

KNJIŽNICA AKADEMIJE ZA GLASBO

K 784.9
HØJSGAARD E.
Rhythm

784.9



3013137

COBISS c

UNIVERZA V LJUBLJANI

ERIK HØJSGAARD

Rhythm

ADVANCED
STUDIES

Più mosso (Tempo III°) ♩ = 144 (♩ = 72)

The image shows a musical score for a piece titled 'Più mosso (Tempo III°)'. The tempo is indicated as ♩ = 144 (♩ = 72). The score is written on two staves, with a 2/4 time signature. The key signature has two flats (B-flat and E-flat). The music features complex rhythmic patterns, including triplets and syncopation. The first staff begins with a forte (f) dynamic, and the second staff begins with a mezzo-forte (mf) dynamic. The score includes various musical notations such as notes, rests, and dynamic markings.

AARHUS UNIVERSITY PRESS

ERIK HØJSGAARD

Rhythm

ADVANCED
STUDIES

AARHUS UNIVERSITY PRESS



Rhythm · Advanced Studies

©Erik Højsgaard and Aarhus University Press 2016

Translated by Siri Brown

Cover: Carl-H.K. Zakrisson

Cover illustration: Igor Stravinsky's *Symphonies*

Graphic Design and Typesetting: Erik Højsgaard

The book is typeset in Minion and
printed on 120g Munken Lynx Rough

Printed by Narayana Press, Denmark

Printed in Denmark 2016

ISBN 978 87 7184 116 9

Published with support from:

Vera and Carl Johan Michaelsen Foundation

Danish Arts Foundation

The Augustinus Foundation

Koda

Aarhus University Press

Langelandsgade 177

DK-8200 Aarhus N

Denmark

www.unipress.dk

International distributors:

Gazelle Book Services Ltd.

White Cross Mills

Hightown, Lancaster, LA1 4XS

United Kingdom

www.gazellebookservices.co.uk

ISD

70 Enterprise Drive, Suite 2

Bristol, CT 06010

USA

www.isdistribution.com



KNIJŽNICA AKADEMIJE ZA GLASBO

K 784.9
HØJSGAARD E.
Rhythm
784.9



3013137

COBISS c



PEER
REVIEWED

/ In accordance with requirements of the Danish Ministry of Higher Education and Science,
the certification means that a PhD level peer has made a written assessment justifying
this book's scientific quality.

The excerpts of the following works are quoted
with permission from the publishers:

Boosey & Hawkes Ltd.

Béla Bartók's *Concerto for Orchestra* · Benjamin Britten's *Cantata
Misericordium* · Richard Strauss' *Salome* · Richard Strauss'
Sonatine für Bläser · Igor Stravinsky's *Perséphone* · Igor Stravinsky's
Petrouchka · Igor Stravinsky's *Le Sacre du Printemps* ·
Igor Stravinsky's *Symphonies* · Igor Stravinsky's *Threni*

J. & W. Chester Ltd.

Igor Stravinsky's *Les Noces*

Universal Edition

Alban Berg's *Lulu* · Alban Berg's *Wozzeck* · Pierre Boulez'
Improvisation sur Mallarmé · Arnold Schoenberg's *Gurre-Lieder* ·
Arnold Schoenberg's *Kammersymphonie* op. 9

Associated Music Publishers, Inc.

Elliott Carter's *Concerto for Piano and Orchestra* ·

Charles Ives' *Symphony No. 4*

Heugel & Cie

André Jolivet's *Concerto for Ondes Martenot and Orchestra*

Alphonse Leduc

Olivier Messiaen's *La Nativité du Seigneur*

Edition Wilhelm Hansen

Per Nørgård's *Trepartita*

Contents

Foreword · Reading recommendations

	EXERCISE	PAGE
UNISON RHYTHM EXERCISES		
1 Quarter note as beat-unit I <i>Time signatures in 2, 3 and 4</i>	1-7	15
2 Half note as beat-unit I <i>Time signatures in 2, 3 and 4</i>	8-14	17
3 Eighth note as beat-unit I <i>Time signatures in 2, 3 and 4</i>	15-22	19
4 Compound time signatures I <i>Fast time signatures in 6</i>	23-26	21
5 Quarter note as beat-unit II <i>Time signatures in 2, 3 and 4</i>	27-34	22
6 Half note as beat-unit II <i>Time signatures in 2, 3 and 4</i>	35-40	24
7 Compound time signatures II <i>Fast time signatures in 9 and 12</i>	41-44	26
8 Triplets I <i>Polyrhythm 3 against 2</i>	45-54	27
9 Hemiola	55-58	29
10 Mixed time signatures I	59-68	30
11 Compound time signatures III <i>Slow time signatures in 6</i>	69-72	32
12 Eighth note as beat-unit II	73-76	33
13 Triplets II <i>Polyrhythm 3 against 4</i>	77-83	34
14 Irregular time signatures I <i>Fast time signatures in 5 and 7</i>	84-98	36
15 Duplets and quadruplets I <i>Polyrhythm 2 against 3 and 3 against 4</i>	99-108	39
16 Irregular time signatures II	109-117	41



	EXERCISE	PAGE
17	Metric modulation I <i>Doppio movimento, Temps = temps</i>	118–128 43
18	Irregular time signatures III <i>Slow time signatures in 5 and 7</i>	129–131 46
19	Mixed time signatures II	132–138 47
20	Quintuplets I <i>Polyrhythm 5 against 3 and 5 against 2</i>	139–152 49
21	Irregular time signatures IV <i>Fast time signature in 8</i>	153–154 53
22	Mixed time signatures III	155–159 54
23	Triplets III <i>Polyrhythm 3 against 2 with subdivisions</i>	160–163 57
24	Compound time signatures IV <i>Slow time signatures in 9 and 12</i>	164–167 59
25	Eighth note as beat-unit III	168–170 60
26	Irregular time signatures V <i>Fast time signatures in 9 with 4 beats</i>	171–176 61
27	Compound time signatures V	177–180 63
28	Mixed time signatures IV	181–188 65
29	Irregular time signatures VI <i>Slow time signatures in 8</i>	189–190 68
30	Duplets and quadruplets II <i>Polyrhythm 4 against 3 with subdivisions, polyrhythm 4 against 5</i>	191–197 69
31	Compound time signatures VI	198–199 71
32	Triplets IV <i>Polyrhythm 3 against 2 with subdivisions, polyrhythm 3 against 5</i>	200–205 72
33	In uno	206–212 74
34	Septuplets I <i>Polyrhythm 7 against 4 and 7 against 2</i>	213–220 76
35	Metric modulation II <i>Change in beat-unit</i>	221–228 79
36	Sixteenth note as beat-unit	229–231 83
37	Irregular time signatures VII <i>Fast time signatures in 10 and 11</i>	232–239 84
38	Quintuplets II <i>Polyrhythm 5 against 4</i>	240–249 87
39	Mixed Time Signatures V	250–258 90

	EXERCISE	PAGE
40	Septuplets II <i>Polyrhythm 7 against 3</i>	259–263 93
41	Metric modulation III <i>Change in tempo and pulse in relation to 3:2 and 4:3</i>	264–274 95
42	Mixed time signatures VI	275–279 99
43	Irregular time signatures VIII <i>Slow time signatures in 9 with 4 beats, slow time signatures in 10 and 11</i>	280–283 101
44	Duplets and quadruplets III	284–288 103
45	Mixed time signatures VII	289–291 105
46	Polymeter	292–295 106
47	Irrational time signatures I	296–304 108
48	Quintuplets III <i>Polyrhythm 5 against 3 and 5 against 2 with subdivisions</i>	305–309 111
49	Septuplets III	310–312 113
50	Irregular time signatures IX	313–318 114
51	Metric modulation IV <i>Change in tempo and pulse in relation to 5:3, 5:2, 7:4 and 7:3</i>	319–320 116
52	Irrational time signatures II	321–326 117
53	Mixed time signatures VIII	327–330 119
54	Polyrhythm on unstressed beats	331–336 121
55	Polyrhythm in irregular time signatures	337–338 123
56	Other polyrhythmic figures	339–346 125
57	Nested polyrhythm	347–350 128
TWO-PART RHYTHM EXERCISES		
58	Combination exercises I	351–389 133
59	Combination exercises II	390–435 144
CONDUCTING EXERCISES		
60	Changing time signatures without irregular time signatures	436–441 165
61	Irregular time signatures	442–443 168
62	Changing time signatures with irregular time signatures	444–451 169

	PAGE
CONDUCTING PATTERNS	173
NOTES	181
APPENDIX	
I Metronome markings and other common tempo and musical indications	221
II Explanation of polyrhythmic figures	222
Bibliography	225
General index	226
Index of symbols	235

Foreword

Rhythm · Advanced Studies is a textbook focusing on advanced rhythm reading; it has been written mainly for teaching aural training at music academies or other musical colleges, and on higher education courses. Some of the exercises found at the beginning of the book can also be used to prepare for studying music at higher education level. The book is aimed at anyone involved with music at a professional level: music students, instrumentalists, singers, composers, conductors, *Tonmeister* and music teachers. As a result, a general familiarity with elementary rhythm reading is necessary in order to be able to use this book effectively.

The primary aim of this book is to further develop the student's technical and practical ability in reading rhythm, in order to ensure that they will be able to meet the demanding requirements of the musical world, which in this particular area are only becoming more demanding.

By working through the exercises and their corresponding notes, a wider knowledge and understanding of the use of rhythm in classical music will be acquired. The book can also be used as a reference book or an additional self-study book for those who are already familiar with the more complex uses of rhythm.

After many years of teaching aural training at the Royal Danish Academy of Music, I have learnt to value the importance of variation in the teaching materials that are used. This can be seen in the layout of the book, specifically in its short chapters, each on their own subject. Together, the individual chapters form an overall progression, which is described in more detail in the Reading recommendations. Each chapter has one or a few specific focuses, but the exercises in each chapter are as varied as possible. For example, triplets do not only appear in the chapters Triplets 1–4, but also in many other exercises found under other sub-headings.

Unison rhythm exercises

The exercises are to be said out loud and practised with appropriate conducting.

Exercises with melody can be sung or played on an instrument as well as practised without the melody. Exercises without melody can also be completed with self-composed or improvised melodies.

The two-part exercises in this section are to be completed in groups. However, each part can, of course, be practised individually.

1 Quarter note as beat-unit I

$\text{♩} = \text{ca. } 72$

1* $\frac{3}{4}$

5

9

$\text{♩} = \text{ca. } 80$

2 $\frac{2}{4}$

7

13

$\text{♩} = \text{ca. } 63$

3

4

7

$\text{♩} = \text{ca. } 56$

4

5

9

13

3 Eighth note as beat-unit I

Andante ♩ = ca. 72

15

5

♩ = ca. 54

16

7

♩ = ca. 60

17

4

7

9

Allegretto ♩ = ca. 112

18

4

7

10

4 Compound time signatures I

Allegro ma non troppo ♩ = ca. 92

23

6

11

♩ = ca. 63

24*

6

12

♩ = ca. 56

25

6

Exercise 26 contains a number of rhythmic notation errors; write the correct version in the staff below.

26*

6

8 Triplets I

♩ = ca. 72 ↗ ca. 108 ↘ ca. 48

45*

♩ = ♩

8

♩ = ca. 72 ↗ ca. 108 ↘ ca. 48

46

♩ = ca. 72 ↗ ca. 108 ↘ ca. 48

47

♩ = ca. 72 ↗ ca. 108 ↘ ca. 48

48

8

♩ = ca. 92

49*

L'istesso tempo

4

8

13

L'istesso tempo

17

21

10 Mixed time signatures I

59 $\text{♩} = \text{ca. } 88$ ($\text{♩} = \text{ca. } 132$) ($\text{♩} = \text{♩}$)

10

60 $\text{♩} = \text{ca. } 80$

7

61 $\text{♩} = \text{ca. } 66$

8

62 $\text{♩} = \text{ca. } 108$

8

63* $\text{♩} = \text{ca. } 100$

6

11

17

22

15 Duplets and quadruplets I

♩ = ca. 63 ↗ ca. 84 ↗ ca. 112

99*

Diagram illustrating different notations for a pair of eighth notes in 3/4 time:

- 3/4** (Time signature)
- Mathematically correct notation with precise note-values**: Two eighth notes.
- French notation**: A pair of eighth notes with a '2' above them.
- German notation**: A pair of eighth notes with a '2' above them, and a group of four eighth notes with a '4' above them.

Vivo ♩ = ca. 112

100

♩ = ca. 100

101

♩ = ca. 84

102

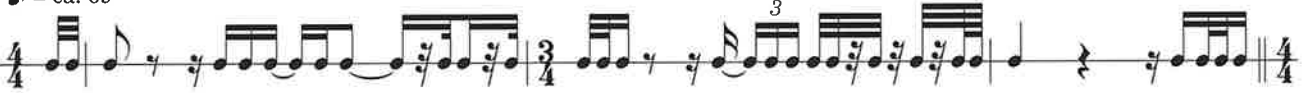
♩ = ca. 63

103

17 Metric modulation I

Doppio movimento

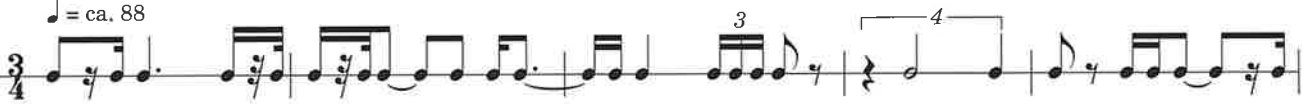
$\text{♩} = \text{ca. } 69$

118* 

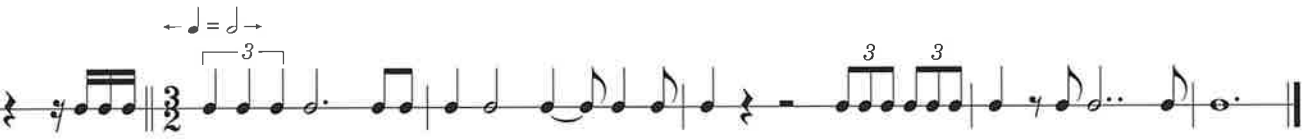
Doppio movimento $\text{♩} = \text{ca. } 69$

4 

$\text{♩} = \text{ca. } 88$

119* 


$\text{♩} = \text{♩}$

6 

$\text{♩} = \text{ca. } 66$

120 

$\text{♩} = \text{ca. } 66$



8 $(\text{♩} = \text{♩})$



$\text{♩} = \text{ca. } 66$

13 

Allegro molto $\text{♩} = \text{ca. } 126$

121* 

Doppio lento $\text{♩} = \text{ca. } 63$

8 

Tempo I°

13 

20 Quintuplets I

5 against 3

♩ = ca. 60 ↗ ca. 80 ↗ ca. 108 ↘ ca. 46

139*

7

♩ = ca. 60 ↗ ca. 80 ↗ ca. 108 ↘ ca. 46

140

♩ = ca. 96

141

8

♩ = ca. 84

142

7

12

5 against 2

146

$\text{♩} = \text{ca. } 60 \nearrow \text{ca. } 80 \nearrow \text{ca. } 108 \searrow \text{ca. } 46$

7

147

$\text{♩} = \text{ca. } 60 \nearrow \text{ca. } 80 \nearrow \text{ca. } 108 \searrow \text{ca. } 46$

148

$\text{♩} = \text{ca. } 58$

149

$\text{♩} = \text{ca. } 63-66$

34 Septuplets I

7 against 4

213*

$\text{♩} = \text{ca. } 72 \nearrow \text{ca. } 108$

13

214

$\text{♩} = \text{ca. } 69$

12

35 Metric modulation II

Change in beat-unit

♩ = ca. 72

221 $\frac{9}{8}$ $\frac{5}{8}$ $\frac{9}{8}$ $\frac{3}{4}$

5 $\frac{3}{4}$ $\frac{9}{8}$ $\frac{4}{4}$ $\frac{4}{4}$

10 $\frac{3}{4}$ $\frac{3}{4}$ $\frac{6}{8}$ $\frac{6}{8}$

17 $\frac{6}{8}$ $\frac{9}{8}$ $\frac{9}{8}$ $\frac{9}{8}$

22 $\frac{4}{4}$ $\frac{3}{8}$ $\frac{1}{2}$

27 $\frac{3}{4}$ $\frac{3}{4}$ $\frac{3}{4}$ $\frac{3}{4}$

♩ = ca. 72

222* $\frac{9}{8}$ $\frac{3}{4}$ $\frac{9}{8}$ $\frac{9}{8}$

4 $\frac{3}{4}$ $\frac{3}{4}$ $\frac{4}{4}$

7 $\frac{4}{4}$ $\frac{9}{16}$ $\frac{9}{16}$

10 $\frac{4}{4}$ $\frac{9}{16}$ $\frac{4}{4}$ $\frac{9}{16}$

14 $\frac{9}{16}$ $\frac{4}{4}$ $\frac{9}{16}$ $\frac{6}{16}$ $\frac{4}{4}$

20 $\frac{4}{4}$ $\frac{9}{16}$ $\frac{3}{8}$ $\frac{9}{16}$ $\frac{4}{4}$

44 Duplets and quadruplets III

♩ = ca. 66 → ca. 84

284*

♩ = ca. 63

285

♩ = ca. 60

286

45 Mixed time signatures VII

♩ = ca. 100

289*

This exercise consists of five staves of music. The first staff starts in 3/4 time and changes to 2/4, 3/4, and 3/5. The second staff starts in 3/5 and changes to 2/4, 3/5, and 2/4. The third staff starts in 2/5 and changes to 3/5 and 3/4. The fourth staff starts in 3/4 and changes to 4/4, 1/5, 3/4, and 3/5. The fifth staff starts in 3/5 and changes to 2/4, 4/5, and 3/4. The piece includes several triplet markings.

♩ = ca. 92

290

This exercise consists of four staves of music. The first staff starts in 6/8 and changes to 3/8, 3/8, and 3/8. The second staff starts in 3/8 and changes to 2/8, 4/8, 2/8, and 3/8. The third staff starts in 9/8 and changes to 3/8, 5/8, 2/8, and 6/8. The fourth staff starts in 9/16 and changes to 4/8, 3/8, and 6/8. The piece includes various rhythmic markings such as triplets, quintuplets, and accents.

♩ = ca. 48

291

This exercise consists of four staves of music. The first staff starts in 3/8 and changes to 3/8, 3/8, 3/8, and 3/8. The second staff starts in 2/8 and changes to 2 1/2/8, 2/8, and 2 1/2/8. The third staff starts in 1/8 and changes to 2 1/2/8, 3/8, 3 1/2/8, and 2/8. The fourth staff starts in 2/8 and changes to 2/8, 2 1/2/8, and 2/8. The piece includes various rhythmic markings such as triplets, quintuplets, and accents.

46 Polymeter

$\text{♩} = \text{ca. } 108$

292*

6

10

$\text{♩} = \text{ca. } 108$

293*

A *Meno mosso* $\text{♩} = \text{♩} \rightarrow (\text{♩}) = \text{ca. } 72$

B **C**

54 Polyrhythm on unstressed beats

♩ = ca. 63

331* $\frac{5}{8}$ $\frac{2}{4}$ $\frac{3}{4}$ $\frac{2}{4}$ $\frac{6}{8}$ $\frac{3}{4}$

(in 3)

6 $\frac{3}{4}$ $\frac{4}{4}$ $\frac{2}{4}$ $\frac{4}{4}$

10 $\frac{5}{8}$ $\frac{4}{4}$ $\frac{6}{8}$ $\frac{9}{8}$

14 $\frac{9}{8}$

18 (sempre in 3)

$\overset{-5}{\curvearrowright} \text{ } \overset{-3}{\curvearrowright} \text{ } \rightarrow$

♩ = ca. 84, ♪ = ca. 56

332 $\frac{7}{16}$ $\frac{6}{16}$ $\frac{7}{16}$ $\frac{4}{8}$ $\frac{7}{16}$ $\frac{4}{8}$

6 $\frac{4}{8}$ $\frac{5}{16}$ $\frac{4}{8}$ $\frac{4}{8}$

12 $\frac{4}{8}$ $\frac{3}{8}$ $\frac{7}{16}$ $\frac{3}{8}$ $\frac{4}{8}$ $\frac{3}{8}$

♩ = ca. 96

333

5 $\frac{3}{8}$

10 $\frac{4}{8}$

14 $\frac{3}{8}$

57 Nested polyrhythm

♩ = ca. 56

347* $\frac{9}{8}$ $\frac{2}{4}$ $\frac{9}{8}$

Musical notation for measure 347* in 9/8 time, featuring a 2/4 time signature. The melody consists of eighth and sixteenth notes with various fingerings (2, 2, 5, 5, 3, 3) indicated above the notes.

4 $\frac{9}{8}$ $\frac{3}{4}$ $\frac{9}{8}$

Musical notation for measure 4 in 9/8 time, featuring a 3/4 time signature. The melody includes eighth, sixteenth, and dotted quarter notes with fingerings (2, 2, 3, 3, 2, 2, 5, 3) indicated above the notes.

Più mosso ♩ = ca. 84

8 $\frac{12}{8}$

Musical notation for measure 8 in 12/8 time. The melody features eighth and sixteenth notes with fingerings (2, 5, 7, 3, 3, 3, 3) indicated above the notes.

12 $\frac{9}{8}$

Musical notation for measure 12 in 9/8 time. The melody includes eighth, sixteenth, and dotted quarter notes with fingerings (3, 3, 4, 4, 4, 4, 3, 3, 4) indicated above the notes.

14 $\frac{2}{4}$ $\frac{9}{8}$ $\frac{12}{8}$

Musical notation for measure 14 in 2/4, 9/8, and 12/8 time signatures. The melody features eighth, sixteenth, and dotted quarter notes with fingerings (4, 5, 4, 3, 4, 3, 4, 3, 3, 4) indicated above the notes.

17 $\frac{12}{8}$ $\frac{9}{8}$

Musical notation for measure 17 in 12/8 and 9/8 time signatures. The melody includes eighth, sixteenth, and dotted quarter notes with fingerings (4, 3, 3, 2, 5, 2, 5) indicated above the notes.

♩ = ca. 66

348 $\frac{3}{2}$ $\frac{2}{2}$ $\frac{6}{4}$ $\frac{4}{2}$

Musical notation for measure 348 in 3/2, 2/2, 6/4, and 4/2 time signatures. The melody consists of quarter and eighth notes with fingerings (3, 3, 3, 3, 3, 3, 3, 3) indicated above the notes.

5 $\frac{4}{2}$ $\frac{6}{4}$ $\frac{3}{2}$

Musical notation for measure 5 in 4/2, 6/4, and 3/2 time signatures. The melody features quarter and eighth notes with fingerings (3, 3, 3, 3, 3, 3, 3, 3, 4) indicated above the notes.

9 $\frac{2}{2}$ $\frac{4}{8}$

Musical notation for measure 9 in 2/2 and 4/8 time signatures. The melody includes quarter and eighth notes with fingerings (3, 4, 3, 3, 3, 3, 3, 3, 5, 3, 5) indicated above the notes.

14 $\frac{4}{8}$ $\frac{3}{8}$ $\frac{6}{16}$

Musical notation for measure 14 in 4/8, 3/8, and 6/16 time signatures. The melody features eighth and sixteenth notes with fingerings (3, 3, 3, 3, 3, 3, 3, 3, 3, 3, 3) indicated above the notes.

19 $\frac{6}{16}$ $\frac{7}{16}$ $\frac{4}{8}$ $\frac{3}{8}$ $\frac{6}{16}$

Musical notation for measure 19 in 6/16, 7/16, 4/8, 3/8, and 6/16 time signatures. The melody includes eighth and sixteenth notes with fingerings (3, 3, 3, 3, 5, 3, 3) indicated above the notes.

24 $\frac{9}{16}$ $\frac{4}{8}$

Musical notation for measure 24 in 9/16 and 4/8 time signatures. The melody features eighth and sixteenth notes with fingerings (3, 5, 5, 3, 3, 3, 3, 3) indicated above the notes.

Allegretto ♩ = ca. 48

356

Musical score for measures 356-357. The music is in 3/4 time. Measure 356 starts with a treble clef and a 3/4 time signature. The melody consists of quarter notes and eighth notes. There are trills in measures 356 and 357. Measure 357 ends with a double bar line.

8

Musical score for measures 358-359. The music is in 3/4 time. Measure 358 starts with a treble clef and a 3/4 time signature. The melody consists of quarter notes and eighth notes. There are trills in measures 358 and 359. Measure 359 ends with a double bar line.

♩ = ca. 66

357

Musical score for measures 360-361. The music is in 3/4 time. Measure 360 starts with a treble clef and a 3/4 time signature. The melody consists of quarter notes and eighth notes. There are trills in measures 360 and 361. Measure 361 ends with a double bar line.

5

Musical score for measures 362-363. The music is in 3/4 time. Measure 362 starts with a treble clef and a 3/4 time signature. The melody consists of quarter notes and eighth notes. There are trills in measures 362 and 363. Measure 363 ends with a double bar line.

♩ = ca. 60

358

Musical score for measures 364-365. The music is in 4/4 time. Measure 364 starts with a treble clef and a 4/4 time signature. The melody consists of quarter notes and eighth notes. There are trills in measures 364 and 365. Measure 365 ends with a double bar line.

5

Musical score for measures 366-367. The music is in 4/4 time. Measure 366 starts with a treble clef and a 4/4 time signature. The melody consists of quarter notes and eighth notes. There are trills in measures 366 and 367. Measure 367 ends with a double bar line.

9

Musical score for measures 368-369. The music is in 4/4 time. Measure 368 starts with a treble clef and a 4/4 time signature. The melody consists of quarter notes and eighth notes. There are trills in measures 368 and 369. Measure 369 ends with a double bar line.

13

Musical score for measures 370-371. The music is in 4/4 time. Measure 370 starts with a treble clef and a 4/4 time signature. The melody consists of quarter notes and eighth notes. There are trills in measures 370 and 371. Measure 371 ends with a double bar line.

59 Combination exercises II

♩ = ca. 76

390

6

♩ = ca. 72

391

5

Allegretto semplice

392

7

12

♩ = ca. 54 ≈ ca. 76

399

Measures 399-400. Treble clef, 4/4 time. Section A (measures 399-400) and Section B (measure 400). Both sections feature a melody of eighth notes with triplets in the treble and a bass line of eighth notes in the bass. Section B includes a repeat sign.

5

Measures 401-402. Treble clef, 4/4 time. Section C (measures 401-402) and Section D (measures 401-402). Both sections feature a melody of eighth notes with triplets in the treble and a bass line of eighth notes in the bass. Section D includes a repeat sign.

9

Measures 403-404. Treble clef, 4/4 time. Section D (measures 403-404) and Section E (measures 403-404). Both sections feature a melody of eighth notes with triplets in the treble and a bass line of eighth notes in the bass. Section E includes a repeat sign.

400

Measures 405-406. Treble clef, 4/4 time. Section F (measures 405-406) and Section G (measures 405-406). Section F has a melody of quarter notes in the treble and a bass line of quarter notes in the bass. Section G has a melody of quarter notes in the treble and a bass line of quarter notes in the bass. Section G includes a repeat sign.

4

Measures 407-408. Treble clef, 4/4 time. Section H (measures 407-408) and Section I (measures 407-408). Section H has a melody of quarter notes with triplets in the treble and a bass line of quarter notes in the bass. Section I has a melody of quarter notes in the treble and a bass line of quarter notes in the bass. Section I includes a repeat sign.

401

Measures 409-410. Treble clef, 3/8 time. Section J (measures 409-410) and Section K (measures 409-410). Section J has a melody of eighth notes with triplets in the treble and a bass line of eighth notes in the bass. Section K has a melody of eighth notes with triplets in the treble and a bass line of eighth notes in the bass. Section K includes a repeat sign.

6

Measures 411-412. Treble clef, 3/8 time. Section L (measures 411-412) and Section M (measures 411-412). Section L has a melody of eighth notes with a doublet and a triplet in the treble and a bass line of eighth notes in the bass. Section M has a melody of eighth notes with a triplet and a quintuplet in the treble and a bass line of eighth notes in the bass. Section M includes a repeat sign.

♩. = ca. 58

407

6

11

15

♩ = ca. 72, ♩. = ca. 48

408

6

11

♩ = ca. 100

409

Musical notation for measures 409-410. The system consists of two staves. The upper staff is in treble clef with a 5/16 time signature. The lower staff is in bass clef with a 5/16 time signature. The music features eighth and sixteenth notes with various rests and articulation marks.

Musical notation for measures 411-412. The system consists of two staves. The upper staff is in treble clef with a 3/8 time signature. The lower staff is in bass clef with a 3/8 time signature. The music includes eighth notes, quarter notes, and eighth rests, with some notes beamed in pairs.

Musical notation for measures 413-414. The system consists of two staves. The upper staff is in treble clef with a 2/8 time signature. The lower staff is in bass clef with a 2/8 time signature. The music features eighth notes and quarter notes with various rests.

Moderato

410

Musical notation for measures 415-416. The system consists of two staves. The upper staff is in treble clef with a 3/4 time signature. The lower staff is in bass clef with a 3/4 time signature. The music includes quarter notes, eighth notes, and eighth rests, with some notes beamed in groups of four.

Musical notation for measures 417-418. The system consists of two staves. The upper staff is in treble clef with a 2/4 time signature. The lower staff is in bass clef with a 2/4 time signature. The music features quarter notes, eighth notes, and eighth rests, with some notes beamed in groups of three and four.

♩ = ca. 63

411

Musical notation for measures 419-420. The system consists of two staves. The upper staff is in bass clef with a 12/8 time signature. The lower staff is in bass clef with a 12/8 time signature. The music includes quarter notes, eighth notes, and eighth rests, with some notes beamed in pairs.

Musical notation for measures 421-422. The system consists of two staves. The upper staff is in bass clef with a 4/4 time signature. The lower staff is in bass clef with a 4/4 time signature. The music features quarter notes, eighth notes, and eighth rests, with some notes beamed in groups of four.

429 $\text{♩} = \text{ca. } 56$

4 $\text{♩} = \text{ca. } 56$

7 $\text{♩} = \text{ca. } 56$

10 $\text{♩} = \text{ca. } 56$

430 $\text{♩} = \text{ca. } 80$

5 $\text{♩} = \text{ca. } 80$

9 $\text{♩} = \text{ca. } 80$

60 Mixed time signatures without irregular signatures

♩ = ca. 60 ≠ ca. 120

436 $\frac{3}{4}$ $\frac{4}{4}$ $\frac{3}{4}$ $\frac{2}{4}$ $\frac{3}{4}$ $\frac{2}{4}$ $\frac{4}{4}$ $\frac{3}{4}$ $\frac{2}{4}$ $\frac{4}{4}$ $\frac{3}{4}$ $\frac{2}{4}$

9 $\frac{2}{4}$ $\frac{3}{4}$ $\frac{4}{4}$ $\frac{3}{4}$ $\frac{2}{4}$ $\frac{3}{4}$ $\frac{2}{4}$ $\frac{3}{4}$ $\frac{4}{4}$ $\frac{3}{4}$ $\frac{2}{4}$ $\frac{3}{4}$

17 $\frac{3}{4}$ $\frac{4}{4}$ $\frac{2}{4}$ $\frac{4}{4}$ $\frac{2}{4}$ $\frac{3}{4}$ $\frac{4}{4}$ $\frac{3}{4}$ $\frac{4}{4}$ $\frac{2}{4}$ $\frac{3}{4}$ $\frac{4}{4}$ $\frac{2}{4}$

25 $\frac{2}{4}$ $\frac{3}{4}$ $\frac{4}{4}$ $\frac{3}{4}$ $\frac{4}{4}$ $\frac{3}{4}$ $\frac{4}{4}$ $\frac{3}{4}$ $\frac{2}{4}$ $\frac{3}{4}$ $\frac{2}{4}$ $\frac{3}{4}$ $\frac{2}{4}$

32 $\frac{3}{4}$ $\frac{4}{4}$ $\frac{2}{4}$ $\frac{4}{4}$ $\frac{3}{4}$ $\frac{4}{4}$ $\frac{2}{4}$ $\frac{3}{4}$ $\frac{4}{4}$ $\frac{3}{4}$ $\frac{2}{4}$ $\frac{3}{4}$ $\frac{2}{4}$

40 $\frac{2}{4}$ $\frac{4}{4}$ $\frac{3}{4}$ $\frac{4}{4}$ $\frac{2}{4}$ $\frac{3}{4}$ $\frac{4}{4}$ $\frac{2}{4}$ $\frac{3}{4}$ $\frac{2}{4}$ $\frac{3}{4}$ $\frac{2}{4}$ $\frac{3}{4}$

♩ = ca. 60 ≠ ca. 120

437 $\frac{9}{8}$ $\frac{6}{8}$ $\frac{9}{8}$ $\frac{12}{8}$ $\frac{9}{8}$ $\frac{12}{8}$ $\frac{9}{8}$ $\frac{12}{8}$ $\frac{9}{8}$ $\frac{12}{8}$ $\frac{9}{8}$ $\frac{12}{8}$

7 $\frac{6}{8}$ $\frac{9}{8}$ $\frac{6}{8}$ $\frac{12}{8}$ $\frac{9}{8}$ $\frac{6}{8}$ $\frac{12}{8}$ $\frac{9}{8}$ $\frac{6}{8}$ $\frac{12}{8}$ $\frac{9}{8}$ $\frac{6}{8}$

13 $\frac{6}{8}$ $\frac{12}{8}$ $\frac{9}{8}$ $\frac{12}{8}$ $\frac{9}{8}$ $\frac{12}{8}$ $\frac{9}{8}$ $\frac{12}{8}$ $\frac{9}{8}$ $\frac{12}{8}$ $\frac{9}{8}$ $\frac{12}{8}$

19 $\frac{6}{8}$ $\frac{9}{8}$ $\frac{12}{8}$ $\frac{9}{8}$ $\frac{6}{8}$ $\frac{12}{8}$ $\frac{9}{8}$ $\frac{6}{8}$ $\frac{12}{8}$ $\frac{9}{8}$ $\frac{6}{8}$ $\frac{12}{8}$

25 $\frac{12}{8}$ $\frac{9}{8}$ $\frac{6}{8}$ $\frac{12}{8}$ $\frac{9}{8}$ $\frac{6}{8}$ $\frac{12}{8}$ $\frac{9}{8}$ $\frac{6}{8}$ $\frac{12}{8}$ $\frac{9}{8}$ $\frac{6}{8}$

31 $\frac{9}{8}$ $\frac{6}{8}$ $\frac{12}{8}$ $\frac{9}{8}$ $\frac{6}{8}$ $\frac{12}{8}$ $\frac{9}{8}$ $\frac{6}{8}$ $\frac{12}{8}$ $\frac{9}{8}$ $\frac{6}{8}$ $\frac{12}{8}$

37 $\frac{6}{8}$ $\frac{9}{8}$ $\frac{12}{8}$ $\frac{9}{8}$ $\frac{6}{8}$ $\frac{12}{8}$ $\frac{9}{8}$ $\frac{6}{8}$ $\frac{12}{8}$ $\frac{9}{8}$ $\frac{6}{8}$ $\frac{12}{8}$

43 $\frac{6}{8}$ $\frac{9}{8}$ $\frac{6}{8}$ $\frac{12}{8}$ $\frac{9}{8}$ $\frac{6}{8}$ $\frac{12}{8}$ $\frac{9}{8}$ $\frac{6}{8}$ $\frac{12}{8}$ $\frac{9}{8}$ $\frac{6}{8}$

61 Irregular time signatures

a. Fast in 5 – divided into two beats: ♩ = ca. 72 ↗ ca. 144 | b. Slow in 5 – divided into five beats: ♩ = ca. 96 ↗ ca. 144

442* $\frac{5}{8}$


a. Fast in 7 – divided into three beats: ♩ = ca. 72 ↗ ca. 144 | b. Slow in 7 – divided into seven beats: ♩ = ca. 96 ↗ ca. 144

443 $\frac{7}{8}$

Exercise 7

The solution to the notation exercise:

The image displays three systems of musical notation, each labeled 'Correct Notation' on the left. The first system is in 4/4 time and contains three staves with annotations 1), 2), and 3). The second system is in 3/4 time and contains three staves with annotations 4), 5), 6), and 7). The third system is in 4/4 time and contains two staves with annotations 8), 9), 10), 11), and 12). The notation includes various rhythmic figures, beams, and annotations numbered 1) through 12).

- 1) The third beat in $\frac{4}{4}$ cannot be hidden. The only exceptions are found in simple notation such as $\text{♩} \cdot \text{♩}$, and in syncopation throughout the whole bar (see exercise 27), and also Jean Sibelius' *Symphony No. 1, Mvt. 4*. Other exceptions can be found in certain polyrhythmic passages (see exercises in chapter 53 and 54).
- 2) $\text{♩} \cdot$ can be replaced by ♩ and ♪ .
- 3) ♩ in $\frac{4}{4}$ can only be used on a stressed beat.
- 4) The figure on the second beat becomes more distinct when divided into two, the primary beam therefore becoming the only consistent beam throughout the figure. If the beat-unit is an eighth note, the figure can be written without consistent beams.
- 5) If the beat-unit is an eighth note, the four sixteenth notes can be divided into two.
- 6) The figure on the second beat can have a consistent secondary beam if the figure consists of identical elements.
- 7) Brackets should be used on the third beat to clearly identify the triplet.
- 8) $\text{♩} \cdot$ is replaced by ♩ . The original version could be used e.g. if the dynamics needed emphasising:

- 9) The triplet on the third beat should be notated without brackets, as the beam replaces their function.
- 10) Dotted rests should only be used on stressed beats. However, some composers use $\text{♪} \cdot$ on unstressed beats instead of the more correct notation: $\text{♪} \text{♪}$.
- 11) Unnecessary use of ties.
- 12) ♩ is not used in $\frac{3}{4}$. Notice that ♩ can be used on stressed beats in $\frac{3}{8}$.

Exercise 10

Triplets and other irregular subdivisions can be notated in different ways, as seen in this exercise. In the first two lines the triplets are notated using brackets, the version that is most often preferred:



The notation in the last two lines should be avoided:



See also the note for exercise 29.

An example of a mixture of these different notation forms can be found in Gustav Mahler's *Symphony No. 5*, Mvt. 5, Reh. 21–22 (most apparent in Edition Peters' *Kritische Gesamtausgabe*, first edition).

Exercise 11

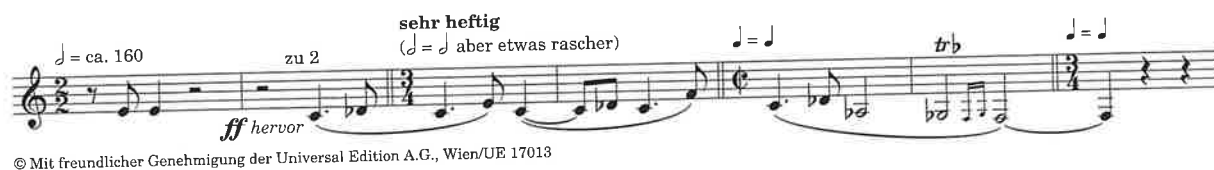
As a result of formatting, bar 6 in this exercise is divided equally over two lines. Only time signatures in two or four, including e.g. $\frac{12}{8}$, can be divided over two lines in this way. This should not occur in irregular time signatures or time signatures in three. See also the note for exercise 93.

Exercise 13

The time signature $\frac{2}{2}$ can also be notated as C and is referred to as *alla breve*. It is also common for C to refer to $\frac{4}{2}$ (the 'great' *alla breve*), which can be found in Johannes Brahms' *Ein deutsches Requiem*, Mvt. 3:



There does not appear to be a systematic approach to when composers choose to use C and C , or $\frac{4}{4}$ and $\frac{2}{2}$. The 1st movement of Jean Sibelius' *Symphony No. 6*, **Allegro molto moderato**, is in $\frac{2}{2}$, while the 4th movement, **Allegro molto**, is marked C . Notice the use of both $\frac{2}{2}$ and C in this extract of Arnold Schoenberg's *Kammersymphonie* Op. 9:



There are other less common ways of notating $\frac{4}{2}$; Robert Schumann and Johannes Brahms use CC , while Franz Schubert uses the *alla breve* symbol, seen here in *Impromptu* Op. 90, No. 3:



Exercise 14

All two-part exercises in the main chapter of the book (exercises 1–350) should be practised in two groups, the first singing the upper voice, and the second the lower voice. Each voice can of course be practised individually.

Exercise 22

The solution to the notation exercise:

Correct Notation

Correct Notation

Correct Notation

- 1) As a main rule, a beam cannot be used to join notes through a main beat. Some of the exercises in chapter 39 show examples of exceptions to this rule.
- 2) The fourth beat is divided into two eighth notes, where the last eighth note is isolated. The first eighth note is then divided into two, each part representing a sixteenth note, which are then joined by two beams.
- 3) If it is preferred that the last sixteenth note is joined to the other notes in the beat, the secondary beam can be shortened (to 7). In this way, the division of the beat into two is clearly shown. Other examples of this can be found in exercises 250 and 251.
- 4) Another possible solution, in which all eighth note beats are shown.

Exercise 24

Regarding notation of duplets and triplets, see page 39.

Più mosso (Fr. 'plus animé', Ger. 'bewegter') = more movement, faster.

Exercise 26

The solution to the notation exercise:

Correct Notation

Correct Notation

- 1) The second main beat in $\frac{6}{8}$ cannot be hidden. An exception to this is a hemiola written using quarter notes:
 $\downarrow \downarrow \downarrow$ (see also the note to exercise 158). Chapter 9 concentrates on hemiola.
- 2) The rest can be notated either as z or as z .
- 3) If a whole bar is syncopated then the primary beam can continue into the second beat.
- 4) The last two \downarrow are joined by a beam. It is often seen that all three \downarrow are joined, but this should be avoided and only used in $\frac{3}{4}$.
- 5) The hemiola should be tied over into the second beat.
- 6) \downarrow is not used in $\frac{6}{8}$.

Exercise 29

Triplets (and other irregular subdivisions) can be found notated without numbers. This is most often seen when there are repeating triplets or when the written music is relatively simple, e.g. in the last movement of Ludwig van Beethoven's *String Quartet Op. 74*:

The specific form of triplet notation in exercise 29 can also be found in Benjamin Britten's *Cantata Misericordium*, Reh. 28:

Un-de es gen-ti-um? Quis es? Sal-vus quo-mo-do ti-bi gra-ti-as re-fe-ram di-gnas?

© Copyright 1964 by Boosey & Hawkes Ltd.

Meno mosso (Fr. 'moins vite', Ger. 'weniger bewegt') = less movement, slower.

Appendix I

Metronome markings and other common tempo and musical indications

	<i>Italian</i>	<i>French</i>	<i>German</i>
<i>fast</i> M.M. (e.g. ♩) = 168	Presto	Vite	Lebhaft
	Vivace		
	Vivo	Vif	Schnell
	Allegro	Animé	Bewegt
	Allegretto		
	Moderato	Modéré	Mäßig
	Andantino		Mäßig langsam
	Andante	Allant	
	Adagio		Langsam
	Lento	Lent	
	Larghetto		
	Largo	Très lent	Sehr langsam
<i>slow</i> M.M. (e.g. ♩) = 40	Grave		
	Adagissimo		

It is traditional to link tempo indications to certain metronome markings. As this is not specified in the tempo overview above, it should most often not be taken literally. The list of tempo indications should also be treated cautiously as it is not abnormal to find that composers and musicians can have different opinions.

For example, an **Adagio** can be perceived as slower than a **Lento**, whilst an **Allegretto** can be perceived as faster than an **Allegro**. One reason for this may be that tempo indications can be just as much understood as musical indications.

Allegretto, for example, is in fact most often used as a musical indication rather than a tempo indication. There is no doubt that composers have very different opinions of **Allegretto** as a tempo indication: Igor Stravinsky writes **Allegretto** ♩ = 60 in *Petrouchka*, whilst Leoš Janáček writes **Allegretto** ♩ = 152 in *Sinfonietta*.

The famous **Allegretto** from Ludwig van Beethoven's *Symphony No. 7* has no metronome marking, neither in the manuscript nor in the first printed edition. In later editions the marking ♩ = 76 has been added, but in performances the tempo of this movement can famously vary drastically from this.

Tempo and musical indications should always be understood in relation to the context in which they are found, taking both the beat-unit and the time signature into account as important factors. The composer can also use tempo or musical indications to describe not only the tempo, but also the expression, the emotional content, the timbre, the character etc. of a piece.

The use of musical indications is rare in the baroque period, and the metronome we know today was developed in the beginning of the nineteenth century. There are neither tempo nor musical indications in Johann Sebastian Bach's manuscript for *Prelude in D major*, BWV 850, from *The Well-Tempered Clavier*, whilst Ferruccio Busoni in his edition of the same piece clearly indicates his own opinion of the piece's tempo and character:



As seen in the example above, tempo and musical indications can be combined in many different ways. A peculiar example of this is the *Kyrie* from Ludwig van Beethoven's *Mass in C major*, Op. 86:



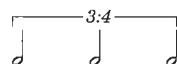
Appendix II

A further explanation of polyrhythmic figures

The polyrhythmic figures in the diagram on the next page are ordered from the slowest note value to the fastest.

As a starting point, ♩ has been chosen as beat-unit. The left column shows the polyrhythmic figures where the note values are slower than ♩, and the column on the right shows the polyrhythmic figures where the note values are faster than ♩.

Polyrhythmic figures are notated as ratios, in which the first number indicates the number of subdivisions, whilst the second number indicates the number of quarter notes the polyrhythm covers. The polyrhythm 3 against 4, 3 triplet-half notes against 4 quarter notes, is therefore notated:



The decimal numbers beside the polyrhythmic figures indicate the length of each individual note value in relation to the starting point, which is the beat unit ♩ with a value of 1. For example, 0.43 is written beside the polyrhythm 7 against 3. The number indicates that a septuplet-eighth note is equal to 0.43 of the length of a quarter note.

The polyrhythmic figures 7 against 6 and 6 against 7, 8 against 7 and 7 against 8 and 9 against 8 and 8 against 9 are not included in the overview, as they are so close to each other that it can often be difficult to tell the difference.

Diagram illustrating musical intervals and their corresponding numerical ratios, arranged from slower (top) to faster (bottom). A vertical arrow on the left indicates the direction from slower to faster.

- 2.5: Interval of two whole notes (ratio 2:5)
- 2.33: Interval of two whole notes and a half note (ratio 3:7)
- 2.25: Interval of two whole notes and a quarter note (ratio 4:9)
- 2: Interval of two whole notes
- 1.8: Interval of one whole note and a half note (ratio 5:9)
- 1.75: Interval of one whole note and a quarter note (ratio 4:7)
- 1.67: Interval of one whole note and an eighth note (ratio 3:5)
- 1.6: Interval of one whole note and a sixteenth note (ratio 5:8)
- 1.5: Interval of one whole note (ratio 2:3)
- 1.4: Interval of one whole note and a thirty-second note (ratio 5:7)
- 1.33: Interval of one whole note and a sixty-fourth note (ratio 3:4)
- 1.29: Interval of one whole note and a one-hundred-eighth note (ratio 7:9)
- 1.25: Interval of one whole note and a two-hundred-fortieth note (ratio 4:5)
- 1.2: Interval of one whole note and a four-hundred-eighth note (ratio 5:6)
- 1: Interval of one whole note

Diagram illustrating musical intervals and their corresponding numerical ratios, arranged from slower (top) to faster (bottom). A vertical arrow on the left indicates the direction from slower to faster.

- 1: Interval of one whole note
- 0.83: Interval of one whole note and a half note (ratio 6:5)
- 0.8: Interval of one whole note and a quarter note (ratio 5:4)
- 0.78: Interval of one whole note and an eighth note (ratio 9:7)
- 0.75: Interval of one whole note and a sixteenth note (ratio 4:3)
- 0.71: Interval of one whole note and a thirty-second note (ratio 7:5)
- 0.67: Interval of one whole note and a sixty-fourth note (ratio 3:2)
- 0.63: Interval of one whole note and a one-hundred-eighth note (ratio 8:5)
- 0.6: Interval of one whole note and a two-hundred-fortieth note (ratio 5:3)
- 0.57: Interval of one whole note and a four-hundred-eighth note (ratio 7:4)
- 0.56: Interval of one whole note and a one-thousand-sixtieth note (ratio 9:5)
- 0.5: Interval of one whole note
- 0.44: Interval of one whole note and a two-hundred-fortieth note (ratio 9:4)
- 0.43: Interval of one whole note and a two-hundred-fortieth note (ratio 7:3)
- 0.4: Interval of one whole note and a two-hundred-fortieth note (ratio 5:2)
- 0.38: Interval of one whole note and a two-hundred-fortieth note (ratio 8:3)
- 0.33: Interval of one whole note and a two-hundred-fortieth note (ratio 3)
- 0.29: Interval of one whole note and a two-hundred-fortieth note (ratio 7:2)
- 0.25: Interval of one whole note and a two-hundred-fortieth note
- 0.22: Interval of one whole note and a two-hundred-fortieth note (ratio 9:2)

Bibliography

A selection of recommended literature for further study

- Apel, Willi. *The Notation of Polyphonic Music, 900-1600*.
Cambridge, Massachusetts: The Mediaeval Academy of America, 1942.
- Cole, Hugo. *Sounds and Signs: Aspects of Musical Notation*.
London: Oxford University Press, 1974.
- Cooke, Deryck. *The Language of Music*.
Oxford: Oxford University Press, 1959.
- Creston, Paul. *Principles of Rhythm*.
New York: Belvin Mills Publishing Corp., 1961.
- Gould, Elaine. *Behind Bars*.
London: Faber Music Ltd, 2011.
- Hambraeus, Bengt. *Om notskrifter: Paleografi · tradition · förnyelse*.
Stockholm: Nordiska Musikförlaget, 1970.
- Hindemith, Paul. *Elementary Training for Musicians*.
London: Schott & Co. Ltd., 1946.
- Houle, George. *Meter in Music, 1600-1800*.
Bloomington: Indiana University Press, 1987.
- Jersild, Jørgen. *Polyrytmik*.
København: Edition Wilhelm Hansen, 1975.
- Messiaen, Olivier. *Technique de mon langage musical* (2 volumes).
Paris: Éditions Musicales Alphonse Leduc, 1944.
- Messiaen, Olivier. *Traité de Rythme, de Couleur et d'Ornithologie* (7 volumes).
Paris: Éditions Musicales Alphonse Leduc, 1994.
- Naumann, Siegfried. *Opus 37*.
Stockholm: Kungl. Musikaliska akademiens skriftserie nr. 67, 1991.
- Read, Gardner. *Music Notation: A Manual of Modern Practice*.
London: Victor Gollancz Ltd, 1974.
- Ross, Ted. *The Art of Music Engraving and Processing*.
Miami: Hansen Books, 1970.
- Scherchen, Hermann. *Lehrbuch des Dirigierens*.
Mainz: B. Schott's Söhne, 1929.

General index

Both the appropriate exercise number and page number are given respectively. Exercise numbers are in **bold**, whilst page numbers are written as normal.

Common topics that appear throughout the book (e.g. $\frac{4}{4}$, half note, ties) are either not included in the index at all, or are included followed by '→' after the number of the exercise in which the topic first appears, e.g. $\frac{4}{4}$, Exerc. 3 → .

Titles of quoted works are written in *italics*, as are polyrhythmic figures.

A

accelerando

– in the further explanation of polyrhythmic figures 216

– written **144, 244, 341**; 197, 200, 205, 215–216

Adès, Thomas

– *Asyla* 207

– *Piano Quintet* 209

Alain, Jehan

– *Aria* 199

alla breve **8** → ; 185

– 'great' alla breve 185

attacca **143, 156, 224, 317, 344**; 197

B

Bach, Johann Sebastian

– *Lobet den Herrn, alle Heiden*, BWV 320 183

– *Partita No. 3 for violin*, BWV 1006 183

– *Partita No. 4 for piano*, BWV 828 190

– *Prelude in D major*, BWV 850, from *The Well-Tempered Clavier* 221–222

bar

– divided equally over two lines **11** → ; 185, 192

– numbering **37**; 188

– where the first beat of the bar is hidden 214 [in a music excerpt]

– without a shown time signature **318**; 199, 212

barline 183, 211

– dashed **109–110, 117, 159, 161, 198, 221, 233, 278, 282, 289, 343–344, 374, 385, 433, 449**; 194, 205

– to show structure and/or phrasing 212

– where there is use of polymeter 188, 208–209

Bartók, Béla

– *Concerto for Orchestra* 197

– *String Quartet No. 4* 205

beams

– across a barline **252–254, 267, 280, 335, 383, 388**; 197, 205

– dashed or dotted barlines **275**

– in cases of polyrhythm **316, 326, 334, 389**; 217

– French **75–76, 122, 164, 204, 231, 431**; 191

– notation **22**; 184, 186–187, 194

– primary and secondary 184, 186–187

– through a rest **250–251**; 205

beat-unit 183, 189–191, 194–195, 199, 206, 208–209, 221–222

– 5 eighth notes **208, 211, 224, 226, 273**

– 5 sixteenth notes **210, 226**

– 7 eighth notes **226**

– 7 sixteenth notes **212**

– eighth note **15** →

– dotted eighth note **43** →

– half notes **8** →

– dotted halfnotes **24** →

– quarter notes **1** →

– dotted quarter note **23** →

– sixteenth note **229–231, 254, 279, 310, 386, 432**

– dotted sixteenth note **239, 309, 432**

– triplet-quarter note **299**

– whole note **206, 208, 273**

Beethoven, Ludwig van

– *Mass in C major* Op. 86 222

– *String Quartet* Op. 74 187

– *Symphony No. 7* 221

– *Symphony No. 9* 201

Berg, Alban
 – *Lulu* 198
 – *Melodrama* 208
 – *Wozzeck* 192, 203, 217–218
 Berio, Luciano
 – *Epifanie* 209
 bewegter 186
 Boulez, Pierre
 – *Improvisation sur Mallarmé I* 213
 – *Le marteau sans maître* 210
 – *Notations* 212
 – *Rituel* 209
 – *Sonata for piano No. 2* 212
 – *Sonatine pour flûte et piano* 192
 – *sur Incises* 192
 Brahms, Johannes 185, 190
 – *Ein deutsches Requiem* 185
 – *Sonata for piano and violin No. 1* 198
 – *Symphony No. 4* 203
 Britten, Benjamin
 – *Cantata Misericordium* 187
 Bruckner, Anton
 – *Symphony No. 7* 195
 Busoni, Ferruccio 221–222

C

Carter, Elliott
 – *Concerto for Piano and Orchestra* 201
 Ciconia, Johannes
 – *Le ray au soleyl* 208
 Coda 54, 188
 come sopra 91; 192
 compound time signatures 23 → ; 206
 – notation 187
 conducting patterns
 – diagrams 175–179
 – uncommon 177, 179, 211
 Corelli, Arcangelo
 – *Concerto grosso* Op. 6 No. 7 190
 courante 190

D

Dal Segno al Fine 32, 186; 188
 D.C. al Segno [Da Capo al Segno] 44, 187; 189
 Debussy, Claude
 – *Jeux* 195
 – *Préludes, 2^e livre* 191
 Doppio movimento 194, 195 [in a music excerpt], 207
 – change in beat-unit 118–120, 123, 128, 181, 224, 248, 344
 – change in tempo 121–122, 227, 274, 310
 – Doppio lento 121, 253, 266; 195
 – Doppio meno vivo 128, 319; 195
 – Metà tempo 195
 – quasi doppio più lento 218

dotted rhythmic figures
 – double-dotted rhythmic figures 3 → ; 195
 – earlier notation 198
 – in quadruplets 194
 – in quintuplets 307–308
 – in triplets 162, 194, 205, 302, 328
 – quadruple-dotted rhythmic figures 195
 – reversed dotted rhythmic figures (Lombard rhythm)
 – double-dotted rhythmic figures 18 →
 – single-dotted rhythmic figures 6 →
 – triple-dotted rhythmic figures 122 →
 – single-dotted rhythmic figures 1 → ; 195
 – triple-dotted rhythmic figures 121 → ; 195
 double barline
 – to form sections 24, 29, 129, 224, 232, 361, 427; 197
 – together with D.C. and D.S. 32, 44, 54, 186
 – where there is a repeat sign 5 →
 – where there is metric modulation 45, 49, 77, 81, 107, 118 → ; 189, 191
 D.S. al Coda [Dal Segno al Coda] 54, 188; 190
 duplet 186, 193, 203
 – 2 against 3 100 → ; 214–216, 223
 – in beat-unit subdivided into three 108, 158, 228, 339
 – in fast irregular time signature 188
 – notation
 – French 103 → ; 39, 216
 – German 100 → ; 39, 216
 – in general 39
 – mathematically correct form of notation 102 → ; 39
 – subdivided (identical to quadruplet) 101, 120
 – 2 against 5 195, 287, 339, 383, 385; 200
 – in fast irregular time signature 337–338, 340, 412; 214
 – 2 against 7 in fast irregular time signature 412; 217
 – over one beat 24, 44 →
 – subdivided 277

F

Fibonacci sequence 216
 Fine 32, 186; 188

G

G.P. 39, 187, 251; 188, 204
 Grieg, Edvard
 – *Lyric Pieces* Op. 12 No. 7 183
 – *Lyric Pieces* Op. 43 No. 2 183

H

hemiola 49, 55 → ; 190, 198
 – notation 26, 56, 158; 187
 – subdivided with dotted rhythmic figures 55 →
 house 92 → ; 192, 196, 205, 212
 – extended version 137–138, 237–238, 294, 302, 317, 340; 196

I

- in uno **127, 206–212, 224, 226, 273**; 196, 212
- alla una **212**
- irrational time signatures 210–211
- lower numeral shown using 3, 6, 12 or 24 (e.g. $5/12$)
296–300, 321–322, 325, 389; 210
- diagram 108
- lower numeral shown using 5, 10 or 20 (e.g. $3/10$)
321–323, 325; 210, 213
- diagram 117
- lower numeral shown using 7, 14 or 28 (e.g. $4/7$) **325–326**
- diagram 118
- upper numeral shown using fractions, with 3 as the lower number (e.g. $1^{2/3}/8$) **298, 302–304, 309, 324**; 210
- upper numeral shown using fractions, with 5 as the lower number (e.g. $2^{2/5}/4$) **324, 344**; 213
- upper numeral shown using fractions, with 7 as the lower number (e.g. $1^{1/7}/4$) **344**
- irregular time signatures **84** → ; 192, 208
- notation **90–92, 109–110**; 191–192, 194
- sub-grouping shown in the upper numeral **109–110, 115, 176, 205, 223, 239, 243, 260, 276, 278, 323, 325, 336, 344, 346, 375, 380–381, 430, 435**; 194, 211
- sub-grouping shown using dashed barlines **109–110, 117, 159, 161, 198, 221, 233, 278, 282, 289, 343–344, 374, 385, 433, 449**; 194, 205
- upper numeral shown using decimal numbers or fractions **289–291**; 208
- without a shown time signature **318**; 199
- bars which vary in length 212
- Ives, Charles
- *Symphony No. 4* 214, 217

J

- Janáček, Leoš
- *Concertino* 191
- *Sinfonietta* 221
- Jolivet, André
- *Concerto for Ondes Martenot* 204

L

- Le Jeune, Claude
- *La bel' Aronde* 212
- Ligeti, György
- *Études pour piano* 205
- *Hamburgisches Konzert* 199
- *Magyar Etüdüök* 209
- Listesso tempo **49, 295**; 189, 195 [in music example]
- Lo stesso tempo **287**; 189, 195 [in music example]
- Stesso tempo **270**; 189

M

- Mahler, Gustav
- *Das Lied von der Erde* 207
- *Symphony No. 3* 202
- *Symphony No. 5* 185
- *Symphony No. 9* 195
- même Mouvt 195 [in a music excerpt]
- Meno mosso **29, 228, 271, 293**; 187, 206 [in music example]
- Ancora meno mosso **228**; 204
- Molto meno mosso **274**
- Poco meno mosso **361**
- mensural notation 183
- Messiaen, Olivier 212
- *Le Verbe fra La Nativité du Seigneur* 212
- *Poèmes pour Mi* 196
- *Quatuor pour la Fin du Temps* 212
- *Sept Haïkai* 197
- metric modulation 194–195, 207
- see also Doppio movimento
- see also Temps = temps
- change in beat-unit **81, 131, 143, 151, 153, 159–160, 163, 204–205, 208, 210–211, 220–228, 238, 242, 244, 250, 273, 283, 286, 299, 301, 315, 317, 326, 337, 348, 374, 405, 431, 435**
- changes in tempo and pulse
- with the ratio 3:2 **264–269, 293, 295, 301, 320, 347, 388**; 207
- with the ratio 4:3 **270–274, 325–326, 389, 435**; 207
- with the ratio 5:2 **319**
- with the ratio 5:3 **319, 331, 435**
- with the ratio 5:4 **319, 337, 345**
- with the ratio 6:5 **319, 337**
- with the ratio 7:3 **320**
- with the ratio 7:4 **320**
- notation 195, 201, 204, 206–207
- previous beat-unit = new beat-unit 195
- metronome 221
- metronome markings 183, 190, 194, 221
- as a fraction or a decimal number 199, 218
- calculate the **107, 123, 223, 226–227, 273, 319–320, 342, 431, 435**; 193, 196, 199, 202, 204, 207, 212–213, 215, 217–218
- rounded 218
- mixed time signatures 189, 205
- 1 beat in a bar, see in uno
- beat-unit ratio 3:2 (e.g. $6/8 - 3/4$) **58** →
- beat-unit ratio 4:3 (e.g. $9/8 - 3/2$) **151, 204, 271, 274, 306, 315, 382, 421, 431, 434**; 211
- similar to hemiola 190
- with irregular time signatures **84, 89, 132** →
- without irregular time signatures **58** →
- without irregular time signatures, with the same beat-unit, **28** →

MM (Maelzel's metronome) 189, 221

moins vite 187

Mozart, Wolfgang Amadeus

– *Don Giovanni* 208

N

nested polyrhythm, *see* polyrhythm

Nielsen, Carl

– *En skøn Plads i Ispahan* from *Aladdin* 209

nonuplet

– *see also* triplet with triplet subdivision

– 9 against 2 200, 223

– 9 against 4 343–344; 223

– 9 against 5 344; 223

– 9 against 7 345; 223

– 9 against 8 in two-part exercise 124

notation exercises

– in general 7, 26

– in irregular time signatures 88, 93, 115

– irrational time signatures 296, 301

– metric modulation 224, 228, 272

– notation of beams 22

– polyrhythm 339–340

– solutions 184, 186–187, 191–192, 194, 202, 210

note values

– approximate 203

– breve 36, 228, 237, 320; 188

Nørgård, Per

– *Trepartita* 218

O

octuplet

– *see also* 4 against 3 with subdivisions

– 8 against 3 197, 249, 346; 200, 223

– in connection with 5 against 2 249, 346

– in connection with 5 against 2 and 7 against 3 263; 200
[in a music excerpt]

– 8 against 5 346; 216, 223

– over one beat 207

P

Più mosso 24, 228, 264, 271, 295, 347, 389; 186, 206

– Ancora più mosso 228; 204, 206 [in music example]

– Poco più mosso 232

Plus animé 186

polymeter 39, 124, 288, 292–295, 327, 350; 188, 192–193,
208–209

polyrhythm

– *see also* duplet, triplet, quadruplet, quintuplet, septuplet,
octuplet and nonuplet

– a further explanation 216, 222–223

– as a ratio 196, 200, 236, 241–242, 244, 247–248, 274,
282, 292, 310, 313, 328, 336, 350, 432; 200, 222–223

– notation 200, 205

– as a ratio where the note values are shown 243–244, 254,
283, 316, 323, 344, 432

– in irregular time signatures 159–160, 171, 173, 238, 253,
265, 295, 299, 322, 337–338, 340, 348–349, 415

– nested 199–201, 207, 216–217

– subdivision of duplet 347; 216 [in music example]

– subdivision of quadruplet 284–285, 287–288, 347–349

– subdivision of quintuplet 306, 349

– subdivision of septuplet 350

– subdivision of triplet 178, 204–205, 227, 230, 267, 276,
281, 285, 288, 343, 348, 427–428, 435; 199

– triple 348–350

– notation 10, 29–30, 196; 193–194, 199, 211

– across a barline 197, 205, 211

– where the first beat of the bar is hidden 197, 214 [in
music example], 214

– French quadruplet notation 99 → ; 193

– French quintuplet notation [unofficial expression] 242,
244, 431

– French septuplet notation [unofficial expression] 244

– on an unstressed beat 331–336, 346; 214

– similar to hemiola 190

– similar to polymeter 208

– untraditional polyrhythmic figures

– 13 against 8 346; 216

– 21 against 13 216

Prokofiev, Sergej

– *Sonata for violin and piano No. 1* 188

pulse 208–209, 218

Q

quadruplet 186, 200

– 4 against 3 99 → ; 193, 203, 205, 207, 214, 223

– in beat-unit subdivided in three 108, 191, 203, 221,
223, 256, 286–287, 292, 339

– notation

– French 103 → ; 39, 193–194, 203, 205

– German 99 → ; 39, 193–194, 203

– in general 39, 193

– mathematically correct form of notation 102 → ; 39,
193, 203

– across a barline 127, 150, 163, 203, 206–207, 210,
221, 252, 319, 333

– on an unstressed beat 331, 333

– together with 3 against 2 105 →

– together with syncopation 104

– with dotted rhythmic figures 194

– with subdivisions 192–194, 197, 220, 227, 233, 249,
255, 262–263, 269, 279, 284–288, 319, 333, 427,
433–434; 207

– 4 against 5 195–197, 202, 245, 248, 266, 319, 340–341,
432; 200, 223

– in irregular time signatures 337; 214

– 4 against 7 340; 215 [in a music excerpt], 223

– in irregular time signatures 338, 340; 214

quadruplet (cont.)

- 4 *against* 9 339; 215, 223
- over one beat 24, 41 →
 - in irregular time signature 319
 - on an unstressed beat 332
 - with subdivisions 208, 237, 313

quintuplet

- 5 *against* 2 146 → ; 199–200, 206, 213, 223
 - across a barline 134, 150–151, 211, 241, 246, 256, 276, 305, 311; 205
 - in beat-unit subdivided into three 347
 - where the first beat of the bar is hidden 334
- diagram 51
- in beat-unit subdivided into three 151, 158–159, 183, 198, 225, 228, 272, 295, 305, 311, 319, 324, 349
- in beat-unit subdivided into three, with further subdivisions 305, 311
- notated as 5:4 200
- on an unstressed beat 344
- with dotted rhythmic figures 307
- with subdivisions 152, 305, 307, 311
- 5 *against* 3 139 → ; 196, 199, 201, 206, 213, 216, 223
 - across a barline 134, 206–207, 241, 243, 311; 205, 211
 - where the first beat of the bar is hidden 336
- diagram 49
- in beat-unit subdivided into three 143, 159, 242, 247, 271, 340, 349, 421, 423, 429, 435
- in beat-unit subdivided into three with subdivisions (= 10 *against* 3) 306, 309
- in beat-unit subdivided into three with triplet-subdivisions 306
- in connection with 3 *against* 2 139 →
 - on an unstressed beat 336
 - with dotted rhythmic figures 308
 - with subdivisions 307–309, 311–312
 - with triplet subdivisions 323
- 5 *against* 4 245–249, 305, 310, 321, 349; 205, 213–214, 217, 223
 - diagram 88
 - in beat-unit subdivided into three 345, 435
 - in connection with 4 *against* 3 245, 247
 - over 2 beats in a two-part exercise 429, 435
 - with subdivisions 305
- 5 *against* 6 over 2 and 3 beats in a two-part exercise 431; 223
- 5 *against* 7 341; 215, 223
 - in irregular time signature 338; 214
- 5 *against* 8 342; 215, 223
 - in irregular time signature 337; 214
- 5 *against* 9 340; 215 [in a music excerpt], 223
- notation
 - dotted rhythmic figures 312, 323; 211
 - French [unofficial expression] 242, 244, 431; 205

- over one beat 148, 150, 210, 324, 334, 425; 213
- on an unstressed beat 334, 336
- with dotted rhythmic figures 312

R

Ravel, Maurice

- *Piano Trio* 208
- *L'indifférent* from *Shéhérazade* 193
- *Sonata for violin and piano No. 2* 198
- *Valses nobles et sentimentales* 190

repetition signs 5–6, 13, 18 →

- notation 183
- repetition of a single bar 37; 188
- repetition of two bars 40; 188
- where the is metric modulation 270
- with *Dal Segno al Fine* 186
- with *volte* [prima volta, secunda volta] 13 →

Respighi, Ottorino

- *Belkis* 207
- *La fontana di Trevi al meriggio* from *Fontane di Roma* 201
- *Un Sogno* from *Quattro Liriche* 204

rests

- an empty bar 34 → ; 192
 - G.P. 39 → ; 188, 204
 - *vuota* 238; 204
- multiple bars 36 → ; 188
- notation 184, 187, 191–192

ritardando

- in the further explanation of polyrhythmic figures 216
- written 144, 244, 340–341; 197, 205, 215, 217

ritmo di 3 misure 207; 201 [in a music excerpt]

ritmo di 4 misure 207; 201

S

Schoenberg, Arnold 190

- *Gurre-Lieder* 198
- *Kammersymphonie* Op. 9 185

Schubert, Franz

- *Impromptu* Op. 90 No. 3 185

Schumann, Robert 185

- *Schneeglöckchen* Op. 79 No. 26 198

septuplet

- 7 *against* 2 218–220, 244, 263, 311, 312, 325–326; 223
 - across a barline 434
 - diagram 78
 - in beat-unit subdivided into three 261, 310, 312, 320, 347, 432
- 7 *against* 3 259–263, 274–275, 304, 310–311, 320, 326, 329, 343–345, 350, 432–433; 200, 206, 222–223
 - across a barline 311; 211
 - diagram 93
 - in beat-unit subdivided into three 261, 311–312, 435
 - in beat-unit subdivided into three with subdivisions 310–311

- in connection with *5 against 2* 259–260, 263, 274, 311, 343
- in connection with *8 against 3* 262–263
- notation 211
- *7 against 4* 213–220, 251, 263, 311, 325, 344, 346, 350, 430; 201, 206, 223
 - across a barline 311, 316; 211
 - diagram 76
 - in beat-unit subdivided into three 261
 - in connection with *5 against 3* 213–215, 219–220, 311, 344, 430
 - with subdivisions 311, 346
- *7 against 5* 345; 223
- *7 against 9* 341; 215, 223
- notation
 - French [unofficial expression] 244, 320; 202, 205
 - with dotted rhythmic figures 312, 326; 211
- over one beat 320
- sextuplets
 - *see also* triplet with subdivisions
 - *6 against 5* 388; 217, 223
- Sibelius, Jean
 - *Symphony No. 1* 184
 - *Symphony No. 6* 185
- simile [sempre simile] 90, 127, 208; 191–192
- Strauss, Richard
 - *Salome* 189
 - *Sonatine für Bläser* 216
- Stravinsky, Igor
 - *Dumbarton Oaks* 199
 - *Le Sacre du Printemps* 195
 - *Les Noces* 189
 - *Perséphone* 195
 - *Petrouchka* 193–195, 200, 221
 - *Piano-Rag-Music* 212
 - *Symphonies* 206–207
 - *Threni* 179, 204
- syncopations
 - in irregular time signatures 113, 116 →
 - in quadruplets 44
 - in quintuplets 305–307
 - in triplets 308
 - notation 184, 187, 191
 - over a beat-unit subdivided into 2 27 →
 - over a beat-unit subdivided into 3 43 →
 - with beams across a barline 252–253

T

- Takemitsu, Toru
 - *Rain Coming* 208
- Tchaikovsky, Pyotr
 - *Symphony No. 5* 196
- tempo 183, 189, 194
- Tempo I° [Tempo primo] 121–122, 228, 248, 264–265, 295, 319, 389, 435; 218

- Tempo giusto 31; 188
- tempo indications and musical indications 183, 221–222
 - French 75–76, 203–204, 231, 431; 221
 - German 78–79, 171–172, 178, 427; 221
 - Italian 6, 15, 18, 23, 43, 53, 55, 65, 100, 106, 121, 130–131, 135, 143, 150, 159–160, 169, 180, 199, 206, 224, 252, 283, 288, 314, 356, 360, 364, 370, 392, 402, 410, 413; 221
 - Adagio 221
 - Allegretto 221
 - Allegro 221
 - Allegro molto moderato, Allegro molto 185
 - Lento 221
- temps = temps 45, 49, 77, 124–128, 160, 180, 200, 204–205, 210–211, 225, 270, 273, 286, 288, 407, 414; 189, 193, 196, 208
- ties, French 317–318; 212
- time signatures
 - *see also* in uno
 - *see also* irrational time signatures
 - *see also* irregular time signatures
 - *see also* mixed time signatures
 - $1/1$ 206, 273
 - $1/2$ 210, 221, 268
 - $1/4$ 127, 319
 - together with other time signatures 276, 344
 - $1/8$ 187, 205, 286, 304; 192
 - together with other time signatures 278
 - $1/16$, together with other time signatures 329
 - $2/2$ 8 → ; 185
 - $2/4$ 2 → ; 183, 193
 - 1 beat in a bar 159, 211, 293
 - subdivided (4 beats in a bar) 19 →
 - $2/8$ 203
 - 1 beat in a bar 223
 - 2 beats in a bar 61 →
 - 4 beats in a bar 229, 254, 386
 - $2/16$
 - 1 beat in a bar 209, 273
 - 2 beats in a bar 254, 279, 386, 432
 - $3/2$ 10 → ; 190, 211
 - subdivided (6 beats in a bar) 131, 225, 247, 302, 308, 319–320
 - $3/4$ 183, 187–188, 190–191, 203, 205, 213, 216
 - 1 beat in a bar 55 →
 - 3 beats in a bar 1 →
 - irregular in 2 beats 328
 - subdivided (6 beats in a bar) 18 →
 - $3/8$
 - 1 beat in a bar 57 →
 - 3 beats in a bar 16 →
 - irregular in 4 beats 329
 - subdivided (6 beats in a bar) 229–231, 239, 254, 386

time signatures (cont.)

- $\frac{3}{16}$ 192
 - 1 beat in a bar **66** →
 - 3 beats in a bar **229–230, 254, 279, 291, 309, 337, 386**
- $\frac{3}{32}$, 1 beat in a bar **230, 279, 389**
- $\frac{4}{2}$ **9** → ; 183, 185
 - subdivided (8 beats in a bar) **130, 267**
- $\frac{4}{4}$ **3** → ; 179, 188, 191–193, 196–197, 211, 213–214
 - subdivided (8 beats in a bar) **17** →
- $\frac{4}{8}$ **15** → ; 197, 211
 - subdivided (8 beats in a bar) **229–231**
- $\frac{4}{16}$ **239, 279**
- $\frac{5}{2}$ **162, 197, 237, 345**
- $\frac{5}{4}$
 - 2 beats in a bar **95, 159, 184, 197, 220, 228, 256, 268, 277**
 - 5 beats in a bar **129** →
 - irregular in 3 beats **328**
 - subdivided (10 beats in a bar) **281**
- $\frac{5}{8}$ 191–192, 210
 - 1 beat in a bar **208, 211, 224, 226, 273, 319**
 - 2 beats in a bar **84** →
 - 5 beats in a bar **131** →
 - alternating with $\frac{2}{4}$ **132**
 - irregular in 3 beats **327, 331**
- $\frac{5}{16}$ 208
 - 1 beat in a bar **210, 226**
 - 2 beats in a bar **87** →
 - 5 beats in a bar **279, 432**
 - irregular in 3 beats **346**
- $\frac{5}{32}$, 2 beats in a bar **254, 279, 309, 386**
- $\frac{6}{2}$ **345**
- $\frac{6}{4}$ 196, 198
 - 2 beats in a bar **24** →
 - 6 beats in a bar **70** →
 - alternating with $\frac{3}{2}$ **64, 68**
- $\frac{6}{8}$ 183, 187, 192–193, 198, 203, 205, 216
 - 1 beat in a bar **208, 211**
 - 2 beats in a bar **23** →
 - 6 beats in a bar **69** →
 - irregular **327, 331; 213**
- $\frac{6}{16}$
 - 2 beats in a bar **43** →
 - 6 beats in a bar **229–230**
 - alternating with $\frac{3}{8}$ **126**
- $\frac{6}{32}$, 2 beats in a bar **254, 279, 309, 386, 435**
- $\frac{7}{2}$ **345**
- $\frac{7}{4}$
 - 3 beats in a bar **98** →
 - 7 beats in a bar **130** →
 - irregular in 4 beats **328, 341**
- $\frac{7}{8}$ 179, 192, 208
 - 1 beat in a bar **226**
 - 2 beats in a bar (3+4, 4+3) **315; 211**
 - 3 beats in a bar **89** →
 - 7 beats in a bar **131** →
 - alternating with $\frac{3}{4}$ **135**
 - irregular in 4 beats **327; 213**
- $\frac{7}{16}$
 - 1 beat in a bar **212**
 - 3 beats in a bar **92** →
 - 7 beats in a bar **279, 310**
- $\frac{7}{32}$, 3 beats in a bar **254, 279, 309–310, 386, 432, 435**
- $\frac{8}{4}$
 - 3 beats in a bar **159, 256, 330**
 - 8 beats in a bar **176, 189, 449**
- $\frac{8}{8}$ 197, 206, 214
 - 3 beats in a bar **153** →
 - 8 beats in a bar **190, 196, 204, 282, 342, 451**
- $\frac{8}{16}$ 197
 - 3 beats in a bar **153** →
- $\frac{8}{32}$, 3 beats in a bar **254, 309, 435**
- $\frac{9}{4}$
 - 3 beats in a bar **128, 143, 203, 221, 232, 237, 256, 345**
 - 4 beats in a bar **232, 237, 345**
 - 4 beats in a bar and subdivided **280, 283, 449**
 - 9 beats in a bar **166, 189, 280, 319, 341, 449–450**
- $\frac{9}{8}$ 183, 199, 211
 - 3 beats in a bar **41** →
 - 4 beats in a bar **171** →
 - 4 beats in a bar alternating with $\frac{4}{4}$ **171**
 - 4 beats in a bar and subdivided **282, 451**
 - 9 beats in a bar **164** →
 - alternating between 3 and 4 beats in a bar **173, 227**
 - irregular in 5 beats **331**
- $\frac{9}{16}$ 206
 - 3 beats in a bar **43** →
 - 4 beats in a bar **172, 180, 227, 233, 269, 286, 317**
 - 9 beats in a bar **229–230, 310**
 - alternating between 3 and 4 beats in a bar **172, 227, 233**
- $\frac{9}{32}$
 - 1 beat in a bar **435**
 - 3 beats in a bar **254, 258, 304, 309, 432, 435**
 - 4 beats in a bar **239**
- $\frac{10}{4}$
 - 4 beats in a bar **232, 237, 256**
 - 4 beats in a bar and subdivided **283, 450**
- $\frac{10}{8}$ 204
 - 4 beats in a bar **234, 238, 244, 250, 317, 322, 325, 344, 429**
 - 4 beats in a bar and subdivided **281–283, 451**
 - alternating with $\frac{5}{4}$ **234**
- $\frac{10}{16}$, 4 beats in a bar **233, 236, 272, 286, 339**
- $\frac{10}{32}$, 4 beats in a bar **239, 279, 432**

- 11/4
 - 4 beats in a bar 237, 256
 - 4 beats in a bar and subdivided 283, 450
 - 5 beats in a bar 237, 450
- 11/8 204
 - 4 beats in a bar 235, 238, 317, 429
 - 4 beats in a bar and subdivided 282–283, 451
 - 5 beats in a bar 317, 345
 - 5 beats in a bar and subdivided 283
- 11/16
 - 4 beats in a bar 236, 257, 273
 - 5 beats in a bar 314
- 11/32
 - 3 beats in a bar 317
 - 4 beats in a bar 239, 384, 432
 - 5 beats in a bar 432
- 12/4
 - 4 beats in a bar 232, 237
 - 12 beats in a bar 167, 280, 283, 450
- 12/8 185, 192, 196, 198
 - 4 beats in a bar 42 →
 - 12 beats in a bar 165–166, 179, 387, 451
 - irregular in 5 beats 317
- 12/16
 - 4 beats in a bar 43 →
 - 4 beats in a bar in connection with 6/8 in 2 beats 270
 - 12 beats in a bar 229
 - alternating with 4/8 83
- 12/32, 4 beats in a bar 239, 254, 320, 435
- 13/8, 5 and 6 beats in a bar 313; 179
- 13/16, 5 beats in a bar 314
- 13/32, 3 beats in a bar 317
- 14/8, 6 beats in a bar 317
- 15/4, 5 beats in a bar 203
- 15/8, 5 beats in a bar 199–200, 242, 274, 302, 313, 349
- 15/16, 5 beats in a bar 198, 236, 314, 319, 339
- 15/32
 - 5 beats in a bar 320
 - irregular in 3 beats 317
- 17/16, 7 beats in a bar 314; 179
- 17/32, 4 beats in a bar 317
- 18/8, 6 beats in a bar 199, 242
- 18/16, 6 beats in a bar 225, 274
- 20/8 179
- 21/8, 7 beats in a bar 199
- 21/32, 3 beats in a bar 274
- 24/16 199
- combinations
 - alternating (e.g. 3/4 - 4/4) 31, 350, 402; 188
 - ambiguous (alternating between 3/2 and 6/4) 68; 190
 - gathered into one (e.g. 2/4 + 5/8) 276, 278, 291, 303, 323, 329, 343, 385, 433; 207
 - sub-grouping shown in upper numeral 211
- polymeter in two-part exercises (e.g. 3/4 and 9/8) 39, 124, 288, 350, 407, 414
- in connection with tempo indications and musical indications 221
- in Mensural notation 183
- notation
 - lower numeral shown using beat-unit 255–258, 274, 291; 206
 - without lower numeral 38, 316; 188, 207, 211
 - without lower numeral but with changing pulse 275, 277, 317; 211
- upper numeral shown using decimal numbers (e.g. 3.5/4) 289; 208
- upper numeral shown using fractions (e.g. 2¹/₂/4) 290–291, 304; 208
 - *see also* irrational time signatures
 - where there is use of polymeter 208
- tremolo misurato 40; 188
- triangle 92 → ; 192, 196, 205, 212
 - extended version 137–138, 237–238, 294, 302, 317, 340; 196
- triplet
 - 3 *against* 2 45 → ; 189, 196–197, 216, 223
 - across a barline 54 →
 - in fast irregular time signature 159–160, 171, 173, 238, 253, 265, 295, 299, 322, 348–349, 415
 - with subdivisions 299
 - on an unstressed beat 335, 346, 349
 - with dotted rhythmic figures 162, 194, 205, 302
 - with subdivisions 160 → ; 199
 - with triplet subdivision (9 *against* 2) 204–205, 227, 230, 267, 276, 281, 285, 288, 427–428, 435
 - 3 *against* 4 52, 80, 81 → ; 191, 203, 215, 222–223
 - across a barline 203
 - in beat-unit subdivided in three 83
 - over 2 beats in a two-part exercise 416–417
 - with subdivisions 343
 - with triplet subdivisions 343
 - 3 *against* 5 200–202, 205, 266, 319, 340–342, 387; 200, 215, 223
 - across a barline 205
 - in irregular time signatures 337–338; 214
 - 3 *against* 7 339; 215, 223
 - in irregular time signatures 338; 214
 - notation 10, 29–30; 184–185, 187
 - over one beat 1 → ; 223
 - 3 *against* 2 in two-part exercise 396, 399, 402 →
 - on an unstressed beat 331–332, 335–336, 346
 - where the first beat of the bar is hidden 214 [in a music excerpt]
 - with subdivisions 34 →
 - notated as tremolo misurato 40
 - with triplet subdivisions 178, 204

two-part exercises

- in groups 14, 23, 39, 57, 82, 112, 117, 124, 154, 175, 179, 188, 190, 199, 207, 238, 263, 288, 292–295, 300, 327, 350
- singing/clapping 139–140, 146–147, 213–214, 245, 259–260, 337–338, 390–435
- tapping 351–389

U

upbeat 6 → ; 183

V

volte [prima volta, secunda volta] 13 → ; 199
vuota 238; 204








W

Webern, Anton
– *Cantata No. 2* 188
weniger bewegt 187













Index of symbols

Both the appropriate exercise number and page number are given respectively. Exercise numbers are in **bold**, whilst page numbers are written as normal.


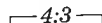
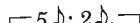


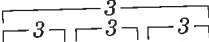
Irregular time signatures

    	92 → ; 192, 196, 205, 212
 	137-138, 237-238, 294, 302, 317, 340; 196








Metric modulation and other beat-unit transitions

 =  etc.	58 → ; 190
 =  etc.	59 → ; 190
  etc.	204, 271; 200
 =  etc.	45, 123 → ; 189, 195
  =   etc.	45, 119 → ; 189, 195, 201, 204, 206-207

Polyrhythm

	29-30; 187
 etc.	196, 200, 236, 241-242, 244, 247-248, 274, 282, 292, 310, 313, 328, 336, 350, 432; 200, 222-223
 etc.	243-244, 254, 283, 316, 323, 344, 432
 etc.	244
 etc.	303
 etc.	178 → ; 199-201, 207, 216-217

Repetition signs

	5-6, 13, 18 →
 	13 →
	32, 44, 54, 186-188; 188-190
	54, 188; 190
	37; 188
	40; 188



etc. 36 → ; 188

Rests

Temps = temps

$\frac{1}{4} = \frac{3}{8}$ etc. 127, 208

Time signatures

C 6 → ; 183, 185

♩ 13 → ; 183, 185, 196-197

1 beat in a bar 208

CC 185

♩♩ 185 [in a music excerpt]

C **♩** **♩** **♩** 183

$\frac{2+3}{8}$ etc. 109-110, 115, 176, 205, 223, 239, 243, 260, 276, 278, 323, 325, 336, 344, 346, 375, 380-381, 430, 435; 194, 211

$\frac{4+3}{8}$ etc. 276, 278, 291, 303, 323, 329, 343, 385, 433; 207

4 (without lower numeral) etc. 38, 316; 188, 207, 211

$\frac{3}{4}$ etc. 255-258, 274, 291; 206

$\frac{3.5}{4}$ etc. 289; 208

$\frac{2\frac{1}{2}}{8}$ etc. 290-291, 304; 208

$\frac{5}{12}$ etc. 296-300, 321-323, 325-326, 389; 108, 117-118, 210, 213

$\frac{1\frac{1}{3}}{4}$ etc. 298, 302-304, 309, 324, 344; 210, 213

Tremolo



40; 188

In *Rhythm · Advanced Studies*, Erik Højsgaard, composer and professor of aural training at the Royal Danish Academy of Music, provides a detailed guide to reading and understanding advanced use of rhythm. The 451 exercises and their corresponding notes allow those professionally involved with music to further develop their technical and practical skills in this specific area. The book also includes exercises aimed at developing modern composition techniques.

Danish professor and composer Per Nørgård writes:

The many aspects of aural training in this book by Erik Højsgaard have been inspired by his deep insight into western music and its thousand-year-old traditions. Written with a clarity that allows for rhythm and polyphony to be presented in an understandable form, Højsgaard's book is both musical and entertaining. There is no doubt that one gains new insights and musical joys after working through the book's exercises.

♩ = 144 (♩ = 72)

Meno mosso (Tempo II°) ♩ = 108

p sub.

p



KNJIŽNICA AKADEMIJE ZA GLASBU

K 784.9
HØJSGAARD E.
Rhythm

784.9



3013137

UNIVERSITÄT U LUZJAN

COBISS c

ERIK HØJSGAARD

Rhythm

ADVANCED
STUDIES

Più mosso (Tempo III°) ♩ = 144 (♩ = 72)

AARHUS UNIVERSITY PRESS