

Music

Listening: Literacy Workbook

[ADVANCED HIGHER]

Derek Norval



Acknowledgement

Learning and Teaching Scotland gratefully acknowledge this contribution to the National Qualifications support programme for Music.

First published 2005

© Learning and Teaching Scotland 2005

This publication may be reproduced in whole or in part for educational purposes by educational establishments in Scotland provided that no profit accrues at any stage.

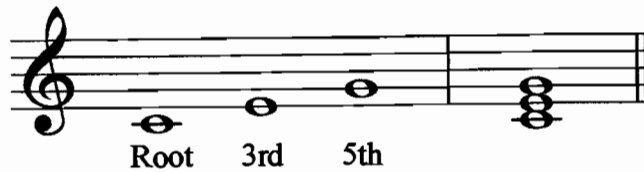
CONTENTS

Section 1: Triads	1
Section 2: Forming 4-part chords	4
Section 3: New chords	11
Section 4: Chords in cadences	16
Section 5: Syncopated rhythms and ties	23
Section 6: 5/4 time signatures	26

Section 1: Triads

The workbook for Higher Music deals with **triads** - three-note chords. Until now we have dealt with triads in **root position**, that is, with the **root** as the lowest note (the letter-name of the triad), the note a 3rd above the root and the note a 5th above the root.

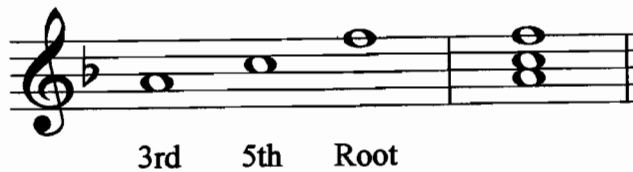
C major,
Root position



We will now deal with what are called **inversions** of triads. These are produced by using the three notes of the root position triad in a different order.

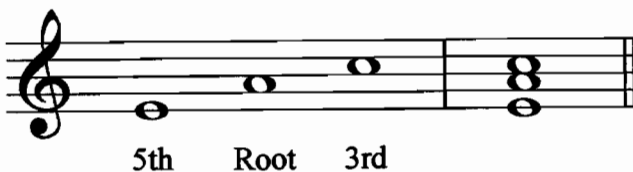
In the **first inversion** of any triad the 3rd will always be heard as the lowest note:

F major,
First inversion



In the **second inversion** of any triad the 5th will always be heard as the lowest note:

A minor,
Second inversion



Any triad can be treated in this way. Here is a chart of some familiar triads showing the root position, 1st inversion and 2nd inversion of each:

C major

Root position 1st inversion 2nd inversion

G major

Root position 1st inversion 2nd inversion

F major

Root position 1st inversion 2nd inversion

A minor

Root position 1st inversion 2nd inversion

D minor

Root position 1st inversion 2nd inversion

E minor

Root position 1st inversion 2nd inversion

EXERCISE 1 Identifying positions of triads

Are these triads in root position, 1st inversion or 2nd inversion ?

Write your answer in the box below each triad.

(a) (b) (c) (d)

(e) (f) (g) (h)

Blank boxes for answers (e) through (h).

EXERCISE 2

Let's check that you really understand what you've been doing!

Draw the requested notes on the stave below these triads:

(a) (b) (c) (d)

Draw the 3rd Draw the root Draw the 3rd Draw the 5th

Answers :-

(a) (b) (c) (d)

EXERCISE 3

Now try to write triads in different positions making sure that the lowest note is -

the **root** in a root position chord

the **3rd** in a 1st inversion chord

the **5th** in a 2nd inversion chord

(a) G major, 1st inversion (b) C major, 2nd inversion (c) D minor, root position (d) F major, 2nd inversion

(e) E major, root position (f) D major, 2nd inversion (g) E minor, 1st inversion (h) A minor, 2nd inversion

Section 2: Forming 4-part chords

In this section we will form **4-part chords** by combining the triad in the treble clef with a note added in the bass clef. Different styles of music arrange chords in a variety of ways; we will use a basic arrangement of three notes in the upper stave (treble clef) and one note in the lower stave (bass clef).

To add a note in the bass clef we **DOUBLE** one of the notes from the **TRIAD** we wish to use - use the same note twice. The treble clef notes will be in different positions according to our choice of top notes for each chord.

To make a **root position** chord we use

- the **root** of the triad in the bass and
- usually **double** the **root** on the upper stave.

C major (root position) G major (root position) A minor (root position)

The image shows three examples of 4-part chords in root position, each consisting of a treble clef staff and a bass clef staff. The first example is C major: the treble clef staff has two chords, C4-E4-G4 and C4-E4-G4, with the word 'or' written below each; the bass clef staff has a single note C3. The second example is G major: the treble clef staff has two chords, G4-B4-D5 and G4-B4-D5, with the word 'or' written below each; the bass clef staff has a single note G2. The third example is A minor: the treble clef staff has two chords, A4-C5-E5 and A4-C5-E5, with the word 'or' written below each; the bass clef staff has a single note A2.

To make a **1st inversion** chord we use

- the **3rd** of the triad in the bass and
- **double** the root or the **5th** on the upper stave.

F major (1st inversion) D minor (1st inversion) C major (1st inversion)

The diagram shows three pairs of musical staves (treble and bass clefs) illustrating first inversion chords. Each pair is separated by a vertical bar line. The first pair is for F major (1st inversion), showing the bass clef with notes C and F, and the treble clef with notes A, C, and F. The second pair is for D minor (1st inversion), showing the bass clef with notes F and D, and the treble clef with notes A, D, and F. The third pair is for C major (1st inversion), showing the bass clef with notes E and C, and the treble clef with notes G, C, and E. The word "or" is placed between the two staves of each pair to indicate alternative voicings.

To make a **2nd inversion** chord we use

- the **5th** of the triad in the bass and
- **double** the 5th on the upper stave.


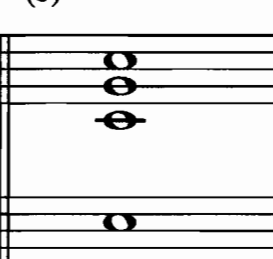
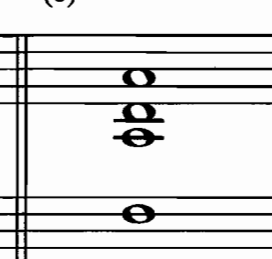
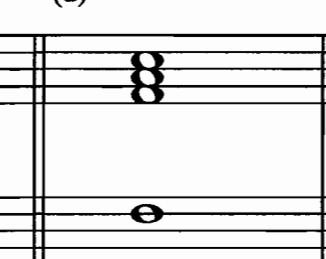
G major (2nd inversion) E minor (2nd inversion) A minor (2nd inversion)

The diagram shows three pairs of musical staves (treble and bass clefs) illustrating second inversion chords. Each pair is separated by a vertical bar line. The first pair is for G major (2nd inversion), showing the bass clef with notes B and G, and the treble clef with notes D, G, and B. The second pair is for E minor (2nd inversion), showing the bass clef with notes G and E, and the treble clef with notes A, E, and G. The third pair is for A minor (2nd inversion), showing the bass clef with notes C and A, and the treble clef with notes E, A, and C. The word "or" is placed between the two staves of each pair to indicate alternative voicings.


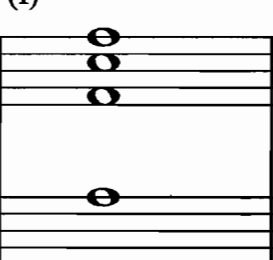
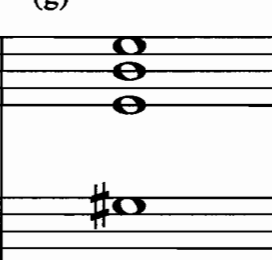
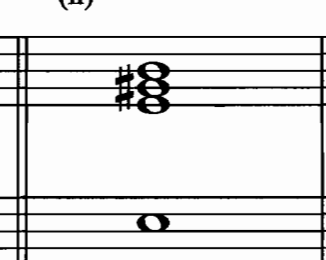
EXERCISE 4

Identify the chords below by writing in the box

- (i) the chord name and
 - (ii) stating if it is root position or 1st inversion or 2nd inversion.
- Remember to say if the chord is major or minor.

(a)	(b)	(c)	(d)
			

--	--	--	--

(e)	(f)	(g)	(h)
			


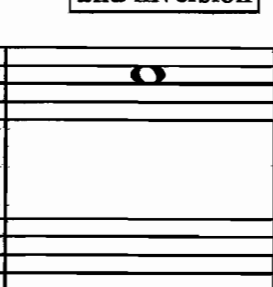
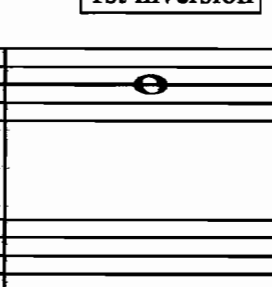
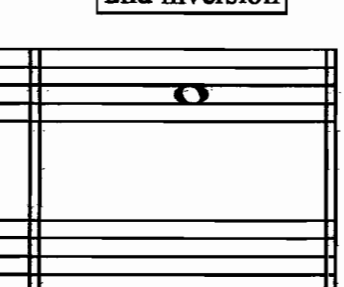
--	--	--	--

EXERCISE 5

Write the following chords in a similar way to those above by carefully following the instructions given in the boxes.

The highest-sounding note of each chord is given.

- | | | | |
|--|--|--|--|
| (a) G major,
root position | (b) C major,
2nd inversion | (c) E minor,
1st inversion | (d) F major,
2nd inversion |
|--|--|--|--|

			
---	---	--	---

(e) A minor, 1st inversion (f) D major, root position (g) E major, root position (h) D minor, 1st inversion

The image shows four musical staves, each representing a different chord. Each staff consists of a treble clef and a bass clef. The notes are as follows: (e) Treble clef has F# on the 3rd line and A on the 4th line; Bass clef has C on the 1st line. (f) Treble clef has D on the 2nd space, F# on the 3rd line, and A on the 4th line. (g) Treble clef has E on the 2nd space, G# on the 3rd line, and B on the 4th line. (h) Treble clef has F on the 2nd space, A on the 3rd line, and B on the 4th line.

When we write chord progressions in phrases of music we have to relate a series of chords to the home key.

- We identify the key signature and try to decide if the music is in a major or minor key.
- We do some simple sums to work out which chords are likely to be used in that key, traditionally using Roman numerals.

I = 1st note in any key	II = 2nd note in any key
IV = 4th note in any key	V = 5th note in any key
VI = 6th note in any key	

We refer to a 1st inversion by adding 'b' after the chord.

Ib = 1st inversion of chord I
Vb = 1st inversion of chord V

We refer to a 2nd inversion by adding 'c' after the chord.

IVc = 2nd inversion of chord IV
Ic = 2nd inversion of chord I

Nowadays we often use the chord name. In an inversion we use a forward slash (/) then the note we want to hear in the bass.

C/E = C major in 1st inversion
G/D = G major in 2nd inversion

We choose chords which will create the musical effect we wish when they are played along with the melody.

Here are some examples of chords from within different keys:

G major, Chord IV, (C) root position	C major, Chord Vb, (G/B) 1st inversion	D minor, Chord Ic, (Dm/A) 2nd inversion	F major, Chord VI, (Dm) root position
---	---	--	--

A minor, Chord IIb, (Bdim/D) 1st inversion	D major, Chord IVc, (G/D) 2nd inversion	E minor, Chord V, (B) root position
---	--	--

EXERCISE 6

Write the following chords below the given notes.

- | | | | |
|---|---|--|---|
| (a) C major,
Chord Ib, (C/E)
1st inversion | (b) A minor,
Chord Vc, (E/B)
2nd inversion | (c) G major,
Chord VI, (Em)
root position | (d) F major,
Chord Vc, (C/G)
2nd inversion |
|---|---|--|---|

(e) E minor,
Chord IVb
Am/C

(f) D major,
Chord II
Em

(g) C major,
Chord Vc
G/D

(h) D minor,
Chord IVb
Gm/Bb

Musical notation for exercise 7, showing four measures. The first measure is in G major (one sharp) and contains a half note G. The second measure is in D major (two sharps) and contains a half note D. The third measure is in C major (no sharps or flats) and contains a half note C. The fourth measure is in D minor (two sharps, one flat) and contains a half note D.

EXERCISE 7

To help us think of these chords within phrases of music, identify the following chords by writing the name of the chord below each note - similar to the exercise above but also asking you to think of chords within a musical phrase. Make sure you know the key of each phrase before starting!

Name the chords using either Roman numerals or chord names.

(a)

Musical notation for exercise 7(a) in Bb major (two flats), 4/4 time. The melody consists of the notes Bb, A, G, F, E, D, C, Bb. The bass line consists of the notes Bb, A, G, F, E, D, C, Bb.

Answers:

(b)

Musical notation for exercise 7(b) in D major (two sharps), 4/4 time. The melody consists of the notes D, E, F#, G, A, B, C#, D. The bass line consists of the notes D, E, F#, G, A, B, C#, D.

Answers:

EXERCISE 8

Complete the following phrases using the chords suggested.

Remember -

'b' = 1st inversion
'c' = 2nd inversion
no letter = root position

(a) The key is _____

Musical notation for exercise (a) in 3/4 time, key of B-flat major. The melody consists of the following notes: B-flat, C, D, E, F, G, A, B-flat, A, G, F, E, D, C. The bass line is empty for completion.

I Ib I V Vb I IV V I

(b) The key is _____

Musical notation for exercise (b) in 2/4 time, key of D major. The melody consists of the following notes: D, E, F#, G, A, B, C, D, E, F#, G, A, B, C, D. The bass line is empty for completion.

I Ib V V Vb I Ib I IV Ic V I

Section 3: New Chords

Dominant 7th, Diminished 7th, Added 6th

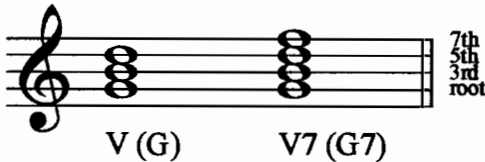
One of the most familiar sounds in harmony is the **dominant 7th**. This chord needs to resolve to another chord in conventional harmony.

It is formed by adding the note which is a 7th above the 5th (dominant) note of any scale.

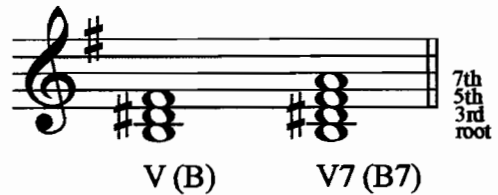
The 7th normally falls to the note below in the following chord.

To form a complete **dominant 7th** chord we will use the 5th (dominant) note of the scale as the root, with the 3rd, 5th and the 7th above it.

C major,
Chord V (Dominant)
Triad (G) +7th (G7)



E minor,
Chord V (Dominant)
Triad (B) +7th (B7)



Note that if we double the root and miss out the 5th of the **dominant 7th**, the chord still sounds complete in most circumstances.

Inversions of dominant 7ths are also used in many styles of music.

Here are some examples of chords where all 4 notes of the dominant 7th are used (root, 3rd, 5th and 7th). Each of these examples uses the **dominant 7th (V7)** going (resolving) to chord I, examples of one way to create a **PERFECT CADENCE** at the end of a phrase.

G major (all 4 notes used in D7)



V7(D7) I(G)

A minor (no 5th in E7)



V7(E7) I(Am)

EXERCISE 9

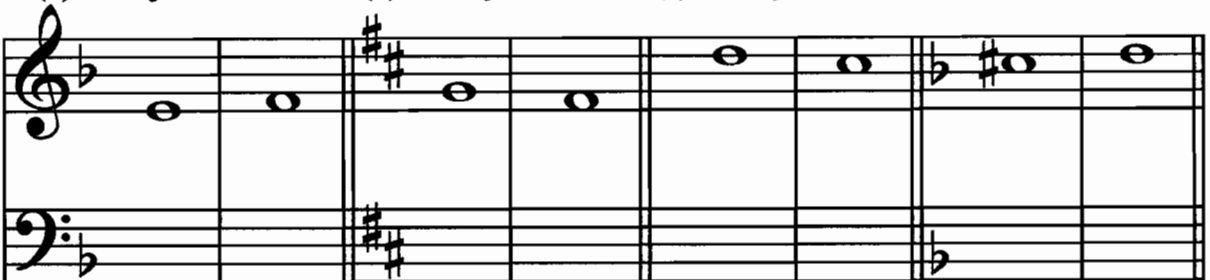
Harmonise the following Perfect Cadences using chords **V7 to I** in each case. (The top note of the chord is given for each chord).

(a) F major

(b) D major

(c) C major

(d) D minor



(e) G major

(f) A minor

(g) B \flat major

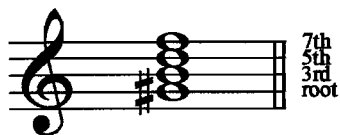
(h) E minor (raised 7th!)



Diminished 7ths add a different feeling to music. They are made up of 3 intervals, each a minor 3rd apart. As in the DOMINANT 7th, the **diminished 7th** may have one note missing without changing the basic effect of the chord.

This chord is also heard in many styles of music. The most obvious use of the **diminished 7th** chord is when it is used as chord VII (based on the 7th note) in a minor scale with the 7th note of the scale as the root, then the 3rd, the 5th and the 7th above.

Chord VII(7) in A minor
(G#dim7)



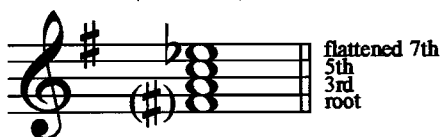
Chord VII(7) in C minor
(Bdim7)



In a major key, the **diminished 7th** can again be based on the 7th note, but in this case the Chord VII7 will consist of:

the root (7th note of the scale), the 3rd, the 5th and flattened 7th above.

Chord VII(7) in G major
(F#dim7)



Chord VII(7) in C major
(Bdim7)



This produces a dissonant effect that conventionally resolves to a consonant chord (a chord that does not sound as if it needs to resolve to another chord).

Here are some examples of **diminished 7ths**, at first in root position and then giving some examples of their inversions.

The image shows two rows of musical notation on a treble clef staff. The first row illustrates the C#dim7 chord in four positions: root position (notes: C#, E, G, Bb), 1st inversion (notes: E, G, Bb, C#), 2nd inversion (notes: G, Bb, C#, E), and 3rd inversion (notes: Bb, C#, E, G). The second row illustrates the Edim7 chord in four positions: root position (notes: E, G, Bb, C#), 1st inversion (notes: G, Bb, C#, E), 2nd inversion (notes: Bb, C#, E, G), and 3rd inversion (notes: C#, E, G, Bb).

EXERCISE 10

Write the following Diminished 7th chords on the treble staff in root position:

(a) D minor,
Chord VII7 (C#dim7)

(b) Bb major,
Chord VII7 (A dim7)

(c) E minor,
Chord VII7 (D#dim7)

A blank treble clef staff with three bar lines, intended for the student to write the three specified diminished 7th chords in root position.

The **added 6th** forms a chord that came into use during the first half of the 20th century. It is heard in Jazz styles and particularly in the music of the Big Band or Swing era.

To form a 6th chord, start with any major or minor triad and add the 6th note above the root. But there is a strange feature of this device to be noted: you always add the note that is a MAJOR 6th above the root in both major and minor versions. The major or minor sound in the chord comes from what is in the triad below the 6th!



C6

(A) 6th
(G) 5th
(E) 3rd
(C) root



Cm6(minor)

(A) 6th
(G) 5th
(Eb) 3rd
(C) root

EXERCISE 11

Add a 6th to these triads to make their sound fit the description below each of them.

(a) (b) (c) (d) (e)

G6(major) Dm6(minor) Em6 D6 F6

Section 4: Chords in Cadences

Perfect Cadence

We've already worked on **perfect cadences** when we used the Dominant 7th chord as part of a Perfect Cadence. We hear the sounds of these cadences in many styles of music we listen to. We play these cadences in many of the pieces we perform.

Cadences

Here are the cadences we're most likely to find, for example in C major or A minor:

	Chords	In C major	In A minor
Perfect Cadence	V(7) to I	G(7) to C	E(7) to Am
Imperfect cadence	I to V <i>or II to V</i>	C to G Dm to G	Am to E
Plagal Cadence <i>[Or Tierce de Picardie]</i>	IV to I	F to C	Dm to Am <i>Dm to A(major)]</i>
Interrupted Cadence <i>[Or</i>	V(7) to VI <i>V(7) to IV</i>	G(7) to Am G(7) to F	E(7) to F <i>E(7) to Dm]</i>

Imperfect Cadence

Imperfect cadences - sometimes called a 'half-close' - always use chord V as the final chord of the phrase with chord I or II before it.

Look at these two examples of 2 phrases of music; the first ends with an **Imperfect Cadence** (when we hear that the music is going to continue) and the second ends with a **Perfect Cadence** (where the music sounds as if it could be finished).

Imperfect Cadence
I(G) V(D)



Perfect Cadence
V(D) I(G)



Imperfect Cadence
I(G) V(D)



Perfect Cadence
V(D) I(G)



EXERCISE 12

Write chord symbols (Roman numerals or chord names) above the cadences in these lines of music to identify an Imperfect Cadence or Perfect Cadence.

(a)

Two staves of music in 4/4 time. The first staff contains a melodic line with a slur over the first four measures and a fermata over the final note. The second staff contains a similar melodic line with a slur over the first four measures and a fermata over the final note.

(b)

Two staves of music in 2/4 time. The first staff contains a melodic line with a slur over the first four measures and a trill (tr) over the final note. The second staff contains a similar melodic line with a slur over the first four measures and a trill (tr) over the final note.

EXERCISE 13

Now write all the notes of each chord used in the cadences in these phrases, ending the first phrase with an Imperfect Cadence and ending the second phrase with a Perfect Cadence.

(a)

Two staves of music in 4/4 time. The first staff contains a melodic line with a slur over the first four measures and a fermata over the final note. The second staff is empty.

(b)

Two staves of music in 2/4 time. The first staff contains a melodic line with a slur over the first four measures and a fermata over the final note. The second staff is empty.

Plagal Cadence

Plagal cadences are used where the last two chords of the phrase should be harmonised by using the **chord IV** going to **chord I**, creating a cadence that could be the end of a piece or section but where the chords V to I (a Perfect Cadence) would **not** be the correct sound for the end of the given melody. The majority of final cadences in most musical styles are Perfect Cadences.

Examples of pieces ending with a Plagal Cadence include:

IV(C) I(G)

IV(G) I(D)

EXERCISE 14

Which chords would make these phrases end with Plagal Cadences ?

Write the correct names above the last two chords in each phrase.

(a)

(b)

EXERCISE 15

Each of these phrases ends with a PERFECT or a PLAGAL Cadence.
Decide which cadence should be at the end of each phrase and write the appropriate chord names in the correct places.

(a) 

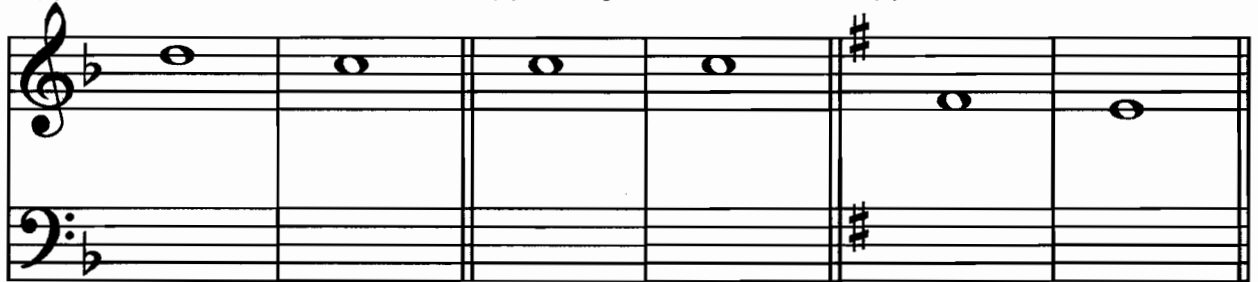
(b) 

(c) 

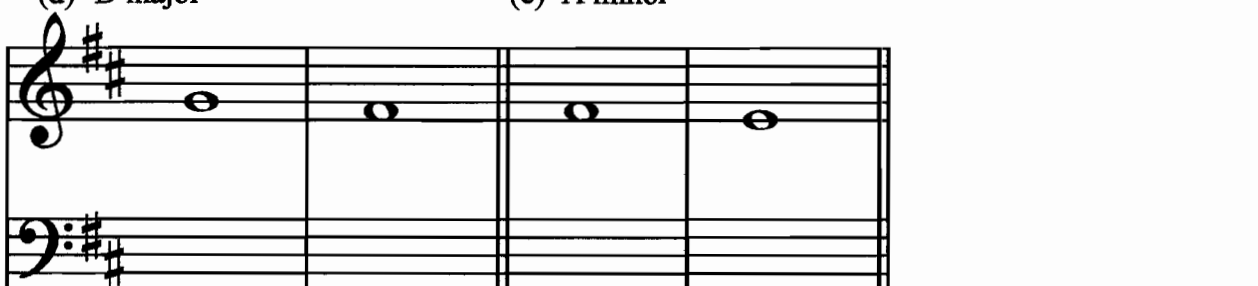
EXERCISE 16

Complete 4-part chords to make PERFECT or PLAGAL cadences, according to the key and the given melody notes.

(a) F major (b) C major (c) E minor



(d) D major (e) A minor



Interrupted Cadence

An interrupted cadence is a dominant chord (V or V7) followed by any chord except the tonic (I) where you expect to hear chord V going to chord I - a Perfect Cadence.

Here are two examples. Try playing them as they are written (V - VI) then play the same phrases again but play chord I under the last note (V - I).

(G major) IV(C) V(D) VI(Em)

(F major) V7(C7) VI(Dm)

EXERCISE 17

Complete 4-part chords to make INTERRUPTED cadences, according to the key and the given melody notes.

(a) C major (b) D major (c) Bb major

EXERCISE 18

Play through this melody and create an INTERRUPTED CADENCE followed by a PERFECT CADENCE by writing the chord names above the last 2 notes of each phrase.

EXERCISE 19

Complete 4-part chords below the last 2 notes of each phrase to create an INTERRUPTED cadence followed by a PERFECT cadence.

Section 5: Syncopated Rhythms and Ties

Many styles of music have a regular pulse for almost the entire performance. Some pieces use *Rubato*, *Rallentando* and other changes in the speed of the pulse to add character and variation to the music.

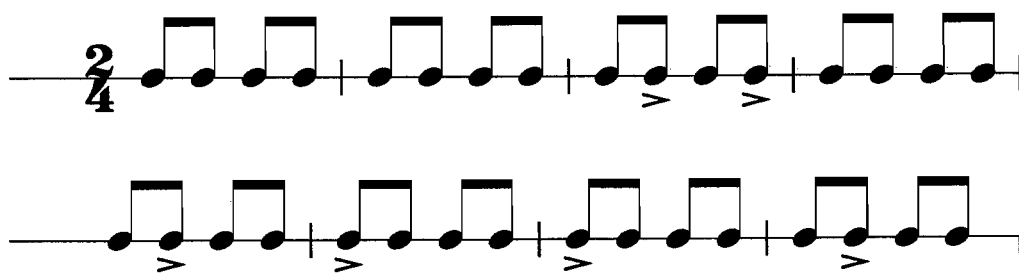
Much of the music we hear is built on regular bar lengths with a feeling of 2, 3 or 4 beats in each bar. In each of these conventional patterns the performer thinks of the first beat as being slightly more stressed than the others; in 4/4 time the first beat is given more stress and the third beat is also stressed.

Syncopation is the concept used to describe music where the stress is shifted from the normal, conventional place in a bar by accenting or emphasising a beat or part of a beat that is not normally stressed. This idea has been used in various styles of music for centuries but it has become a vital part of most popular styles in the 20th century.

Ragtime, Blues then Jazz developed **syncopation** as an important feature which was later used by Pop and Rock groups and in many more serious styles of music. **Syncopation** can make music sound exciting, surprising, uncertain or simply jazzy! You can clearly feel the effect of **syncopation** if you tap a steady beat while listening to a piano rag or a swing band.

Examples of syncopation

Accented rhythm used by Stravinsky in the First Part of "The Adoration Of The Earth" from his ballet, *The Rite of Spring*:



Ties and off-beat rhythms used in the 2nd bar of Scott Joplin's "Peacherine Rag":

Off-the-beat use of syncopation:

Rests and ties creating syncopation:

EXERCISE 20

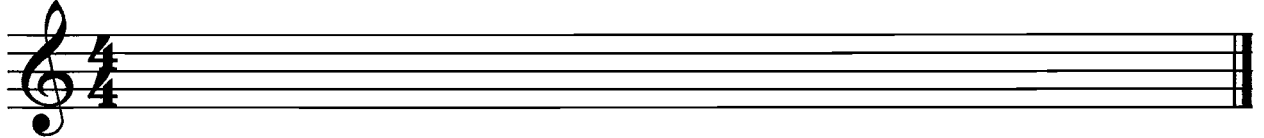
Re-write the following phrase and add your own choice of syncopated rhythms using the ideas demonstrated above.

(a)

Write your syncopated version here:



Write your syncopated version here:



EXERCISE 21

Write a syncopated right hand melody in the style of a piano rag above the given left hand notes.

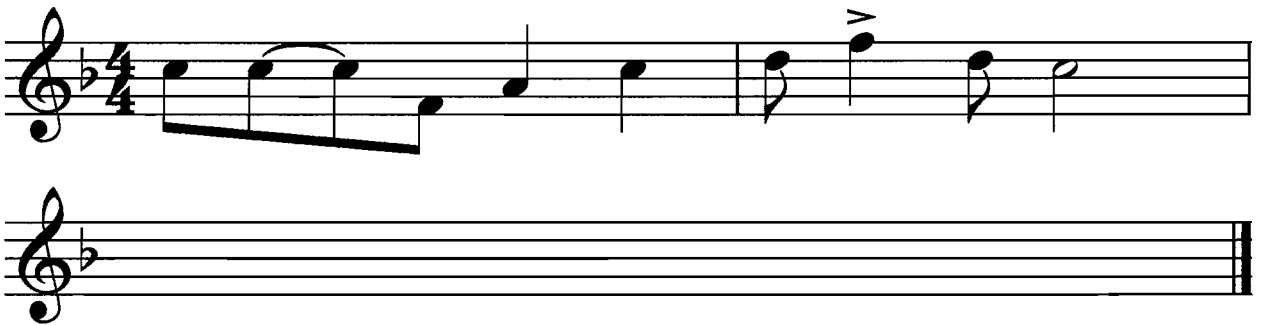


EXERCISE 22

Compose answering phrases to each of the given openings.

Use **ties** and **syncopation** in your answers.

(a) **Moderato**



(b) **Allegro**



(c)

Em Bm Em Bm

Em Bm Em B7

(d)

Other popular examples of 5/4 can be heard in music from films such as “Lord Of The Rings” and “Titanic”. Popular musicians have also written pieces using 5 beats in the bar - Sting’s “Seven Days”, “Face Dances Part Two” by Pete Townshend and “Living In The Past” by Jethro Tull. Composers for Wind Bands and Brass bands such as Geoffrey Burgon have created rhythmically complex 5/4 pieces.

The effects produced can be quite unsettling, add tension within the music or create a sense of relentless movement.

EXERCISE 23

In each of the following bars, add ONE rest at the places asterisked to complete the bar.

(a)



(b)



EXERCISE 24

Compose answers to the following opening phrases.

(a)



(b)

