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SECOND EDITION

Studying Rhythm



ANNE CAROTHERS HALL

Second Edition

STUDYING RHYTHM

ANNE CAROTHERS HALL

Wilfrid Laurier University



PRENTICE HALL, *Upper Saddle River, New Jersey 07458*

**This book is dedicated
to the memory of Wallace Berry**

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INTRODUCTION

This book contains extended rhythmic studies and preparatory exercises. They are intended to help students learn to perform the rhythmic patterns most frequently encountered in Western art music. Familiarity with rhythmic patterns, along with a habit of understanding rhythm in phrase-length structures, should facilitate actual musical performance, in which we must be concerned with all the parameters of music. The modest aim of this book explains why there are no studies involving pitch and only a few with dynamic indications.

The exercises and studies are meant to be sung; where there is a second part, it may be tapped or clapped. Singing is best because, unlike speaking, it promotes the conviction that we are engaged in a musical activity, and, unlike clapping, it allows us to give the notes their full durations, rather than to perform only the pattern of attacks.

The exercises, identified by numbers following the chapter number (1.1, 3.2), serve as preparation for the studies that follow them. They consist of single measures, or pairs of measures, separated by whole-measure rests. Metronome markings for an exercise suggest a range of tempi possible for the performance of all its segments, but individual segments may be performed faster. Each segment of an exercise should be repeated several times, until it is easy, before we proceed to the next segment. The ability to repeat a pattern is evidence that we can perform it; unless we can perform a pattern three or four times in succession, we have not conquered it. Spending enough time on a segment to memorize it is a good way to ensure that the rhythmic pattern has been completely grasped. These patterns are the equivalent of words in a rhythmic vocabulary, and we should be able to perform them without thinking about the individual values, just as we can read a word we know and not have to think how its combination of letters is pronounced. The exercises do not necessarily offer complete preparation for the following studies; rather, they serve as models. Where individual patterns in the studies seem difficult, they should be extracted and practiced.

The studies are identified by letters following the chapter number (1.A, 3.B). They are composed of well-defined phrases grouped in simple musical forms: statement, contrast, and return, or statement and variations. Just as a verbal phrase is a group of words that belong together because they make sense as a unit within a larger structure, a musical phrase is a group of notes that belong together because they make musical sense as a unit within a larger structure. The most practical definition of a musical phrase is "a group of notes that we would want to sing on one breath." In fact, that is the way a phrase should be sung—on one breath, with the beginning and end usually defined by silence. For the most part the phrases are not marked, but are visible because they are separated by rests. Occasionally, however, only a comma indicates where the performer must sneak a breath without significantly delaying the beat. Where rests within phrases make the phrasing ambiguous, phrase marks are used.

In performing the studies, the goal must always be to grasp the rhythm of the phrase as a whole. Reading music note-by-note is as useless as reading prose letter-by-letter. Reading a beat at a time is like reading a word at a time, and the lack of comprehension will be audible whether the performer is reading music or poetry. A musical phrase, a musical gesture, must be comprehended as a whole. To break a phrase, by hesitating or by repeating a fragment, is to destroy it. We must arrive at ca-

dences on time; in ensemble performance, arriving late is embarrassing, to say the least. So while we should aim for absolute accuracy, we miss the point if we concentrate on the details at the expense of the shape of the long phrase. The phrase must be understood as a continuous flow, articulated and enlivened by the patterns within it.

If sustaining the phrase is important, so is breathing between phrases. An unbroken flow of sound, like too many run-on sentences, makes both performer and listener physically uncomfortable—out of breath. Breathing is vital.

The last study in each chapter is a rhythmic setting of a short poem, or more often of a fragment of a poem or piece of prose, that has something to do with music. While the texts are intended to make the book more interesting, the fit between the natural spoken verbal rhythm and the musical rhythm should make it easier for the performer to become comfortable with some of the rhythmic patterns. For example,




may seem simpler and more natural when it is the setting of the beginning of the Hopkins poem:




The text settings are given dynamic markings, as are a few of the other studies in the book. The absence of dynamic markings does not, however, mean that all the studies should be performed *mezzo forte*, or that each study must have the same dynamic level from beginning to end. For the most part only the rhythm and tempo are notated, and performers are encouraged to exercise imagination in varying dynamics within and between studies in ways that suit the rhythm. It is well to remember that lightness facilitates speed. Whole studies may be performed *pianissimo*. This may be helpful where the rhythm is quick and complicated, to combat the unhelpful tendency to reflect the stress of performing something difficult by making it louder. Also, of course, phrases and whole studies may be clarified and shaped and given direction through changes of dynamics. Where patterns or phrases are repeated, the repetition can be softer, as an echo, or louder, for increased emphasis.

That no pitch is notated does not mean that we must sing all the notes on the same pitch. Making up tunes to fit the rhythmic patterns and mood can be both entertaining and instructive. The tune may be as simple as going up and down a scale, changing direction so that rhythmically important points are high points in the melodic line. In group performance, as in class, different singers can be assigned different notes of a triad, or even different voices in a harmonic progression.

There may be no better way to achieve the familiarity with a rhythmic pattern that makes us feel we own it than to compose a phrase or two that incorporates the pattern. Finding a text that can reasonably be set using a given rhythmic pattern can be both challenging and fun. The texts set in this book suggest some sources, as they are often parts of poems of which other parts could well be set with similar rhythms, and other poems by the same poet may offer similar possibilities.

In writing rhythms, we should strive to make the spacing of the notes reflect their relative durations: In writing , for example, almost three times as much space must be left after the dotted eighth as after the sixteenth. Notes must also be beamed correctly to show beats. Accuracy in notation is necessary if anyone else is to read it, and, just as important, it sensitizes us to the assistance proper notation gives us

in reading rhythm:  is much more difficult to read than the same

pattern written with correct spacing and beams: 

The two-part studies may be performed with one or more people on each part. They are designed, however, for solo performance, with the upper part sung and the lower part tapped or clapped. While it is often easier to tap both parts, one with each hand, singing one part and tapping the other is a better way for the performer to learn to hear two independent parts rather than one composite pattern. Most musicians will find the two-part studies much more difficult than the single lines. However, as so much of our music is composed of several lines, each with its own integrity, developing the ability to think two lines at once is well worth the effort it may require.

In all the exercises and studies, notes in the sung parts must be given their full durations (except when we snatch a breath between phrases). Accurate performance does not allow us to begin a silence too soon, or to add a silence, any more than it allows us to begin a sound too soon, or to add a sound. Because we tend to concentrate on beginning each note at the right time, we often find it difficult to listen to the full duration of each sound, to pay attention to its continuation and ending. However, in order to project a line, we must hear the whole of every sound. Again, this is why singing the studies is better than clapping them.

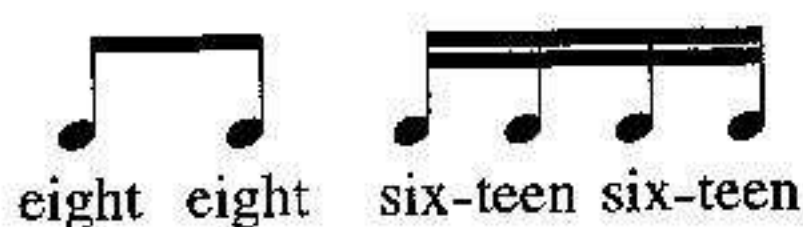
In spite of this recommendation to sing the rhythms, clapping and counting aloud may be a good way to begin learning them. We do have to be able to count beats. When the beats are divided and subdivided, we may want to begin by articulating all the smallest divisions, so as to be sure to get the proportions of the values correct:




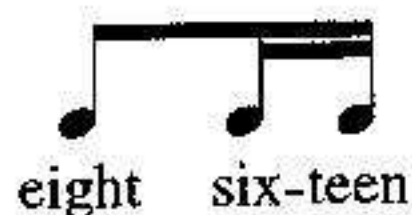
While we must strive for the accurate performance this facilitates, we must also work to hear patterns of notes of different durations within a beat: an eighth-note may take the time of two sixteenth-notes, but it is not two sixteenths added together, so eventually we must be able to count just the beats and hear the patterns within them. Aside from the fact that clapping rhythms enables us to count aloud, clapping is a good way to check the accuracy of ensemble performance. When we strive for real precision, even the simplest rhythm may serve as a valuable study in ensemble. It is surprisingly difficult for fifteen people to clap at exactly the same time. Also, as was explained above, tapping or clapping is necessary for solo performance of the two-part rhythms.

When we sing the rhythms, we can use any simple syllable that begins with a good definite consonant (e.g., d, f, l, t); "ta" is obvious. For fast patterns, it is easier to

alternate syllables: "ta-fa-te-fe" is easier to sing rapidly than "ta-ta-ta-ta." For patterns of eighth-, sixteenth-, and thirty-second-notes, the names of the notes may be spoken or sung in rhythm with one syllable to each note; this can facilitate learning both the sound and the notation of the rhythmic pattern, and introduces nothing that might seem arbitrary and extraneous. If we learn to sing



in rhythm, then we can learn  for example, as



This system will be discussed further at the beginning of relevant chapters. Several other patterns of rhythmic syllables are in common use. A system used in Kodály practice assigns "ta" to quarters and longer notes, "ti" to eighths, "ti-ri" to two sixteenths, and "tim" and "rim" respectively to dotted eighths beginning on and off the beat:¹



If those studying this book are using a system of rhythmic syllables for music education classes, there may be some point in using that system here.

Conducting the meter helps keep the beat steady and lets the hand take care of counting beats. Most important, it helps us feel the beat and the continuous motion from beat to beat physically, kinetically. We should conduct while singing the one-part rhythms so that conducting becomes natural. Only when we can conduct the patterns for the different meters without thinking about them does conducting become a help. If beating time seems a hindrance rather than a help—one more thing to think about—then it should be practiced assiduously, as it is an essential tool for musicians. However, we must not grow dependent on our hands to keep the beat because they will, in many musical situations, be otherwise occupied, so we should also practice without conducting.

The general tempo indications and the metronome indications of precise tempi given for all the studies should be observed. While they may not always be appropriate for a student's level of skill, the aim should be to perform every study at the given tempo. We do, after all, have to perform both slow music and fast music. Nothing will make the studies more boring than working on them all at the same moderate tempo. (Neither coffee nor lemonade tastes best lukewarm.) As with dynamics, however, the tempo may be varied, if doing so is a conscious creative decision rather than a way to avoid difficulty.

Metronomes are useful instruments for checking steadiness of tempo. In general we should consider a study learned only when we can perform it with a metronome at

a tempo close to the one indicated. On the other hand, too much practice with a metronome may foster dependence on it. We must learn to keep a steady beat without such mechanical help. And musical rhythm is not as unrelentingly steady as a metronome, so metronomic regularity cannot be our ultimate goal.

Metronome numbers indicate the number of ticks per minute. Thus longer values are represented by lower numbers. (In a given tempo there are fewer half-notes than eighth-notes per minute.) This principle must be understood in order to figure out equivalences. If the eighth-note is constant at 108, for example, the sixteenth-note, half as long, is at 216, and the quarter-note is at 54; the dotted quarter, three times as long, is a third as fast at 36.

Because of their clear phrase structure, the studies are suitable for dictation. The greatest benefit of dictation, once we know how to write the patterns, is the development of memory. Therefore, one person should sing a phrase until those taking dictation can sing it back; only after they can sing it from memory should they write it. Individuals working alone can develop skill by reading a phrase until it is memorized, and then writing it.

The studies are meant to be *studied*, not just sight-read. Many of them will challenge even experienced musicians. There is no point in studying them unless they are worked to a level of good performance. Unless a rhythm is performed correctly, a different rhythm is heard. Unless two against three is an exactly even two against an exactly even three, the point of the pattern is lost.

Here, then, is an ordered list of ways any study may be learned and performed; it is not expected that all these will be applied to any one study. However, each step chosen should be completed perfectly before proceeding to another. The goal is to achieve a performance that is both accurate and musical.

1. Determine the meter and silently read the rhythm; if beginnings of beats are not obvious, mark them; if any patterns are unfamiliar, isolate them and practice them separately.

2. Determine the phrasing, and mark it if necessary.

3. Check the given tempo with a metronome. While studies may initially be practiced more slowly, the effort should be to achieve facility at the notated tempo.

4. Determine the smallest division of the beat that appears in the study and that is consistent with all patterns, and count aloud, articulating these divisions, listening to the evenness of the counting, silently reading the rhythm.

5. Unless they are indicated, decide dynamic level and shape.

6. Count aloud, articulating the smallest division of the beat that appears in the study and is consistent with all the patterns, while clapping or (tapping) the rhythm.

7. Count just the beats aloud, listening to the evenness of the counting, while reading the notated rhythm.

8. Clap the rhythm while counting the beats aloud. The point is to hear the pattern of the notated rhythm against the absolute steadiness of the counting, so we need to listen to both, and not drown out the clapping with the counting, or vice versa.

9. Clap the rhythm while counting the beats silently.

10. Conduct the meter while reading the rhythm silently.

11. Choose the pitch(es) for singing, and sing the rhythm while conducting, using some system of rhythmic syllables (perhaps naming the note-values). Work to give each phrase continuity, coherence, and shape.

12. Sing the rhythm on *ta*, at the given tempo and with the intended dynamics, while conducting the meter.

13. Sing the rhythm on *ta*, at the given tempo and with the intended dynamics, without conducting the meter.

14. Perform the study antiphonally, by having one person or group sing each phrase, reading the music, while another repeats each phrase from memory.

15. Memorize at least one phrase, either from dictation or from reading it, and then write it down from memory.

16. Make up a tune that fits the rhythm, and sing or play it.

17. Compose a short rhythmic piece, with or without text, using the rhythmic patterns of the study.

While the chapters are arranged to form a logical progression, and within the chapters the studies are arranged in order of increasing difficulty, it is not necessary to learn all the studies in one chapter before proceeding to the next. To work straight through the book may not be as helpful as to do some of the studies in each chapter and then to return to earlier chapters and work some of the other studies. Performance of complicated rhythmic patterns, changing meters, unequal beats, and cross-rhythms is not learned once and then known forever, any more than is performance of scales; we have to keep practicing.

Understanding the basic processes of musical rhythm is necessary for good musical performance. Musical rhythm is complex and difficult to describe because of the number of factors involved and their interdependence.² Rhythm is made by durations of sound and silence and by accent. Accent is made by many factors, of which loudness is just one. Duration makes accent, as a longer note is emphasized by its length, so these two basic factors of rhythm are not separable.

The rhythm in this book, like the rhythm of most Western art music, is metrical. Meter is the grouping by accent of normally regular pulses (beats) into measures beginning with stronger accents. Within the measure, there is a hierarchy of beats and parts of beats, in that some beats are stronger than others, and beats are stronger than half-beats, which are in turn stronger than quarter-beats, etc. When rhythm is metrical, the rhythmic patterns are heard against a background of regularly recurring pulses and accents. When other kinds of accent, especially stress and duration, do not coincide with metrical accents, the result is syncopation.

Just as one factor of rhythmic pattern, duration, can produce the other factor, accent, rhythmic patterns produce the meter they are heard against. That is, meter is made audible through sounding rhythmic patterns; only after the meter is established will the listener retain it as a set of expectations and hear a rhythmic pattern agree or conflict with it. Much of the fun of metrical rhythm, and its expressive power, derive from the interplay of irregular patterns and metrical regularity, and the performer should enjoy this interplay and project it for the audience to enjoy.

It is common in performance to stress the downbeat slightly. The stress seems especially necessary in performing music where there is no change of pitch. (In much music, the downbeat accent is made by harmonic change, and no additional stress is necessary or desirable.) However, once the meter is established, the listener hears a metrical accent on the downbeat, and the performer must consider the musical context

to determine how much dynamic accent, if any, should be added to the metrical accent. A long note has its own accent, and an added dynamic accent may make the note too conspicuous. Too much accent breaks a musical line into pieces. We must be sensitive to accent if our performance is to be musical.

We speak of musical rhythm as composed of various discrete units: beats, measures, patterns of different lengths. But the essential quality of musical rhythm is its ongoingness.³ The conductor's baton must never stop moving. Most downbeats function both as goal of the preceding measure and as beginning of the new one. Patterns articulate a continuous flow. For rhythm to be music, it must have this flow. We must, while aiming for a correct performance of rhythmic patterns, strive always to create the articulated flow of musical rhythm.

NOTES

¹Lois Choksy, *The Kodály Context: Creating an Environment for Musical Learning* (Englewood Cliffs, NJ: Prentice-Hall, Inc., 1981), p. 190. On the next page of the book Choksy gives a different system developed by Pierre Perron.

²For an extended discussion of the complexity of rhythm, see Wallace Berry, *Structural Functions in Music* (Englewood Cliffs, NJ: Prentice-Hall, 1976), pp. 301–424.

³Cf. Susanne Langer's assertion that the essential characteristic of any rhythmic motion is that the end of one action is the beginning of the next, in *Problems of Art* (New York: Charles Scribner's Sons, 1957), pp. 50–51.

1. TWO-FOUR METER

This chapter is devoted to two-four time, with no notes shorter than eighth-notes. The relatively simple material allows us to concentrate on the techniques of performing the rhythmic studies: counting aloud while clapping the rhythm, conducting the meter while singing the rhythm, improvising melodies with the rhythm, and so on, as outlined in the Introduction.

Conducting duple meter is rather like bouncing an imaginary ball, with the point of the beat at the point of contact with the ball. On the downbeat, the right hand descends and rebounds away from the body, tracing a backwards J; on the upbeat, the hand moves slightly down and then rebounds up to the original position. To establish the tempo, we conduct just one beat before the first sounding beat. When a piece begins on the downbeat, we begin by conducting an upbeat, and vice versa.

In performing the two-part studies, we should notice the relation between the two parts. Study 1.H is the first of many where one part is an ostinato. Study 1.I is the first of many canons; here the clapped part leads the sung part by one beat.

The notation of rests is often governed by different rules from the notation of notes. A note lasting a whole measure in two-four is a half-note, but a rest lasting a whole measure is a whole rest, as in three-four and four-four and other meters.

1. 1) ♩ = 60 - 160

2/4

1. A) Allegro (♩ = 144)

2/4

1. B) Allegretto (♩ = 120)

2/4

1. C) Presto (♩ = 168)

2/4

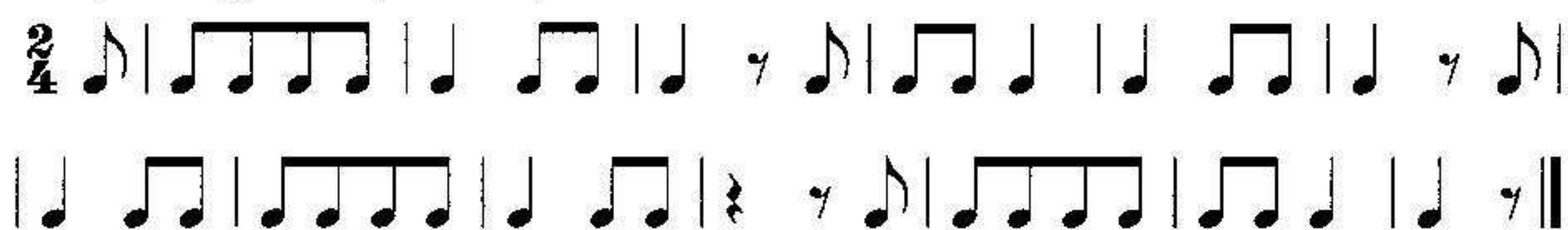
1. 2) ♩ = 66 - 160

2/4

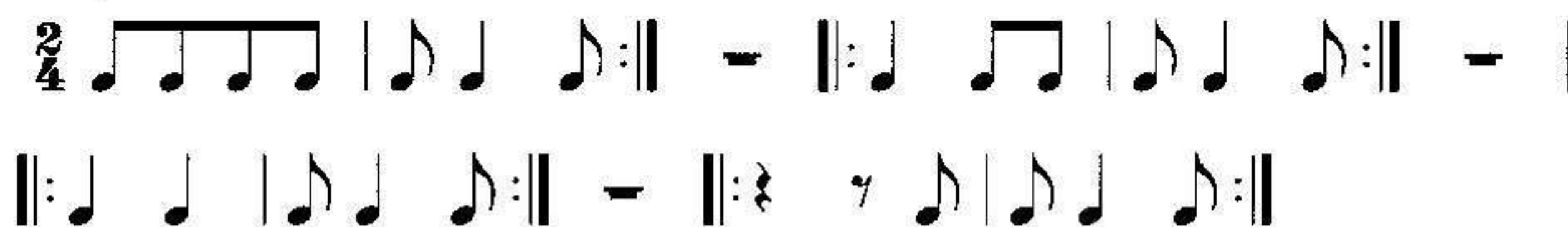
1. D) Vivo (♩ = 144)

2/4

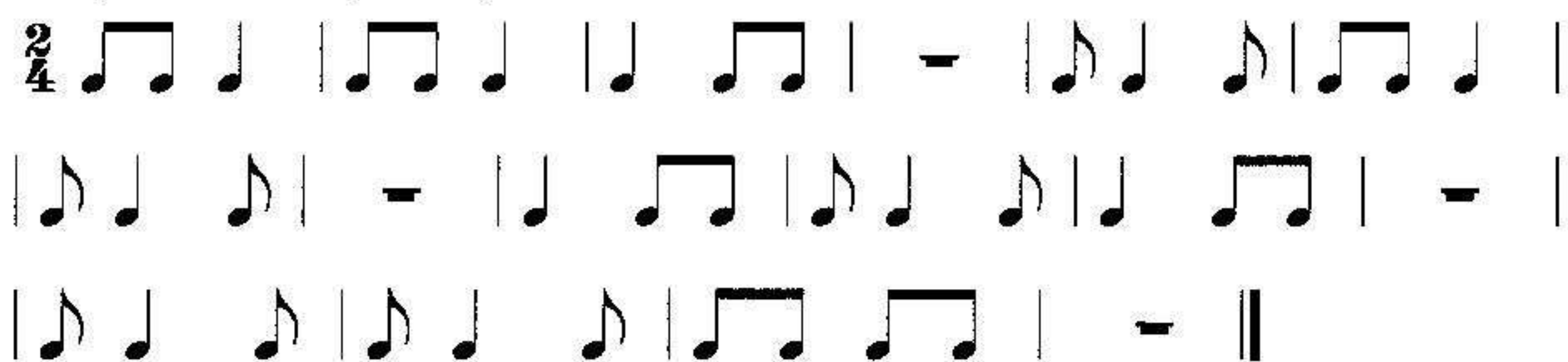
1. E) Allegretto (♩ = 100)



1. 3) ♩ = 60 - 160



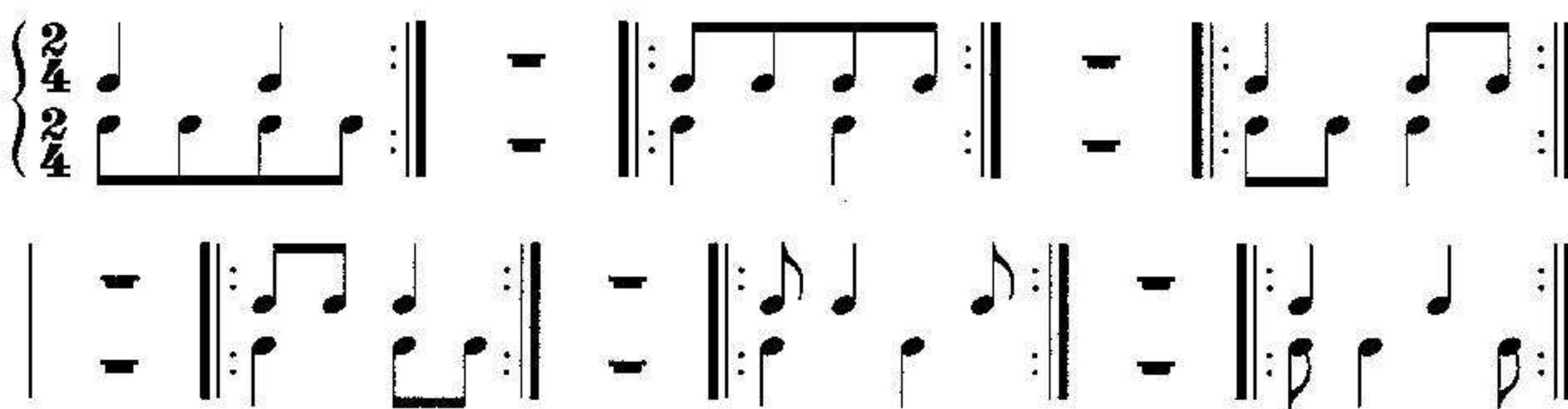
1. F) Andante (♩ = 88)



1. G) Allegretto (♩ = 108)



1. 4) ♩ = 72 - 144



1. H) Moderato (♩ = 100)

Musical score for exercise 1. H, Moderato, 2/4 time signature. The score consists of two systems of two staves each. The first system starts with a treble clef and a 2/4 time signature. The melody in the upper staff features eighth and sixteenth notes, while the bass staff provides a simple accompaniment. The second system continues the piece and ends with a double bar line.

1. I) Allegro (♩ = 132)

Musical score for exercise 1. I, Allegro, 2/4 time signature. The score consists of two systems of two staves each. The first system features a treble clef and a 2/4 time signature. The melody in the upper staff is characterized by eighth notes and includes a long slur over the first four measures. The bass staff has a simple accompaniment. The second system continues the piece and ends with a double bar line.

1. J) Andante (♩ = 72)

Musical score for exercise 1. J, Andante, 2/4 time signature. The score consists of two systems of two staves each. The first system features a treble clef and a 2/4 time signature. The melody in the upper staff is characterized by eighth notes and includes a long slur over the first four measures. The bass staff has a simple accompaniment. The second system continues the piece and ends with a double bar line.

1. K) Allegro (♩ = 100)

Musical score for exercise 1. K, Allegro, 2/4 time signature. The score consists of three systems of two staves each. The first system features a treble clef and a 2/4 time signature. The melody in the upper staff is characterized by eighth notes and includes a long slur over the first four measures. The bass staff has a simple accompaniment. The second system continues the piece, and the third system concludes it with a double bar line.

1. L) Presto (♩ = 132)

1. M) William Shakespeare (1564-1616), from *Romeo and Juliet*,
Act III, Scene 5

Allegretto (♩ = 100)

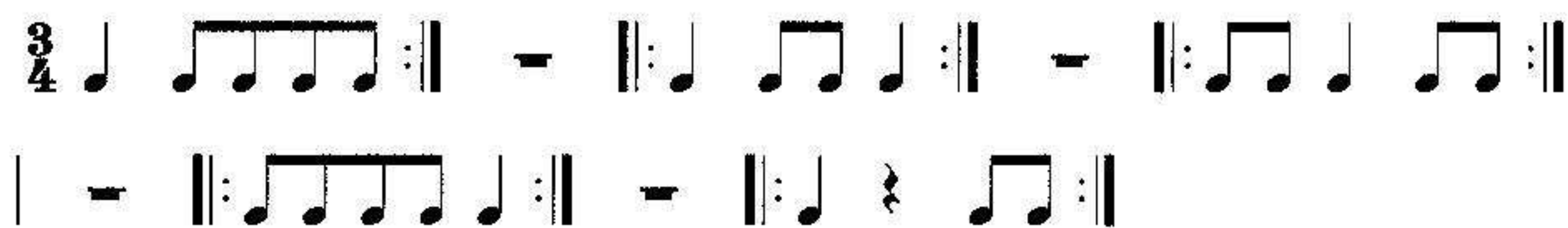
mp It is the lark that sings so out of tune, *mf* Strain-ing harsh
dis-cords and un-pleas - ing sharps. *mp* Some say the lark makes
sweet di - vi - sion; *mf* This doth not so, for she di - vi - deth us.
mp Some say the lark and loath - èd toad change eyes; *mf* O, now I
would they had chang'd voi - ces too, Since arm from arm that voice
f doth us af - fray,¹ Hunt-ing thee hence with hunt's-up² to the day.

NOTES

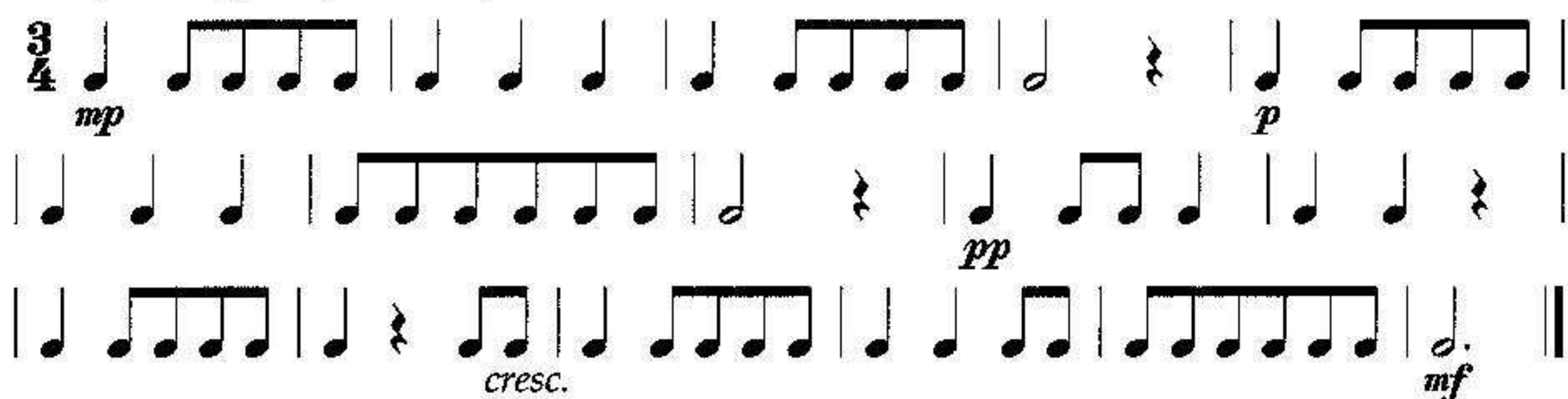
¹disturb, frighten

²song to wake up hunters

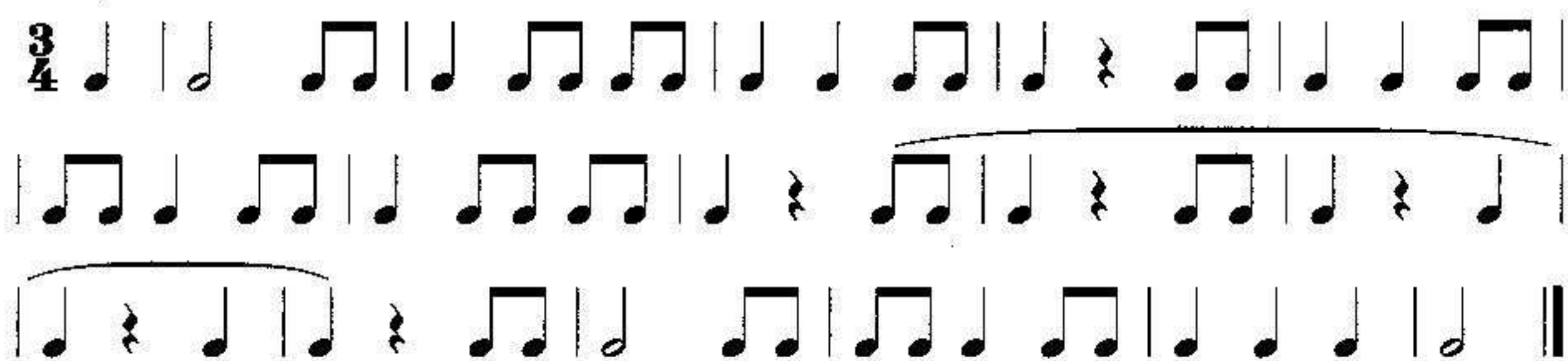
2. 2) ♩ = 60 - 160



2. D) Allegro (♩ = 152)



2. E) Andante (♩ = 96)



2. 3) ♩ = 60 - 160



2. F) Allegretto (♩ = 112)

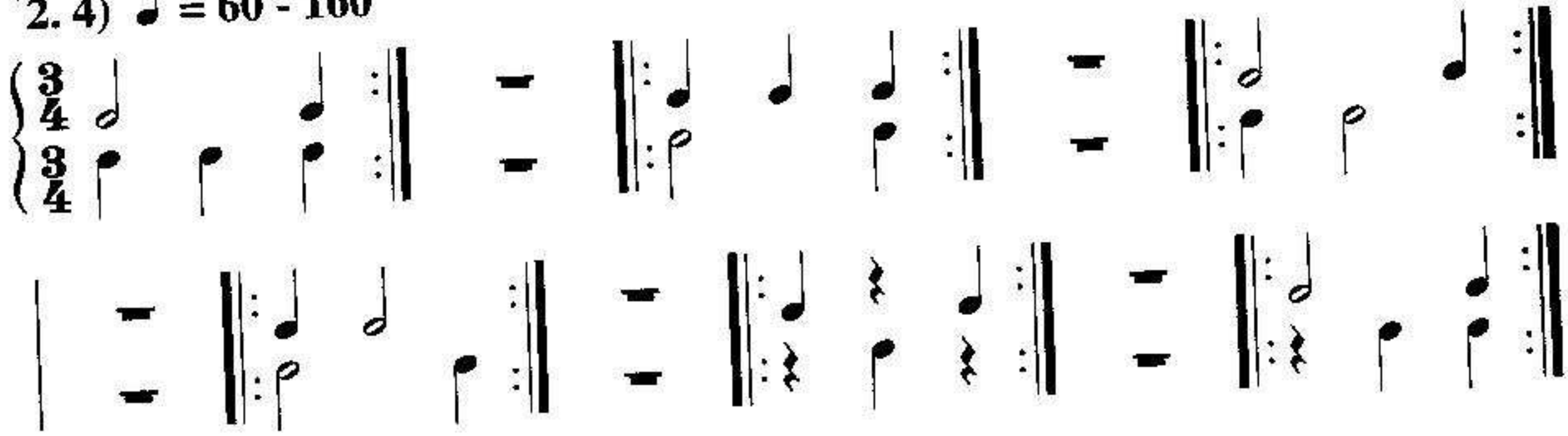


2. G) Allegro (♩ = 138)

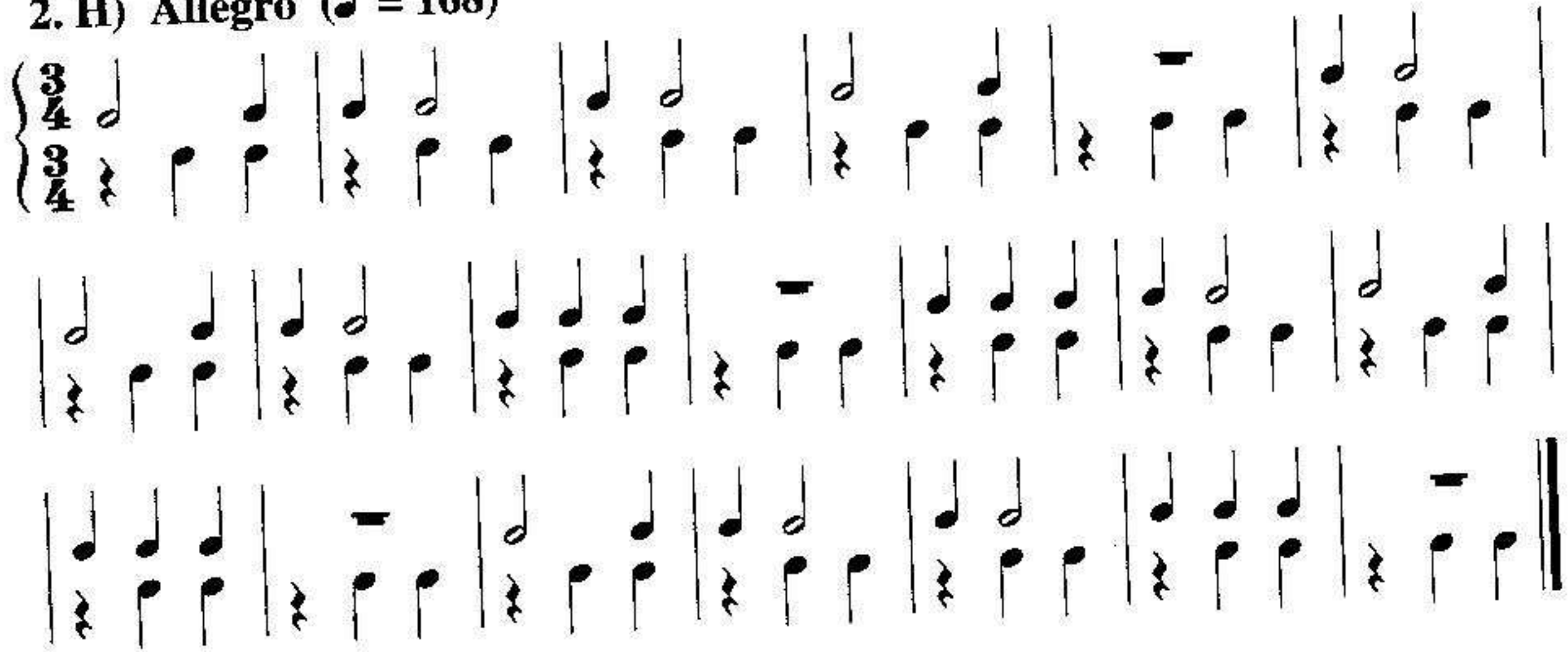




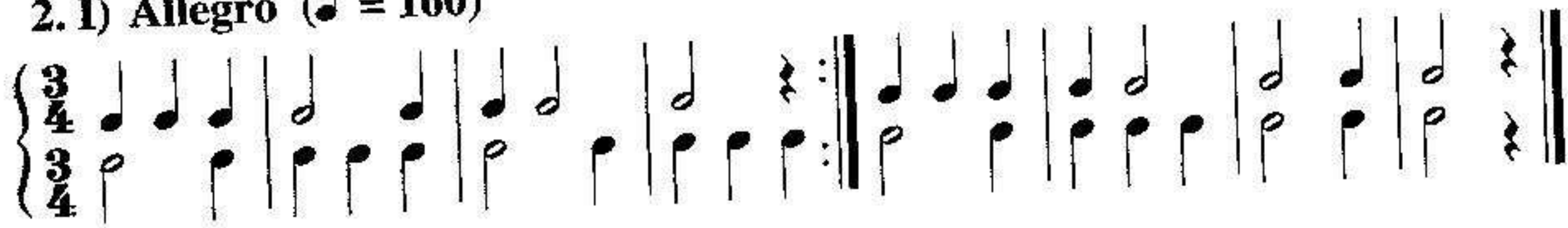
2. 4) ♩ = 60 - 160



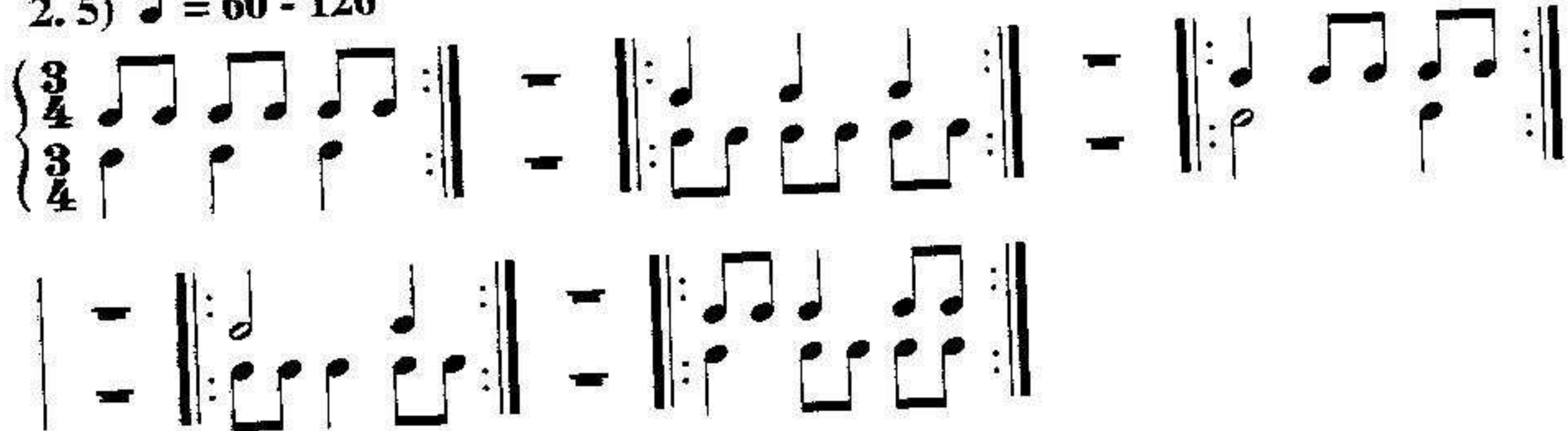
2. H) Allegro (♩ = 168)



2. I) Allegro (♩ = 160)



2. 5) ♩ = 60 - 126



2. J) Allegretto (♩ = 100)

2. K) Allegro (♩ = 120)

2. L) Vivace (♩ = 138)

2. M) Paul Dunbar (1872-1906), Compensation

Allegro (♩ = 144)

mf

Be - cause I had loved so deep-ly, Be - cause I had loved so
 long, God in His great com - pas - sion Gave me the
p
 gift of song. Be - cause I have loved so vain - ly, And
 sung with such fal - ter - ing breath, The Mas - ter, in
 in - fin - ite mer - cy, Of - fers the boon of death.

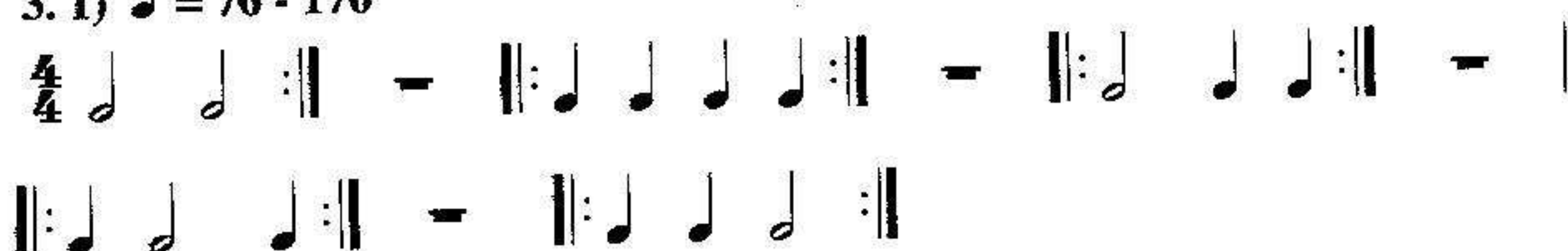
3. FOUR-FOUR METER

In some compositions in four-four meter, the first and third quarters are clearly the main strong and weak beats, like the two quarters in two-four. Other times, the four-four measure is more like two two-four measures, and the first and third beats are about equally strong.

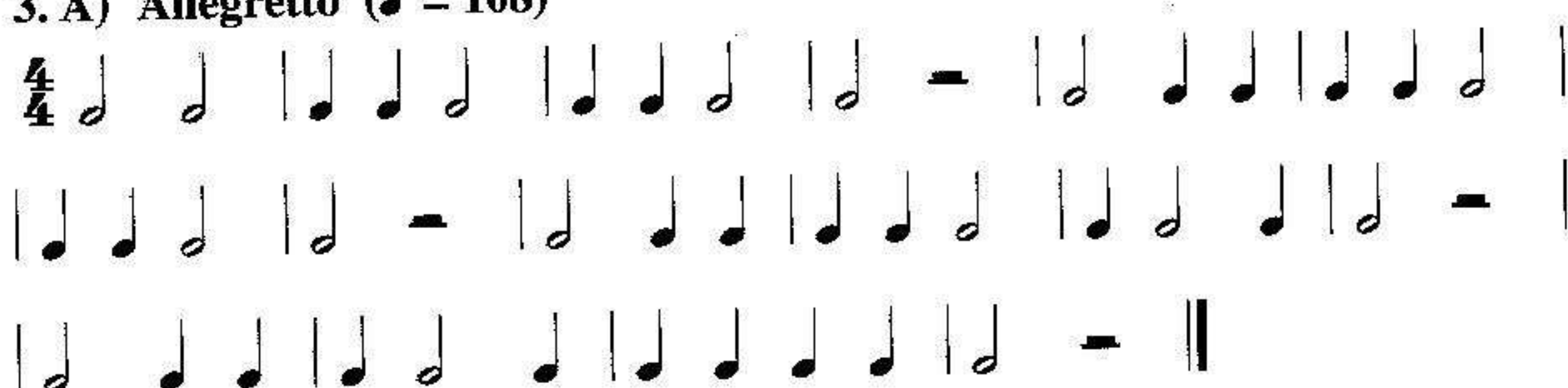
In conducting four, the right hand bounces straight up on the downbeat, and moves to the left on the second beat. On the third beat, which is the second strong beat, the hand moves out to the right, and on the last beat, as always, it returns up to the starting point.

In Study 3.E, as in comparable situations, the accent marks indicate just enough impulse to make the downbeat clear when the second beat is accented by a longer note.

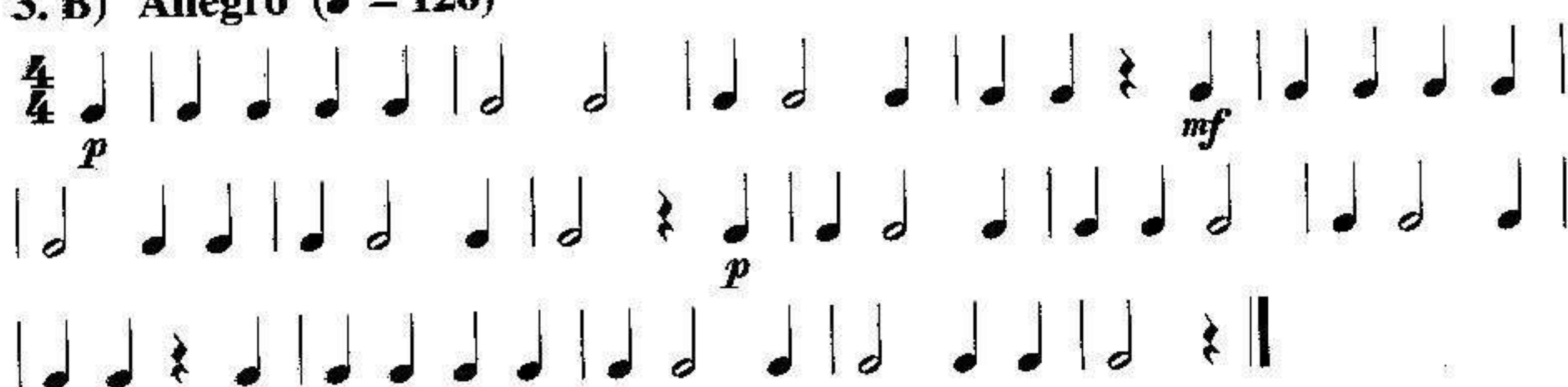
3. 1) ♩ = 76 - 176



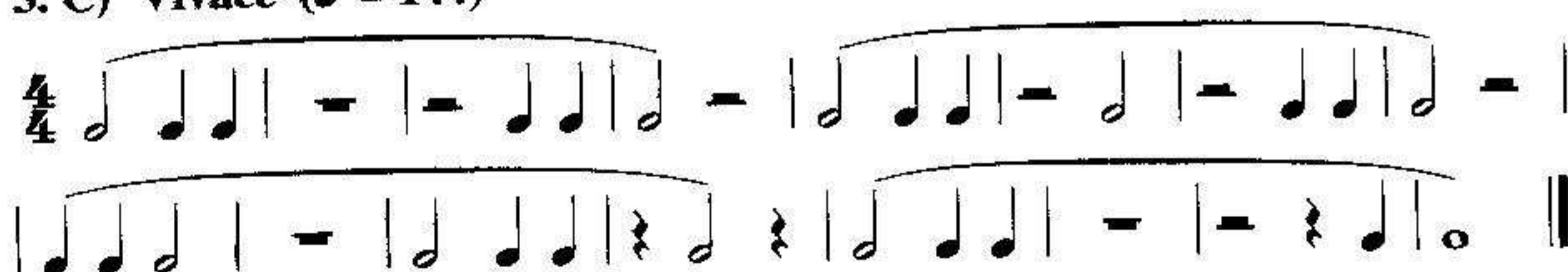
3. A) Allegretto (♩ = 108)



3. B) Allegro (♩ = 120)



3. C) Vivace (♩ = 144)



3. 2) ♩ = 60 - 160

Musical notation for exercise 3.2 in 4/4 time. It consists of three staves of music. The first staff has a 4/4 time signature and a quarter note followed by two eighth notes, repeated twice with repeat signs. The second staff has a quarter note followed by two eighth notes, repeated twice with repeat signs. The third staff has a quarter note followed by two eighth notes, repeated twice with repeat signs.

3. D) Andante (♩ = 80)

Musical notation for exercise 3.D in 4/4 time. It consists of three staves of music. The first staff starts with a 4/4 time signature and a piano (*p*) dynamic, followed by quarter and eighth notes, ending with a mezzo-piano (*mp*) dynamic. The second staff continues with quarter and eighth notes, including a ritardando (*rit.*) marking and a mezzo-forte (*mf*) dynamic. The third staff concludes with a crescendo (*cresc.*) and a forte (*f*) dynamic.

3. E) Presto (♩ = 160)

Musical notation for exercise 3.E in 4/4 time. It consists of three staves of music. The first staff has a 4/4 time signature and features eighth and sixteenth notes. The second and third staves continue with eighth and sixteenth notes, including repeat signs.

3. F) Allegro moderato (♩ = 120)

Musical notation for exercise 3.F in 4/4 time. It consists of three staves of music. The first staff has a 4/4 time signature and features eighth and sixteenth notes. The second and third staves continue with eighth and sixteenth notes, including repeat signs.

3. 3) ♩ = 66 - 168

Musical notation for exercise 3.3 in 4/4 time. It consists of two staves of music. The first staff is a grand staff with two 4/4 time signatures, featuring quarter notes. The second staff continues with quarter notes.

3. G) Allegretto (♩ = 100)

Musical score for 3. G) Allegretto (♩ = 100). The score is in 4/4 time and consists of three systems of two staves each. The first system begins with a brace over two 4/4 time signatures. The music features a melody in the upper staff and a supporting bass line in the lower staff, primarily using quarter and eighth notes.

3. H) Vivace (♩ = 144)

Musical score for 3. H) Vivace (♩ = 144). The score is in 4/4 time and consists of two systems of two staves each. The music is characterized by a more active melody with frequent eighth and sixteenth notes. Accents (>) are placed above several notes in both staves.

3. 4) ♩ = 60 - 120

Musical score for 3. 4) (♩ = 60 - 120). The score is in 4/4 time and consists of two systems of two staves each. The music features a rhythmic melody with eighth and sixteenth notes. The first system includes repeat signs (double bar lines with dots) at the end of the first and second measures.

3. I) Vivo (♩ = 144)

Musical score for 3. I) Vivo (♩ = 144). The score is in 4/4 time and consists of three systems of two staves each. The music is very rhythmic, featuring a melody with many eighth and sixteenth notes. Accents (>) are used throughout the score to emphasize certain notes.

3. J) Allegretto (♩ = 88)

3. K) Allegro (♩ = 108)

3. L) Edgar Allan Poe (1809-1849), from "The Bells"

Allegro (♩ = 152)

pp

Hear the sled-ges with the bells Sil-ver bells! What a world of mer-ri-ment their

mel-o-dy fore-tells! How they tin-kle, tin-kle, tin-kle, In the i-cy air of night! While the

stars that ov-er-sprin-kle All the heav-ens, seem to twin-kle With a cry-stal-line de-

light; Keep-ing time, time, time, In a sort of Ru-nic rhyme, To the

crescendo poco a poco

tin-tin-na-bu-la-tion that so mu-si-cal-ly wells From the bells, bells, bells, bells,


Bells, bells, bells From the jing-ling and the tink-ling of the bells.


4. DOTTED QUARTERS AND TIED EIGHTHS IN SIMPLE METER

A dot extends a note by half the value of the note, so a dotted quarter-note represents a quarter extended by an eighth-note:



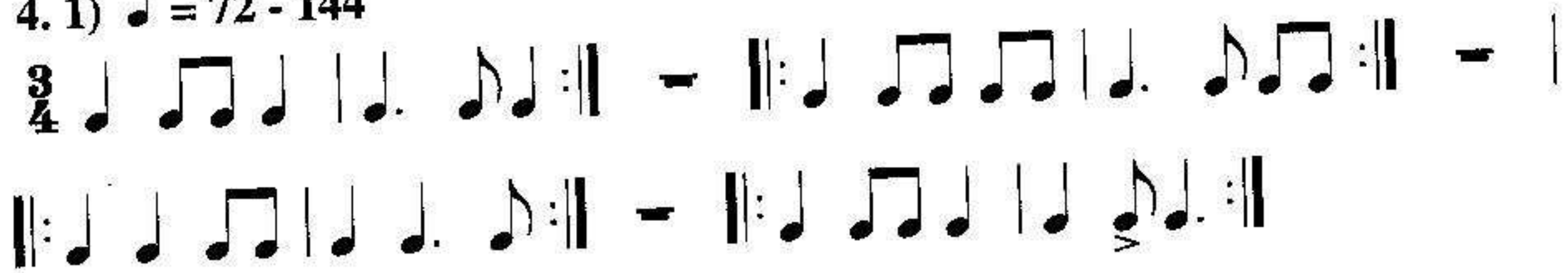
Dots must be used instead of ties whenever possible. However, it is a rule of notation that only a whole note, a dotted half-note, or a half-note beginning on the second beat may span the middle of a four-four measure. In any more complicated pattern where a note sounds across the beginning of the third beat, that beat must be shown by a note

— tied to the preceding note. For example, $\frac{4}{4}$  must be written with a tie so the middle of the measure is visible, because writing the third note as a dotted

note—  —makes the pattern more difficult to read.

In performing dotted notes, counting the divisions of the beat (here, 1 & 2 &, etc.) helps us get the 3:1 ratio of the lengths correct, and conducting helps us feel the beat and place correctly a note that follows off the beat.

4. 1) $\text{♩} = 72 - 144$



4. A) Andante con moto ($\text{♩} = 92$)



4. B) Allegro ($\text{♩} = 120$)



4. C) Allegro (♩ = 132)

Musical notation for exercise 4. C in 2/4 time, Allegro tempo (♩ = 132). The piece consists of two staves. The first staff begins with a *pp* dynamic marking and contains a sequence of eighth and quarter notes. The second staff continues the melody, featuring a *p* dynamic marking and ending with a *mp* dynamic marking. The notation includes various rhythmic values such as eighth notes, quarter notes, and quarter rests.

4. 2) ♩ = 72 - 144

Musical notation for exercise 4. 2 in 4/4 time, with a tempo range of ♩ = 72 - 144. The exercise is presented in two staves. The first staff contains a series of eighth-note patterns, some with repeat signs. The second staff continues with similar eighth-note patterns, also featuring repeat signs. The notation is primarily composed of eighth notes and rests.

4. D) Allegretto (♩ = 100)

Musical notation for exercise 4. D in 4/4 time, Allegretto tempo (♩ = 100). The exercise is written in two staves. The first staff features a mix of eighth and quarter notes. The second staff continues the melody with eighth notes and quarter notes. The notation includes various rhythmic values and rests.

4. E) Allegro (♩ = 120)

Musical notation for exercise 4. E in 3/4 time, Allegro tempo (♩ = 120). The exercise is presented in two staves. The first staff contains a sequence of eighth and quarter notes. The second staff continues the melody with eighth notes and quarter notes. The notation includes various rhythmic values and rests.

4. 3) ♩ = 60 - 120

Musical notation for exercise 4. 3 in 3/4 time, with a tempo range of ♩ = 60 - 120. The exercise is written in two staves. The first staff contains a series of eighth-note patterns, some with repeat signs. The second staff continues with similar eighth-note patterns, also featuring repeat signs. The notation is primarily composed of eighth notes and rests.

4. F) Andante (♩ = 84)

Musical score for exercise 4.F, Andante, 3/4 time signature. The score consists of two systems of two staves each. The first system has a treble clef on the top staff and a bass clef on the bottom staff. The second system has a bass clef on the top staff and a bass clef on the bottom staff. The music features a melody in the upper voice and a supporting bass line in the lower voice, with various rests and accidentals.

4. G) Moderato (♩ = 100)

Musical score for exercise 4.G, Moderato, 2/4 time signature. The score consists of two systems of two staves each. The first system has a treble clef on the top staff and a bass clef on the bottom staff. The second system has a bass clef on the top staff and a bass clef on the bottom staff. The music features a melody in the upper voice and a supporting bass line in the lower voice, with various rests and accidentals.

4. H) Andante (♩ = 88)

Musical score for exercise 4.H, Andante, 2/4 time signature. The score consists of two systems of two staves each. The first system has a treble clef on the top staff and a bass clef on the bottom staff. The second system has a bass clef on the top staff and a bass clef on the bottom staff. The music features a melody in the upper voice and a supporting bass line in the lower voice, with various rests and accidentals.

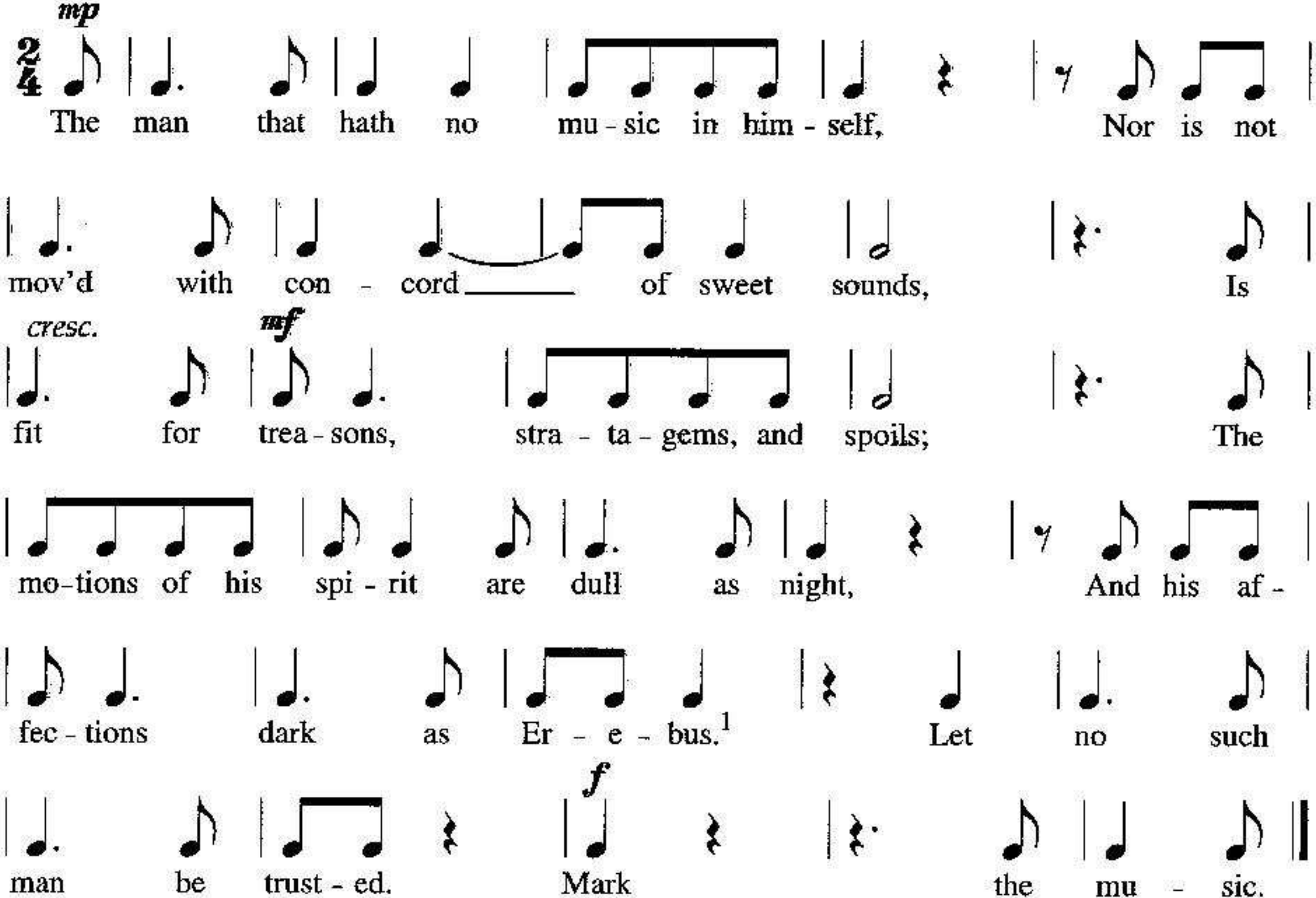
4. I) Allegro (♩ = 112)

Musical score for exercise 4.I, Allegro, 4/4 time signature. The score consists of two systems of two staves each. The first system has a treble clef on the top staff and a bass clef on the bottom staff. The second system has a bass clef on the top staff and a bass clef on the bottom staff. The music features a melody in the upper voice and a supporting bass line in the lower voice, with various rests and accidentals.

4. J) William Shakespeare (1564-1616), from *The Merchant of Venice*,
Act V, Scene 1

Allegretto (♩ = 126)

mp



The man that hath no mu - sic in him - self, Nor is not
mov'd with con - cord of sweet sounds, Is
cresc. fit for trea - sons, *mf* stra - ta - gems, and spoils; The
mo - tions of his spi - rit are dull as night, And his af -
fec - tions dark as Er - e - bus.¹ Let no such
f man be trust - ed. Mark the mu - sic.

NOTE

¹dark region under the earth before the entrance to Hades

5. SIX-EIGHT METER

Six-eight is a compound meter, which means that the main division of the beat is by three. A meter is compound when the numerator of the signature is a multiple of three. To find the number of beats in a measure of a compound meter, we divide the numerator by three. As $6 \div 3 = 2$, six-eight is a duple meter, with two beats in a measure. The denominator of the signature names the triple division of the beat, so in six-eight there are three eighth-notes to a beat, and the beat is a dotted-quarter.

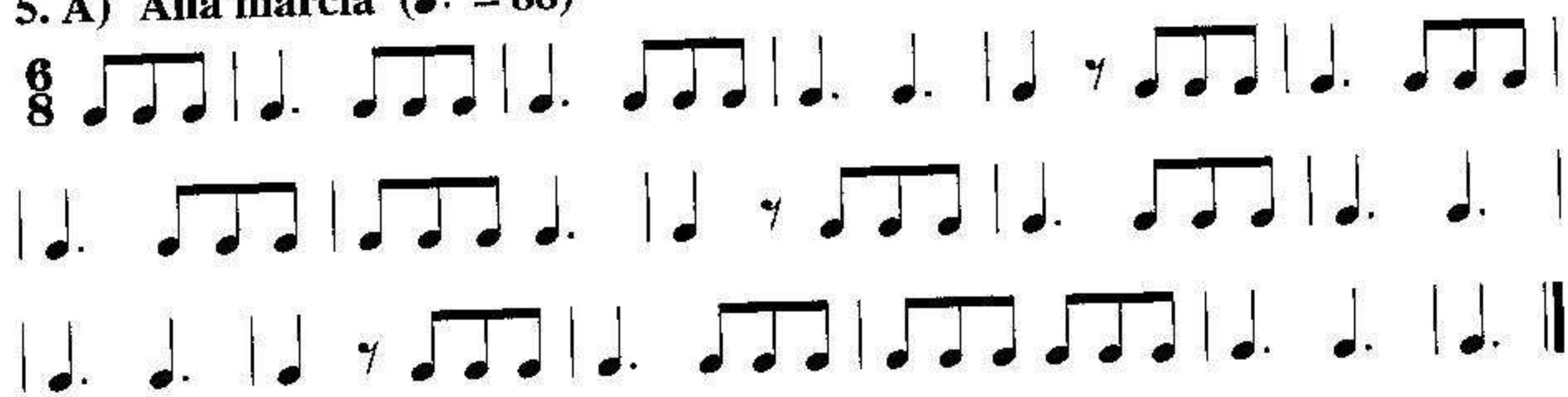
Because it is a duple meter, we usually count six-eight in two, and when we articulate the divisions of the beat, we still usually count in two: 1 & e 2 & e, etc. Except in very slow tempi, six-eight is conducted in two. This is why tempi are given for the dotted-quarter rather than the eighth-note.

When the tempo is so slow that the measure is conducted in six, one of the common beat patterns is a modification of the four-beat pattern, with the right hand moving to the left for both the second and third beats, and out to the right for both the fourth and fifth beats: down-left-left-right-right-up.

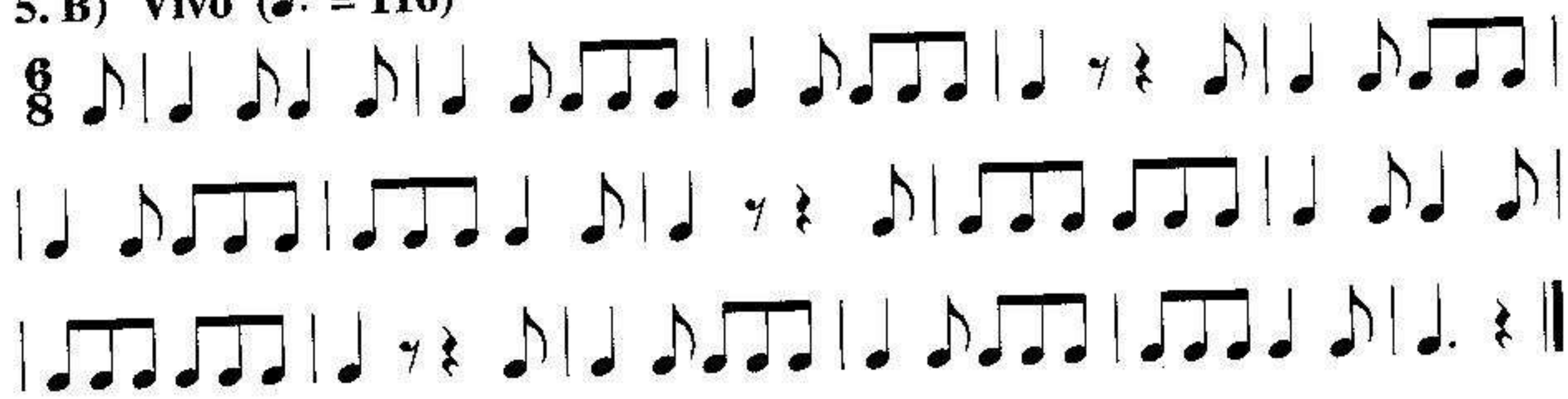
5. 1) ♩. = 48 - 116



5. A) Alla marcia (♩. = 88)



5. B) Vivo (♩. = 116)



5. C) Allegro (♩. = 104)



5. D) Vivace (♩. = 120)

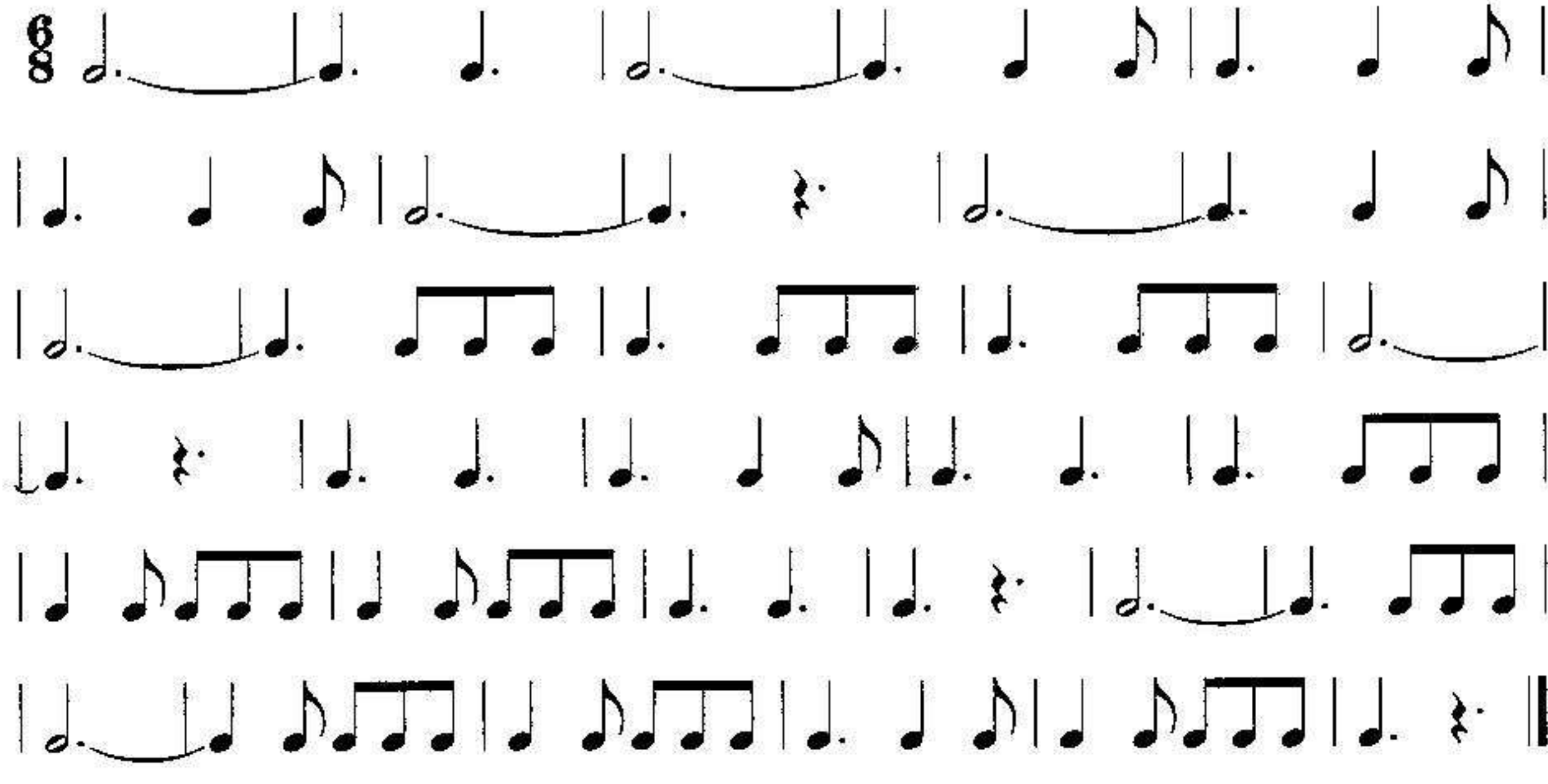




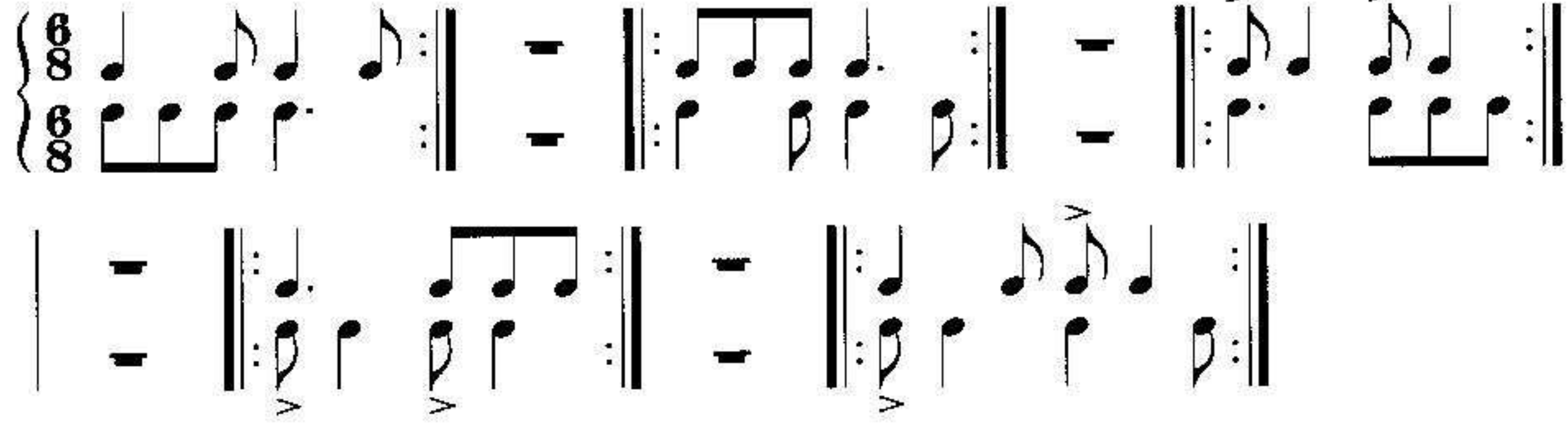
5. E) Allegretto (♩. = 84)



5. F) Presto (♩. = 126)



5. 2) ♩. = 48 - 100



5. G) Allegretto (♩. = 88)

Musical score for 5. G) Allegretto (♩. = 88). The score is written for two staves, likely piano and violin. The time signature is 6/8. The music consists of three systems of notation. The first system has two staves. The second system has two staves. The third system has two staves. The music features a mix of eighth and sixteenth notes, with some rests and dynamic markings.

5. H) Andante (♩. = 69)

Musical score for 5. H) Andante (♩. = 69). The score is written for two staves, likely piano and violin. The time signature is 6/8. The music consists of three systems of notation. The first system has two staves. The second system has two staves. The third system has two staves. The music features a mix of eighth and sixteenth notes, with some rests and dynamic markings.

5. I) Allegretto (♩. = 84)

Musical score for 5. I) Allegretto (♩. = 84). The score is written for two staves, likely piano and violin. The time signature is 6/8. The music consists of two systems of notation. The first system has two staves. The second system has two staves. The music features a mix of eighth and sixteenth notes, with some rests and dynamic markings.

5. J) Andante (♩. = 66)

Musical score for 5. J) Andante (♩. = 66). The score is written for two staves, likely piano and violin. The time signature is 6/8. The music consists of three systems of notation. The first system has two staves. The second system has two staves. The third system has two staves. The music features a mix of eighth and sixteenth notes, with some rests and dynamic markings.

5. K) Oscar Wilde (1856-1900), from "A Harmony"

Andante (♩. = 72)

p

Her i-vo-ry hands on the i-vo-ry keys Strayed in a fit-ful fan-ta-sy Like the
 sil-ver gleam when the pop-lar trees Rus-tle their pale leaves list-less-ly, or the
cresc. drift-ing foam of a rest-less sea when the waves show their teeth *mf* in the fly-ing breeze.

6. SIXTEENTH-NOTES IN SIMPLE METER

In learning sixteenth-note patterns, speaking the names of the notes in rhythm reinforces the correlation between the sound of patterns and their notation:

eight six-teen six-teen eight six eight teen six-teen six-teen

"Eight" and "sixteen" are easier to repeat rapidly than "eighth" and "sixteenth." "Six" names the first or accented of two sixteenth-notes, "teen" names the second, unaccented one. This system is less satisfactory for quarters and dotted quarters because the two or three syllables in their names must be sung as eighth-notes:

quarter eight eight quarter dot eight is sung as quar-ter eight eight quar-ter dot eight

6. 1) ♩ = 48 - 100

6. A) Andante (♩ = 52)

6. B) Allegro (♩ = 96)

2/4

6. 2) ♩ = 56 - 100

2/4

6. C) Allegro ma non troppo, leggiero (♩ = 84)

3/4

6. D) Andante (♩ = 72)

4/4

6. E) Allegretto (♩ = 76)

3/4

6. F) Presto (♩ = 108)

4/4 *pp* *p* *mp* *mf*

6. 3) ♩ = 40 - 80

2/4

6. G) Adagio (♩ = 52)

2/4

6. H) Andante (♩ = 60)

3/4

6. I) Allegretto (♩ = 72)

Musical score for 6. I) Allegretto in 3/4 time. The score consists of three staves of piano accompaniment. The first staff begins with a treble clef and a 3/4 time signature. The music is characterized by rhythmic patterns of eighth and sixteenth notes.

6. J) Allegro non troppo (♩ = 76)

Musical score for 6. J) Allegro non troppo in 2/4 time. The score consists of four staves of piano accompaniment. The first staff begins with a treble clef and a 2/4 time signature. The music features a steady eighth-note accompaniment.

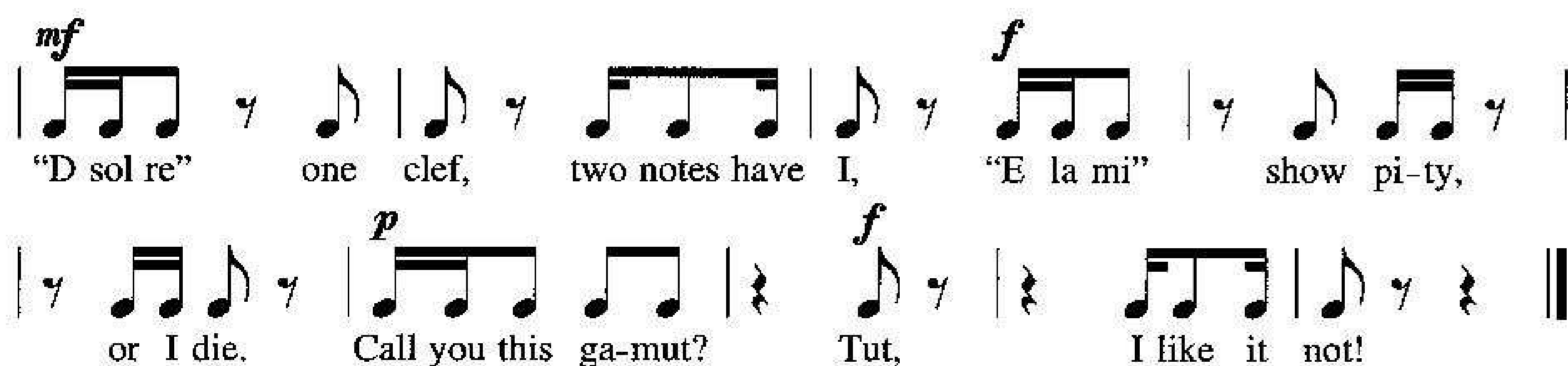
6. K) William Shakespeare (1564-1616), from *The Taming of the Shrew*, Act III, Scene 1

Hortensio: Madam, before you touch the instrument
To learn the order of my fingering,
I must begin with the rudiments of art,
To teach you gamut in a briefer sort, ...!

Andantino (♩ = 72)

Musical score for 6. K) Andantino in 2/4 time. The score consists of two staves of piano accompaniment. The first staff begins with a treble clef and a 2/4 time signature. The music is in a 2/4 time signature and includes lyrics. The first staff is marked *pp* and the second staff is marked *p*.

"Ga-mut" I am, the ground of all ac-cord, "A re" to plead Hor - ten-si-o's pas-sion,
"B mi" Bi-an - ca, take him for thy lord, "Ca fa ut" that loves with all af-fec-tion,



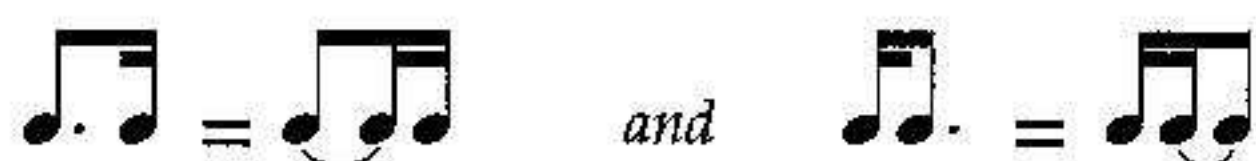
mf
 "D sol re" one clef, two notes have I, "E la mi" show pi-ty,
 or I die. *p* Call you this ga-mut? *f* Tut, I like it not!

NOTE

¹Hortensio is here courting Bianca. His gamut, or scale, that Bianca reads was given an elaborate explanation by Henry Collin Miller in "A Shakespearean Music Lesson" (*Notes and Queries*, 165 [1933]: 255–57). As with "Doh, a deer," there is a series of puns, of which the least obscure to modern ears, if *mi* is pronounced as "my," are "B mi Bianca" and "E la mi show pity," which can be heard respectively as "Be my Bianca" and "Ill am I, show pity."

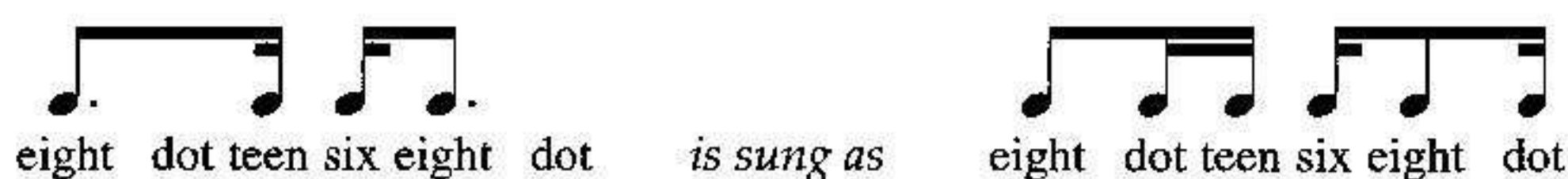
7. DOTTED EIGHTHS IN SIMPLE METER

Since a dot adds to a note half of its value, a dot adds to an eighth-note the value of a sixteenth-note:



$\text{dotted eighth note} = \text{eighth note} + \text{sixteenth note}$ and $\text{dotted quarter note} = \text{quarter note} + \text{eighth note}$

In speaking these patterns in the manner explained at the beginning of Chapter 6, the dot may be spoken or the syllable "eight" may be given its extra length: saying "dot" reminds us of the notation but the extra syllable requires an extra note:



eight dot teen six eight dot is sung as eight dot teen six eight dot

Simply extending "eight" by the value of the dot allows us to speak the pattern in its rhythm:



eight teen six eight

Counting aloud, articulating the subdivisions, while clapping the rhythm is useful in learning the relative lengths of the notes in dotted rhythms. While clapping



first count "1 e & e 2 e & e," then "1 & 2 &," and finally just the beats.

The double dot, introduced in Study 7.C, adds to a note three quarters of its value (half plus half of the half); the double dot thus almost doubles the value of a note:

$$\text{♩}.. = \text{♩} \text{—} \text{♩} = \text{♩} \text{—} \text{♩}$$

7. 1) ♩ = 52 - 100

3/4

7. A) Allegretto (♩ = 72)

4/4

7. B) Allegro (♩ = 100)

2/4

7. C) Andante con moto (♩ = 63)

4/4

7. D) Allegro ma non troppo (♩ = 104)

Musical score for 7. D) Allegro ma non troppo in 3/4 time. It consists of three staves of music. The first staff has a treble clef and a 3/4 time signature. The music features a rhythmic pattern of eighth and sixteenth notes with some rests. The piece ends with a double bar line and repeat dots.

7. E) Allegretto (♩ = 80)

Musical score for 7. E) Allegretto in 2/4 time. It consists of four staves of music. The first staff has a treble clef and a 2/4 time signature. The music features a rhythmic pattern of eighth and sixteenth notes with some rests. The piece ends with a double bar line and repeat dots.

7. 2) ♩ = 48 - 84

Musical score for 7. 2) in 2/4 time. It consists of two systems of music. The first system has two staves (treble and bass clefs) and a 2/4 time signature. The music features a rhythmic pattern of eighth and sixteenth notes with some rests. The piece ends with a double bar line and repeat dots.

7. F) Andante (♩ = 69)

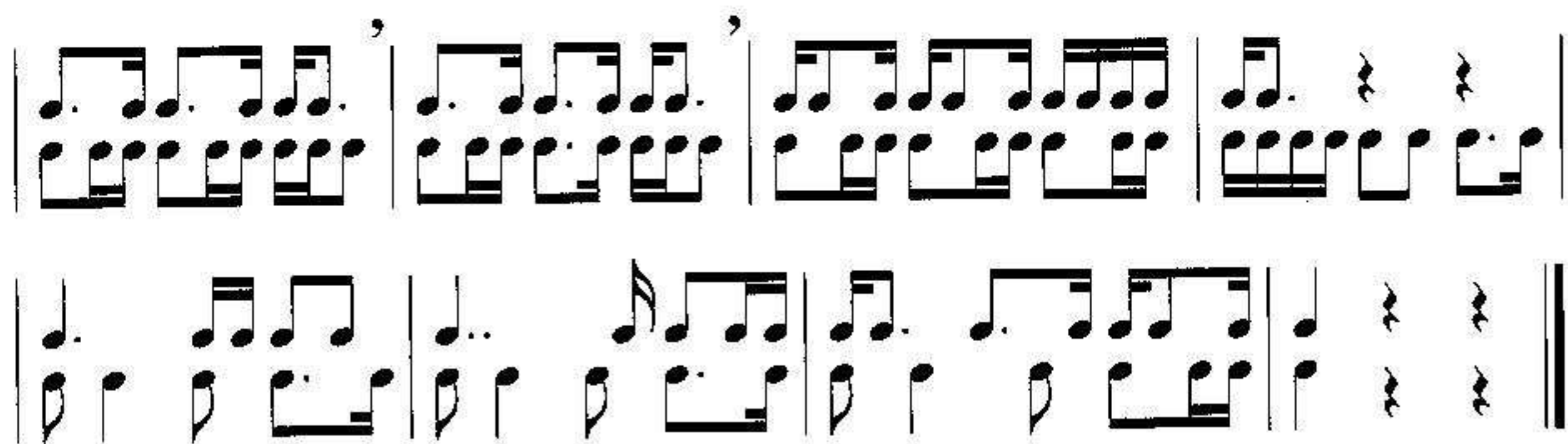
Musical score for 7. F) Andante in 2/4 time. It consists of four systems of music. The first system has two staves (treble and bass clefs) and a 2/4 time signature. The music features a rhythmic pattern of eighth and sixteenth notes with some rests. The piece ends with a double bar line and repeat dots.

7. G) Andante (♩ = 66)

7. 3) ♩ = 48 - 84

7. H) Andante (♩ = 60)

7. I) Allegretto (♩ = 76)



7. J) Elizabeth Barrett Browning (1806-1861), from "A Musical Instrument"

Allegretto (♩ = 72)

mf *p* *mf* *p*

2/4 He tore out a reed, the great god Pan, From the deep cool bed of the ri-ver; And

poco a poco crescendo

hacked and hewed as a great god can, With his hard bleak steel at the pa-tient reed, Till

mf

there was not a sign of the leaf in-deed, To prove it fresh from the ri-ver.

p *pp* *mf*

"This is the way," laughed the great god Pan (Laughed while he sat by the ri-ver), Then

drop-ping his mouth to a hole in the reed, He blew in pow-er by the ri-ver.

cresc. *f* *p*

Sweet, sweet sweet, O Pan! Pierc-ing sweet by the ri-ver!

8. SIXTEENTH-NOTES IN SIX-EIGHT METER

Twenty-four different patterns of sixteenth-notes, eighth-notes, and dotted eighths constitute a dotted-quarter beat in compound time. Performing the patterns by speaking the note-values in rhythm is a good way to become familiar with them:



quarter eighth eighth (dot) teen eighth eighth (dot) teen six-teen

eighth six-teen eighth six eighth teen six-teen eighth six-teen six-teen

When learning six-eight patterns, we may first count the eighths and articulate the sixteenths, while clapping the rhythm, but we then proceed to count the beats and articulate the eighths, and finally we just count the beats:

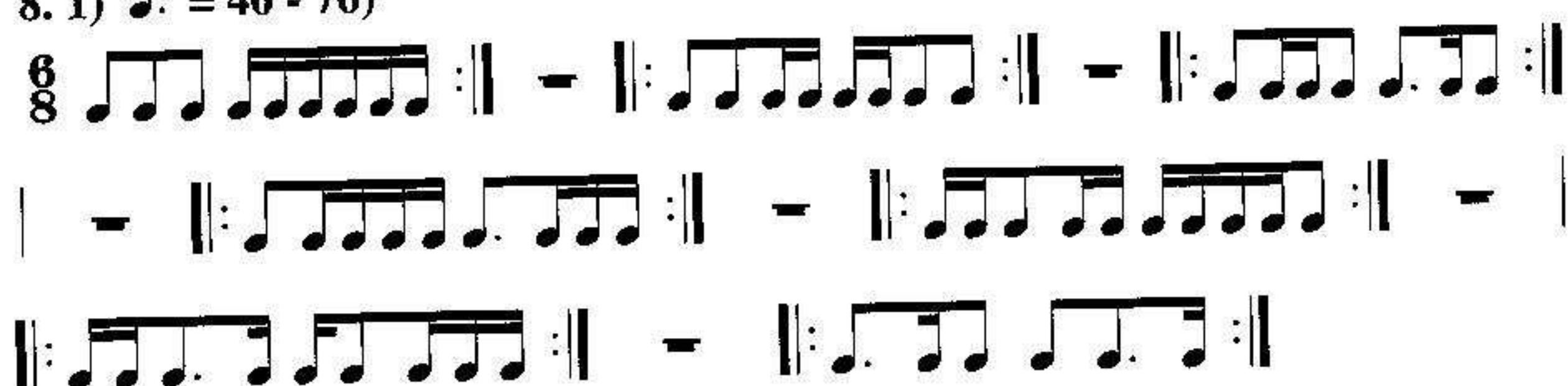
clap: $\frac{6}{8}$ 
 count: 1 & 2 & 3 & 4 & 5 & 6 & 1 & e 2 & e 1 2

The convention of notation that sixteenth-notes within a beat be beamed together makes it difficult in some patterns to see the basic three eighth-notes of the

dotted-quarter beat.  has to be understood as , for example.

In Exercise 8.3, voice and hands reverse parts within each measure. Therefore, the single beats should be practiced until they can be performed easily; only then should whole measures be attempted.

8. 1) $\text{♩} = 40 - 76$

$\frac{6}{8}$ 

8. A) *Grazioso* ($\text{♩} = 66$)

$\frac{6}{8}$ 

8. B) *Adagio* ($\text{♩} = 52$)

$\frac{6}{8}$ 

8. C) Allegro (♩. = 88)

Musical score for exercise 8.C in 6/8 time, Allegro tempo (♩. = 88). The score consists of four staves of music. The first staff begins with a treble clef and a 6/8 time signature. The music features a mix of eighth and sixteenth notes, with some rests. The piece concludes with a double bar line and a repeat sign.

8. D) Allegretto (♩. = 66)

Musical score for exercise 8.D in 6/8 time, Allegretto tempo (♩. = 66). The score consists of four staves of music. The first staff begins with a treble clef and a 6/8 time signature. The music is characterized by a steady eighth-note pattern. The piece concludes with a double bar line and a repeat sign.

8. E) Allegro (♩. = 80)

Musical score for exercise 8.E in 6/8 time, Allegro tempo (♩. = 80). The score consists of four staves of music. The first staff begins with a treble clef and a 6/8 time signature. The music features a mix of eighth and sixteenth notes, with some rests. The piece concludes with a double bar line and a repeat sign.

8. F) Andante (♩. = 60)

Musical score for exercise 8.F in 6/8 time, Andante tempo (♩. = 60). The score consists of four staves of music. The first staff begins with a treble clef and a 6/8 time signature. The music features a mix of eighth and sixteenth notes, with some rests. The piece concludes with a double bar line and a repeat sign.

8. 2) ♩. = 40 - 66

Musical score for exercise 8.2, marked with a tempo of ♩. = 40 - 66. The score is written for a grand staff (treble and bass clefs) in 6/8 time. It consists of two systems of music. The first system contains three measures, and the second system contains two measures. The music features a rhythmic pattern of eighth and sixteenth notes, with repeat signs and first/second endings.

8. G) Allegro (♩. = 88)

Musical score for exercise 8.G, marked Allegro with a tempo of ♩. = 88. The score is written for a grand staff in 6/8 time. It consists of three systems of music. The first system has four measures, the second has four measures, and the third has four measures. The music features a rhythmic pattern of eighth and sixteenth notes, with repeat signs and first/second endings.

8. H) Andante (♩. = 48)

Musical score for exercise 8.H, marked Andante with a tempo of ♩. = 48. The score is written for a grand staff in 6/8 time. It consists of four systems of music. The first system has four measures, the second has four measures, the third has four measures, and the fourth has two measures. The music features a rhythmic pattern of eighth and sixteenth notes, with repeat signs and first/second endings.

8. 3) ♩. = 40 - 60

8. I) Allegretto (♩. = 56)

8. J) Adagio (♩. = 44)

8. K) Thomas Hardy (1840-1928), from "A Musical Incident"

Andantino (♩. = 66)

p 'Twas thus. *mf* One of them played to please her friend, not know-ing That friend was

p speed - i - ly grow - ing *mf* Be - hind the play - er's chair, Som - no - lent, un - a -

ware Of an-y mu-sic there. *f* "Beau-ti-ful!" *p* said she wak-ing As the
mu-sic ceased. *f* "Heart-ach-ing!" *mf* Though ne-ver a note she'd heard To
judge of as a-verred Save that of the ve-ry last word.

9. MORE RESTS AND SYNCOPATION IN SIMPLE METER

In performing a phrase that contains rests, we should still aim to understand and project the whole phrase. Rests interrupt the sound, but they should not interrupt the flow of the phrase.

In this chapter and again in Chapter 10, three of the studies are written with flags instead of beams. This notation is sometimes encountered in vocal music, where notes sung to different syllables may not be connected with beams. The first step in reading such notation is to bracket the notes of beats where the beats are not obvious.

9. 1) ♩ = 80 - 144

4/4 ♩ ♩ ♩ ♩ ♩ ♩ ♩ ♩ ♩ ♩

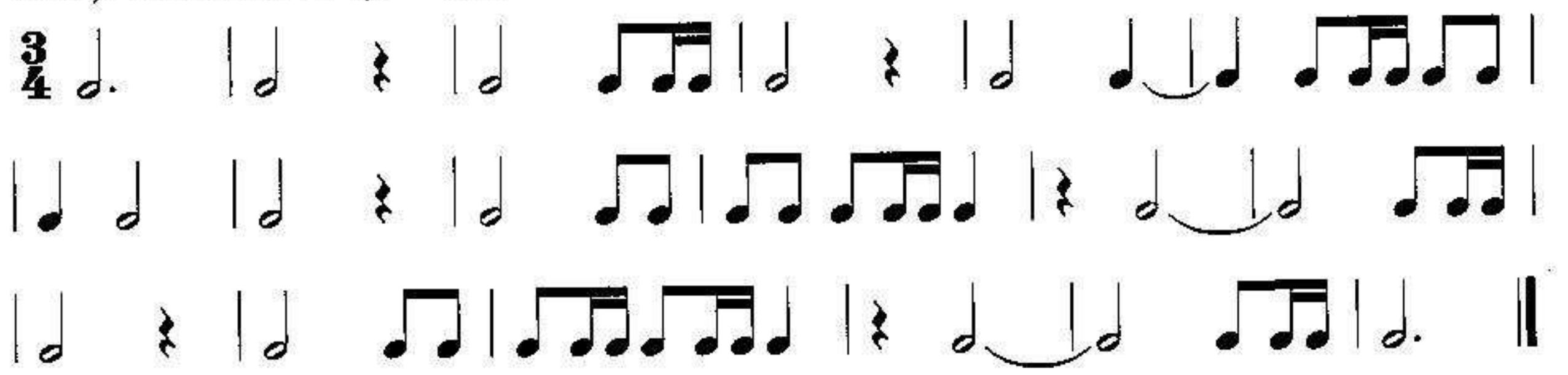
9. A) Allegretto (♩ = 88)

2/4 *p* ♩ ♩ ♩ ♩ ♩ ♩ ♩ ♩ ♩ ♩ *f* ♩ ♩ ♩ ♩ ♩ ♩ ♩ ♩ ♩ ♩ *p* ♩ ♩ ♩ ♩ ♩ ♩ ♩ ♩ ♩ ♩

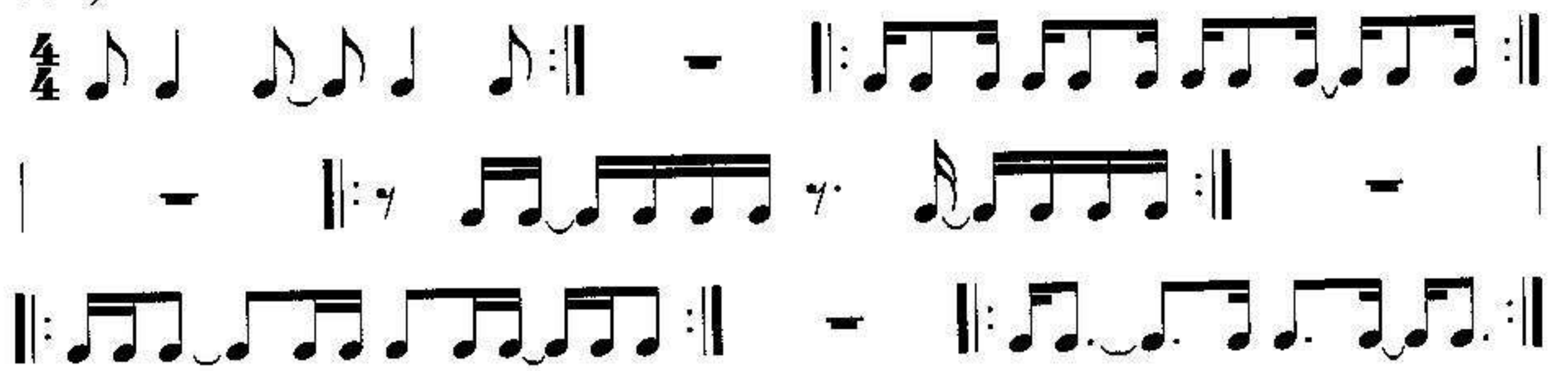
9. B) Vivace (♩ = 132)

4/4 ♩

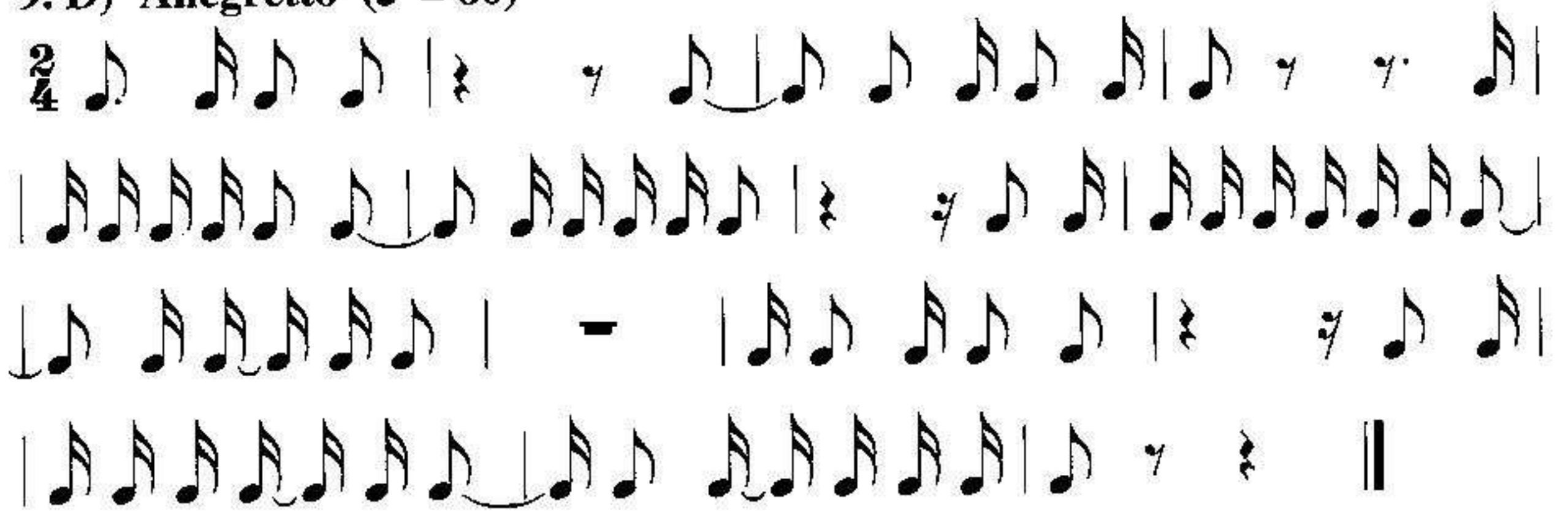
9. C) Moderato (♩ = 84)



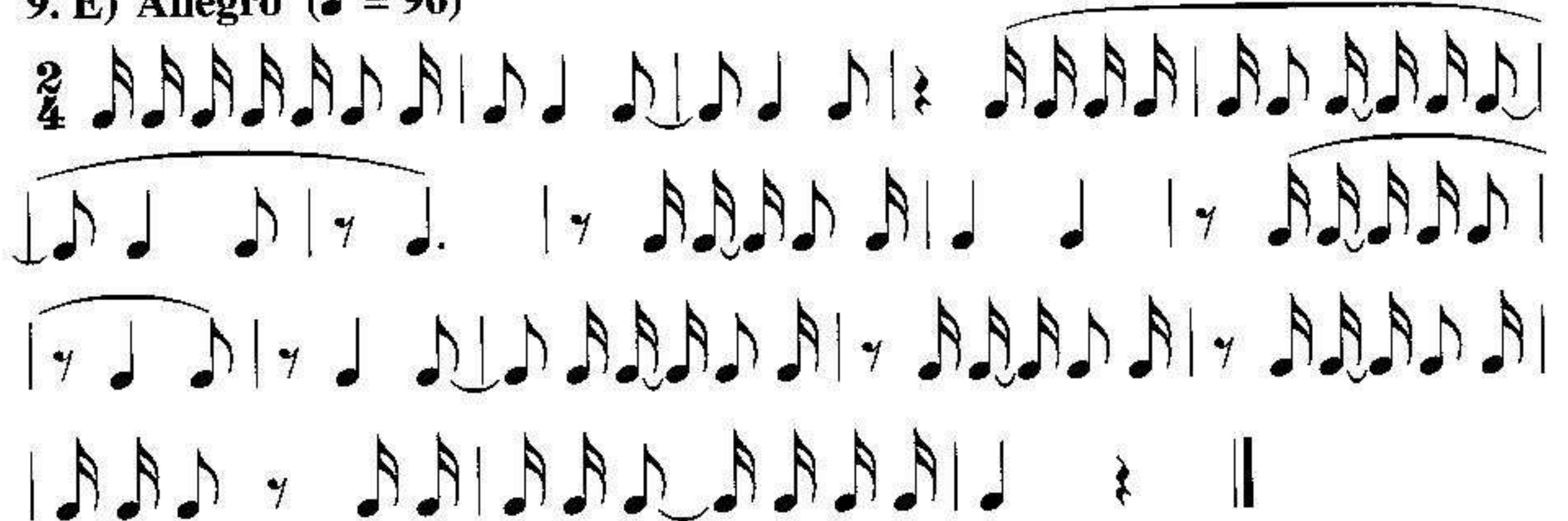
9. 2) ♩ = 56 - 96



9. D) Allegretto (♩ = 80)



9. E) Allegro (♩ = 96)



9. F) Allegretto (♩ = 72)

9. 3) ♩ = 40 - 80

9. G) Allegretto (♩ = 100)

9. H) Moderato (♩ = 69)

9. I) Allegro (♩ = 92)

9. J) Allegretto (♩ = 72)

9. K) Ralph Waldo Emerson (1803-1882), from "Music"

Andante (♩ = 63)

pp
 'Tis not in the high stars — a - lone, Nor in the cup of bud-ding
p flow-ers, Nor in the red-breast's mel-low tone, Nor *mp* in the bow that smiles in
mf show-ers, But in the mud and scum of things There al-way,
 al-way some - thing sings.

10. MORE RESTS AND SYNCOPATION IN SIX-EIGHT METER

Because the beats have more divisions in compound meter than in simple meter, tapping the eighth-note or using a metronome set at the speed of the eighth, until the patterns are thoroughly familiar, may be especially helpful in ensuring correct performance.

Rewriting Studies 10.B and 10.C using beams may be instructive.

Three different ways of notating the duple division of the dotted-quarter-note beat are shown in Exercise 10.2.

10. 1) ♩. = 40 - 72

Musical notation for exercise 10.1 in 6/8 time. The piece consists of four measures. The first measure contains a quarter note followed by two eighth notes. The second measure is a whole rest. The third and fourth measures are identical, each containing a sequence of eighth and sixteenth notes with repeat signs. The notation is as follows: $\frac{6}{8}$ 7 ♩ ♩ 7 7 ♩ :|| - ||: ♩ ♩ ♩ ♩ ♩ ♩ ♩ ♩ :|| - ||: ♩ ♩ ♩ ♩ ♩ ♩ ♩ ♩ :|| - |

10. A) Vivo (♩. = 108)

Musical notation for exercise 10.A in 6/8 time. The piece consists of three measures. The first measure contains a quarter note followed by two eighth notes. The second measure contains a quarter note followed by two eighth notes. The third measure contains a quarter note followed by two eighth notes. The notation is as follows: $\frac{6}{8}$ ♩ 7 7 ♩. | ♩ 7 7 7 ♩ ♩ | ♩ 7 7 7 ♩ ♩ | 7 ♩ ♩ 7 ♩ ♩ |

10. B) Allegretto (♩. = 66)

Musical notation for exercise 10.B in 6/8 time. The piece consists of six measures. The first measure contains a quarter note followed by two eighth notes. The second measure contains a quarter note followed by two eighth notes. The third measure contains a quarter note followed by two eighth notes. The fourth measure contains a quarter note followed by two eighth notes. The fifth measure contains a quarter note followed by two eighth notes. The sixth measure contains a quarter note followed by two eighth notes. The notation is as follows: $\frac{6}{8}$ 7 ♩ ♩ ♩ ♩ ♩ ♩ | ♩ ♩ ♩ ♩ ♩ ♩ | ♩ ♩ ♩ ♩ ♩ ♩ | ♩ ♩ ♩ ♩ ♩ ♩ | ♩ ♩ ♩ ♩ ♩ ♩ | ♩ ♩ ♩ ♩ ♩ ♩ |

10. C) Allegro (♩. = 72)

Musical notation for exercise 10.C in 6/8 time. The piece consists of four measures. The first measure contains a quarter note followed by two eighth notes. The second measure contains a quarter note followed by two eighth notes. The third measure contains a quarter note followed by two eighth notes. The fourth measure contains a quarter note followed by two eighth notes. The notation is as follows: $\frac{6}{8}$ ♩ ♩ | ♩ 7 7 7. ♩ ♩ | ♩ 7 7 7. ♩ ♩ | ♩ ♩ ♩ 7. ♩ ♩ | - |

10. D) Adagio (♩. = 40)

Musical notation for exercise 10. D, Adagio, 6/8 time signature. The piece consists of four lines of music. The first line contains six measures, the second line six measures, the third line six measures, and the fourth line four measures. The notation includes eighth and sixteenth notes, rests, and slurs.

10. 2) ♩. = 54 - 96

Musical notation for exercise 10. 2, 6/8 time signature. The piece consists of two lines of music. The first line contains four measures, and the second line contains two measures. The notation includes eighth notes, rests, and repeat signs.

10. E) Allegretto (♩. = 60)

Musical notation for exercise 10. E, Allegretto, 6/8 time signature. The piece consists of three lines of music. The first line contains four measures, the second line four measures, and the third line four measures. The notation includes eighth notes, sixteenth notes, and rests.

10. F) Allegro (♩. = 88)

Musical notation for exercise 10. F, Allegro, 6/8 time signature. The piece consists of three lines of music. The first line contains four measures, the second line four measures, and the third line four measures. The notation includes eighth notes, sixteenth notes, and rests, with some notes marked with a '2' for a second.

10. 3) ♩. = 40 - 60

Musical notation for exercise 10. 3, 6/8 time signature. The piece consists of three lines of music. The first line contains four measures, the second line four measures, and the third line four measures. The notation includes eighth notes, sixteenth notes, and rests, with some notes marked with a '2' for a second.

10. G) Allegretto (♩. = 56)

Musical score for 10. G) Allegretto (♩. = 56). The score is written for piano in 6/8 time. It consists of three systems of music. The first system has four measures, the second has four measures, and the third has four measures. The music features a melodic line in the right hand and a supporting bass line in the left hand, with various rhythmic patterns and articulation marks.

10. H) Andante (♩. = 48)

Musical score for 10. H) Andante (♩. = 48). The score is written for piano in 6/8 time. It consists of two systems of music. The first system has five measures, and the second system has four measures. The music features a melodic line in the right hand and a supporting bass line in the left hand, with various rhythmic patterns and articulation marks.

10. I) Moderato (♩. = 56)

Musical score for 10. I) Moderato (♩. = 56). The score is written for piano in 6/8 time. It consists of three systems of music. The first system has four measures, the second has four measures, and the third has four measures. The music features a melodic line in the right hand and a supporting bass line in the left hand, with various rhythmic patterns and articulation marks.

10. J) Allegro (♩. = 63)

Musical score for 10. J) Allegro (♩. = 63). The score is written for piano in 6/8 time. It consists of one system of music with four measures. The music features a melodic line in the right hand and a supporting bass line in the left hand, with various rhythmic patterns and articulation marks.

10. K) Langston Hughes (1902-1967), Sport¹

Andante (♩. = 69)

mf Life For him Must be The shi-ver-ing of A great drum *f*

Beat-en with swift sticks *mf* Then at the clos-ing hour

The lights go out *p* And there is no mu-sic at all *mp* And

death be-comes An emp-ty ca-ba-ret *p* And e-ter-ni-ty an

un-blown sax-o-*pp* phone And yes-ter-day A glass of gin

Drunk *ppp* long A-go.

NOTE

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11. NINE-EIGHT AND TWELVE-EIGHT METER

Nine-eight and twelve-eight meter combine the compound beat patterns of six-eight with the three and four beats of three-four and four-four meter; hence there are no new problems here. In Exercise 11.3 especially, single beats should be repeated until they seem easy before whole measures are attempted.

11. 1) ♩. = 40 - 66

9/8

11. A) Allegro vivo (♩. = 120)

9/8

11. B) Con moto (♩. = 60)

9/8

mp *mf* *p* *pp* *mf*

11. C) Allegretto (♩. = 63)

9/8

11. 2) ♩. = 56 - 76

Musical notation for exercise 11.2 in 12/8 time, consisting of two systems of two staves each. The first system has a first staff with a melodic line and a second staff with a bass line. The second system is similar but with different rhythmic patterns. Rehearsal marks are present at the beginning and end of each system.

11. D) Allegro maestoso (♩. = 104)

Musical notation for exercise 11.D in 12/8 time, consisting of four staves. The notation includes dynamic markings: *mf*, *p*, and *f*. The music features a mix of eighth and sixteenth notes with some rests.

11. E) Andante con moto (♩. = 66)

Musical notation for exercise 11.E in 12/8 time, consisting of three staves. The notation features a steady eighth-note pattern in the upper staves and a more complex bass line.

11. F) Andante (♩. = 56)

Musical notation for exercise 11.F in 12/8 time, consisting of three staves. The notation features a steady eighth-note pattern in the upper staves and a more complex bass line.

11. 3) ♩. = 40 - 60

Musical notation for exercise 11.3 in 9/8 time, consisting of two systems of two staves each. The notation includes dynamic markings: *mf*, *p*, and *f*. The music features a mix of eighth and sixteenth notes with some rests.

11. G) Allegro non troppo (♩. = 88)

Musical score for 11. G) Allegro non troppo. The score is written for a grand staff (treble and bass clefs) in 9/8 time. It consists of three systems of music. The first system has a brace on the left side. The tempo is marked as Allegro non troppo with a quarter note equal to 88 beats per minute.

11. H) Andante (♩. = 56)

Musical score for 11. H) Andante. The score is written for a grand staff in 9/8 time. It consists of three systems of music. The tempo is marked as Andante with a quarter note equal to 56 beats per minute.

11. I) Allegretto (♩. = 60)

Musical score for 11. I) Allegretto. The score is written for a grand staff in 12/8 time. It consists of four systems of music. The tempo is marked as Allegretto with a quarter note equal to 60 beats per minute. The word "Fine" is written at the end of the first system. The word "Da capo al fine" is written at the bottom of the page.

11. J) Adagio (♩. = 48)

11. K) Percy Bysshe Shelley (1792-1822), from "With a Guitar, to Jane"

Adagio (♩. = 52)

mp

For it had learned all har-mo-nies Of the plains and of the skies, Of the for-ests and the moun-tains, And the ma-ny-voic - èd foun-tains; The clear-est ech-oes of the hills, The soft-est notes of fall-ing rills, The me-lo-dies of birds and bees, The mur-mur-ing of sum - mer seas.

mf

pp

pp *ritardando*

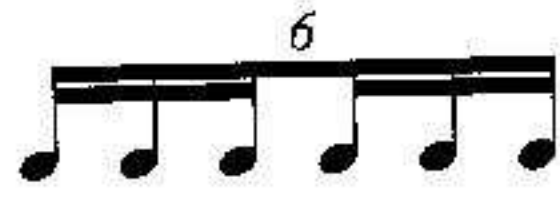
12. TRIPLETS

The division of the beat into thirds is familiar from compound meter, and successive performance of duple and triple divisions of the beat was encountered in Chapter 10. The new problems here are dividing into thirds a beat normally divided in half, and performing in succession triple and quadruple divisions of the beat. Successions of eighths, triplets, and sixteenths may be performed by numbering aloud the notes on each beat:

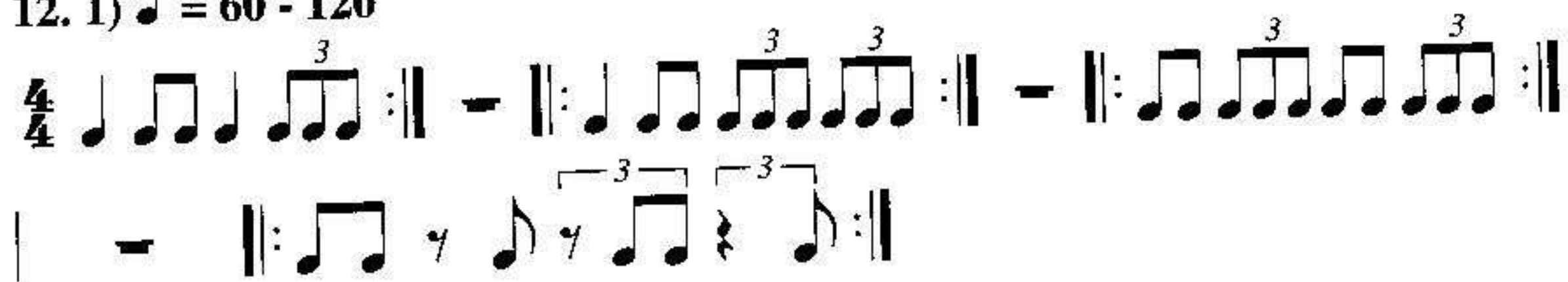
When alternating different divisions of the beat, it is helpful to use a metronome enough to ensure that the beat stays constant.

A common tendency, when moving from duplet to triplet eighth-notes, is to make the first note of a triplet too long. It may help to realize that a third of a beat is closer in length to a quarter of a beat than to half a beat, so triplet eighths are more like sixteenth-notes in length than they are like eighth-notes. When beginning a triplet after a duplet, we must move quickly to its second note, rather than sit on the first note.

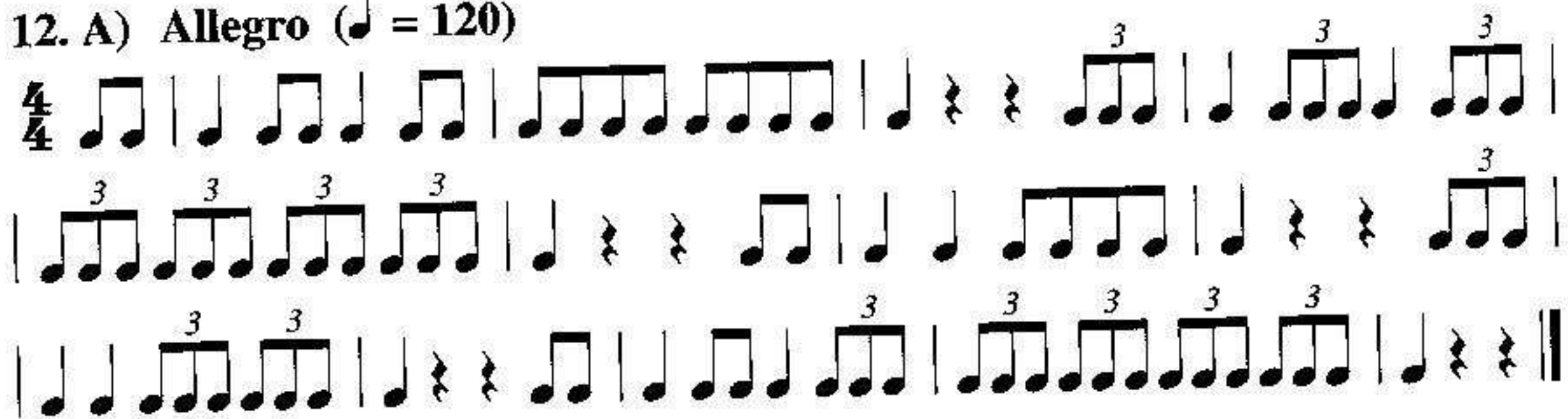
When the basic division of the quarter-note beat is duple, then a sextuplet of sixteenthths (as in Study 12.G) is performed as two triplets of sixteenthths:



12. 1) ♩ = 60 - 120



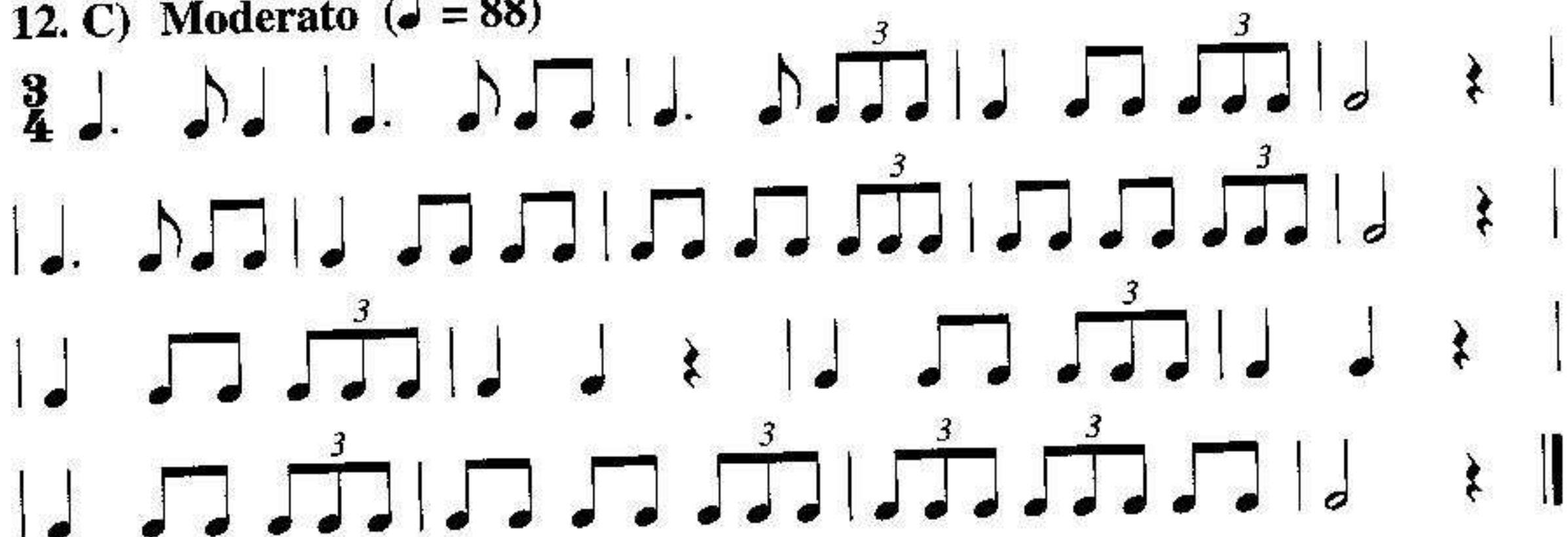
12. A) Allegro (♩ = 120)



12. B) Allegro ma non troppo (♩ = 112)



12. C) Moderato (♩ = 88)



12. D) Andante con moto (♩ = 76)

Musical notation for exercise 12. D in 2/4 time. The piece is marked 'Andante con moto' with a tempo of ♩ = 76. It consists of three staves of music. The first staff begins with a quarter rest, followed by eighth notes and triplets. The second staff continues with eighth notes and triplets, including a quarter rest. The third staff concludes with eighth notes and triplets, ending with a quarter rest and a double bar line.

12. 2) ♩ = 60 - 100

Musical notation for exercise 12. 2 in 4/4 time. The tempo is marked as ♩ = 60 - 100. It consists of two staves of music. The first staff starts with a quarter rest, followed by eighth notes and triplets, and ends with a double bar line. The second staff continues with eighth notes and triplets, including a quarter rest, and ends with a double bar line.

12. E) Andante (♩ = 66)

Musical notation for exercise 12. E in 3/4 time. The tempo is marked 'Andante' with a tempo of ♩ = 66. It consists of three staves of music. The first staff begins with a quarter rest, followed by eighth notes and triplets, and ends with a quarter rest. The second staff continues with eighth notes and triplets, including a quarter rest, and ends with a quarter rest. The third staff concludes with eighth notes and triplets, ending with a quarter rest and a double bar line. Dynamic markings include *p* (piano) and *mf* (mezzo-forte).

12. F) Allegro (♩ = 100)

Musical notation for exercise 12. F in 4/4 time. The tempo is marked 'Allegro' with a tempo of ♩ = 100. It consists of three staves of music. The first staff starts with a quarter rest, followed by eighth notes and triplets, and ends with a quarter rest. The second staff continues with eighth notes and triplets, including a quarter rest, and ends with a quarter rest. The third staff concludes with eighth notes and triplets, ending with a quarter rest and a double bar line.

12. 3) ♩ = 50 - 80

Musical notation for exercise 12. 3 in 4/4 time. The tempo is marked as ♩ = 50 - 80. It consists of two staves of music. The first staff starts with a quarter rest, followed by eighth notes and sextuplets, and ends with a double bar line. The second staff continues with eighth notes and sextuplets, including a quarter rest, and ends with a double bar line.

12. G) Allegretto (♩ = 72)

Musical notation for exercise 12. G in 2/4 time. The tempo is marked 'Allegretto' with a tempo of ♩ = 72. It consists of two staves of music. The first staff starts with a quarter rest, followed by eighth notes and sextuplets, and ends with a quarter rest. The second staff continues with eighth notes and sextuplets, including a quarter rest, and ends with a quarter rest and a double bar line.

12. 4) ♩ = 48 - 84

12. H) Andante (♩ = 80)

12. I) Andante (♩ = 60)

12. J) *Con moto* (♩ = 72)

12. K) *Allegro ma non troppo* (♩ = 112)

12. L) Gerald Manley Hopkins (1844-1889), from "Spring"

Allegretto (♩ = 80)

mp

Noth - ing is so beau - ti - ful as Spring When weeds, in
wheels, shoot long and love - ly and lush; Thrush's eggs look
lit - tle low heav - ens, and thrush Through the ech - o - ing tim - ber
does so rinse and wring The ear, it strikes like light - nings to hear him sing...

13. TWO AGAINST THREE

We encountered two against three in Chapter 10, in the division of the dotted-quarter beat of six-eight meter into two dotted eighth-notes that are heard against the basic triple division of the beat. Review of Exercises 10.2 and 10.3 and Studies 10.E, F, and J provides good preparation for the material in this chapter.

To perform cross-rhythms we must understand the numerical relations of the note-values. When triplet eighths sound against duplet eighths, each note of the triplet is two sixths of a beat, so the triplet eighths begin on the first, third, and fifth sixths of the beat, while the duplet eighths, each three sixths of a beat, begin on the first and fourth sixths of the beat. Grasping the patterns may be facilitated by speaking verbal phrases that we naturally speak in these rhythms:

Three against two:

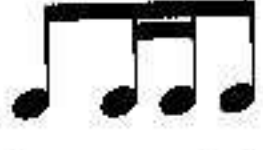
1 2 3 4 5 6

Nice cup of tea

Two against three:

1 2 3 4 5 6

Pass the but - ter

It is relatively easy to hear and perform the composite pattern made by two against three, as the rhythm of the pattern——is familiar. However, it is musically important to be able to hear the duplet and triplet as independent concurrent patterns. For this reason, we need to practice two against three slowly so as to hear that the composite pattern is correct *and* quickly so that we can hear two and three at the same time but independent of each other.

13. 1) ♩. = 40 - 69

Musical score for exercise 13.1 in 6/8 time, consisting of two systems of two staves each. The first system has four measures, and the second system has two measures. The music features eighth-note patterns in both hands with repeat signs and first/second endings.

13. A) Allegretto (♩. = 52)

Musical score for exercise 13.A in 6/8 time, consisting of three systems of two staves each. The first system has four measures, the second has four measures, and the third has two measures. The music features eighth-note patterns with accents and fermatas.

13. B) Allegro (♩ = 66)

Musical score for exercise 13.B in 6/8 time, consisting of three systems of two staves each. The first system has four measures, the second has four measures, and the third has four measures. The music features eighth-note patterns with accents and fermatas.

13. 2) ♩ = 52 - 88

Musical score for exercise 13.2 in 3/4 time, consisting of two systems of two staves each. The first system has four measures, and the second system has four measures. The music features eighth-note patterns with triplets and repeat signs.

13. C) Allegro (♩ = 100)

13. D) Allegretto (♩ = 80)

13. 3) ♩ = 48 - 96

13. E) Allegro ma non troppo (♩ = 96)

Two staves of musical notation. The top staff contains a melody with eighth and sixteenth notes, including a triplet of eighth notes. The bottom staff provides harmonic accompaniment with similar rhythmic patterns and triplets.

13. F) Andante (♩ = 69)

Exercise 13.F, Andante, in 3/4 time. The tempo is marked as ♩ = 69. The piece consists of two staves. The piano part (top) features a melody with eighth and sixteenth notes, including several triplet markings. The violin part (bottom) provides accompaniment with similar rhythmic patterns and triplets. The piece concludes with a fermata on the final note of each staff.

13. G) Andantino ($\frac{3}{4}$ ♩ = $\frac{9}{8}$ ♩. = 69)

Exercise 13.G, Andantino, in 3/4 time. The tempo is marked as $\frac{3}{4}$ ♩ = $\frac{9}{8}$ ♩. = 69. The piece consists of two staves. The piano part (top) features a melody with eighth notes and quarter notes. The violin part (bottom) provides accompaniment with eighth notes and quarter notes. The piece concludes with a fermata on the final note of each staff.

13. H) Allegretto (♩ = 84)

Musical score for 13. H) Allegretto in 4/4 time, tempo 84. The score consists of four systems of two staves each. The first system starts with a treble clef and a 4/4 time signature. The music features eighth notes and triplets of eighth notes. The second system continues with similar patterns. The third system includes a repeat sign. The fourth system concludes with a double bar line and repeat dots.

13. 4) ♩ = 50 - 80

Musical score for 13. 4) in 2/4 time, tempo 50-80. The score consists of two systems of two staves each. The first system starts with a treble clef and a 2/4 time signature. The music features eighth notes and triplets of eighth notes. The second system continues with similar patterns.

13. I) Allegretto (♩ = 88)

Musical score for 13. I) Allegretto in 2/4 time, tempo 88. The score consists of three systems of two staves each. The first system starts with a treble clef and a 2/4 time signature. The music features eighth notes and triplets of eighth notes. The second system continues with similar patterns. The third system concludes with a double bar line and repeat dots.

13. J) Adagio (♩ = 52)

13. K) Langston Hughes (1902-1967), from "The Weary Blues"¹

Andante (♩ = 66)

mp
With his eb - o - ny hands on each i - vo - ry key He made that poor pi - an - o
moan with mel - o - dy. O Blues!

mp
Sway - ing to and fro on his rick - et - y stool He played that sad rag - gy
tune like a mus - i - cal fool. Sweet Blues!

NOTE

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14. HALF-NOTE BEAT

When no values smaller than eighth-notes are involved, the half-note beat presents no new rhythmic difficulties, but simply a problem of reading: we must *see* a half-note as one beat, a whole note as only two beats, and a quarter-note as half a beat. The first two exercises below (14.1 and 14.2) are given first in four-four meter and then in four-two; the performance of the two versions should be identical. Likewise, the first study (14.A) is given first in two-four, then in two-two meter, and the two versions should sound the same. Rewriting the next three studies may help make the simplicity of the rhythm obvious.

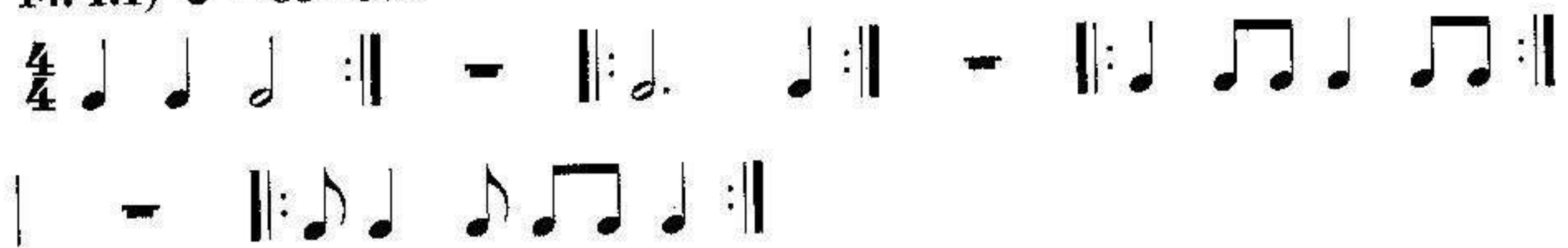
Sixteenth-notes, which appear in Exercise 14.3 and the following studies, divide the half-note beat into eight parts. Saying the names of the note-values in rhythm may be helpful in learning to feel this division:



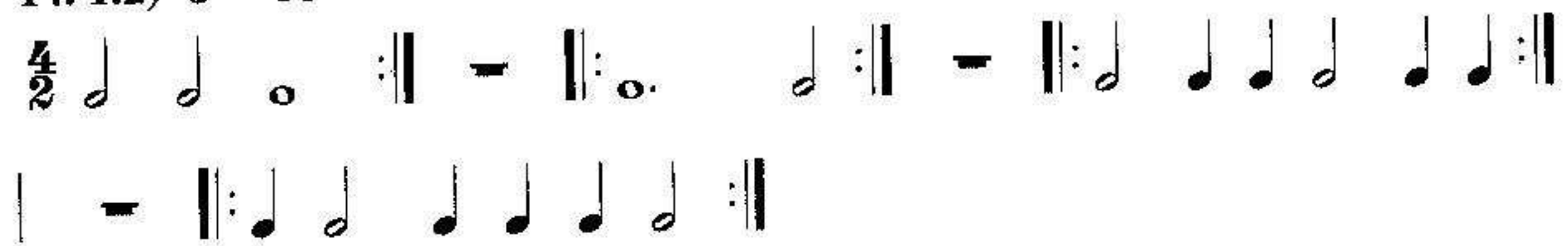
The division of the beat into eight will be encountered again when thirty-second-notes appear in quarter-note beats in Chapter 18.

The new symbol appearing at the beginning of Study 14.H is the breve, which equals two whole notes. Originally a square note, it is now written as a whole note between two vertical lines. The breve rest is less often used than the whole rest for a whole measure of silence, even when the measure is longer than a whole note, and even though the whole rest is also used for a half-measure rest in four-two time, as in Study 14.C. The whole rest is not used for two beats in three-two time, just as the half rest is not used for two beats in three-four time.

14. 1.1) ♩ = 88 - 176



14. 1.2) ♩ = 88 - 176



14. A.1) Allegro (♩ = 132)

Musical score for 14. A.1 in 2/4 time. The score consists of four staves. The first staff begins with a treble clef and a 2/4 time signature. The music is written in a single melodic line with eighth and sixteenth notes. The second staff continues the melody. The third staff features a bass clef and contains a bass line with eighth notes. The fourth staff continues the bass line. The piece concludes with a double bar line.

14. A.2 Allegro (♩ = 132)

Musical score for 14. A.2 in 2/2 time. The score consists of four staves. The first staff begins with a treble clef and a 2/2 time signature. The music is written in a single melodic line with quarter and eighth notes. The second staff continues the melody. The third staff features a bass clef and contains a bass line with quarter notes. The fourth staff continues the bass line. The piece concludes with a double bar line.

14. B) Presto (♩ = 160)

Musical score for 14. B in 4/2 time. The score consists of two staves. The first staff begins with a treble clef and a 4/2 time signature. The music is written in a single melodic line with quarter and eighth notes. The second staff continues the melody. The piece concludes with a double bar line.

14. 2.1) ♩ = 60 - 88

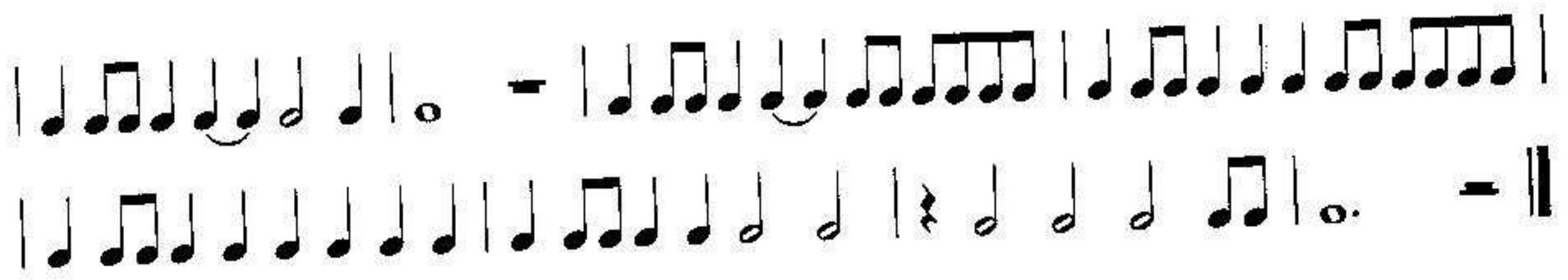
Musical score for 14. 2.1 in 4/4 time. The score consists of two staves. The first staff begins with a treble clef and a 4/4 time signature. The music is written in a single melodic line with eighth and sixteenth notes. The second staff continues the melody. The piece concludes with a double bar line.

14. 2.2) ♩ = 60 - 88

Musical score for 14. 2.2 in 4/2 time. The score consists of two staves. The first staff begins with a treble clef and a 4/2 time signature. The music is written in a single melodic line with quarter and eighth notes. The second staff continues the melody. The piece concludes with a double bar line.

14. C) Vivace (♩ = 120)

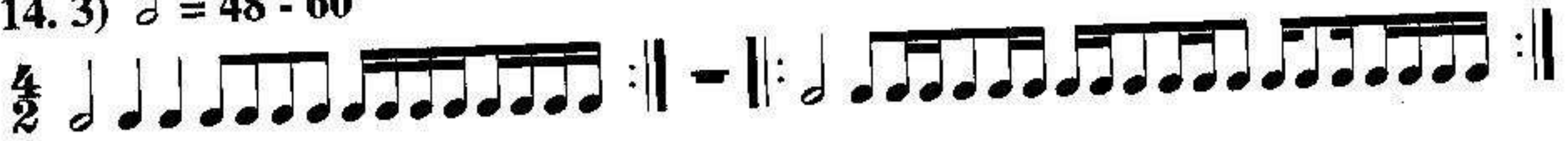
Musical score for 14. C in 4/2 time. The score consists of two staves. The first staff begins with a treble clef and a 4/2 time signature. The music is written in a single melodic line with quarter and eighth notes. The second staff continues the melody. The piece concludes with a double bar line.



14. D) Allegretto ($\text{♩} = 92$)



14. 3) $\text{♩} = 48 - 60$



14. E) Adagio ($\text{♩} = 60$)



14. F) Largo ($\text{♩} = 44$)



14. 4) $\text{♩} = 40 - 56$

Musical score for exercise 14.4, marked with a tempo of quarter note = 40-56. The score is written for two staves, likely piano and bass. It consists of two systems of music. The first system has two lines of music, and the second system also has two lines. The music features a mix of quarter and eighth notes, with some rests and repeat signs.

14. G) Allegro ($\text{♩} = 96$)

Musical score for exercise 14.G, marked Allegro with a tempo of quarter note = 96. The score is written for two staves. It consists of two systems of music. The first system has two lines of music, and the second system also has two lines. The music features a mix of quarter and eighth notes, with some rests and repeat signs.

14. H) Presto ($\text{♩} = 192$)

Musical score for exercise 14.H, marked Presto with a tempo of quarter note = 192. The score is written for two staves. It consists of two systems of music. The first system has two lines of music, and the second system also has two lines. The music features a mix of quarter and eighth notes, with some rests and repeat signs.

14. I) Allegro ma non troppo ($\text{♩} = 104$)

Musical score for exercise 14.I, marked Allegro ma non troppo with a tempo of quarter note = 104. The score is written for two staves. It consists of two systems of music. The first system has two lines of music, and the second system also has two lines. The music features a mix of quarter and eighth notes, with some rests and repeat signs.

14. J) Adagio (♩ = 40)

14. K) Christina Rossetti (1830-1894), from "Summer"

Andantino (♩ = 92)

p
Win-ter is cold-heart-ed, Spring is yea and nay, Au-tumn, is a
mf
weath-er-cock Blown ev-ery way. Sum-mer days for me — When ev-ery
crescendo *f*
leaf — is on its tree; When Ro-bin's not a beg-gar, And Jen-ny Wren's a
bride, And larks hang sing-ing, sing-ing, sing-ing, O-ver the wheat-fields
mf *mp* *3*
wide, And an-chored li-lies ride, And the pen-du-lum spi-der Swings from
side to side

15. DOTTED-HALF-NOTE BEAT

Reading six-four and nine-four meter, we quickly appreciate the clarity with which beams show beats in six-eight and nine-eight meter. Here, we have to learn to see nine consecutive quarter-notes as constituting three beats. Exercise 15.1 is written first in nine-eight; the nine-four version should sound the same.

15. 1.1) ♩. = 48 - 72

Musical notation for 15. 1.1) in 9/8 time, tempo 48-72. It consists of two staves with repeat signs and various rhythmic patterns including eighth and sixteenth notes.

15. 1.2) ♩. = 48 - 72

Musical notation for 15. 1.2) in 9/4 time, tempo 48-72. It consists of two staves with repeat signs and various rhythmic patterns including eighth and sixteenth notes.

15. A) Allegro (♩. = 108)

Musical notation for 15. A) in 6/4 time, tempo 108. It consists of three staves with a steady eighth-note pattern.

15. B) Adagio (♩. = 56)

Musical notation for 15. B) in 9/4 time, tempo 56. It consists of two staves with dynamic markings (*f*, *mf*, *p*, *rit.*) and various rhythmic patterns.

15. C) Vivace (♩. = 126)

Musical notation for 15. C) in 12/4 time, tempo 126. It consists of four staves with dynamic markings (*mf*, *f*, *p*, *pp*) and various rhythmic patterns.

15. D) Andante (♩. = 60)

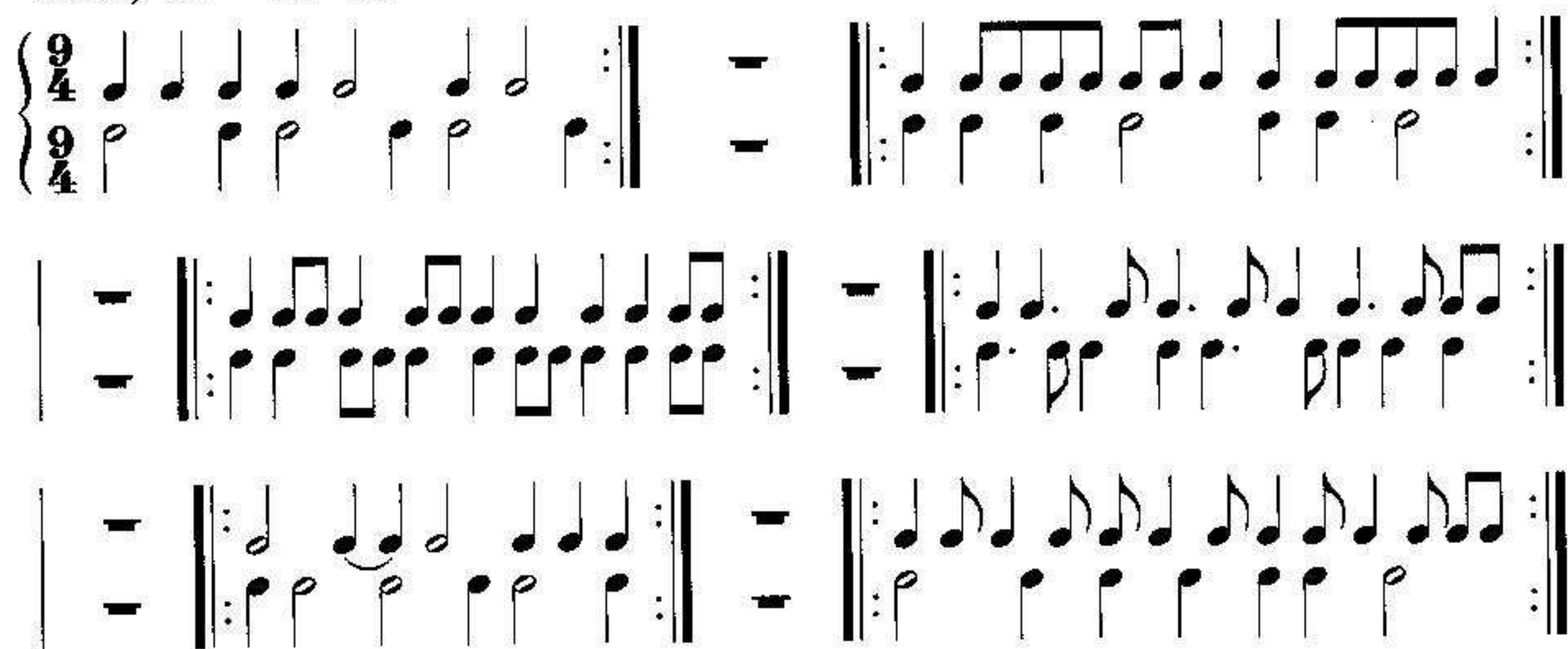
Musical notation for 15. D) in 6/4 time, tempo 60. It consists of two staves with a steady eighth-note pattern.



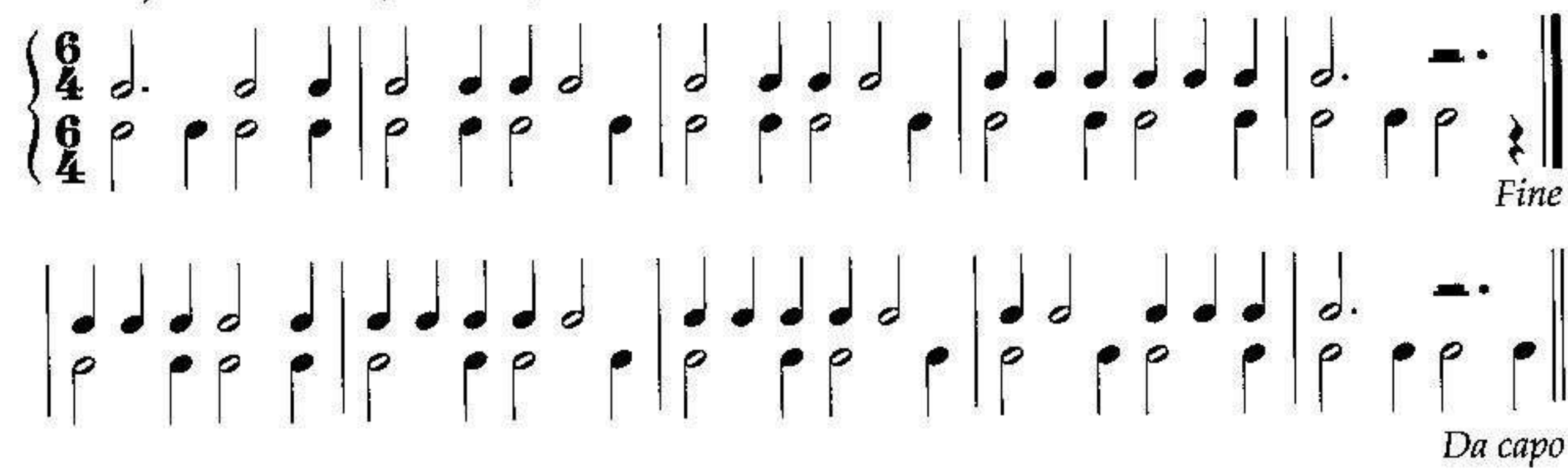
15. E) Allegro (♩. = 72)



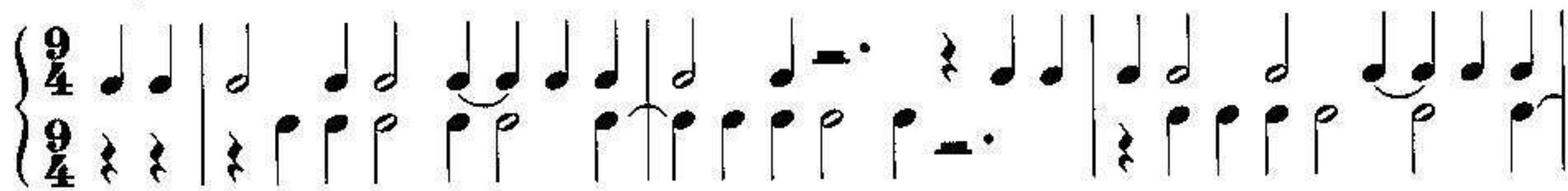
15. 2) ♩. = 40 - 60



15. F) Andante (♩. = 60)



15. G) Moderato (♩. = 72)



Musical notation for the first piece, consisting of two systems of two staves each. The notation includes various note values, rests, and bar lines.

15. H) Allegretto (♩. = 52)

Musical notation for piece 15.H, marked Allegretto. It features a 9/4 time signature and consists of three systems of two staves each. The notation includes eighth and sixteenth notes, rests, and bar lines.

15. I) Andante (♩. = 44)

Musical notation for piece 15.I, marked Andante. It features a 6/4 time signature and consists of four systems of two staves each. The notation includes quarter and eighth notes, rests, and bar lines.

15. J) John Greenleaf Whittier (1807-1892), from "Laus Deo! On Hearing the Bells Ring on the Passage of the Constitutional Amendment Abolishing Slavery"

Maestoso (♩. = 54)

f

16. EIGHTH-NOTE BEAT

There are no new rhythmic problems here, but simply the problem of seeing a quarter-note as equal to two beats, an eighth-note as equal to a beat, a sixteenth-note as equal to half a beat, and so on. Exercise 16.1 is written first in four-four time to show how much easier the rhythm looks in the more familiar meter.

The four syllables of "thirty-second" may be spoken evenly so as to match the four thirty-second notes within the time of an eighth-note. Although the syllables become too tricky to be useful in some dotted and syncopated patterns, speaking the names of the note-values may be helpful in learning the more straightforward patterns of eighths, sixteenths, and thirty-seconds:

16. 1.1) ♩ = 72 - 112

16. 1.2) ♩ = 72 - 112

Musical notation for exercise 16.1.2 in 4/8 time. The piece consists of two lines of music. The first line starts with a quarter note followed by two eighth notes, then a quarter rest, followed by a quarter note, a quarter rest, and a quarter note. The second line starts with a quarter note, a quarter rest, and a quarter note.

16. A) Allegretto (♩ = 112)

Musical notation for exercise 16.A in 2/8 time. The piece consists of four lines of music. The first line starts with a quarter note, a quarter note, a quarter note, a quarter note, a quarter note, a quarter note, a quarter note, and a quarter note. The second line starts with a quarter note, a quarter note, a quarter note, a quarter note, a quarter note, a quarter note, a quarter note, and a quarter note. The third line starts with a quarter note, a quarter note, a quarter note, a quarter note, a quarter note, a quarter note, a quarter note, and a quarter note. The fourth line starts with a quarter note, a quarter note, a quarter note, a quarter note, a quarter note, a quarter note, a quarter note, and a quarter note.

16. B) Vivace (♩ = 120)

Musical notation for exercise 16.B in 2/8 time. The piece consists of three lines of music. The first line starts with a quarter note, a quarter note, a quarter note, a quarter note, a quarter note, a quarter note, a quarter note, and a quarter note. The second line starts with a quarter note, a quarter note, a quarter note, a quarter note, a quarter note, a quarter note, a quarter note, and a quarter note. The third line starts with a quarter note, a quarter note, a quarter note, a quarter note, a quarter note, a quarter note, a quarter note, and a quarter note.

16. C) Presto (♩ = 184)

Musical notation for exercise 16.C in 3/8 time. The piece consists of three lines of music. The first line starts with a quarter note, a quarter note, a quarter note, a quarter note, a quarter note, a quarter note, a quarter note, and a quarter note. The second line starts with a quarter note, a quarter note, a quarter note, a quarter note, a quarter note, a quarter note, a quarter note, and a quarter note. The third line starts with a quarter note, a quarter note, a quarter note, a quarter note, a quarter note, a quarter note, a quarter note, and a quarter note.

16. D) Largo (♩ = 60)

Musical notation for exercise 16.D in 3/8 time. The piece consists of three lines of music. The first line starts with a quarter note, a quarter note, a quarter note, a quarter note, a quarter note, a quarter note, a quarter note, and a quarter note. The second line starts with a quarter note, a quarter note, a quarter note, a quarter note, a quarter note, a quarter note, a quarter note, and a quarter note. The third line starts with a quarter note, a quarter note, a quarter note, a quarter note, a quarter note, a quarter note, a quarter note, and a quarter note.

16. E) Allegretto (♩ = 92)

Musical score for exercise 16. E in 4/8 time. The score consists of four staves. The first staff begins with a treble clef and a 4/8 time signature. The music features a mix of eighth and sixteenth notes, with some rests and accents. The second and third staves continue the melodic and rhythmic patterns. The fourth staff concludes the exercise with a double bar line.

16. 2) ♩ = 44 - 76

Musical score for exercise 16. 2 in 2/2 time. The score is written for a grand staff (treble and bass clefs). It consists of a single line of music with repeat signs and first/second endings. The tempo is marked as ♩ = 44 - 76.

16. F) Allegretto (♩ = 112)

Musical score for exercise 16. F in 2/4 time. The score is written for a grand staff. It consists of three lines of music. The first line starts with a grand staff bracket. The music is characterized by eighth-note patterns and rests. The tempo is marked as ♩ = 112.

16. G) Allegro (♩ = 120)

Musical score for exercise 16. G in 2/4 time. The score is written for a grand staff. It consists of three lines of music. The first line starts with a grand staff bracket. The music features eighth-note patterns and rests. The tempo is marked as ♩ = 120.

16. H) Adagio (♩ = 56)

16. I) Allegretto (♩ = 96)

16. J) William Shakespeare (1564-1616), from *King Richard II*, Act V, Scene 5

Allegro moderato (♩ = 104)


mf
Ha, ha! keep time. How sour sweet mus-ic is When time is broke and no pro-portion kept!

p *crescendo*
So is it in the mu-sic of men's lives. And here have I the daint-i-ness of ear To check time broke in a

f *mf*
dis-or-der'd string; But, for the con-cord of my state and time, Had not an ear to hear my true time

f *mp* *diminuendo* *pp*
broke. I wast-ed time. and now doth time waste me.

17. DOTTED-EIGHTH-NOTE BEAT

Again, the problem here is one of reading. In order to read six-sixteen or nine-sixteen meter, we must be able to see a dotted quarter as two beats and  as a complete beat.

Exercise 17.1 is presented first in the more familiar nine-eight meter.

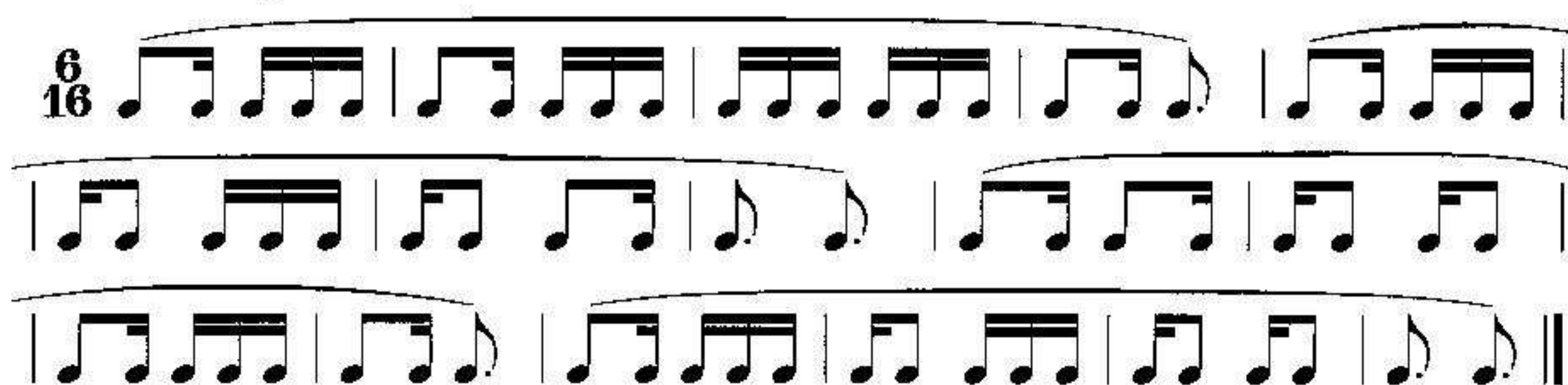
17. 1.1) ♩. = 44 - 76



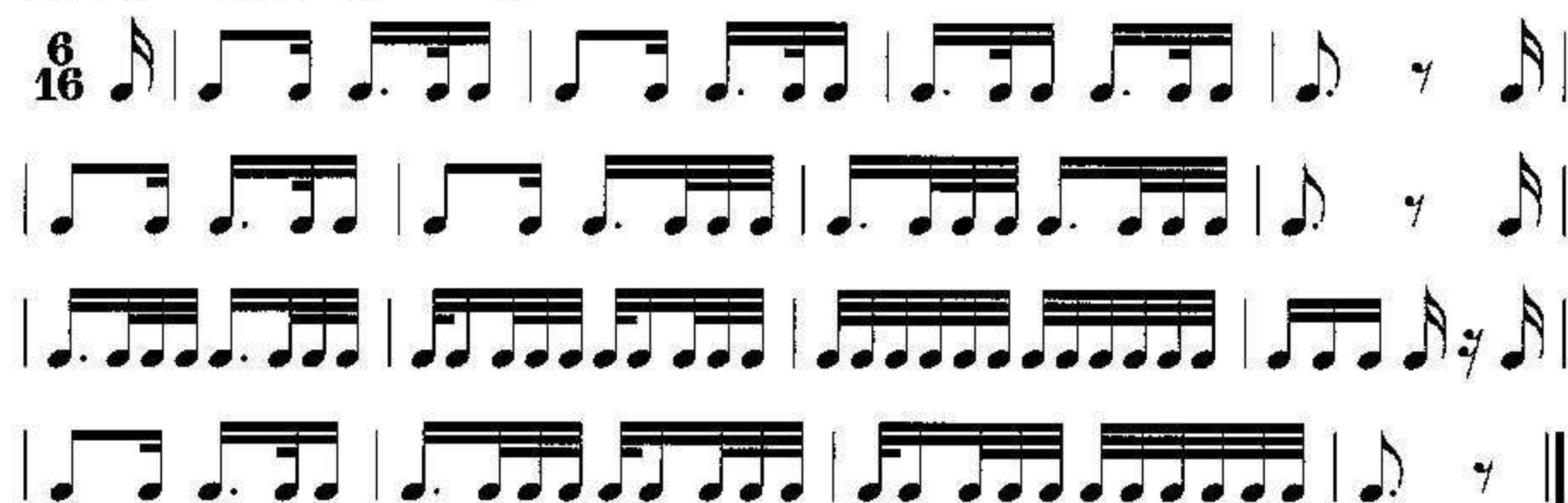
17. 1.2) ♩. = 44 - 76



17. A) Allegretto (♩. = 72)



17. B) Adagio (♩. = 48)



17. C) Allegro moderato (♩. = 72)

9/16

17. D) Allegretto (♩. = 63)

9/16

17. E) Allegro ma non troppo (♩. = 88)

12/16

17. 2) ♩. = 40 - 60

12/16

17. F) Allegro (♩. = 92)

17. G) Vivo (♩. = 138)

17. H) Andante (♩. = 56)

17. I) John Dryden (1631-1700), from "A Song for St. Cecilia's Day"

Allegretto (♩. = 88)

mf What pas-sion can-not Mu-sic raise and quell! *p* When Ju-bal struck the cor-ded

shell, His lis-ten-ing breth-ren stood a-round, And, won-der-ing, on their fa-ces fell
 To wor-ship that ce-les-tial sound. Less than a god they thought there could not
 dwell With-in the hol-low of that shell That spoke so sweet-ly and so well. What
 pas-sion can-not Mu-sic raise and quell!

18. SMALL SUBDIVISIONS

We encountered thirty-second-notes in two-eight and three-eight meter; we encountered division of the beat into eight when sixteenth-notes appeared in a half-note beat. Only sixty-fourth-notes, dividing the quarter-note beat into sixteen, are new here. Such small subdivisions occur in slow tempi and are often ornamental; they should be sung lightly and easily.

The more complicated single-beat patterns should be learned before whole measures of the exercises are attempted. If we want to count divisions of the beat while clapping the rhythm, or to tap divisions while singing the rhythm, we must figure out what division will be useful. In the fifth segment of Exercise 18.1, for example, sixteenth-note sextuplets will fit the patterns on all three beats, but in the sixth segment of the same exercise, where the eighth-note is divided into both duplets and triplets, the smallest practical common division of the beat is the eighth-note.

18. 1) ♩ = 40 - 60

18. A) Largo (♩ = 48)

18. B) Adagio (♩ = 52)

Musical notation for 18. B) Adagio in 4/4 time. The piece consists of three staves of music. The first staff begins with a treble clef and a 4/4 time signature. The music is composed of eighth and sixteenth notes, with some rests and slurs. The second and third staves continue the melodic line with similar rhythmic patterns.

18. C) Largo (♩ = 48)

Musical notation for 18. C) Largo in 4/4 time. The piece consists of four staves of music. The first staff begins with a treble clef and a 4/4 time signature. The music features prominent triplet patterns, indicated by the number '3' above groups of three notes. The tempo is marked as Largo.

18. 2) ♩ = 44 - 60

Musical notation for 18. 2) in 2/4 time. The piece consists of two staves of music. The first staff begins with a treble clef and a 2/4 time signature. The music is composed of sixteenth notes, with repeat signs and fermatas. The tempo is marked as ♩ = 44 - 60.

18. D) Lento (♩ = 60)

Musical notation for 18. D) Lento in 3/4 time. The piece consists of three staves of music. The first staff begins with a treble clef and a 3/4 time signature. The music is composed of eighth and sixteenth notes, with slurs and fermatas. The tempo is marked as Lento.

18. 3) ♩ = 80 - 108

Musical notation for 18. 3) in 9/8 time. The piece consists of two staves of music. The first staff begins with a treble clef and a 9/8 time signature. The music is composed of eighth and sixteenth notes, with triplet patterns and repeat signs. The tempo is marked as ♩ = 80 - 108.

18. E) Lento (♩. = 40)

Musical score for exercise 18.E in 9/8 time, Lento tempo. The score consists of five staves of music. The first staff begins with a treble clef and a 9/8 time signature. The music features a mix of eighth and sixteenth notes, with some triplets and a fermata over a note in the second measure of the first staff. The piece concludes with a double bar line and repeat signs.

18. F) Andante (♩. = 36, ♩ = 108)

Musical score for exercise 18.F in 6/8 time, Andante tempo. The score consists of four staves of music. The first staff begins with a treble clef and a 6/8 time signature. The music is characterized by frequent triplet patterns, indicated by a '3' above the notes. The piece ends with a double bar line and repeat signs.

18. 4) ♩ = 40 - 52

Musical score for exercise 18.4 in 2/4 time. The score is presented in grand staff notation, with a treble clef on the upper staff and a bass clef on the lower staff. The music consists of a few measures, including a triplet in the final measure of the upper staff. The piece concludes with a double bar line and repeat signs.

18. G) Andante (♩ = 44)

Musical score for exercise 18.G in 2/4 time, Andante tempo. The score is presented in grand staff notation, with a treble clef on the upper staff and a bass clef on the lower staff. The music consists of three measures, featuring eighth and sixteenth notes. The piece concludes with a double bar line and repeat signs.

18. H) Adagio (♩ = 92)

18. I) Largo (♩ = 44)

18. J) Henry Wadsworth Longfellow (1807-1882), from "Walter von der Vogelweid"¹

Adagio (♩ = 52)

Thus the bard of love de-part-ed; And, ful-fill ing - his de-sire, On his
tomb the birds were feast-ed By the child-ren of the choir. Day by day, o'er tow-er and

19. B) Allegro (♩ = 160)

19. C) Presto (♩ = 192)

19. D) Allegretto (♩ = 80)

19. E) Allegro (♩ = 100)

Musical notation for a single melodic line. It consists of three measures. The first measure is in 4/4 time, the second in 3/4, and the third in 4/4. The notes are primarily eighth and sixteenth notes, with some rests.

19. 2) ♩ = 72 - 144

Musical notation for a two-staff piece. It consists of two measures. The first measure is in 2/4 time, and the second is in 3/4. The notation includes eighth and sixteenth notes, with some rests.

19. F) Allegro (♩ = 132)

Musical notation for a two-staff piece. It consists of four measures. The first two measures are in 3/4 time, and the last two are in 2/4. The notation includes eighth and sixteenth notes, with some rests.

19. G) Vivo (♩ = 144)

Musical notation for a two-staff piece. It consists of three measures. The first measure is in 4/4 time, and the second and third are in 3/4. The notation includes eighth and sixteenth notes, with some rests.

19. 3) ♩ = 60 - 96

19. H) Andante (♩ = 66)

19. I) Moderato (♩ = 72)

19. J) Anne Bradstreet (1612-1672), from "Contemplations"

Andantino (♩ = 84)

mf

mp

art. Shall crea-tures ab-ject thus their voi-ces raise And in their kind re-sound their ma-ker's

pp

praise, Whilst I as mute, can war-ble forth no high-er lays?

20. CHANGING COMPOUND METER

As in changing simple meter, it is helpful to count the beats while conducting the meter before tackling the actual rhythm of each study. Conducting while performing the studies helps us feel physically the succession of meters.

20. 1) ♩. = 88 - 108

20. A) *Vivo* (♩. = 132)

20. B) *Allegro* (♩. = 92)

20. 2) ♩. = 56 - 76



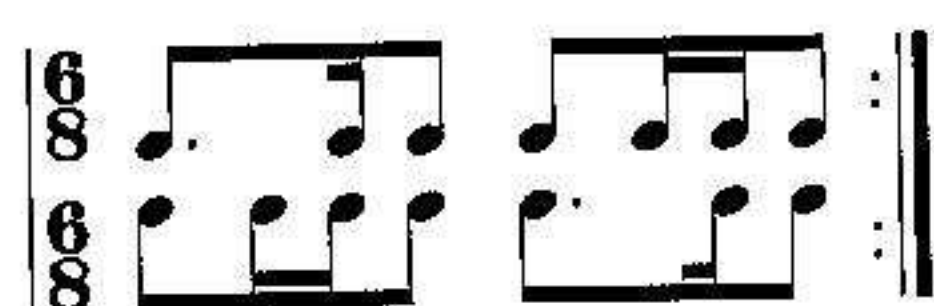
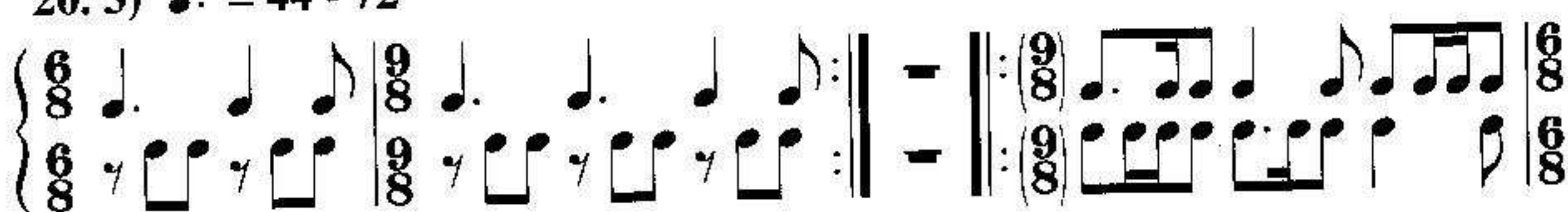
20. C) Andante (♩. = 60)



20. D) Allegretto (♩. = 66)



20. 3) ♩. = 44 - 72



20. E) Allegretto (♩. = 80)

Musical score for exercise 20.E, Allegretto, quarter note = 80. It consists of four systems of music for a grand staff (treble and bass clefs). The first system has two staves. The second system has two staves. The third system has two staves. The fourth system has two staves. The music features eighth and sixteenth notes, rests, and dynamic markings like 'f' and 'p'.

20. F) Andante (♩. = 52)

Musical score for exercise 20.F, Andante, quarter note = 52. It consists of four systems of music for a grand staff (treble and bass clefs). The first system has two staves. The second system has two staves. The third system has two staves. The fourth system has two staves. The music features eighth and sixteenth notes, rests, and dynamic markings like 'f' and 'p'.

20. G) Andante (♩. = 54)

Musical score for exercise 20.G, Andante, quarter note = 54. It consists of three systems of music for a grand staff (treble and bass clefs). The first system has two staves. The second system has two staves. The third system has two staves. The music features eighth and sixteenth notes, rests, and dynamic markings like 'f' and 'p'.

20. H) Stephen Crane (1871-1900), from *The Black Riders and Other Lines*

Allegretto (♩. = 80)

mp

Three lit-tle birds in a row sat mus-ing. A man passed near that place.

Then did the lit-tle birds nudge each o-ther. They said, "He thinks he can

mf sing." They threw back their heads to laugh. With quaint coun-te-nan-ces they re-gard-ed

mp him. They were ve-ry cu-ri-ous, those three lit-tle birds in a row.

21. CHANGING BETWEEN SIMPLE AND COMPOUND METER WITH THE DIVISION CONSTANT

When changing between simple and compound meter, as between two-four and six-eight time, there is normally an equivalence either between the beats or between the divisions of the beats. In this chapter, the division of the beat remains constant: when moving between two-four and six-eight, the eighth-note remains the same. This means that the beat is longer in compound meter, where it has three eighths instead of two, and so the tempo is slower. Moving from six-eight to two-four, the tempo speeds up because the beat is shorter. If the eighth-note is constant at 216, for example, the tempo in two-four or three-four will be half of that, ♩. = 108, while the tempo in six-eight or nine-eight will be a third of 216, or ♩. = 72. The tempi of the three note-values are given only for the first exercise and study; for the rest, those not given can be derived from those that are.

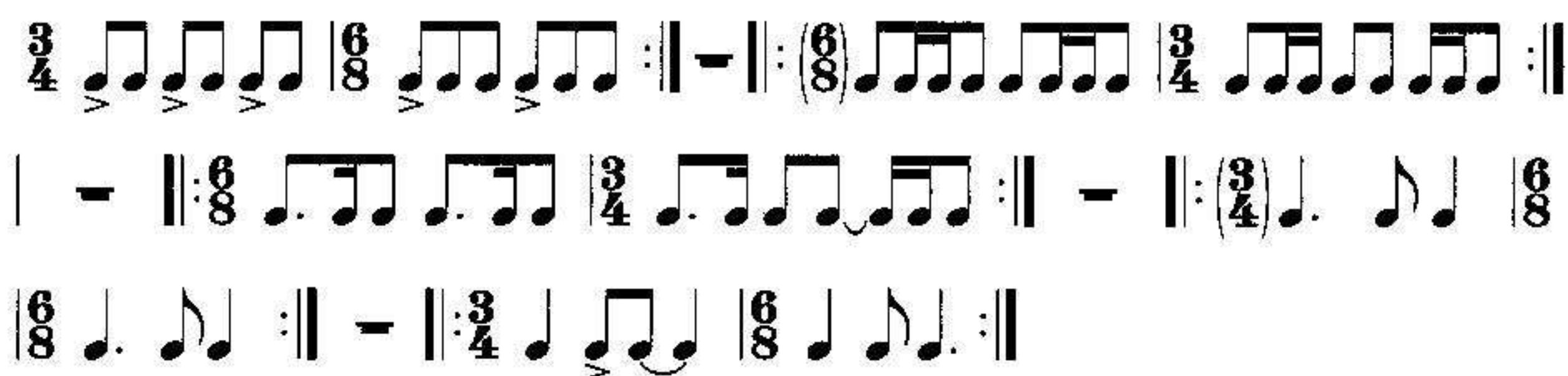
Tapping the eighth-note throughout a study, or using the metronome at the speed of the eighth, helps ensure the steadiness of the eighth as the meter changes.

Counting the number of eighths on a beat, while conducting the meter, is a good preparation for the studies:

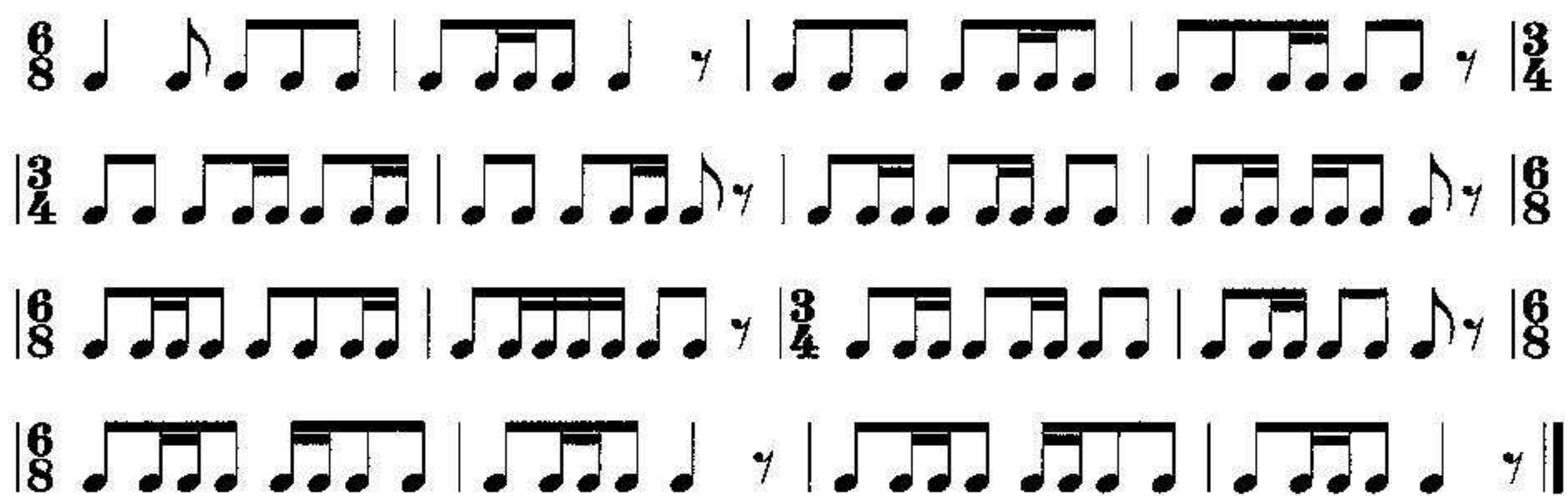
3/4 1 2 1 2 1 2 | 6/8 1 2 3 1 2 3

Normally, when meter changes between simple and compound, the equivalence—♩. = ♩. or ♩. = ♩.—must be shown at the point of the change. This has not been done in these studies because the eighth is always constant.

21. 1) ♩ constant, ♩ = 72 - 120, ♩. = 48 - 80, ♩ = 144 - 240



21. A) Andante, ♩ constant (♩. = 64, ♩ = 192, ♩ = 96)



21. B) Presto, ♩ constant (♩ = 144)



21. C) Allegretto, ♩ constant (♩. = 56)



21. D) Andante con moto, ♩ constant (♩ = 144)

21. E) Adagio, ♩ constant (♩ = 58)

21. F) Allegro, ♩ constant (♩ = 72)

21. 2) ♩ constant, ♩. = 56 - 112, ♩ = 84 - 168, ♩ = 168 - 336

Musical score for exercise 21. 2). It consists of two systems of music. The first system has two staves: the top staff is in 6/8 time and the bottom staff is in 6/8 time. The second system also has two staves: the top staff is in 6/8 time and the bottom staff is in 6/8 time. The score includes various rhythmic patterns and rests.

21. G) Presto, ♩ constant (♩. = 96, ♩ = 144)

Musical score for exercise 21. G). It consists of four systems of music. Each system has two staves. The first system has staves in 6/8 and 6/8. The second system has staves in 6/8 and 6/8. The third system has staves in 6/8 and 6/8. The fourth system has staves in 6/8 and 6/8. The score includes various rhythmic patterns and rests.

21. H) Andante, ♩ constant (♩ = 63)

Musical score for exercise 21. H). It consists of three systems of music. Each system has two staves. The first system has staves in 2/4 and 2/4. The second system has staves in 3/4 and 3/4. The third system has staves in 3/4 and 3/4. The score includes various rhythmic patterns and rests.

21. I) **Vivace**, ♩ constant (♩ = 80)

Musical score for piece 21. I, 'Vivace'. The score is written for piano and consists of five systems of music. The time signatures are 9/8, 6/8, 3/4, 2/4, and 3/2. The tempo is marked 'Vivace' with a constant quarter note equal to 80 beats per minute.

21. J) Langston Hughes (1902-1967), *Fantasy in Purple*¹

Grave, ♩ constant (♩ = 56)

Musical score for piece 21. J, 'Fantasy in Purple'. The score is written for voice and piano. The tempo is marked 'Grave' with a constant quarter note equal to 56 beats per minute. The time signature is 2/4. The lyrics are: "Beat the drums of tra-ge-dy for me. Beat the drums of tra-ge-dy and death. And let the choir sing a stor-my song To drown the rat-tle of my dy-ing breath. Beat the drums of tra-ge-dy for me, And let the white vi-o-lins whir thin and slow, But blow one blar-ing trum-pet note of sun To go with me to the dark-ness where I go." The score includes dynamic markings: *mf*, *mp*, *f*, and *pp*. The piano accompaniment includes a *diminuendo* marking.

NOTE

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22. CHANGING BETWEEN SIMPLE AND COMPOUND METER WITH THE BEAT CONSTANT

In this chapter the beat remains constant when the meter changes between simple and compound: the dotted quarter in compound meter equals the quarter-note in simple meter. Therefore, the speed of the eighth-note changes. The eighth-note in six-eight meter is only two-thirds as long as the eighth-note in two-four, for example. The change is the same as that between triplet and duplet eighths in simple meter or between eighths and dotted eighths in compound meter. This is shown in Exercise 22.1, where the second segment, with change of meter, sounds the same as the first segment, where only the division of the beat changes; the same relation obtains between the third and fourth segments of this exercise.

When the beat remains constant, six-eight and two-four measures have the same length, as do three-four and nine-eight measures, because they have the same number of beats. In contrast, a six-eight measure, with two beats, will take less time than a three-four measure, even though the note-values in the two measures may be identical, as in the first two measures of each phrase of Study 22.H.

The challenge here is to keep the beat constant. To this end, using metronomes, beating time, and walking with a steady pace while singing the rhythm are helpful.

22. 1) $\frac{6}{8} \text{ ♩} = \frac{2}{4} \text{ ♩} = 44 - 72$

22. 1) $\frac{6}{8} \text{ ♩} = \frac{2}{4} \text{ ♩} = 44 - 72$

22. A) Allegro, $\frac{6}{8} \text{ ♩} = \frac{2}{4} \text{ ♩} (= 104)$

22. A) Allegro, $\frac{6}{8} \text{ ♩} = \frac{2}{4} \text{ ♩} (= 104)$

22. B) Allegretto, $\frac{6}{8}$ ♩. = $\frac{2}{4}$ ♩. (= 72)

22. C) Andante, $\frac{9}{8}$ ♩. = $\frac{3}{4}$ ♩. (= 60)

22. D) Allegro ma non troppo, $\frac{6}{8}$ ♩. = $\frac{9}{8}$ ♩. = $\frac{3}{4}$ ♩. (= 92)

22. E) Allegretto, $\frac{9}{8}$ ♩. = $\frac{6}{8}$ ♩. = $\frac{3}{4}$ ♩. = $\frac{2}{4}$ ♩. (= 72)

$\frac{3}{4}$ $\frac{2}{4}$ $\frac{6}{8}$ $\frac{9}{8}$ $\frac{3}{4}$ $\frac{2}{4}$ $\frac{6}{8}$ $\frac{9}{8}$ $\frac{3}{4}$

22. 2) $\frac{6}{8}$ $\frac{2}{4}$ = 52 - 72

$\frac{6}{8}$ $\frac{2}{4}$ $\frac{6}{8}$ $\frac{2}{4}$ $\frac{2}{4}$ $\frac{6}{8}$ $\frac{6}{8}$ $\frac{2}{4}$ $\frac{2}{4}$ $\frac{2}{4}$ $\frac{6}{8}$ $\frac{6}{8}$ $\frac{2}{4}$ $\frac{2}{4}$ $\frac{2}{4}$ $\frac{6}{8}$ $\frac{6}{8}$ $\frac{2}{4}$ $\frac{2}{4}$

22. F) Andante, $\frac{9}{8}$ $\frac{3}{4}$ (=58)

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

22. G) Adagio, $\frac{2}{4}$ ♩ = $\frac{6}{8}$ ♩. (=52)

22. H) Allegretto, $\frac{3}{4}$ ♩ = $\frac{6}{8}$ ♩. (=69)

22. I) Thomas Dekker (1570?-1641?), "Golden Slumbers..."

Andantino ($\frac{2}{4}$ ♩ = $\frac{6}{8}$ ♩. = 69)

p

Gol - den slum-bers kiss your eyes, Smiles a-wake you when you rise.

Sleep, pret-ty wan-tons, do not cry, And I will sing a lul-la-by:

Rock them, rock them, *pp* $\overset{3}{\text{triplet}}$ lul-la-by. *p* Care is hea-vy, there-fore sleep you,

You are care, and care must keep you. Sleep pret - ty wan - tons, do not cry, And
I will sing a lul - la - by: Rock them, rock them, lul - la - by.

23. THREE NOTES IN TWO BEATS; TWO NOTES IN THREE BEATS

The proportions involved in putting two equal notes in three beats and three equal notes in two beats are familiar from earlier chapters. In Chapter 10, two dotted eighths were put in a dotted-quarter beat; in Chapter 12, triplets were put in beats normally divided into duplets; in Chapter 13, two notes were put against three notes in a beat. What is new here is changing the division of the measure rather than the division of the beat.

In moving from normal quarter-notes to triplet quarters, it is helpful to think triplet eighths ahead of time, since two triplet eighths equal a triplet quarter: Thinking

facilitates performing $\overbrace{\text{eighth note}}^3 \overbrace{\text{eighth note}}^3 = \overbrace{\text{eighth note}}^3$. Conducting helps

steady the beat against which the cross-rhythms play. When we perform triplet quarter-notes, we must move quickly to the second note; when a triplet is performed unevenly, almost always it is the first note that is too long.

The hemiola pattern is most often three half-notes in the time of two three-four measures: $\frac{3}{4}$ Study 23.F presents the hemiola rhythm in patterns familiar from the third movement of Schumann's Piano Concerto where, with one beat to a three-four measure, we hear the three half-notes against two downbeats.

23. 1) $\frac{6}{8} \text{ J.} = \frac{2}{4} \text{ J.} = 63 - 108$

23. A) Allegro moderato (♩ = 72)

Musical score for 23. A) Allegro moderato in 6/8 time. The score consists of five staves of music. It features a mix of eighth and sixteenth notes, with some triplet markings. The piece concludes with a double bar line and repeat dots.

23. B) Presto (♩ = 126)

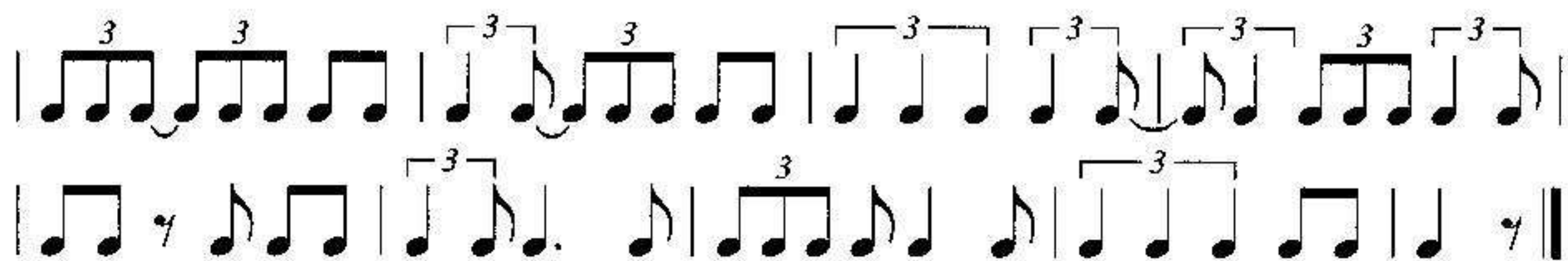
Musical score for 23. B) Presto in 2/4 time. The score consists of five staves of music. It is characterized by frequent triplet markings over eighth and sixteenth notes. The piece concludes with a double bar line and repeat dots.

23. C) Andante con moto (♩ = 80)

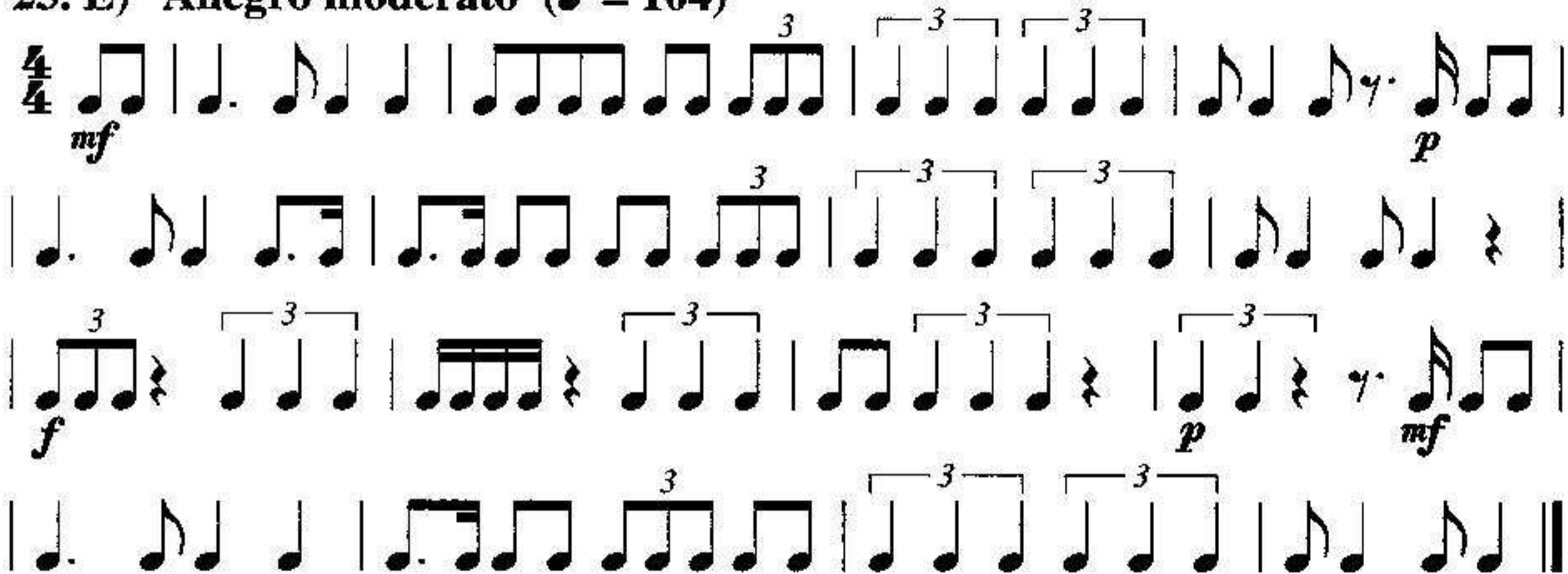
Musical score for 23. C) Andante con moto in 4/4 time. The score consists of five staves of music. It features a variety of note values including eighth, sixteenth, and thirty-second notes, with many triplet markings. The piece concludes with a double bar line and repeat dots.

23. D) Allegro (♩ = 116)

Musical score for 23. D) Allegro in 3/4 time. The score consists of two staves of music. It features eighth and sixteenth notes with several triplet markings. The piece concludes with a double bar line and repeat dots.



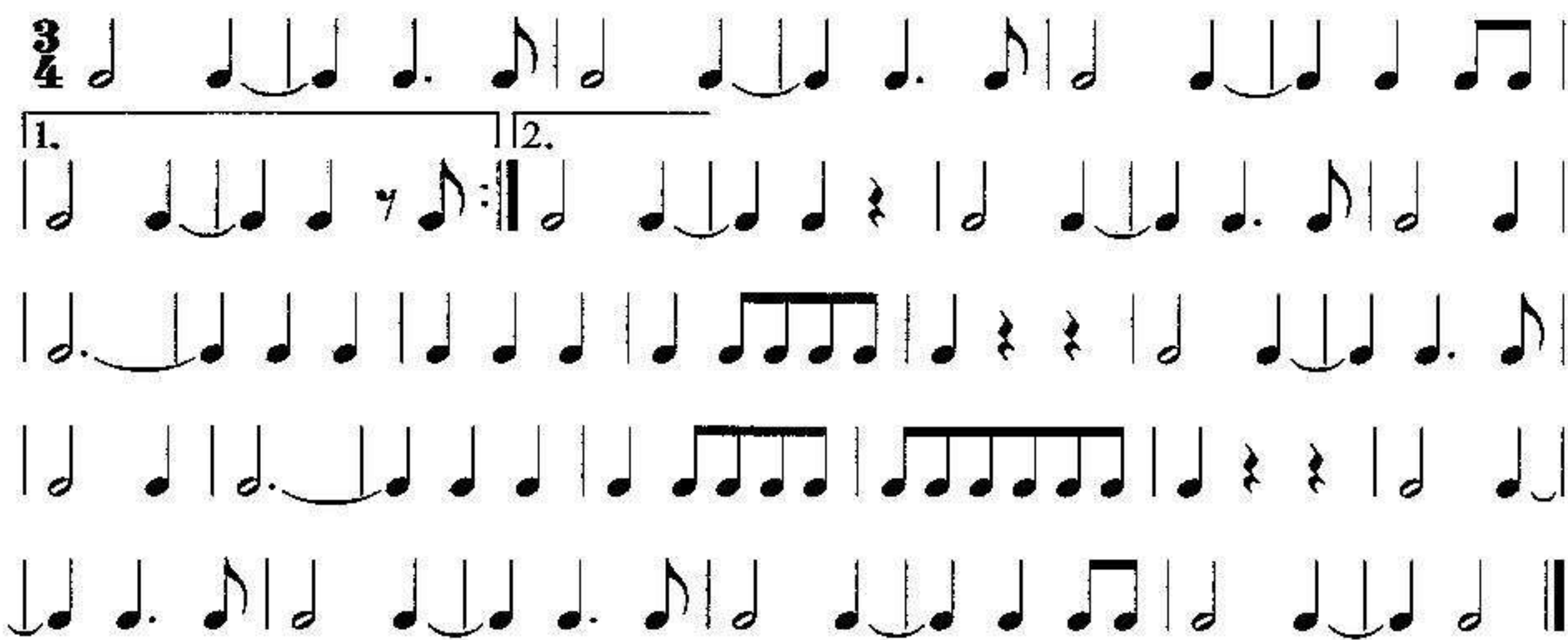
23. E) Allegro moderato ($\text{♩} = 104$)



23. 2) $\text{♩} = 60 - 120$ (Conduct one to a measure.)



23. F) Vivace ($\text{♩} = 72$) (Conduct one to a measure)

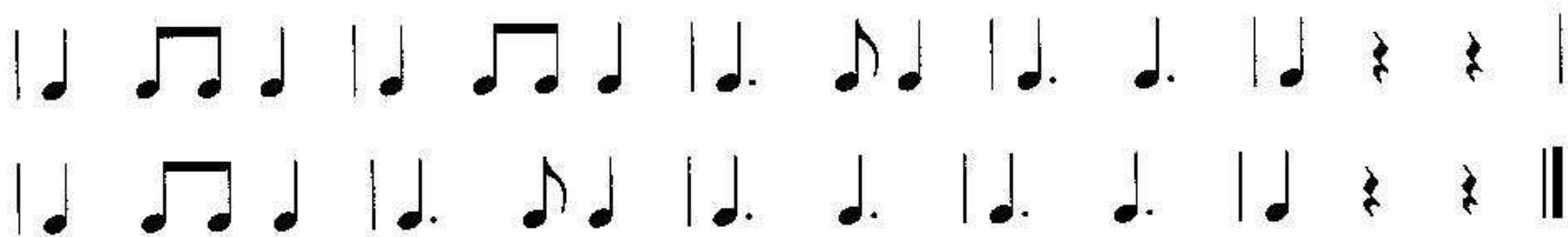


23. 3) $\text{♩} = 88 - 176$

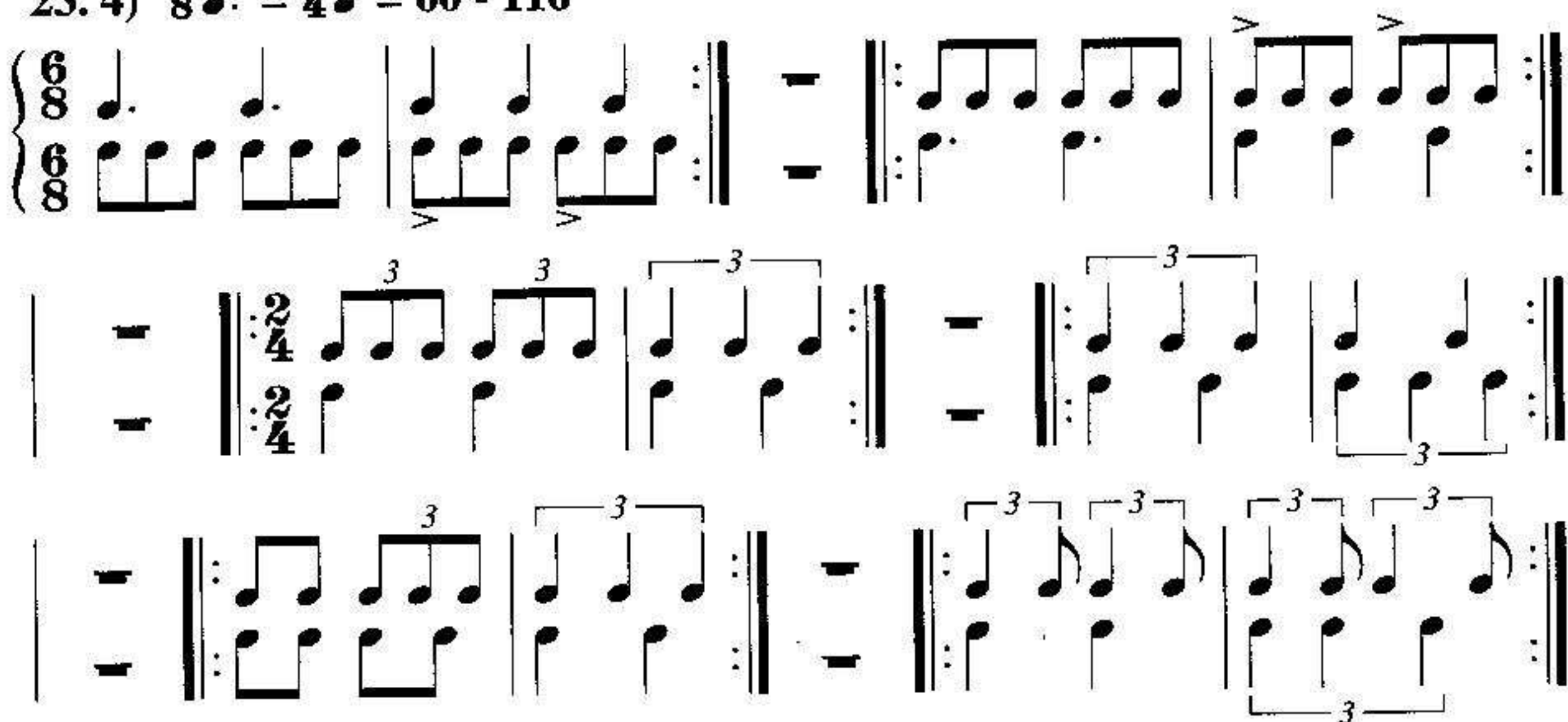


23. G) Allegretto ($\text{♩} = 112$)

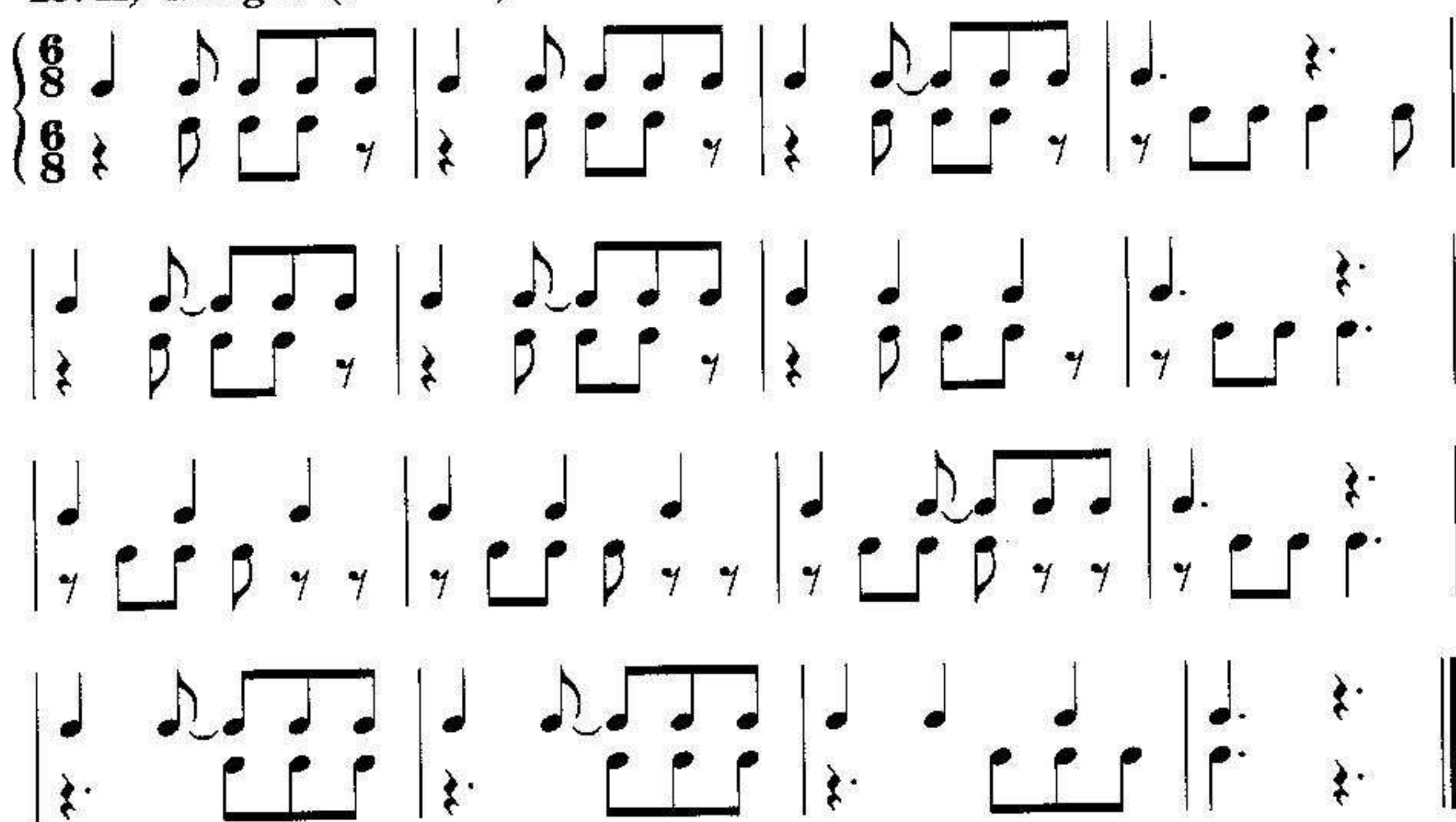




23. 4) $\frac{6}{8}$ ♩. = $\frac{2}{4}$ ♩. = 60 - 116



23. H) Allegro (♩. = 100)



23. I) Allegretto (♩. = 72)



Musical notation for the first system, consisting of two staves. The notation includes various notes, rests, and a fermata over a note in the second measure of the top staff.

23. J) Allegretto (♩ = 80)

Musical notation for exercise 23. J, featuring triplets and a 2/4 time signature. The notation is arranged in four systems, each with two staves. The first system includes a brace on the left with 2/4 and 2/4 time signatures. The piece is characterized by frequent triplet patterns in both hands.

23. K) Allegro (♩ = 120)

Musical notation for exercise 23. K, featuring triplets and a 3/4 time signature. The notation is arranged in four systems, each with two staves. The first system includes a brace on the left with 3/4 and 3/4 time signatures. The piece is characterized by frequent triplet patterns in both hands.

23. L) Walt Whitman (1819-1892), from *Leaves of Grass*

Allegro (♩ = 138)

f

4/4

With mu - sic strong I come, with my cor - nets and my drums, I

play not march - es for ac - cept - ed vic - tors on - ly, I play march - es for con - quer'd and slain

mp per - sons. Have you heard that it was good to gain the day? *mf* I al - so

say it is good to fall, bat - tles are lost in the same spi - rit in which they are

f won. I beat and pound for the dead. I blow through my em - bou - chures my

loud - est and gay - est for them.

24. FOUR AGAINST THREE

As twelve is the common denominator of four and three, the rhythm of four sixteenth-notes against triplet eighths is measured in twelfths of a beat. The sixteenths are attacked on the first, fourth, seventh, and tenth parts of the beat, and the triplets are attacked on the first, fifth, and ninth parts of the beat. As with the performance of two against three, we may be aided by verbal phrases that we speak naturally in these rhythms:

Four against three:

1	2	3	4	5	6	7	8	9	10	11	12
♩			♩			♩			♩		♩
♩			♩			♩			♩		♩
When			will	he		come			a -		gain?

To make a cross-rhythm of the four verbal accents sounding against three metrical accents, we write this as

3/4 $\text{♪} \text{♪} \text{♪}$ When will he come a-gain? or 3/4 $\text{♪} \text{♪} \text{♪}$ one two-oo three uh-four

3/4 $\text{♪} \text{♪} \text{♪}$ 1 2 3 4 or 3/4 $\text{♪} \text{♪} \text{♪}$ 1 2 3 4

Similarly, three against four may be heard as

1 2 3 4 5 6 7 8 9 10 11 12
 Wash the car and wax it!

As a cross-rhythm of three accented syllables against four metrical accents, this is written

12/8 $\text{♪} \text{♪} \text{♪}$ Wash the car and wax it! or 12/8 $\text{♪} \text{♪} \text{♪}$ one ta two ta three ta
 12/8 $\text{♪} \text{♪} \text{♪}$ 1 2 3 or 12/8 $\text{♪} \text{♪} \text{♪}$ 1 2 3

The above patterns appear in Chapter 25 as a way of thinking four notes against three beats and vice versa, but practicing them quickly may help us learn to put four notes against three in a single beat.

It is important to practice the cross-rhythms slowly so as to ensure accuracy and quickly so as to arrive at the point where we hear not just the composite rhythm but each part independently. Finally, we should feel that we are performing two conflicting patterns at the same time and that, although they fit together correctly, neither one is based on the other. We don't think sixteenths and fit a triplet against them, or vice versa; we simply sing four sixteenths and clap three, or sing a triplet and clap sixteenth notes, at the same time. We think two different thoughts simultaneously.

24. 1) ♩ = 40 - 72

Musical score for exercise 24.1 in 2/4 time. The piece consists of four systems of two staves each. The first system begins with a treble clef and a 2/4 time signature. The music is primarily composed of eighth and sixteenth notes, with frequent use of triplets (indicated by a '3' below the notes). The score includes repeat signs (double bar lines with dots) and first/second endings. The tempo is marked as ♩ = 40 - 72.

24. A) Andante ($\frac{3}{4}$ ♩ = 60)

Musical score for exercise 24.A in 3/4 time. The piece consists of three systems of two staves each. The first system begins with a treble clef and a 3/4 time signature. The music features a steady eighth-note accompaniment with a melody of eighth and sixteenth notes. Triplets are used throughout. The piece concludes with a fermata over the final note. The tempo is marked as $\frac{3}{4}$ ♩ = 60.

24. B) Allegretto (♩ = 66)

Musical score for exercise 24.B in 2/4 time. The piece consists of three systems of two staves each. The first system begins with a treble clef and a 2/4 time signature. The music features a steady eighth-note accompaniment with a melody of eighth and sixteenth notes. Triplets and accents (marked with a '7' above the notes) are used. The piece concludes with a double bar line. The tempo is marked as ♩ = 66.

24. C) Andante (♩ = 60)

Musical score for exercise 24.C, Andante, 4/4 time signature. The score consists of four systems of two staves each. The first system has a brace on the left. The music features eighth notes and triplets of eighth notes. The piece ends with a double bar line.

24. D) Allegretto ($\frac{2}{4}$ ♩ = $\frac{6}{8}$ ♩. = 72)

Musical score for exercise 24.D, Allegretto, 2/4 time signature. The score consists of three systems of two staves each. The first system has a brace on the left. The music features eighth notes and sixteenth notes. The piece ends with a double bar line.

24. E) Adagio (♩ = 52)

Musical score for exercise 24.E, Adagio, 3/4 time signature. The score consists of three systems of two staves each. The first system has a brace on the left. The music features eighth notes and triplets of eighth notes. The piece ends with a double bar line.

24. F) Adagio (♩ = 50)

24. G) John Dryden (1631-1700), from "A Song for St. Cecilia's Day"

Allegro moderato (♩ = 69)

p
The soft complain-ing flute In dy-ing notes dis-cov-ers The woes of hope-less
lov-ers, Whose dirge is whis-pered by the warb-ling lute. Sharp vi-o-lins pro-claim Their
jea-lous pangs and des-per-a-tion, fu-ry, fran-tic in-dig-na-tion,
Depth of pains and height of pas-sion, For the fair, dis-dain-ful dame.

25. FOUR NOTES IN THREE BEATS; THREE NOTES IN FOUR BEATS

Singing four even notes in the time of three beats is performing four against three at the level of the measure. Each of the four quadruplet quarters in a three-four measure is three-quarters of a beat long; thus, the pattern can be notated as the equivalent of four dotted eighths, but it is more commonly notated as a quadruplet:

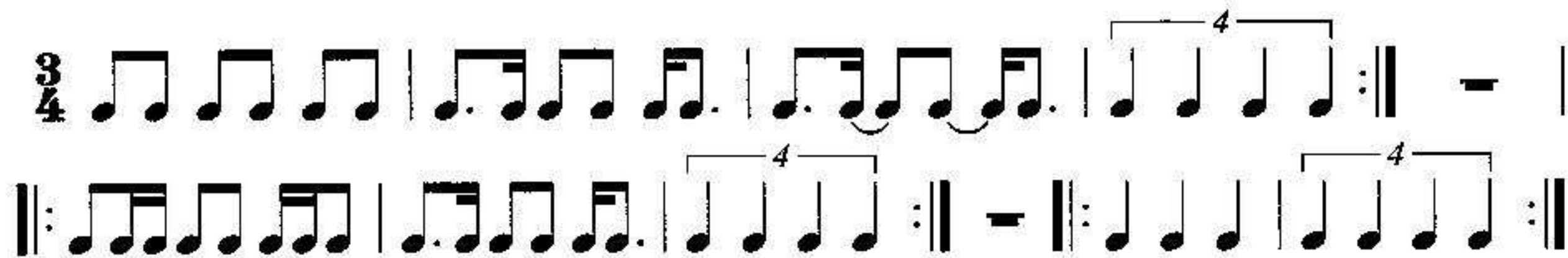


Singing three even notes in the time of four beats is most easily done in twelve-eight time, where each of the three notes has the value of four eighth-notes, or a half-note. When the meter is four-four, a background of triplet eighths should be imagined:

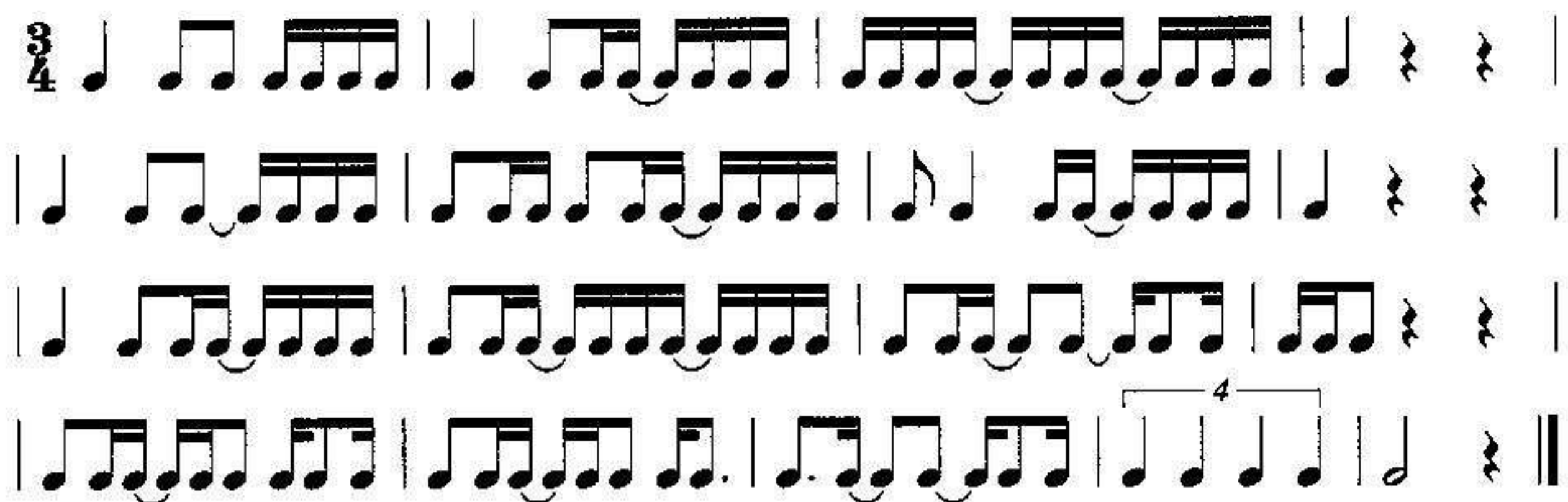


Tapping the note that is the common denominator (the sixteenth for four notes in three beats, the triplet eighth for three notes in four beats) will help us learn to hear the proportions correctly. As with other cross-rhythms, performance at a fast tempo is a process different from slow performance, so the patterns should be practiced both slowly and quickly.

25. 1) ♩ = 60 - 120 (Measure 4 is equivalent to measure 3.)



25. A) Adagio (♩ = 63)



25. B) Allegro (♩ = 120)

25. C) Moderato (♩ = 88)

25. 2) $\frac{12}{8}$ ♩. = $\frac{4}{4}$ ♩ = 60 - 132 (Measure 4 is equivalent to measure 3.)

25. D) Allegro (♩ = 126)

25. E) Allegretto (♩ = 112)

12/8

25. 3) ♩ = 56 - 88

25. F) Allegretto (♩ = 72)

25. G) *Con moto* (♩ = 80)

25. 4) $\frac{12}{8}$ ♩. = $\frac{4}{4}$ ♩ = 50 - 80

25. H) *Allegretto* (♩. = 96)

25. I) Allegretto (♩ = 100)

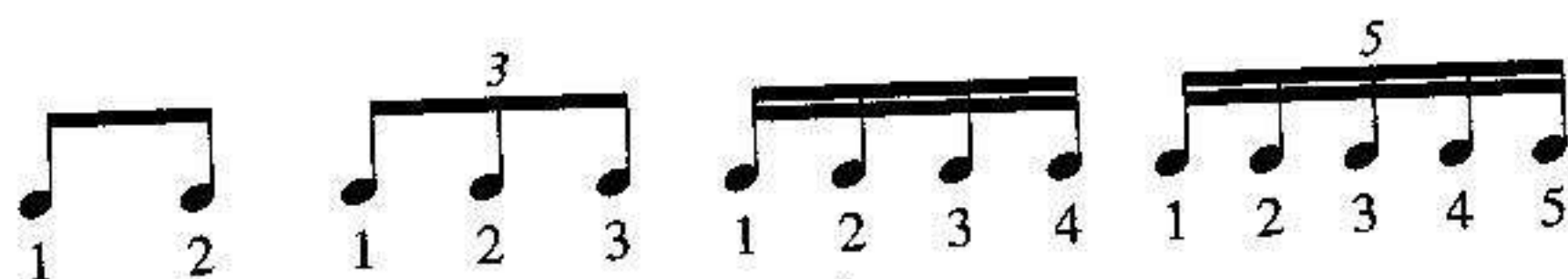
25. J) Anne Bradstreet (1612-1672), from "Mirth and Melancholy"

Andante (♩ = 80)

mf
 3/4 She loves nought else but noise which discord makes, As croak-ing
 frogs, whose dwell-ing is in lakes; The ra-ven's hoarse, the
 man - drake's hol - low groan, *f* And shriek-ing owls, which fly i' th'
 night *p* a - lone;

26. QUINTUPLETS

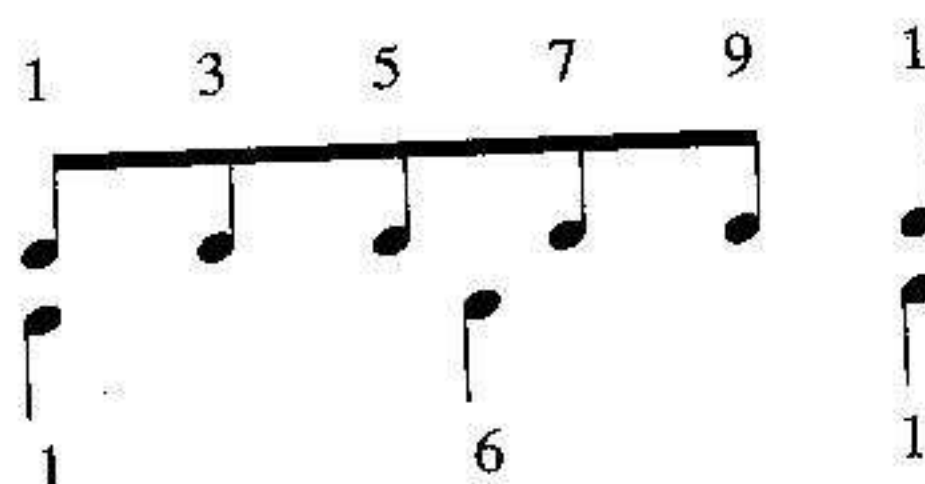
Counting the notes helps us put the five notes of a quintuplet onto a beat, especially in a context of other divisions of the beat:



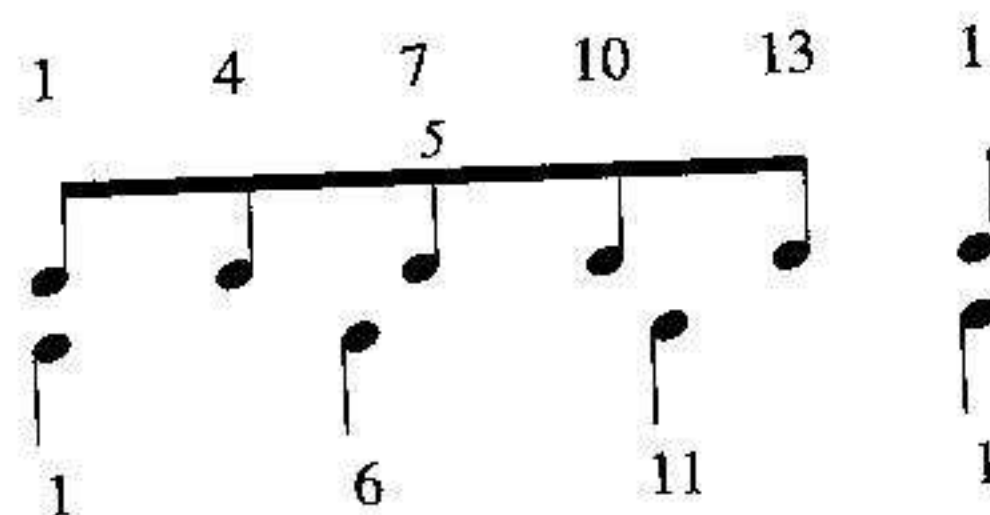
To sing five equal notes in two beats, we need to think the quintuplet beat:



The common denominator of five and two is ten, but to perform five against two we need think only of the second note of the duplet dividing the third note of the quintuplet:

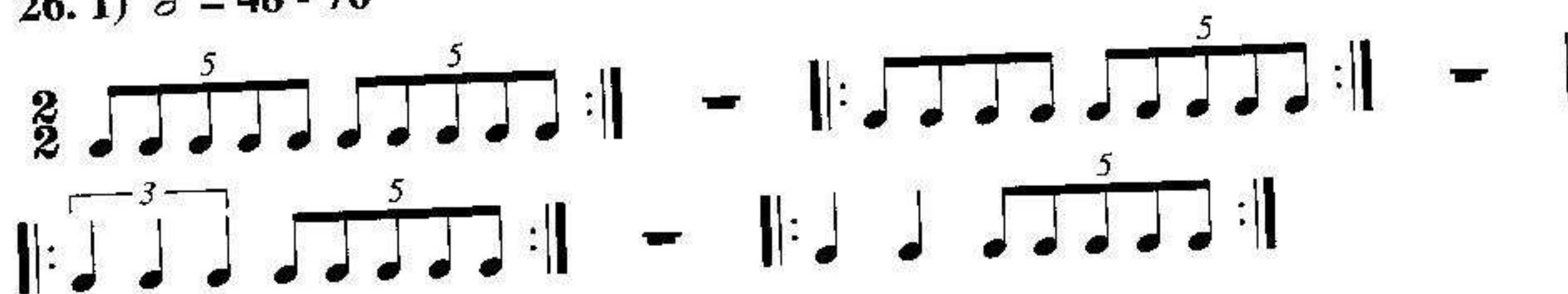


The common denominator of five and three is fifteen, so the second note of the triplet sounds a fifteenth of a beat before the third note of the quintuplet, and the third note of the triplet sounds a fifteenth of a beat after the fourth note of the quintuplet:



As with other cross-rhythms, learning must begin with careful counting, proceed to slow performance where the subdivisions can be imagined and the composite rhythm heard to be accurate, and arrive at the point where the two patterns are performed and heard simultaneously and independently.

26. 1) $\text{♩} = 48 - 76$



26. A) Larghetto (♩ = 52)

26. B) Andante (♩ = 76)

26. 2) ♩ = 48 - 76

26. C) Andante (♩ = 63)

26. D) Allegro (♩ = 80)

26. 3) ♩ = 54 - 80

26. E) Allegretto (♩ = 76)

26. F) Andante (♩ = 60)

26. 4) ♩ = 40 - 69

Musical score for exercise 26.4 in 4/4 time. The piece is marked with a tempo of ♩ = 40 - 69. It consists of two systems of music. The first system has two staves: the upper staff contains a melody with two measures of piano (p) dynamics, each featuring a quintuplet of eighth notes, followed by two measures of forte (f) dynamics with quarter notes. The lower staff contains accompaniment with two measures of piano dynamics (quintuplets of eighth notes) and two measures of forte dynamics (quintuplets of eighth notes). The second system also has two staves: the upper staff has two measures of piano dynamics (quintuplets of eighth notes) and two measures of forte dynamics (quintuplets of eighth notes). The lower staff has two measures of piano dynamics (quintuplets of eighth notes) and two measures of forte dynamics (triplets of eighth notes).

26. G) Allegretto (♩ = 63)

Musical score for exercise 26.G in 2/4 time, marked Allegretto (♩ = 63). It consists of four systems of music. Each system has two staves. The first system has two measures of piano (p) dynamics (quintuplets of eighth notes) and two measures of forte (f) dynamics (quintuplets of eighth notes). The second system has two measures of piano dynamics (quintuplets of eighth notes) and two measures of forte dynamics (quintuplets of eighth notes). The third system has two measures of piano dynamics (quintuplets of eighth notes) and two measures of forte dynamics (quintuplets of eighth notes). The fourth system has two measures of piano dynamics (quintuplets of eighth notes) and two measures of forte dynamics (quintuplets of eighth notes).

26. H) Moderato (♩ = 72)

Musical score for exercise 26.H in 3/4 time, marked Moderato (♩ = 72). It consists of three systems of music. Each system has two staves. The first system has two measures of piano (p) dynamics (triplets of eighth notes) and two measures of forte (f) dynamics (triplets of eighth notes). The second system has two measures of piano dynamics (triplets of eighth notes) and two measures of forte dynamics (quintuplets of eighth notes). The third system has two measures of piano dynamics (triplets of eighth notes) and two measures of forte dynamics (quintuplets of eighth notes).

26. I) Andante (♩ = 60)

26. J) Langston Hughes (1902-1967), from "Daybreak in Alabama" ¹

Andante (♩ = 60)

mp
When I get to be a com-po-ser I'm gon-na write me some mu-sic a-bout
Day-break in Al-a-ba-ma And I'm gon-na put the pur-ti-est songs in it
mf Ris-ing out of the ground like a swamp mist *p* And fal-ling out of heav-en like
soft dew. *mf* I'm gon-na put some tall trees in it And the scent of
pine need-les And the smell of red clay af-ter rain... *mp* In that dawn of mu-sic when I
Get to be a com-pos-er And write a-bout day-break in Al-a-ba-ma.


NOTE

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27. FIVE-EIGHT METER


Five-eight measures may usually be understood as consisting of 2 + 3 or 3 + 2 eighths. Where the grouping is consistent, the meter signature will indicate it, as in the first two studies. Where the grouping is not consistent, as in the next three studies,

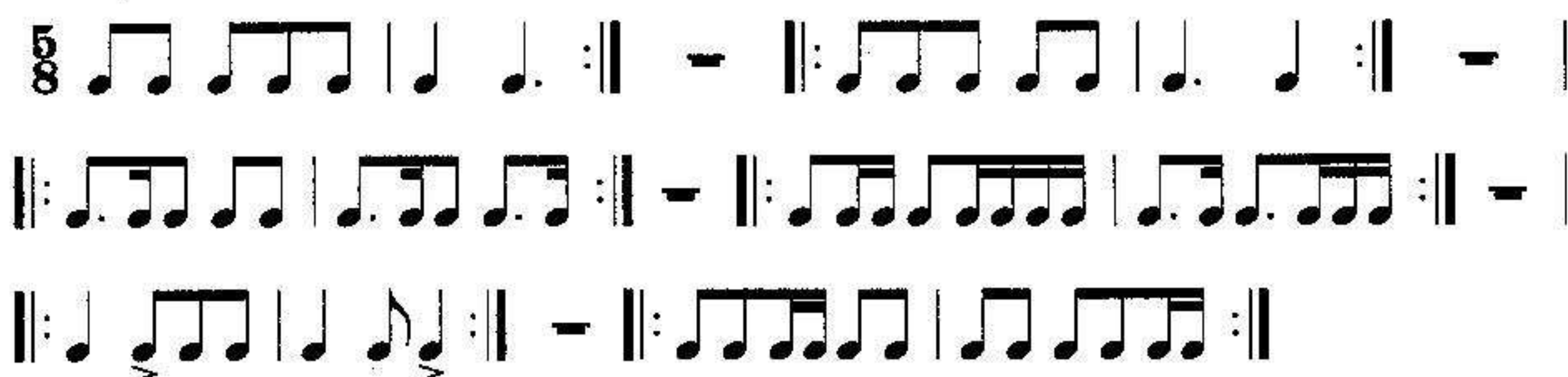
beams will make the groups visible:  is 3 + 2, whereas  is 2 + 3. Because quarter-eighth is a more normal pattern than eighth-quarter, an eighth



between two quarters may be assumed to belong to the first group— is 3 + 2—when there is no contrary indication.

One standard pattern for conducting five beats is a modification of the pattern for conducting four, with an extra motion to the right (as in conducting six) before the upbeat when the pattern is 2 + 3, and an extra motion to the left when the pattern is 3 + 2. When approaching the rhythms in this chapter, it will be simpler to beat 3 followed by a smaller pattern for 2, or vice versa, depending on the structure of the measure.

While slow quintuple meter (as in Study 27.C) may be understood as having five beats in a measure, five-eight meter is most often not quintuple meter, but duple meter with two unequal beats, one a quarter-note and the other a dotted quarter. When the tempo of the eighth-note is 240 (as in Study 27.A), the quarter is 120 and the dotted quarter is 80, and these slower values are the effective tempo. Most of these studies should be understood, and conducted, not with five, but with two unequal beats in a measure. After striving to keep the beat steady, conducting unequal beats may seem strange, but we need to feel these beats physically. The other hand or a foot or metronome may mark the underlying quick pulse to keep the beats in their proper ratios.

27. 1)  = 144 - 208

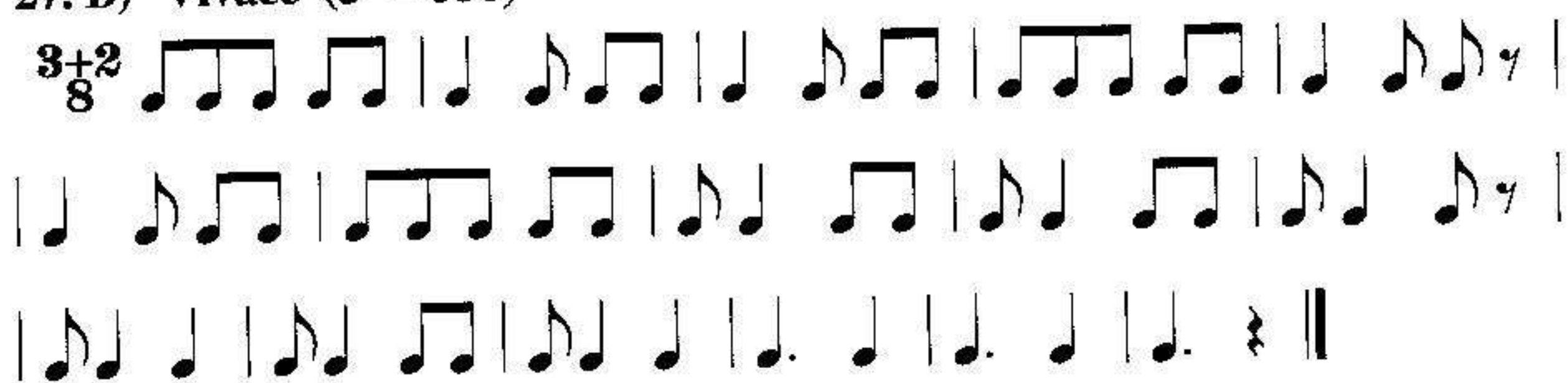


27. A) Allegro (in 2) ( = 240,  = 120,  = 80,  = 48)



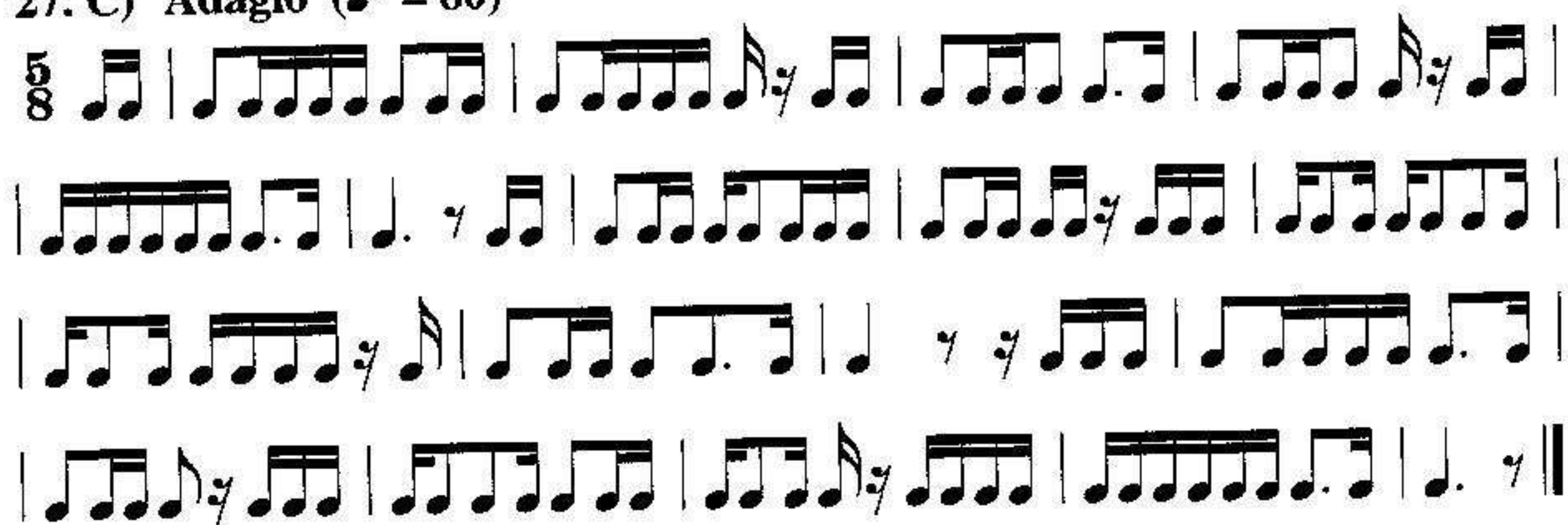
27. B) Vivace (♩ = 330)

3+2
8



27. C) Adagio (♩ = 80)

5
8



27. D) Allegro (♩ = 192)

5
8



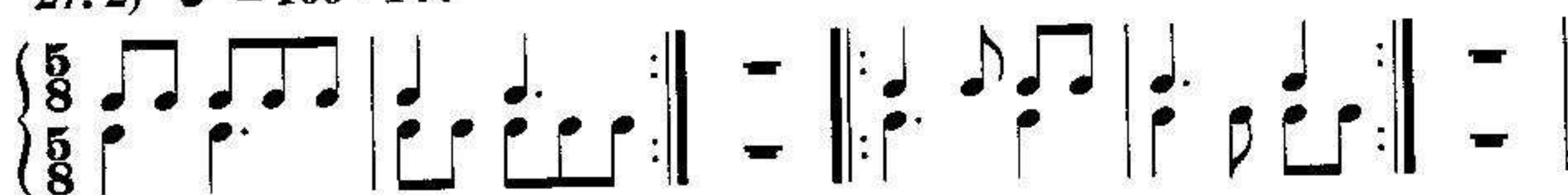
27. E) Andante (♩ = 160)

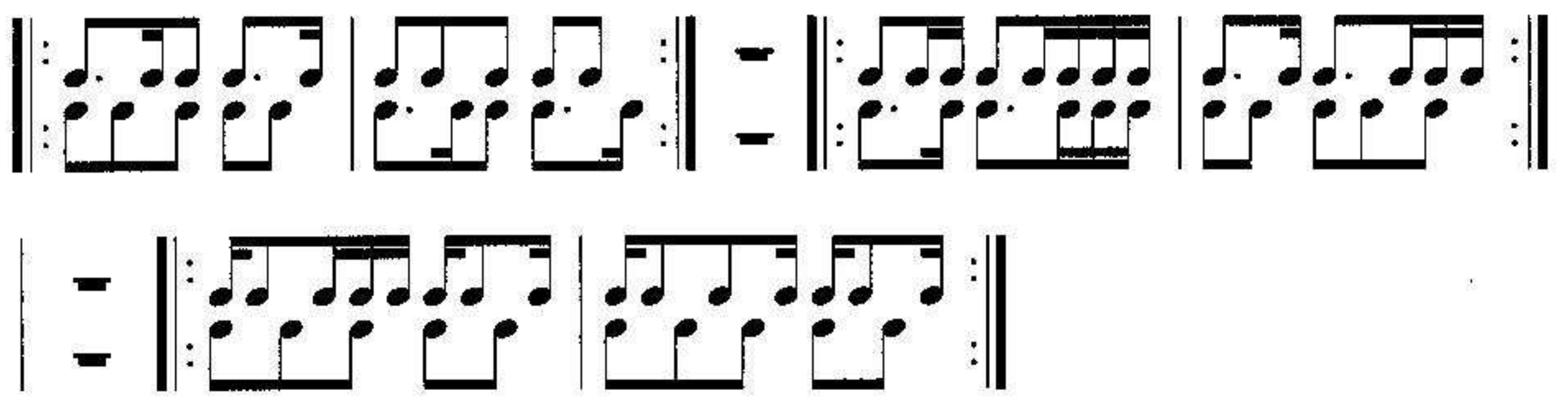
5
8



27. 2) ♩ = 100 - 144

5
8

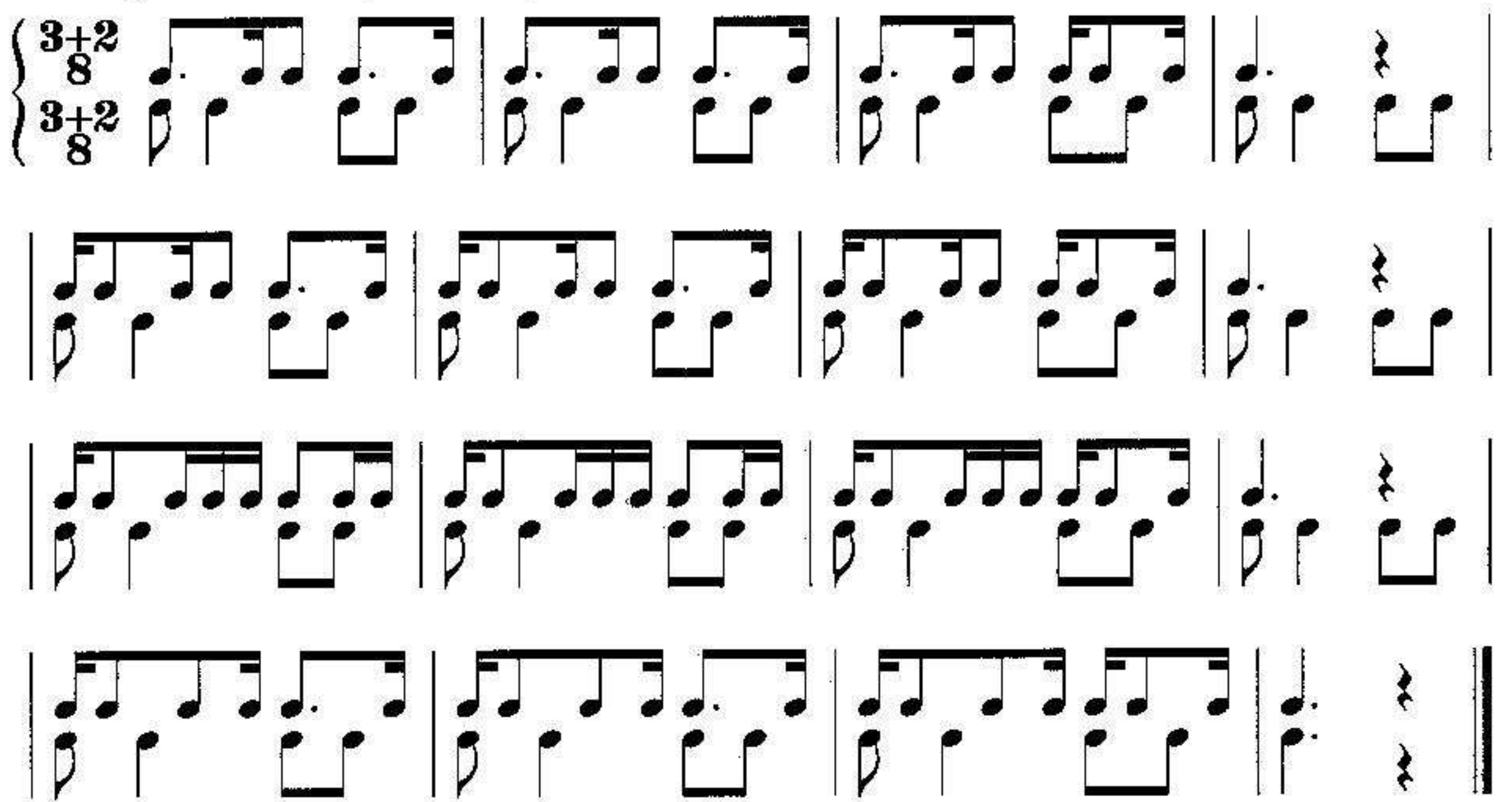




27. F) Presto (♩ = 264)



27. G) Andante (♩ = 108)



27. H) Allegretto (♩ = 132)

27. I) Emily Dickinson (1830-1886), "Heart, not so heavy as mine"

Andante (♩ = 108)

Heart, not so heavy as mine, Wend-ing late home— As it passed my
win-dow Whis-tled it-self a tune— A care-less snatch, a bal-lad, A
dit-ty of the street— Yet to my ir-ri-ta-ted Ear An An-o-dyne so
sweet— It was as if a Bo-bo-link Saun-ter-ing this way Ca-rolled, and
paused, and ca-rolled— Then bub-bled slow a-way! It was as if a
chirp-ing brook U-pon a dust-y way Set bleed-ing feet to mi-nu-ets With-out the know-ing
why!

28. MORE METERS WITH UNEQUAL BEATS

The meters in this chapter combine quarter-note and dotted-quarter beats just as five-eight meter does. Here, in each case, the meter signature makes the sequence of beats explicit. For example, $\frac{2+2+3}{8}$ is $\frac{7}{8}$, but with three beats, of which the first two are quarters and the third is a dotted quarter. Conducting again helps us become comfortable with patterns of unequal beats, and tapping the underlying eighth-note helps us keep the proportions accurate.

28. 1) ♩ = 160 - 288



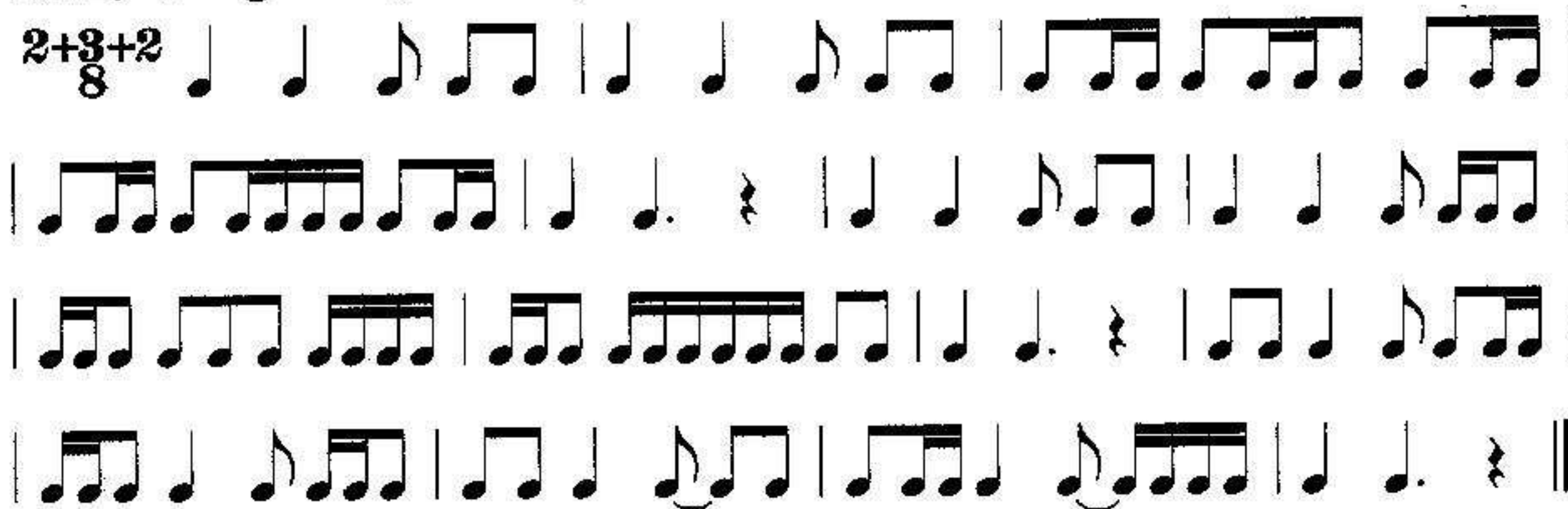
28. A) Allegro (♩ = 138, ♩. = 92)



28. 2) ♩ = 160 - 208



28. B) Allegretto (♩ = 192)



28. 3) ♩ = 160 - 208



28. C) Allegro (♩ = 208)

3+3+2
8

28. 4) ♩ = 160 - 224

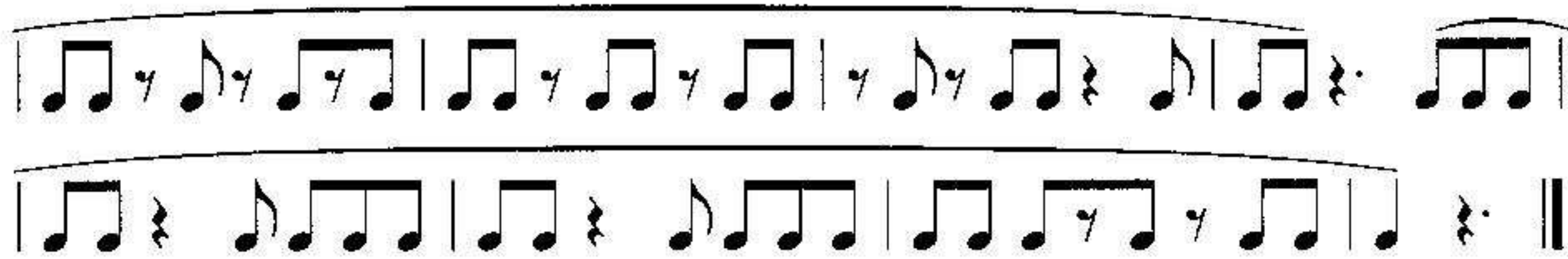
2+2+2+3
8

28. D) Andante con moto, in 4 (♩ = 160)

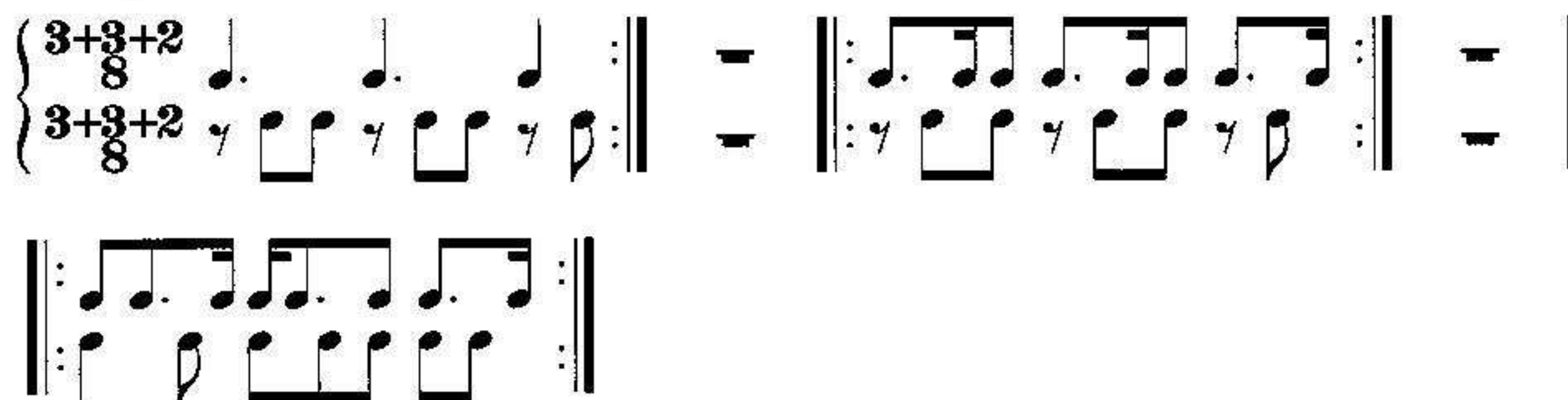
2+2+2+3
8

28. E) Vivo (♩ = 162, ♩. = 108)

2+3+3
8



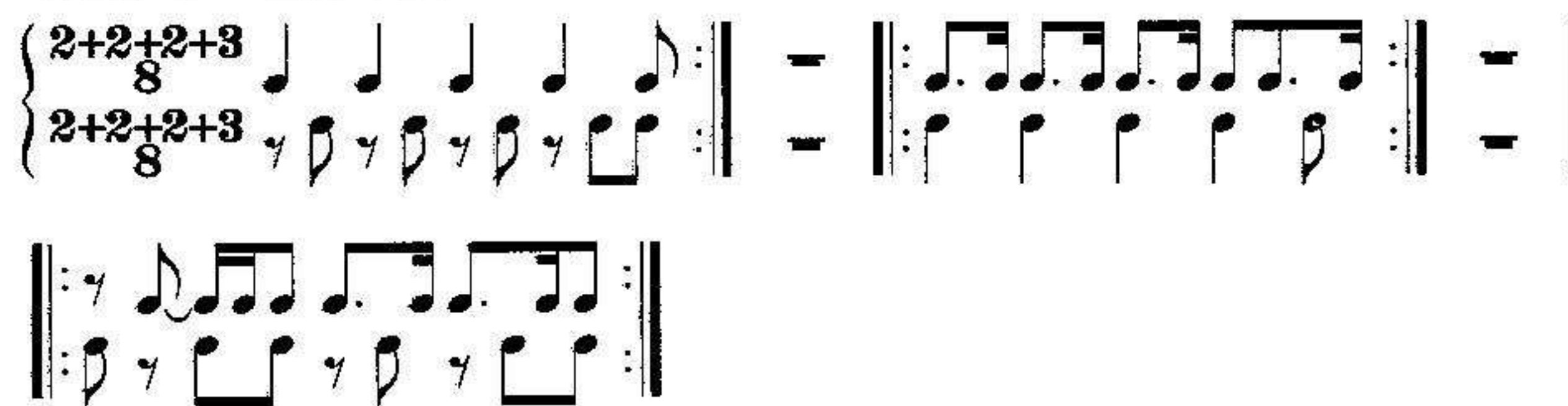
28. 5) ♩ = 120 - 200



28. F) Allegretto (♩ = 184)



28. 6) ♩ = 144 - 224



28. G) Allegro (♩ = 216)

28. H) Grazioso (♩ = 116)

28. I) Samuel Taylor Coleridge (1772-1834), from *Rime of the Ancient Mariner*

Allegro (♩. = 80, ♩ = 120)

mf
 3+3+2

A-round, a-round, flew each sweet sound, Then dart-ed to the Sun;

p

Slow-ly the sounds came back a - gain, Now mixed, now one by one.

Some-times a-drop-ping from the sky I heard the sky-lark sing;
p Some-times all lit-tle birds that are, *poco crescendo* How they seemed to fill the sea and air With their sweet
mf jar-gon-ing! *p* And now 'twas like all in-stru-ments, Now like a lone-ly
 flute; And now it is an an-gel's song, That makes the hea-vens be mute.

29. CHANGING METERS WITH UNEQUAL BEATS

The best preparation for these studies is counting the eighths on each beat aloud while conducting the larger beats, thereby becoming familiar with the metrical patterns before attempting the actual rhythms. Thus, while conducting seven-eight in three and five-eight in two, we would count:

7/8 1 2 1 2 3 1 2 | 5/8 1 2 1 2 3

Tapping the eighth while singing the rhythm is especially important for studies such as 29.C where there are many notes longer than eighths.

Studies 29.E and 29.G, and the exercises that immediately precede them, include three-sixteen and five-sixteen measures. The sixteenth-note rather than the eighth-note is the basic division of the beat, and beats are eighths and dotted eighths. In these studies, therefore, two-eight and five-sixteen measures have two beats, three-eight and seven-sixteen measures have three beats, and a three-sixteen measure is a single dotted-eighth beat.

29. 1) ♩ = 176 - 240

7/8 ♩ ♩ ♩ ♩ | 5/8 ♩ ♩ ♩ :|| - || 7/8 ♩ ♩ ♩ ♩ | 5/8
 5/8 ♩ ♩ ♩ :|| - || 5/8 ♩ ♩ ♩ | 3/4 ♩ ♩ ♩ :||

29. A) Allegretto, ♩ constant (♩ = 176)

29. B) Allegro (♩ = 208)

29. C) Vivace (♩ = 96, ♩ = 144)

29. D) Allegro (♩ = 72, ♪ = 108)

29. 2) ♩ constant, ♪ = 176 - 300

29. E) Presto, ♩ constant (♩ = 144)

29. 3) ♩ = 152 - 208

29. F) Allegretto (♩ = 208)

29. 4) ♩ constant, ♩ = 184 - 240

29. G) Vivace, ♩ constant (♩ = 240)

29. 5) ♩ = 120 - 184

29. H) Grazioso (♩ = 160)

29. I) Elizabeth Barrett Browning (1806-1861), from *Sonnets from the Portuguese*, XXXII

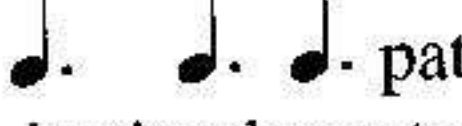
Allegretto (♩ = 208)

Quick-lov-ing hearts, I thought, may quick-ly loathe; And, look-ing on my-self, I

seemed not one For such man's love! more like an out-of-tune Worn
 viol, a good sin-ger would be wroth To spoil his song with, and
 which, snatched in haste, Is laid down at the first ill - sound - ing note.

30. MORE CROSS-RHYTHMS


The studies in this chapter are based on rhythmic patterns, combinations of rhythmic patterns, and the principle of ostinato found in music of West Africa.¹ In addition to the conflicting divisions of the beat (2 against 3 and 3 against 4) already studied, these rhythms involve different divisions of the measure in the two parts. The division of 6 into 2 groups of 3 and 3 groups of 2 (30.A and 30.B) is familiar from Chapter 23. New here is the grouping of twelve equal divisions of a measure into 5 plus 7, or 7 plus 5, against the normal 6 plus 6 (30.C) or 4 groups of 3 (30.D and 30.H) or 3 groups of 4 (30.E). Two studies (30.F and 30.G) involve cross-meters in ways that our conventional notation obscures, because, in order to show the equivalence of note-

values in the two parts, one of them is notated with a  pattern. The notation is that of compound meter, but we hear the pattern in simple meter.

As with all cross-rhythms, we first focus on the way the two parts fit together and then proceed to perform the two parts independently at the same time.

NOTE

¹See, for example, John Miller Chernoff, *African Rhythm and African Sensibility* (Chicago and London: University of Chicago Press, 1979); A. M. Jones, *Studies in African Music* (London: Oxford University Press, 1959); and J. H. Kwabena Nketia, *African Music in Ghana* (Evanston: Northwestern University Press, 1963).

30. 1)  = 56 - 92

30. A) Allegro (♩. = 76)

Musical score for exercise 30. A, measures 1-12. The score is in 6/8 time and consists of three systems. The first system contains measures 1-4, the second system contains measures 5-8, and the third system contains measures 9-12. The music features eighth and sixteenth notes, rests, and slurs. The final measure of the third system ends with a double bar line and repeat dots.

30. 2) ♩. = 56 - 92

Musical score for exercise 30. 2, measures 1-4. The score is in 6/8 time and consists of a single system. The music features eighth notes and rests, with slurs and repeat signs. Each measure has a '2' below it, indicating a pair of notes. The piece ends with a double bar line and repeat dots.

30. B) Allegro (♩. = 88)

Musical score for exercise 30. B, measures 1-12. The score is in 6/8 time and consists of three systems. The first system contains measures 1-5, the second system contains measures 6-10, and the third system contains measures 11-12. The music features eighth notes, slurs, and repeat signs. The final measure of the third system ends with a double bar line and repeat dots.

30. 3) ♩. = 40 - 60

Musical score for exercise 30. 3, measures 1-2. The score is in 6/8 time and consists of a single system. The music features eighth notes and rests, with a slur and an accent (>) over the first measure. The first measure has '5+7' and '16' written above it. The piece ends with a double bar line and repeat dots.

30. C) Allegretto (♩. = 52)

Musical score for 30. C) Allegretto. The score is written for two staves. The first staff has a treble clef and a 5/8 time signature, with a 7-measure rest at the beginning. The second staff has a bass clef and a 6/8 time signature. The music consists of eighth and sixteenth notes, with some accents and slurs. The piece ends with a double bar line and a fermata.

30. 4) ♩. = 50 - 96

Musical score for 30. 4). The score is written for two staves. The first staff has a treble clef and a 12/8 time signature. The second staff has a bass clef and a 12/8 time signature. The music consists of eighth and sixteenth notes, with some accents and slurs. The piece ends with a double bar line and a fermata.

30. D) Allegro (♩. = 92)

Musical score for 30. D) Allegro. The score is written for two staves. The first staff has a treble clef and a 12/8 time signature. The second staff has a bass clef and a 12/8 time signature. The music consists of eighth and sixteenth notes, with some accents and slurs. The piece ends with a double bar line and a fermata.

30. 5) $\text{♩} = 44 - 80$

Musical score for exercise 30.5, marked with a tempo of $\text{♩} = 44 - 80$. The score is written for a grand staff with a treble clef and a bass clef. The time signature is $\frac{12}{8}$. The piece consists of three systems of music. The first system has two staves: the upper staff contains a melodic line with eighth notes and accents, and the lower staff contains a bass line with eighth notes. The second system also has two staves, with the upper staff continuing the melodic line and the lower staff providing harmonic support. The third system has two staves, with the upper staff continuing the melodic line and the lower staff providing harmonic support. The piece concludes with a double bar line.

30. E) Adagio ($\text{♩} = 54, \text{♩.} = 72$)

Musical score for exercise 30.E, marked Adagio with a tempo of $\text{♩} = 54, \text{♩.} = 72$. The score is written for a grand staff with a treble clef and a bass clef. The time signature is $\frac{12}{8}$. The piece consists of three systems of music. The first system has two staves: the upper staff contains a melodic line with eighth notes and accents, and the lower staff contains a bass line with eighth notes. The second system has two staves, with the upper staff continuing the melodic line and the lower staff providing harmonic support. The third system has two staves, with the upper staff continuing the melodic line and the lower staff providing harmonic support. The piece concludes with a double bar line.

30. F) Allegro ($\text{♩} = 72, \text{♩.} = 96$)

Musical score for exercise 30.F, marked Allegro with a tempo of $\text{♩} = 72, \text{♩.} = 96$. The score is written for a grand staff with a treble clef and a bass clef. The time signature is $\frac{12}{8}$. The piece consists of three systems of music. The first system has two staves: the upper staff contains a melodic line with eighth notes and accents, and the lower staff contains a bass line with eighth notes. The second system has two staves, with the upper staff continuing the melodic line and the lower staff providing harmonic support. The third system has two staves, with the upper staff continuing the melodic line and the lower staff providing harmonic support. The piece concludes with a double bar line.

30. 6) ♩ = 50 - 100

30. G) Moderato (♩ = 96)

30. H) Arthur William Edgar O'Shaughnessy (1844-1881), from "Ode"
Allegretto (♩ = 76)

f
 We are the mu - sic - mak - ers, And we are the dream - ers of dreams,
 Wan - der - ing by lone sea - break - ers, And sit - ting by de - so - late streams;
mf
 World - los - ers and world - for - sak - ers, On whom the pale moon gleams: Yet
p
 we are the mo - vers and shak - ers Of the world for - ev - er, it seems.

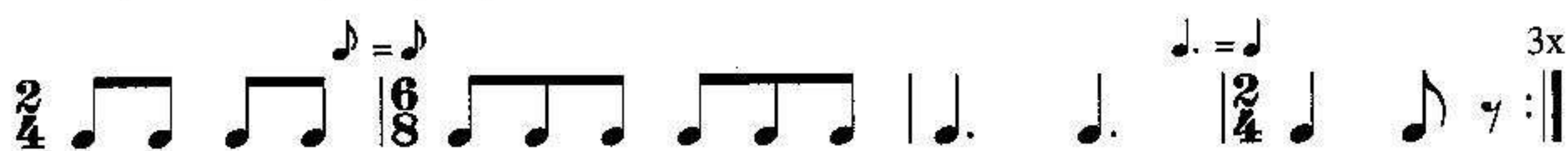
31. TEMPO MODULATION

In these studies, tempo is changed in two different ways. The same note-value may have the same speed in meters with different numbers of that value on the beat, so the beat becomes longer or shorter. For example, as we saw in Chapter 21, when the eighth-note stays the same in moving from simple to compound meter, the beat becomes longer and the tempo slower. Alternatively, different note-values may be given the same speed. For example, when a quintuplet sixteenth is equated to a preceding normal sixteenth, the beat, now consisting of five sixteenths, becomes longer. The terms *metric modulation* and *tempo modulation* have both been applied to these procedures for changing tempo, but the latter is more accurate.

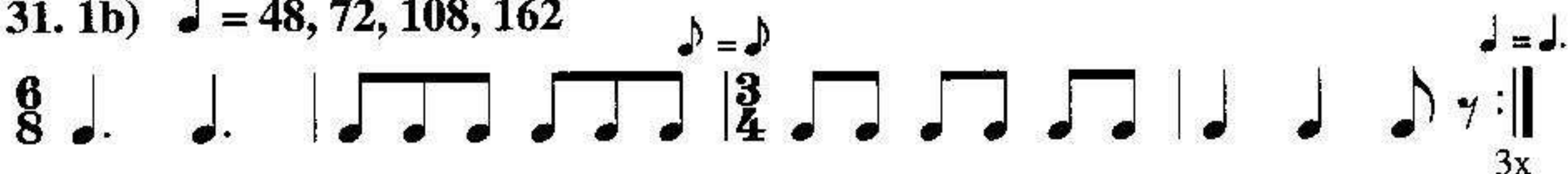
Each of the preparatory exercises in this chapter should be performed three times in succession, beginning at the first of the indicated tempi; we will arrive at the other tempi during the course of the exercise. In the first exercise, 30.1a, if the quarter-note is initially 162, the eighth is 324, and the dotted quarter is 108; at the return to two-four, the 108 beat is kept; beginning again at 108, the eighth is 216, and the dotted quarter is 72; the third time we begin at 72, the eighth is 144, and the dotted quarter is 48, which is the speed of the final quarter-note.

It will be helpful to figure out the tempo at each point during the exercises and studies where values are marked as equivalent. As always, conducting will make us physically aware of the changes of tempo.

31. 1a) ♩ = 162, 108, 72, 48



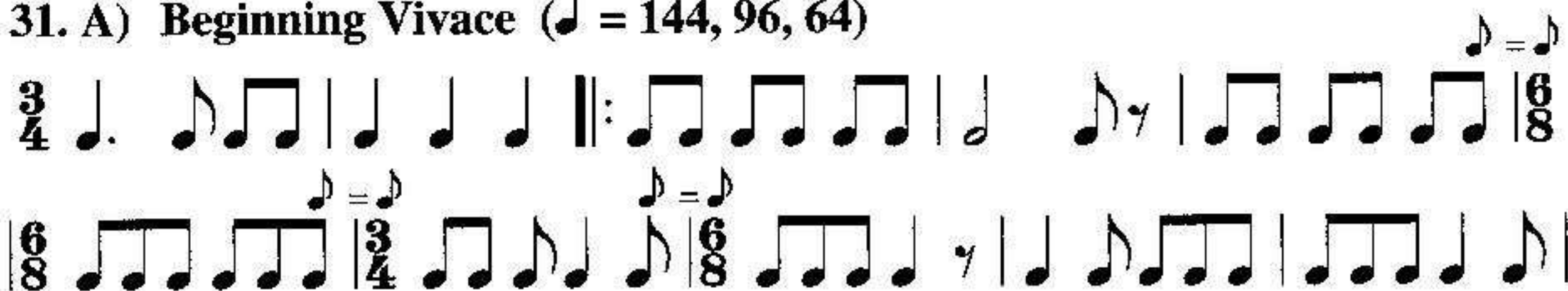
31. 1b) ♩ = 48, 72, 108, 162



31. 1c) ♩ = 48, 72, 108, 162



31. A) Beginning Vivace (♩ = 144, 96, 64)



$\frac{2}{4}$ | $\frac{3}{4}$ | $\frac{2}{4}$ | $\frac{6}{8}$ | $\frac{2}{4}$

31. B) Beginning Andante (beat = 48, 72, 108)

$\frac{6}{8}$ | $\frac{2}{4}$ | $\frac{6}{8}$

31. 2a) $\text{♩} = 54, 72, 96, 128$

$\frac{2}{4}$ | $\frac{6}{16}$ | $\frac{2}{4}$

31. 2b) $\text{♩} = 128, 96, 72, 54$

$\frac{2}{4}$ | $\frac{6}{16}$ | $\frac{2}{4}$

31. C) Beginning Andante (beat = 63, 84, 112, 84, 63)

$\frac{3}{4}$ | $\frac{9}{16}$ | $\frac{3}{4}$ | $\frac{9}{16}$ | $\frac{3}{4}$

31. D) Beginning Allegro (♩ = 128, 96, 72, 96, 128)

2/4

31. 3a) ♩ = 48, 60, 75, ca. 94

2/4

31. 3b) ♩ = 100, 80, 64, ca. 51

2/4

31. E) Beginning Moderato (♩ = 64, 80, 100, 80, 64)

2/4

31. F) Beginning Lento (♩. = 40, 60, 90)

31. G) Beginning Adagio (beat = 50, 60, 72)

31. H) Beginning Andante (♩. = 63, 84, 112)

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