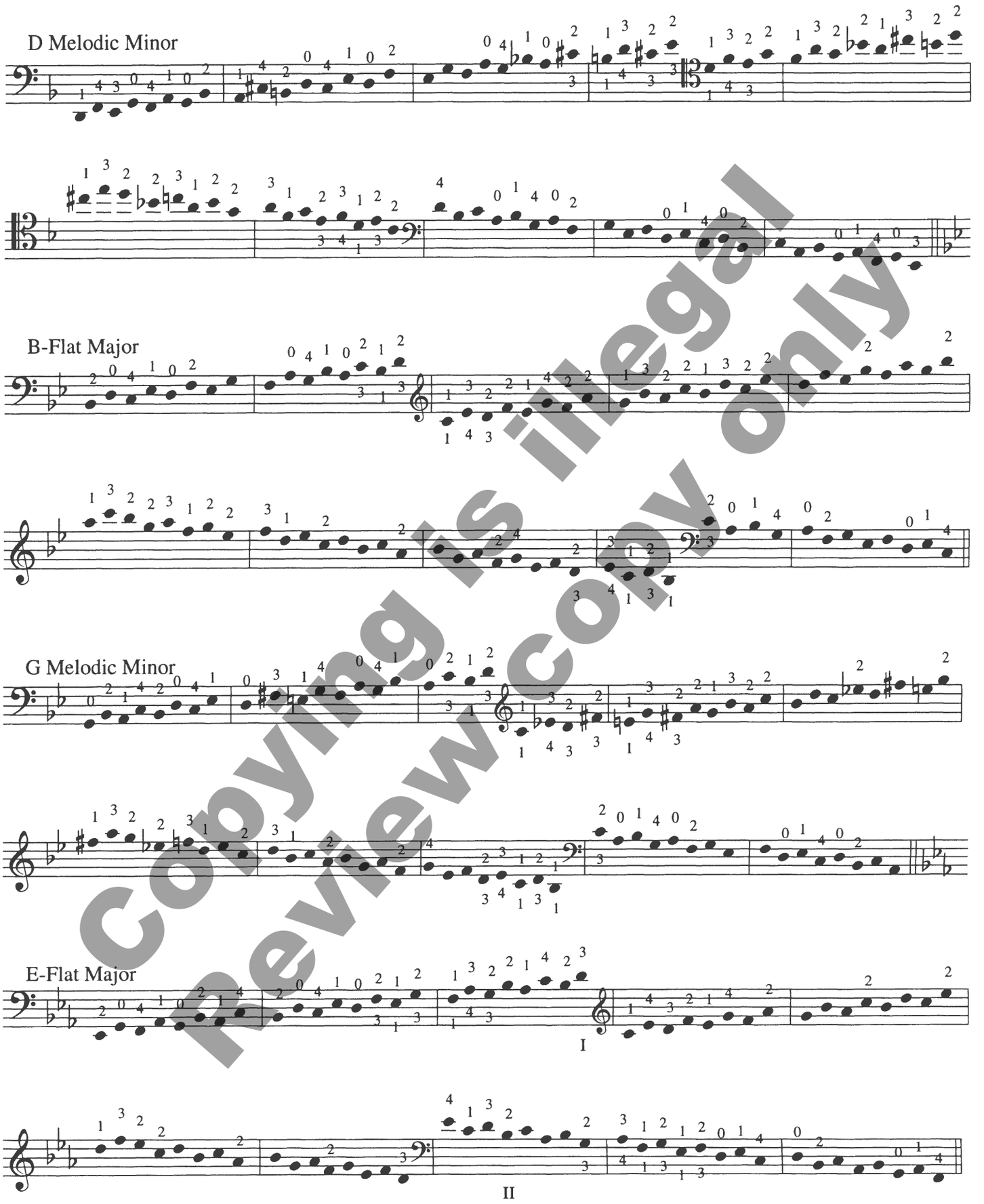
A Melodic Minor



F Major



Copying is illegal
Review copy only

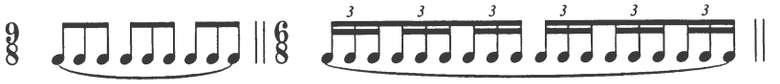


Copying is illegal
Review copy only

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

III II I

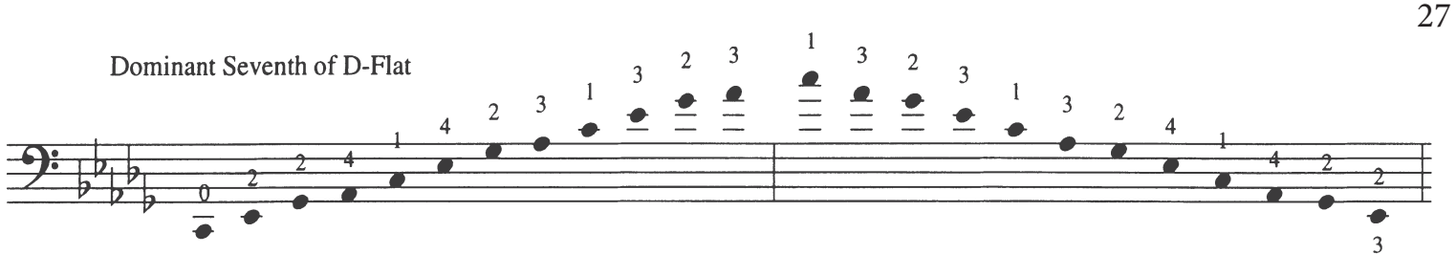
C Major

II III IV

Copying is illegal
Review copy only

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.

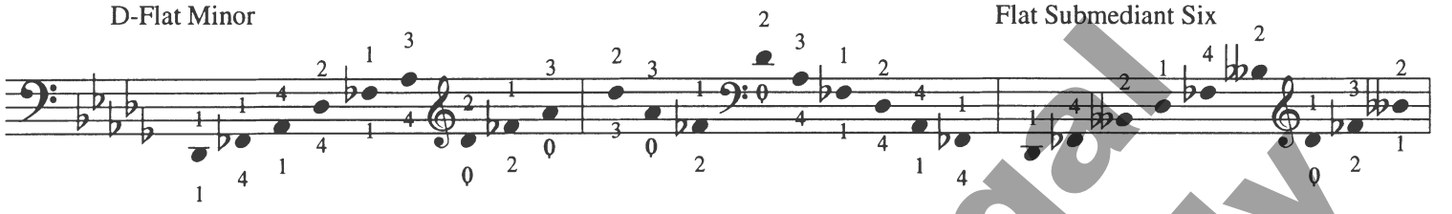
Dominant Seventh of D-Flat



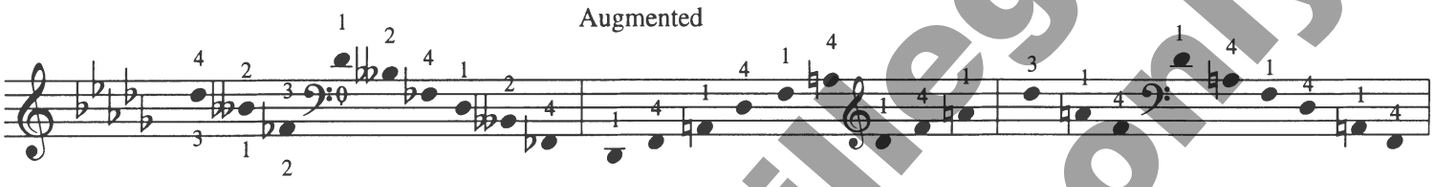
Key of D-Flat

D-Flat Minor

Flat Submediant Six

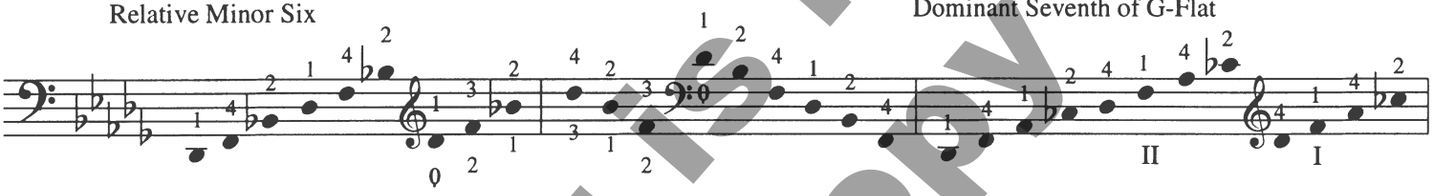


Augmented

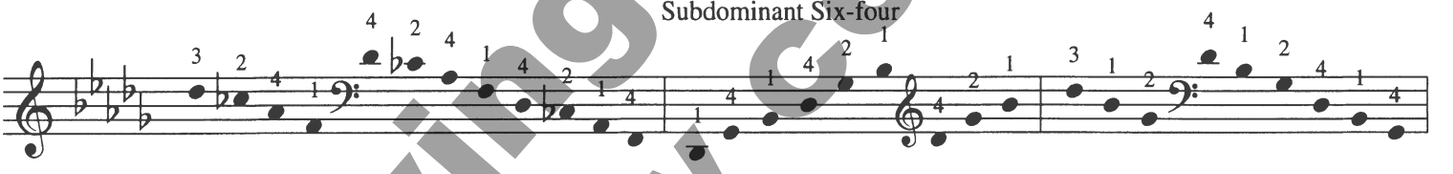


Relative Minor Six

Dominant Seventh of G-Flat

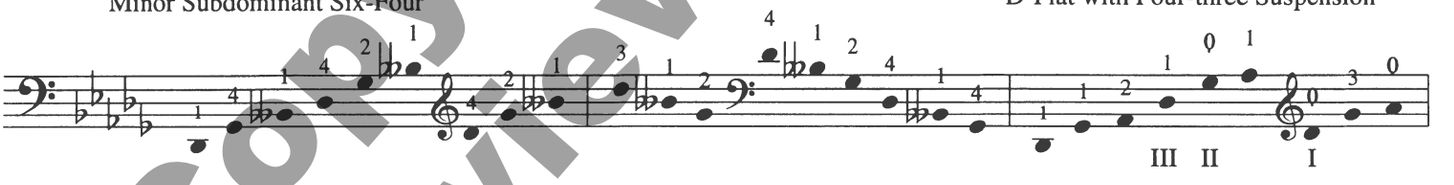


Subdominant Six-four

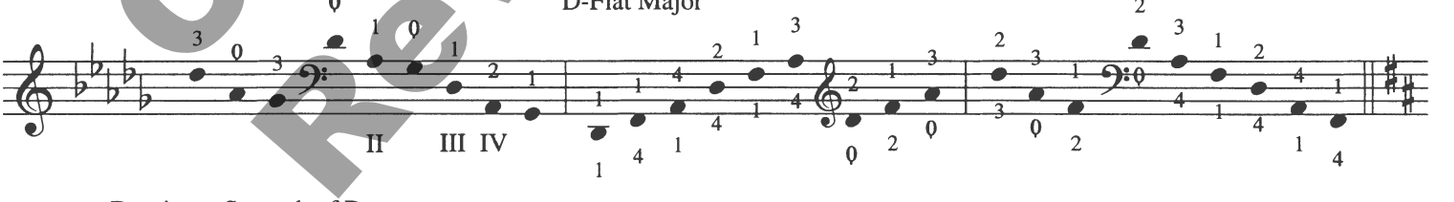


Minor Subdominant Six-Four

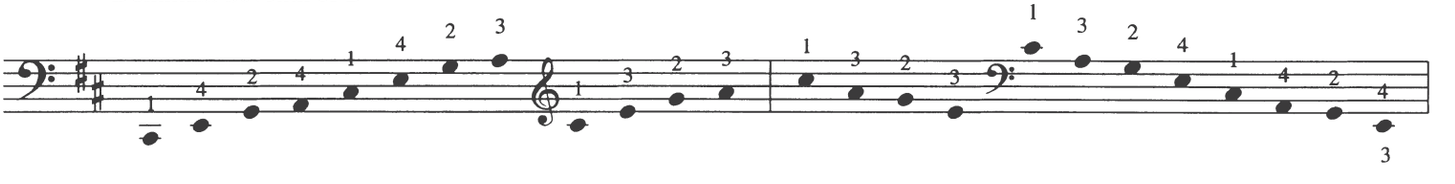
D-Flat with Four-three Suspension



D-Flat Major

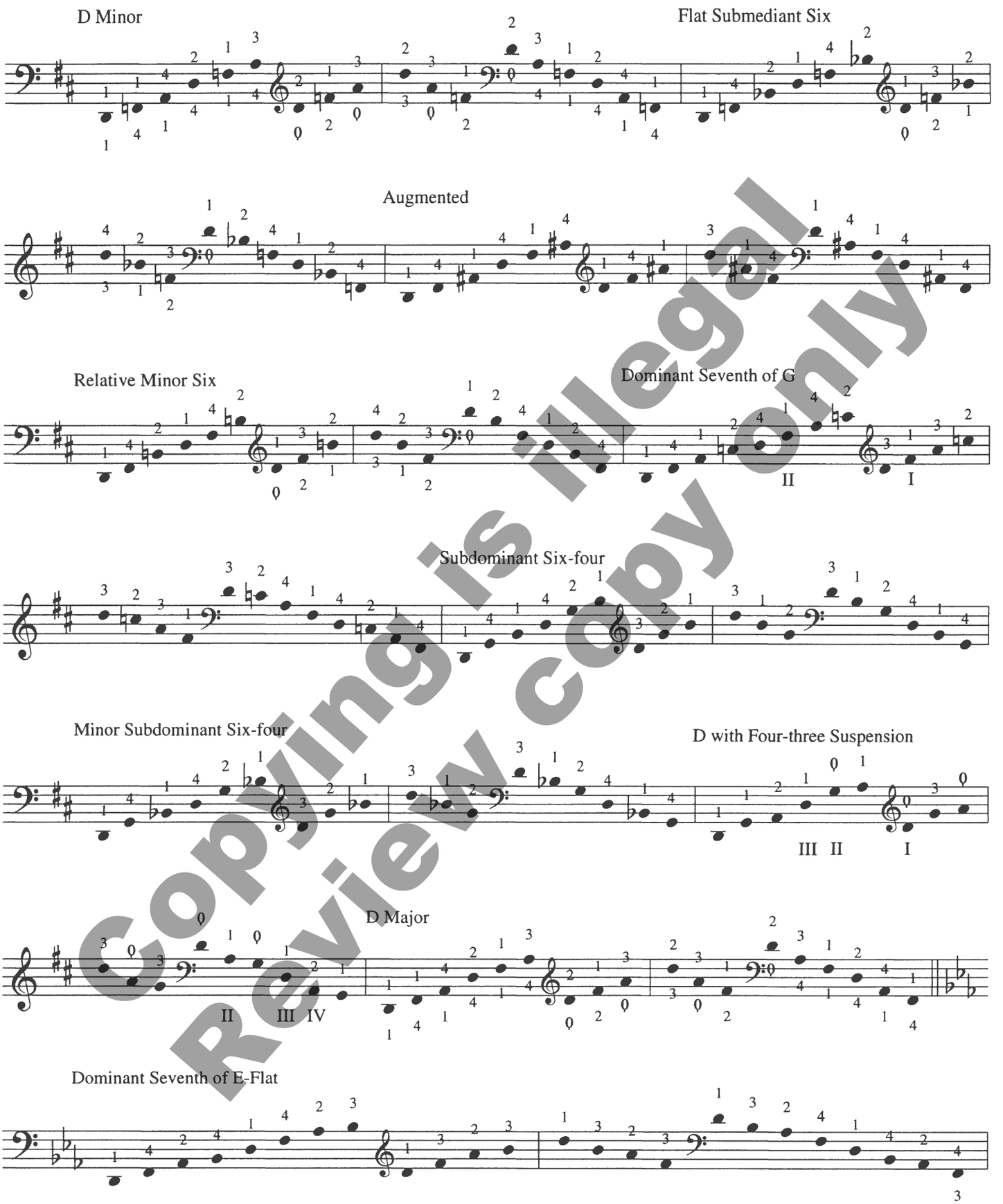


Dominant Seventh of D



Copying is illegal
Review copy only

Key of D



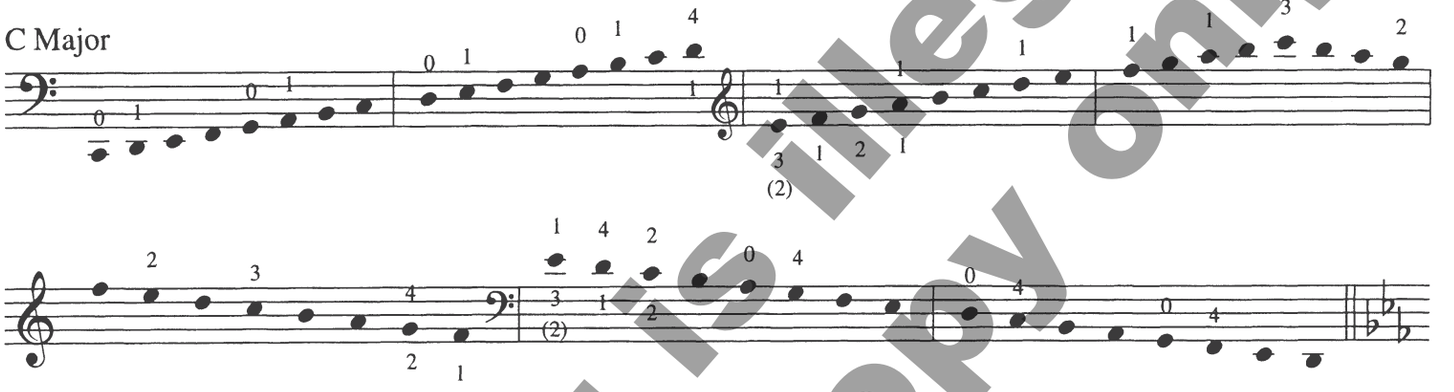
Copying is illegal
Review copy only

7
Four-Octave Scales

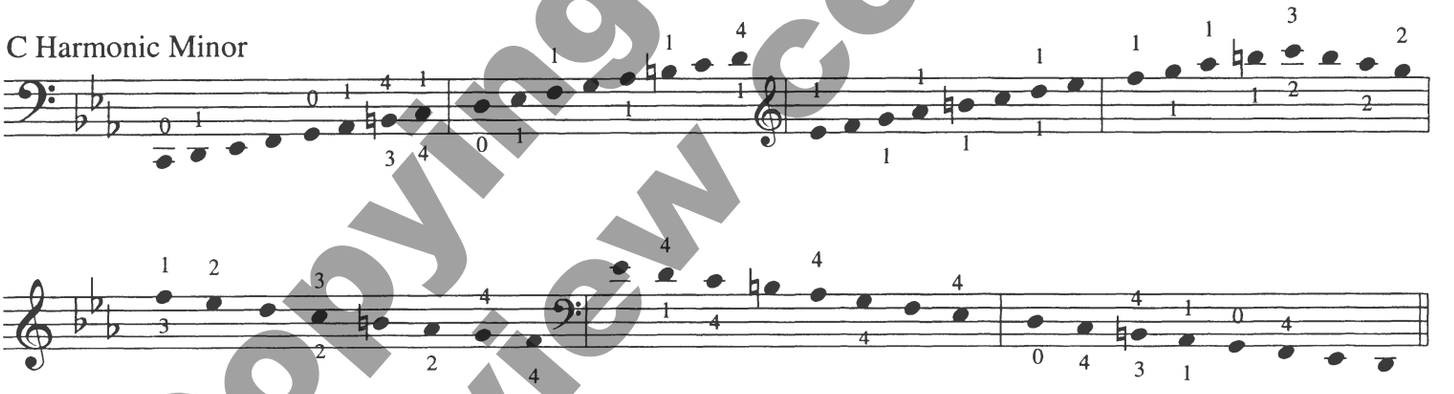
Groups of eight notes. PATTERNS: ***B1, B2, B4, B8***
R1, R2, R4, R8

Primary Patterns:

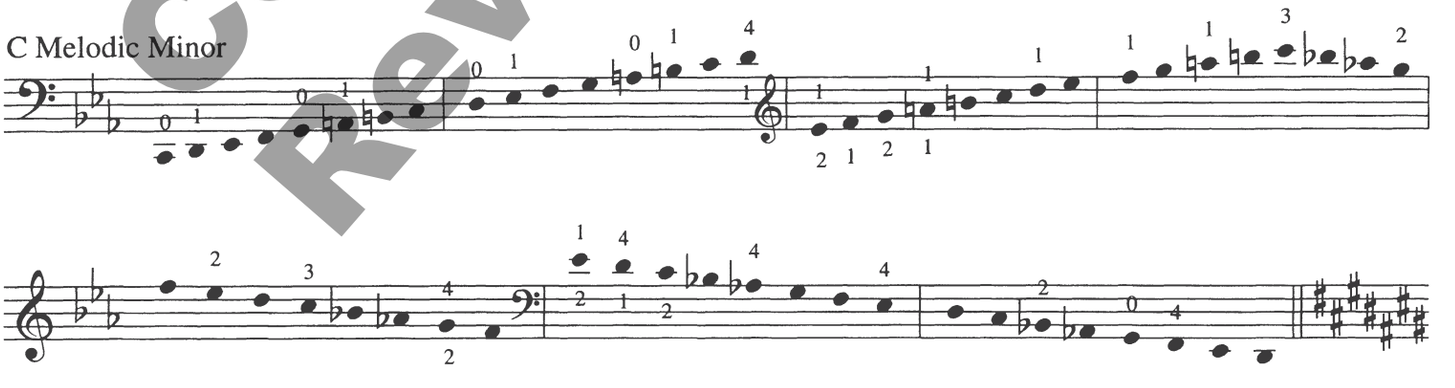
C Major



C Harmonic Minor

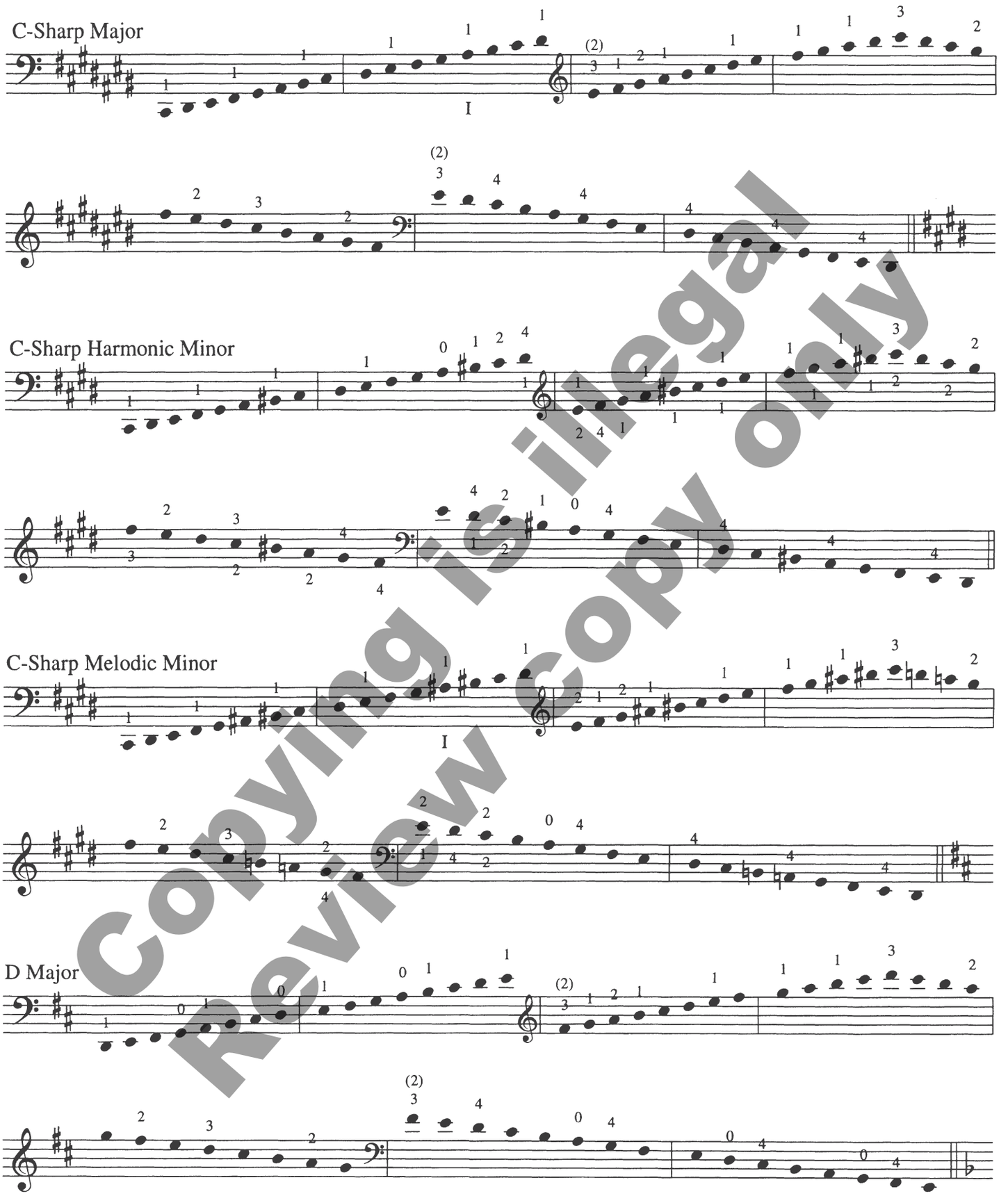


C Melodic Minor

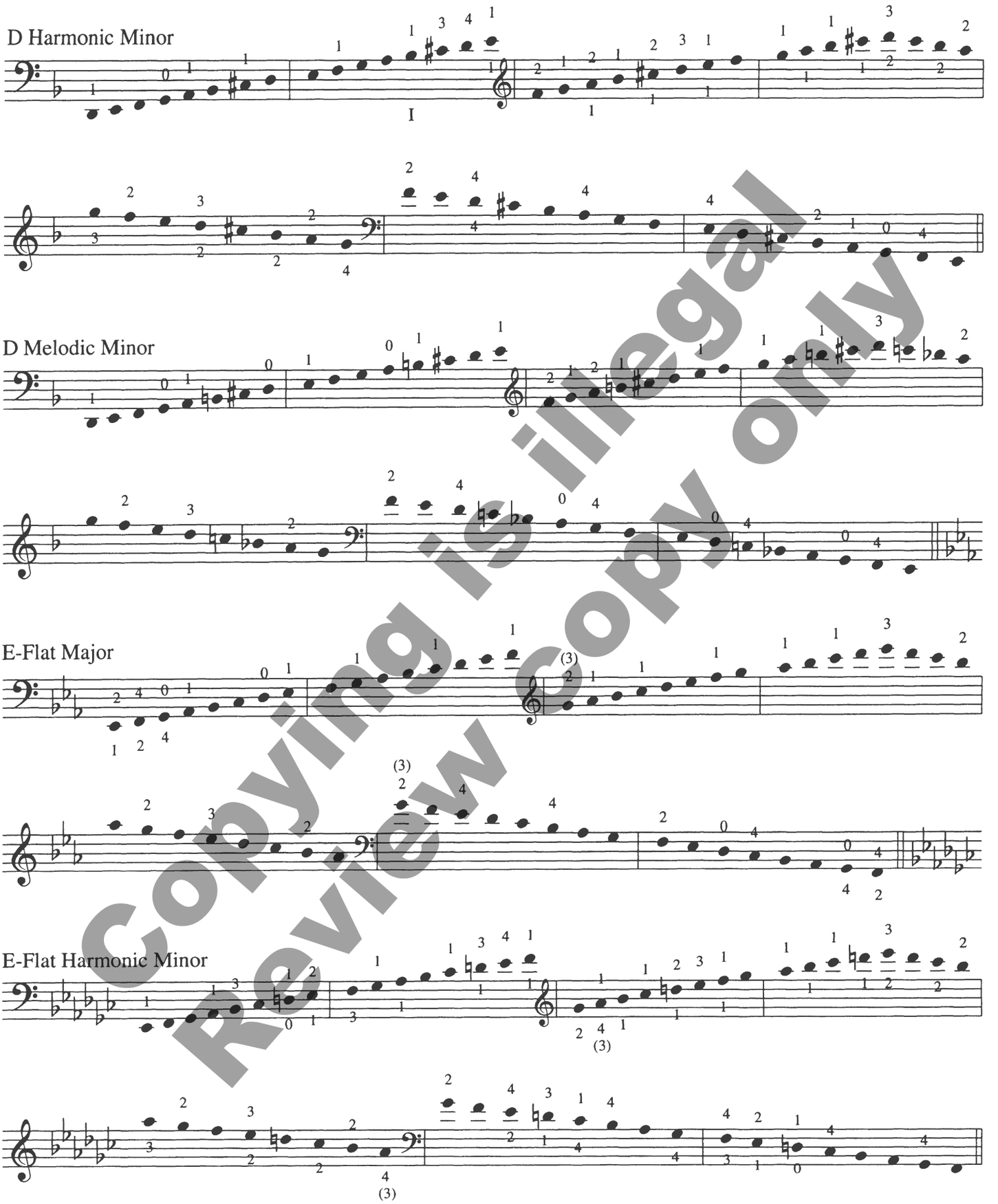


Copying is illegal
Review copy only

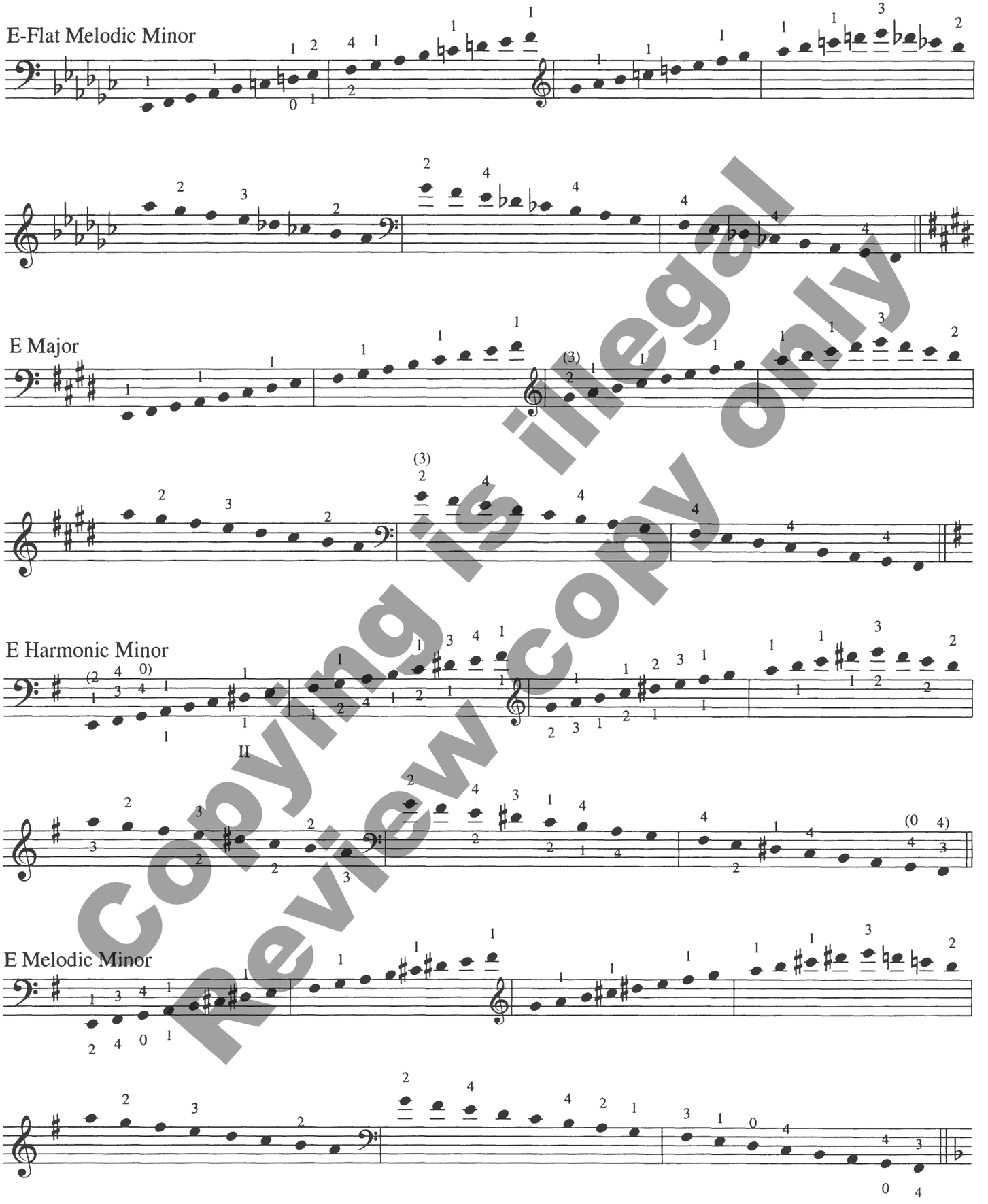
Note: Please look at page 48 for alternate fingering systems for the four octave scales.



Copying is illegal
Review copy only



Copying is illegal
Review Copy only



Copying is illegal
Review copy only

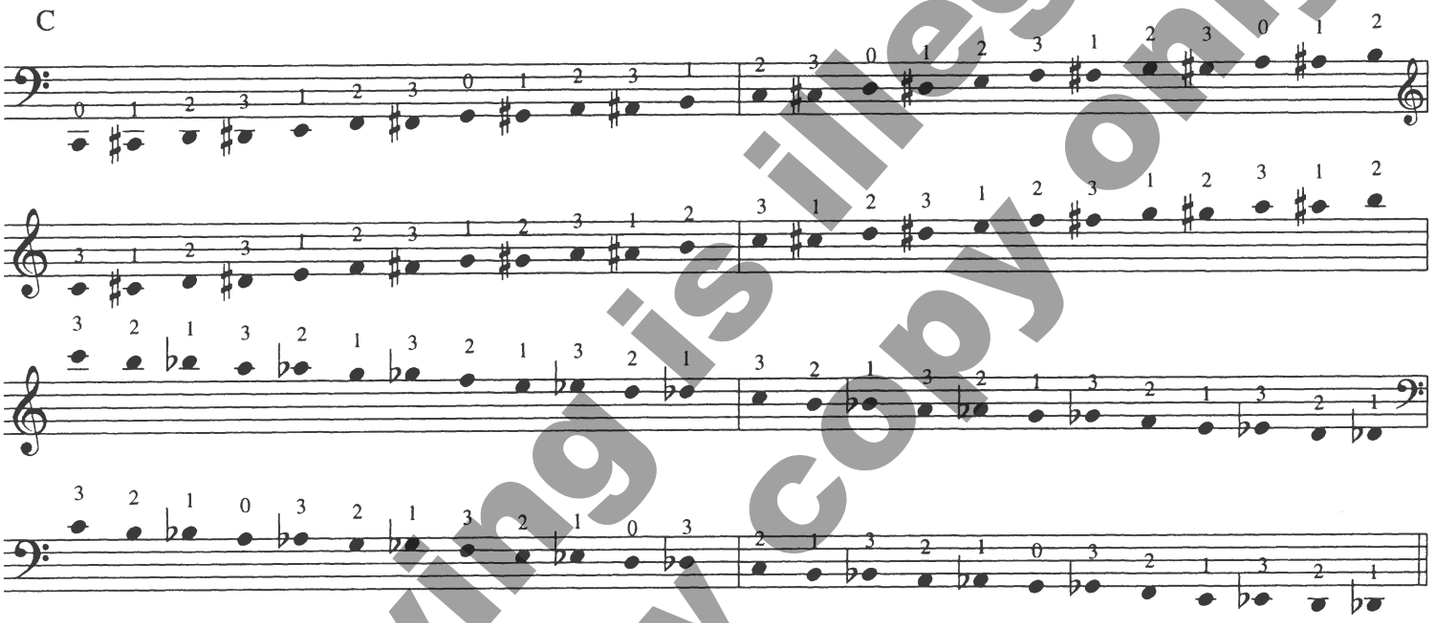
8
Chromatic Scales in Four Octaves

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

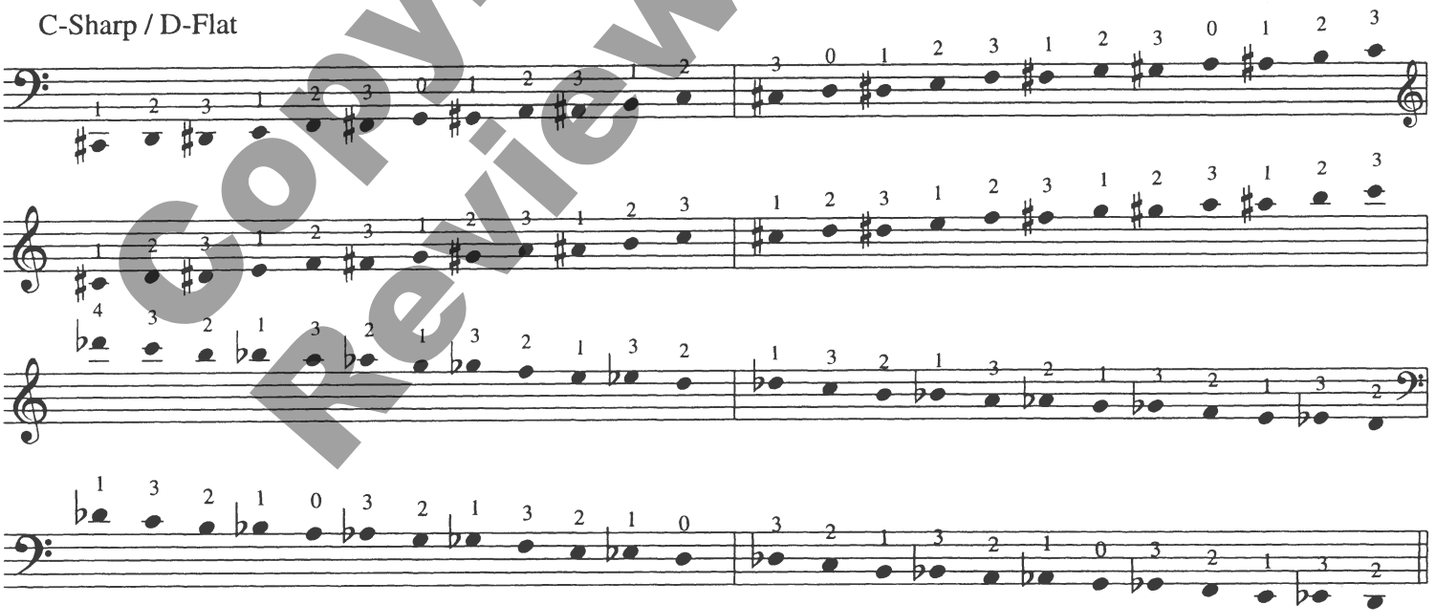
Primary Patterns:

Also slur two measures.

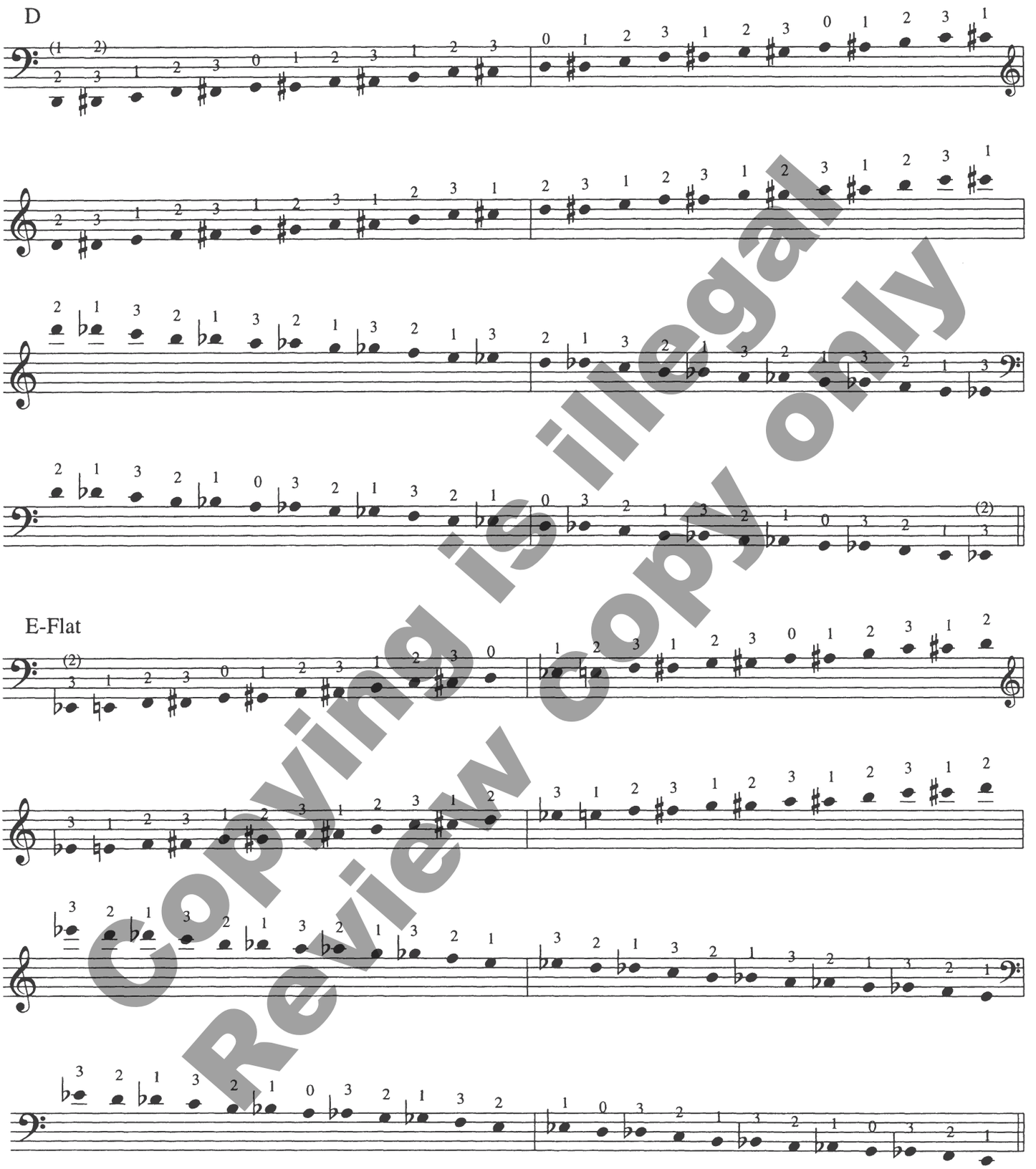
C



C-Sharp / D-Flat



Copying is illegal
Review copy only



Copying is illegal
Review copy only

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.

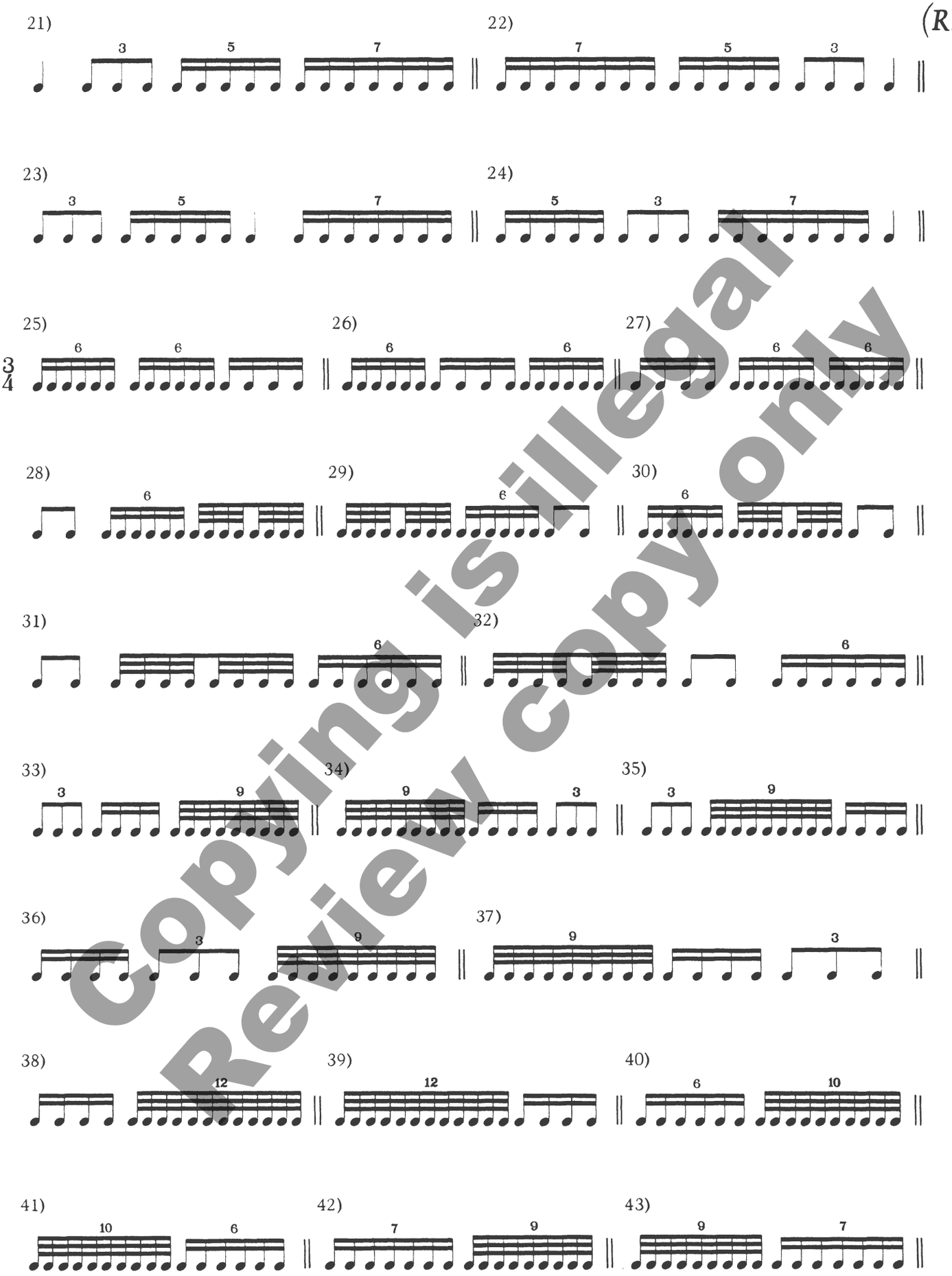
B) *Below the Staff (These fingerings are also used in Chapter 6, "Three Octave Arpeggios.")*
These fingerings are the standard fingerings for the Four-Octave Arpeggios and are the same for all keys. Play three notes on the C string, three notes on the G string, three notes on the D string, and the last 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.

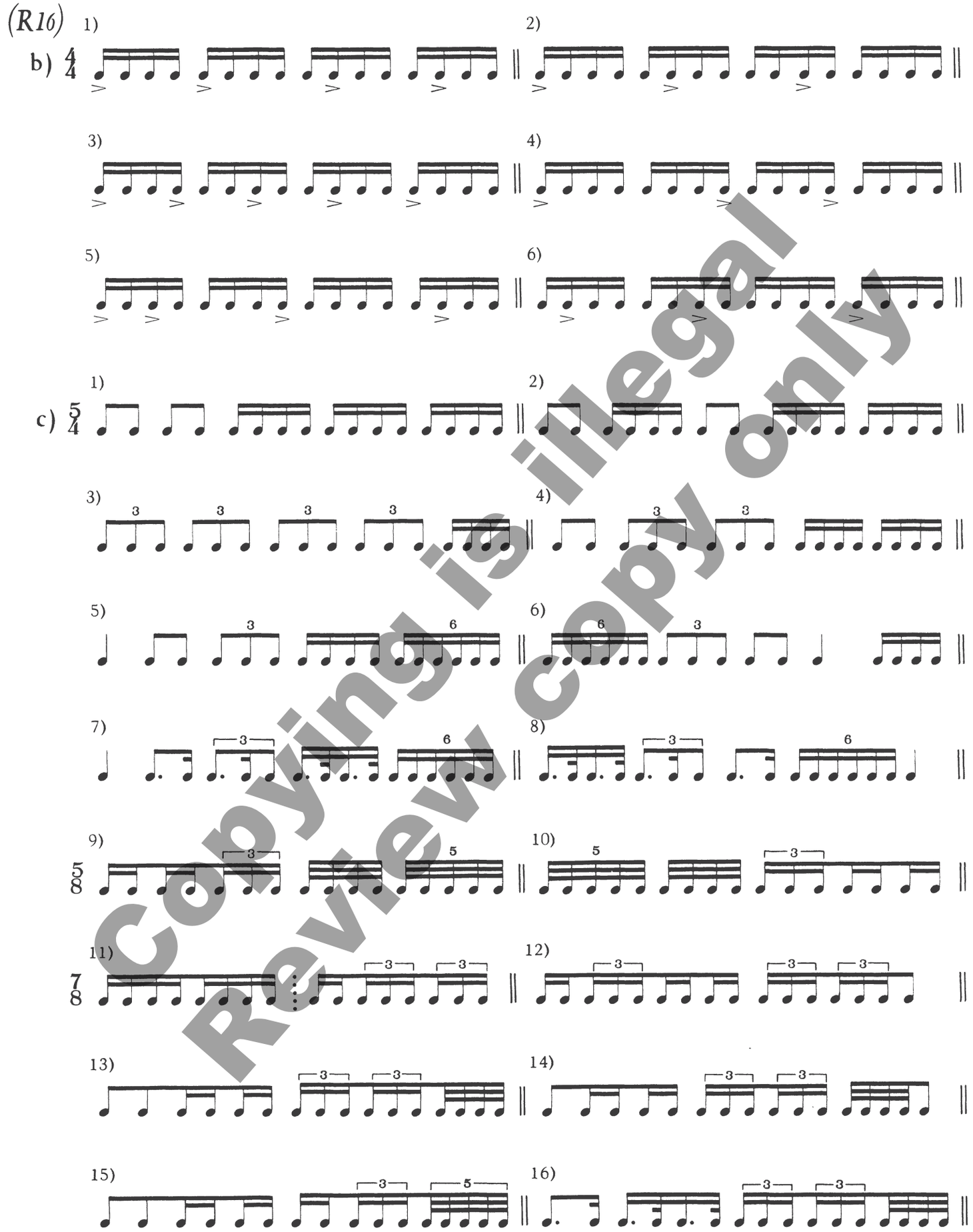
Copying is illegal
Review copy only

(R16)



Copying is illegal
Review copy only

(R16)



Copying is illegal
Review copy only