QUICK AND EASY MUSIC THEORY

Go From Moron To Mozart In Less Than 14 Days

Lloyd Steiner

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THE BASICS

The Musical Alphabet - Consists of 7 letters: A B C D E F and G

Half Step - A note directly next to another. Ex: Going from A# to B or G to Gb

Whole Step – Two notes away from each other. Ex: Going from C to D or G# to F#

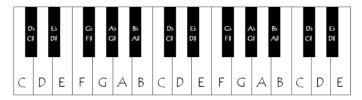
Sharp (#) – To play one note up from the given letter. Ex: F to F# or D to D#

Flat (b) – To play one note down from the given letter. Ex: E to Eb or B to Bb

I'm going to assume that you have a basic understanding of music. If you are 100% completely new to music, have never played an instrument, or taken a music lesson then this book might be a little bit over your head. If you are a total beginner, I suggest that you select an instrument of choice and find a private teacher in your area. Hopefully, you are past that point and are ready to continue on to the rest of the first chapter.

Quickly review all of the key terms above to get a good grasp on the concepts that will be presented in this chapter. Each instrument will have a different number of notes that it can sound. For example, the piano can sound a wider range of notes than a flute can. But, no matter what instrument you play, the *names* of the notes will never change.

Perhaps the piano is the best way to see how the all of the notes are named, and how they relate to each other...



The notes are nicely arranged in alphabetical order and will repeat after G.

(Note: On the guitar or bass, one fret = one half step)

Most notes are separated by a *whole step*, such as C to D, D to E, F to G, and G to A. Others are separated by a *half step* such as E to F, and B to C. Notice that all sharps and flats are accompanied by a letter prefix. There is no such thing as a "flat note" or "sharp note" by itself.

Notice that the black keys on the piano have two names that seem to be interchangeable. Let's take a black key that's between C and D. It's called C# or Db depending on how you look at it. If you start on C and play one note up, you will call it C#. If you start on D and play one note down, you will call it Db.

So now the burning question arises...

The Burning Question: Does it really matter what you call it?

The Burning Answer: Yes.

The Burning Reason: Wait until we discuss scales and chords in the later chapters.

As of now, you can refer to a black key by either of its correct names. In certain situations they have to be referred to by a specific name, and that is covered in later chapters of this book. There are twelve total notes in music. Here they are in order...

Both patterns of notes are the same. One set represents the black keys as sharps, and the other set represents them as flats. These notes are your building blocks. Memorize the notes, the order of the notes, and the key terms discussed in this chapter so far. Remember, you are building your foundation in this chapter. How well you know this information will affect your ability to learn more advanced techniques later in this book. So, don't be afraid to spend a lot of time here getting down the basics!

HOMEWORK

1. Memorize the order of the notes. I would highly suggest buying a keyboard or a piano because I believe it is the greatest instrument to use while learning music theory. Once you master the notes on a piano, that skill is easily translated to other instruments.

2. Learn the notes on your instrument! I can't tell you how many musicians I have con across that don't know what notes they are playing on their instrument, or how to find them. Don't be one of them!							

READING MUSIC

<u>5 Line Staff</u> – 5 lines drawn parallel and equidistant from each other in order to write musical notation.

Treble Clef or G Clef - A clef placing G on the second line up in the staff



Now that we have the basics of notes down, we need to have a way to represent them on paper in order to effectively communicate musical ideas with other musicians. Just like an author's primary form of communication is a book, a musician's primary form of communication is *sheet music*.

The *music staff* has 5 *lines* in which notes can be drawn directly on the line (line notes) or in the space between two lines (space notes). The lower the notes are written on the staff, the lower the note is played on the instrument, and the lower it sounds. The higher the notes are written on the staff, the higher the note is played on the instrument, and the higher it sounds.

Preceding the notes will be a *clef*. In this case, and in most cases we will have a *Treble Clef* or *G Clef*. The closer two notes are vertically on the staff, the closer the notes will be in pitch when played on your instrument.

I have kept this chapter short and sweet because sheet music is actually *not* a common form of communication between band members. The exception to this of course is an orchestra or a group of chamber musicians. Orchestras, and other large groups of musicians almost *always* use sheet music. When writing original music with a band or as a solo artist, it would take a huge amount of time to write all of your ideas down onto sheet music for your peers to read. I will present quicker, and ultimately more effective ways to communicate musical ideas later in this book. I've included sheet music in this book because I personally believe it is an important skill. However, I am here to teach you the meat and bones of what you *really* need to know to write better songs in the shortest amount of time.

HOMEWORK

1. Memorize all of the note locations on the G Clef Staff. I used to make flashcards for my piano students in order for them to learn all of the notes within a week. Even though this probably won't be your primary method of communication between your fellow musicians, I still believe that it is a very important skill.

INTRODUCTION TO BUILDING SCALES

<u>Scale</u> – A specific arrangement of notes with a distinct pattern of half steps and whole steps.

<u>Key</u> – A group of notes based on a particular note and scale that forms the tonal center of the music. Ex: The Key of G Major, the Key of F# Minor.

Enharmonic Spelling – The same note spelled in different ways. Ex: F# is the same note as Gb. Eb is the same note as D#. B# is the same note as C.

Every song you write has to be in a certain *key*. In other words, you need to pick a note that will be the tonal center of your song, and then decide what kind of mood to wrap around that note. For instance: I want to write a song in the key of F major. That would mean that my tonal center will be the note F, and the song will use a major *scale*.

Basically, a scale becomes a list of notes that you are able to use in composing a song. The scale of F major looks like this...

F G A Bb C D E

What does this mean? This is the list of notes I can use if I am writing a song in the key of F major. Any other notes, or alternative spellings of those notes are *incorrect*. In order to build a scale properly, you need to follow a few rules. This will ensure that you scales have the correct notes and correct *spelling* of the notes. Using these rules, it's hard to go wrong when you are building a scale. Here they are in no particular order...

RULES FOR BUILDING SCALES

- 1. You must use every letter of the musical alphabet
- 2. All letters must be in order
- 3. You cannot repeat any letters except for your starting note
- 4. If there are sharps in the scale, then there cannot be any flats
- 5. If there are flats in the scale, then there cannot be any sharps

HOMEWORK (answers are in the back of the book)

1. Memorize the rules for building scales. These rules will be extremely important in the construction of scales.								
2. Answer t	he following statements with True or False							
	The F major scale contains the note Ab.							
	The F major scale contains the note G.							
	The note A# is part of the F major scale.							
	The F major scale has 6 notes.							

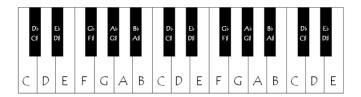
BUILDING MAJOR SCALES

<u>Major Scale</u> – A joyful scale of 8 notes that has the following pattern of whole steps (W) and half steps (H) between the notes...



The *major scale* is arguably the most important scale in music. It is the most frequently used scale in music history and has even influenced other scales. Major scales can be used to write happy, joyful, and bright songs, but are also commonly used in the ever-popular ballad and love songs.

Using the introductory concepts of scales from the last chapter, let's try to build a C major scale. It definitely helps to have a piano, or a diagram of the piano in front of you while trying to do this...



The first step to writing out a scale is to determine what note to start on. In this case we've chosen to start on C. Therefore, C will be the first note in the scale. Then, by using a formula, we can figure out which notes belong in the C major scale. The formula for determining *any* major scale looks like this...



The numbers 1 - 8 will eventually represent the letters of the notes that belong in the scale. For example, in the C major scale, C will replace the number "1" because it's the beginning note.

This formula states that the first note and the second note in the scale are separated by a whole step.



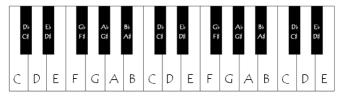
Using the piano diagram as reference, we can see that a whole step up from C is D. Therefore, D is the next note in the scale, and takes the place of the number "2" in the formula.

The process repeats as you determine the rest of the notes in the scale. The formula shows that there is a whole step between the second note (D) and third note.

By starting on D (the second note in the scale) and going up one whole step (skip D#, and land on E), we are able to determine that the third note in the scale is E. Now on to the fourth note...

The formula states that a half step lies between the third note and fourth note...

If we look closely at our piano here, we see that there is no black key between E and F...



Therefore, the distance between E and F is a *half step*. This would mean that the fourth note in the C major scale is an F. Now for the fifth note...

The formula indicates that the distance between the fourth and fifth note is a whole step...



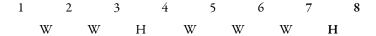
If the fourth note is F, then a whole step up from F would bring us to a G. G is the fifth note in the C major scale. I know I'm moving rather quickly, but I will give you plenty of homework to solidify your knowledge for this chapter! Let's take a look at what the sixth note in the scale is...

It looks like the distance between our fifth and sixth note is yet another whole step...

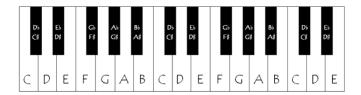
Our fifth note is G, and one whole step up from G is A. That would make A the sixth note in the scale. Onwards to discover the seventh note in the scale...

Between the sixth note and seventh note in the scale lies our final whole step. The sixth note is A, so if we go up one whole step from there, we land on B. This makes B the seventh note in the C major scale. Only one more note to complete our scale...

The eighth and final note in our scale lies one half step up from the seventh note in the scale...



The seventh note in our scale is B, and if we double-check our piano again, we find that there is no black key in between B and C...



Therefore, our last note in the scale will be C, the same note we started on. The eighth note in the scale should *always* be the note you started on. If it isn't, go back and double-check your work. So, the complete C major scale will look like this...

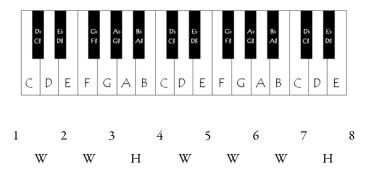
C D E F G A B C

This is the series of notes you are allowed to use when composing in the key of C major. All right! Whew, no black keys! We might have gotten away easy this time, but I assure you that the C major scale is the *only* major scale with out any sharps or flats. Always, always double check your work and see if your scale follows our checklist we made earlier...

1.	You must use every letter of the musical alphabet	
2.	All letters must be in order	
3.	You cannot repeat any letters except for your starting note	
4.	If there are sharps in the scale, then there cannot be any flats	
5.	If there are flats in the scale, then there cannot be any sharps	

What you've accomplished: You have found all of the notes that make up a C major scale. If you are playing a song in the key of C major, you may use these notes and these notes *only* to build chords, perform a solo, and sing. Any notes outside this key are incorrect. For example, if your band is playing a song in C major, and you sing or play an A#, you are now "out of key," "out of tune," "sour," or just plain wrong!

Let's move on to something a little bit more difficult, like the key of D major. It's always a good idea to write down the formula for the major scale until you memorize it. A good knowledge of the layout of the piano helps greatly as well...



The first letter in a D major scale is of course D. The first and second notes in the scale are separated by a whole step, so logically our next note would be E. The second and third notes are separated by a whole step as well. If you go up one whole step up from E, you end up landing on a black key.

Now would be a good time to revisit the burning question from Chapter 1...

Burning Question 1: Do we call it F# or Gb?

Burning Answer: F#

Burning Reason: Our handy checklist will always serve to keep us in line and help us deal with the ugliness of sharps and flats. Let's see what would happen to some of our rules if we decided to call that note Gb instead of F#...

RULE #1 - You must use every letter of the musical alphabet - VIOLATED!

We have just skipped over the letter F and left it for dead. The musical alphabet does NOT read A B C D E G A under any circumstances.

RULE #2 - All letters must be in order - VIOLATED!

The F is out of order. G does not follow E in the alphabet, or the music alphabet.

Burning Question: But both spellings refer to the SAME NOTE, does it REALLY matter?

Burning Answer: YES! YES! YES!!

Burning Reason: Spelling in music is very similar to spelling in English. Let's say I take the word "the" and I decide to respell it to my liking by replacing the "t" with a "u." My

new spelling for the word "the" will now read "uhe." You'll be sure to fail every spelling test (and music theory test) if you simply use spellings that suit your mood.

Okay, let's recap our current findings of the D major scale...

So now let's find our fourth note in the scale that is a half step above our third note F#...

The note that is a half step up from F# is G, therefore G is our fourth note in the key of D major. Moving along, let's look at our fifth note in the scale...

A whole step up from G (our fourth note) is A. Therefore, A is the fifth note in the key of D major. Onwards to the sixth note in the scale...

We see that the next note is a whole step up from our fifth note, which is A. One whole step up from A is B. B is the sixth note in the key of D major. Now for our seventh note, and final whole step...

Before I just give you the answer, it's time for a...

POP QUIZ!

The seventh note in the scale is a whole step up from the sixth note. If the sixth note is B, what is the seventh note?

- a. Db
- b. C#
- c. B#
- d. C

Turn the page for the answer...

If you answered **a. Db**, then you are WRONG! You have violated rules 1, 2, and 4 for building scales. Check, and double check your work!

If you answered **c. B**#, then you are WRONG! You have violated rules 1, 2, and 3 for building scales. Check, and double-check your work!

If you answered **d**. C, then you are WRONG! Although you have followed every rule, C is not a whole step up from B, it is a *half step*. Study the layout of the piano and take note of which keys are not separated by black keys.

If you answered **b**. C#, then you are CORRECT! You have followed all of the rules, and you'll be just fine!

Now on to the final note which is a half step above our seventh note...



If the seventh note is C#, then the next and final note must be D. You have now completed the D major scale, which looks like this...

D E F# G A B C# D

Notice how this scale started and ended with the same note just like our C major scale did. All of your scales should start and end with the same note. If you end on a different note than what you started on, its time to go back and double check what you have done.

HOMEWORK (answers are in the back of the book)

1. You will now figure out all of the following major scales starting on each of the given notes...

C, Db, D, Eb, E, F, F#, Gb, G, Ab, A, Bb, and B.

2. You will now find the significance of the scales being written in the following order, this knowledge will come in handy in later chapters...

C, G, D, A, E, B, F#, F, Bb, Eb, Ab, Db, Gb

3. Two of the scales share an enharmonic spelling, which two are they? Is there is significance in the number of sharps and/or flats those two scales have?

These 13 scales will be all of the major scales you will ever use. Figure them out, write them down, memorize them, and play them! I cannot stress the importance of understanding the major scale!

BUILDING NATURAL MINOR SCALES

<u>Natural Minor Scale</u> – A solemn scale of 8 notes that have the following pattern of whole steps (W) and half steps (H) between the notes...

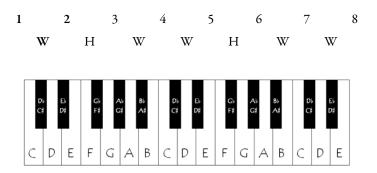


There are *three* different minor scales, each with their own patterns and rules of use. I'm going to start you off with the natural minor scale, as all of the other minor scales are based on this one. Building a minor scale will be much like building a major scale. The only difference between the two is the different patterns of whole steps and half steps between the notes. The exact same rules we used when building a major scale will also apply for building a natural minor scale...

- 1. You must use every letter of the musical alphabet
- 2. All letters must be in order
- 3. You cannot repeat any letters except for your starting note
- 4. If there are sharps in the scale, then there cannot be any flats
- 5. If there are flats in the scale, then there cannot be any sharps

Let us build our first natural minor scale using Bb minor...

Our starting note is Bb. Our formula instructs us to go up one whole step from Bb...



By looking at our trusty piano, we see that a whole step up from Bb is C. Before we go any further, we should use a few of the rules to our advantage. I foresee this scale having a lot of black keys (just a hunch!) Let's keep rule number 5 at the front of our minds...

5. If there are flats in the scale, then there cannot be any sharps

If we come across more black keys, we *have* to spell them as flats, and not as sharps. That being said, let's move on to the next note in the scale...

In order to get to the third note, you have to go up a half step from the second note...

If the second note was C, a half step up will bring us to another black key. How do we spell it? Db of course, for a number of reasons! There is the obvious rule number 5 which we just stated. But, we can't spell this as a C# because we would be repeating letters; thus breaking Rule #3.

Let's move on to the fourth note, which lies a whole step above the third note (Db).

A whole step up from Db is Eb, making Eb the fourth note in the scale. Now for the fifth note in the scale, which is a whole step above the fourth...

A whole step up from Eb will bring us up to F. F is the fifth note in the Bb natural minor scale. On to the sixth note in the scale...

Our sixth note is a half step above the fifth note (F)...

A half step above F is Gb. Almost there! Let's find the $7^{\rm th}$ note in the scale, which is a whole step above the sixth...

A whole step above Gb would bring us to Ab. Now, we must figure out the final note in the scale. If we have done everything correctly, we know that the note *should* be Bb...

The distance between the seventh note and the eighth note in the scale is a whole step. A whole step up from Ab does in fact turn out to be Bb. Here is what the final product looks like...

Notice this scale has 5 flats in it. If you did your major scale homework correctly, you might have noticed that there was also a major scale that had five flats as well. If you look closely, you'll see that the Bb natural minor scale contains the same notes as a Db major scale. The only difference being the order the notes are arranged in. Perhaps the two are related?

HOMEWORK (answers are in the back of the book)

1. You will write out the following natural minor scales, starting on the given notes. This will be every natural minor scale you will ever use.

C, C#, D, D#, Eb, E, F, F#, G, G#, A, Bb, and B.

2. Two of the scales share an enharmonic spelling, which two are they? Is there is significance in the number of sharps and/or flats those two scales have?

By now you should be a master of knowing how to build a scale if you are given the correct formula. I would highly suggest writing out the formulas and all scales for both the major scale and the natural minor scale until you memorize them. Most of all, *play* them on your instrument, and remember the correct spellings of every note in each scale and the reasons why. These concepts are going to play a big role in the coming chapters, so learn them well!

There are two more minor scales that we will discuss in this book: Harmonic minor and melodic Minor. We will cover those two scales as soon as we learn some other skills that will explain the *use* of those particular minor scales.

Now before we move on, three important words...

PRACTICE, PRACTICE, PRACTICE!!

INTRODUCTION TO BUILDING CHORDS

Chord – Any combination of 3 more different notes played at the same time.

Harmony – A combination of notes that when played together, produces a pleasing effect.

Chord Progression – A series of chords, played one right after the other.

Consonant - Pleasing to the ear.

Dissonant - Not pleasing to the ear.

Interval – The distance between two notes.

If your songs consist of one note at a time, chances are your career will be short lived. The masters of music have mastered the art of *harmony*. They have taken the liberty of developing a science that will answer the following questions...

- 1. How do you know which notes sound good when played together?
- 2. How can you build chords without an instrument?
- 3. How do you know which chords will sound good when played in a progression?

Knowing the answers to these questions will exponentially increase your ability to write music by yourself and with other people. There are a few basic types of chords that are used most often in music...

The Four Primary Types of Chords

Major, Minor, Augmented, and Diminished

Major chords are consonant and have a happy, bright sound. Think of a sunny day.

Minor chords are consonant, have a sad, solemn sound. Think of a rainy day.

Augmented chords are dissonant, and have an unsettling, mysterious sound. Think of a haunted house.

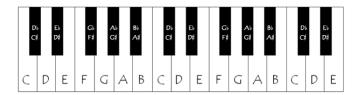
Diminished chords are dissonant and have an evil, harsh sound. Think of zombies coming after you.

All of these chords share a few things in common...

- 1. All chords will have a *root* (1) a *third* (3) and a *fifth* (5)
- 2. All of them have 3 notes

To build any of these chords, you will need a good knowledge of a few things...

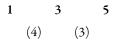
- 1. The musical alphabet (A B C D E F G)
- 2. How to count up to 5
- 3. The piano, or a piano diagram



The next few chapters will deal with building each of the four primary types of chords...

BUILDING MAJOR CHORDS

Major chords are constructed with the following pattern...



Notice how it looks relatively familiar to the formula for scales? You will find that a majority of music deals with simple mathematics and patterns. The numbers in parentheses () represent the number of *half steps* from one note to the next.

Let's start off by building a C major chord. The formula states that in any major chord, the distance between the root (1) and the third (3) is 4 half steps. So, if the root note is C, you would count up 4 half steps to reach E. Start on C, then count C#, D, D#, and land on E.

The distance between the third (3) and the fifth (5) is 3 half steps. We have just figured out that the third is E. So, start on E and count up F, F#, and land on G.

Congratulations on building a C Major chord! Naming chords are very similar to naming scales. Chords are always referred to by a combination of the root note and sound quality it produces. For instance, if the root note is E, and you built a major chord starting on E, you would refer to it as an E Major Chord.

MEGA IMPORTANT

I can always tell how much a musician knows about music just by the language they use. People will say things every once in a while that will confirm my hunch of their lack of knowledge. I never want any of my students to be the ones getting laughed at by other musicians, so that is why I am here to prepare you to avoid saying the following phrases....

"Play a D chord"

"Play a B chord"

"I played a minor chord"

"I like Eb chords"

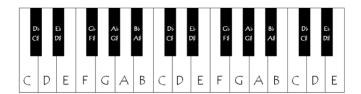
THERE IS NO SUCH THING AS A D CHORD, OR A B CHORD, OR MINOR CHORD!

A G chord doesn't exist either. There are C major chords, B minor chords, G augmented chords, E diminished chords, and so forth. There are *two* parts to a chord description: The letter, and the sound quality. Don't leave out either of them!

Let's build a few more major chords before I send you on your own to build all of them...

We will now build a D major chord...

The root (1) note is D. If we count up four half steps starting from D, we will find the third (3). If you use the piano to count up the four half steps, you should have landed on F#/Gb...



Now, which spelling do we use: F# or Gb? Does it matter?

Before I give you the answer, let's recall back to building scales. Let's take a look at a D Major Scale for a minute...

1	2	3	4	5	6	7	8
D	E	F#	G	A	В	C#	D

The 8 notes in the scale have 8 different letters (with the exception of "D," being the first note and last note the scale.) Let's do the same layout for the chords...

1 = D

2 = E

3 = F

4 = G

5 = A

Remember, I am just talking about *letters* here. If the root (1) letter is D, then the third (3) letter *must* be F, and the fifth (5) letter *must* be A.

In the case of a D major chord, we landed on a black key for the third (3) and are tossed up on whether to call it F# or Gb. We should realize by now that we *must* call it F#. If we called it Gb, it would then become a *fourth* instead of a *third*. Know that it's the distance between the *letters* that defines the interval. You might have to add a sharp or flat to the letter to accommodate the correct number of half steps, but the letter itself must remain consistent.

We can now find the fifth (5) by going up 3 half steps from the third (3). In this case, the third (3) is F#. We start on F# and count up G, G#, and land on A. The fifth (5) is A. The D major chord should now spell out as...

Here's what this means...

- If you play the notes D, F#, and A at the same time on your instrument you will sound a "D major chord."
- If someone asks you to play a D major chord, you would play a D, F# and A at the same time.

HOMEWORK (answers are in the back of the book)

1. Figure out the following major chords starting on the given notes...

C, Db, D, E, Eb, F, F#, Gb, G, Ab, A, Bb, and B

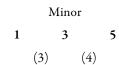
Extra Credit: Cb, Fb

- 2. How many half steps are there between the root (1) and the third (3) in any given major chord?
- 3. How many half steps are there between the third (3) and the fifth (5) in any given major chord?

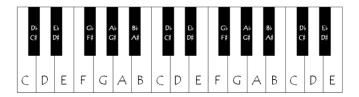
BUILDING MINOR CHORDS

The principles of building minor chords are exactly the same as building major chords. The only difference is the number of half steps between the root (1), third (3) and fifth (5).

Let's check out what the formula looks like and try a few exercises...



As with building any chords, it's always great to use the piano as a reference...



Let's attempt a C minor chord. The given root (1) note is C. If we look at the formula to build a minor chord, we can see that the third (3) lies 3 half steps up from the root...

Start on the root (1) C, then count up one (C#/Db), two (D), and land on three (Eb/D#). Ouch, we landed on a black key. By now our decision whether to call it Eb or D# should be somewhat easier. Remember, if the root *letter* is C, we need to use the third *letter* away from C.

1	2	3	4	5
C	D	E	F	G

If C is the root (1), then E must be in the third (3), and G must be in the fifth (5). So, the spelling for the chord has to contain the letters C, E and G. In this case, we landed on D#/Eb, so it has to be spelled as Eb instead of D#, since the letter D cannot exist in this chord.

We've found the root (1) and third (3), so let's venture on to find the fifth. We can find the fifth (5) by counting up 4 half steps from the third (3). So, starting on Eb, count one (E), two (F), three (F#), and land on four (G). The fifth is G!

Here is the final spelling of a C Minor Chord...

C Eb G

Here's what this means...

- If you play the notes C, Eb, and G on your instrument at the same time you will sound a "C minor chord."
- If someone asks you to play a C minor chord, you would play a C, Eb and G at the same time.

HOMEWORK (answers are in the back of the book)

 $1. \ \ Figure \ out \ the \ following \ minor \ chords \ starting \ on \ the \ given \ notes...$

C, C#, D, D#, E, F, F#, Gb, G, G#, A, Bb, and B

Extra Credit: Ab, Db

- 2. How many half steps are there between the root (1) and the third (3) in any given minor chord?
- 3. How many half steps are there between the third (3) and the fifth (5) in any given minor chord?

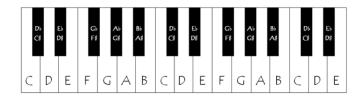
BUILDING AUGMENTED CHORDS

These little buggers aren't used too often, and you'll hear the reason why when you play them on your instrument. Even though augmented chords aren't used nearly as often as major and minor chords, you might find yourself using them in your compositions regardless.

Once again, the method of finding the notes in the chord remains unchanged. The only thing that's different here is...you guessed it...the number of half steps between the root (1), the third (3), and the fifth (5).

The formula for finding augmented chords reads as follows...

The first augmented chord we're going to figure out will be D augmented...so bring forth the trusty piano!



In order to build a D Augmented Chord, start on the root (1), which in this case is D. Find the third (3) by counting up 4 half steps from the root (1). Starting on D, count up one (D#/Eb), two (E), three (F), and land on four (F#/Gb). Yikes, another black key...

Let's do the alphabet check to see which letters we will need to use in this chord...

1	2	3	4	5
D	E	F	G	A

If the root (1) is spelled as D, then the third (3) must be spelled as F, and the fifth (5) must be spelled as A. Therefore, the third *must* be spelled as F# instead of Gb because the letter G is non-existent in this chord.

Now, you must find the fifth (5) by counting up 4 half steps from the third (3), which is F#. Starting on F#, count up one (G), two (G#/Ab), three (A), and land on four (A#/Bb). Another black key! Fear not, it *must* be spelled as A# because the letter B is non-existent in this chord.

Here is the final spelling of a D augmented chord...

D F# A#

Here's what this means...

- If you play the notes D, F#, and A# on your instrument you will sound a "D augmented chord."
- If someone asks you to play a D augmented chord, you would play a D, F# and A
 at the same time.

HOMEWORK (answers are in the back of the book)

1. Figure out the following augmented chords starting on the given notes...

C, Db, D, Eb, E, F, Gb, G, Ab, A, Bb, and B

Extra Credit: C#, G#
Extra Extra Credit: A#

2. How many half steps are there between the root (1) and the third (3) in any given augmented chord?

augmented chord?	
Be sure to check your spellings! Augmented chords often produce some interesting spellings of notes.	

3. How many half steps are there between the third (3) and the fifth (5) in any given

BUILDING DIMINISHED CHORDS

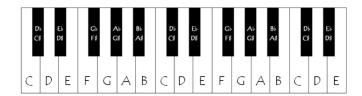
Here is another type of chord that is seldom used due to it's harsh and unsettling sound. But just like augmented chords, you might find yourself using diminished chords in your compositions. The methodology for building these chords is similar to building major, minor, and augmented. The only difference is the number of half steps in between the notes.

The formula for building a diminished chord is as follows...

	Dim	inished	
1		3	5
	(3)	(3)	

I'm going to "throw you into the fire" so to speak, and show you a more difficult chord. That way you won't have too much trouble spelling most of the other diminished chords. Time to build an F diminished chord...

Once again... the trusty piano!



In order to build an F diminished chord, start on the root (1), which is F. You can find the third by counting up 3 half steps from F. So, starting on F, count up one (F#/Gb), two (G), and three (G#/Ab). Looks like a black key...

Perform an alphabet check to see which letters need to be used in this chord...

1	2	3	4	5
F	G	A	В	C

If the root (1) is spelled as F, then the third (3) must be spelled as A, and the fifth (5) must be spelled as C. Therefore, the third (3) *must* be spelled as Ab instead of G# because the letter G does not exist in this chord.

You can find the fifth (5) by counting up 3 half steps from the third (3), which is Ab. Beginning on Ab, count up one (A), two (A#/Bb), and land on three (B).

B?

How can this be possible? The alphabet test confirmed that our fifth (5) *must* be spelled as C. This is not a miscalculation or an error; you simply have to change the spelling of the B so that it is *re-spelled as some form of C...*

If you could re-spell the B as Cb instead, that would be an answer that stays within the rules.

Burning Question: B isn't a black key! So how can you call that Cb? Can you refer to a white key on the piano as a flat or sharp? Is that musically "legal?"

Burning Answer: YES.

Burning Reason: Think back to your definition of flat...

Flat (b) – To play one note down from the given letter. Ex: E to Eb or B to Bb

Nowhere in the definition does it state that a flat must fall on a *black key*. Plus, what about figuring this out on other instruments? Guitars don't have "black keys." If you start on *any* letter and go down one note, you may respell it as a flat, even if it's Fb or Cb. Is it practical to *always* refer to the letter E as Fb? Absolutely not! But you *cannot*, under any circumstances, change the spelling of the chords. A chord spelled as F, Ab, and B is no longer an F diminished chord. You *must* retain the correct spelling of notes, just as you must correctly spell words in the English language.

Here is the final spelling of an F diminished chord...

F Ab Cb

Here's what this means...

- If you play the notes D, F#, and A# on your instrument you will sound an "F diminished chord."
- If someone asks you to play an F diminished chord, you would play an F, Ab, and Cb at the same time.

HOMEWORK (answers are in the back of the book)

1. Figure out the following Diminished chords starting on the given notes...

C, C#, D, D#, E, F, F#, G, G#, A, Bb, and B

Extra Credit: Db, Ab Extra Extra Credit: Eb

Be sure to check your spellings! Diminished chords will produce some interesting spellings of notes.

BUILDING SEVENTH CHORDS

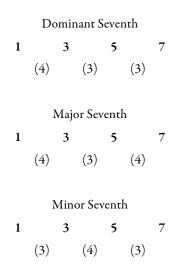
So far, you have built several different types of chords that contain three notes. Now, take a look at some chords that have four notes: Seventh chords.

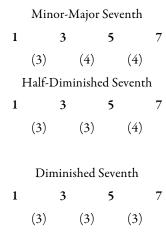
Sometimes the terminology used in music can be a tad misleading. For instance, why call a chord a *seventh* chord if it only has *four* notes? The answer lies in this formula that might look somewhat familiar...

Seventh				
1	3	5	7	

Seventh chords will use a root (1), third (3), fifth (5), and seventh (7), giving it a grand total of four notes.

There are many possibilities with seventh chords, and each one has their own unique sound. However, there are certain types of seventh chords that are much more common than others. Some of them are rarely used at all in any style of music. Here are the most common types of seventh chords, and the formulas to build them...





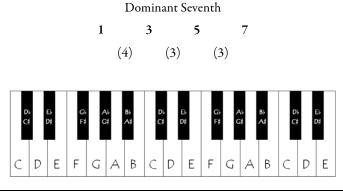
You can see by some of the names, that major, minor, and diminished chords are used as a foundation. After that, an additional note is added on which is called the *seventh*.

For example, a minor-major seventh chord is actually this...

Minor Chord + Major Seventh = Minor-Major Seventh

By far, the most useful and common type of seventh chord is the dominant seventh. A dominant seventh is built using a major chord plus a minor seventh. I will show you how to build a dominant seventh, but then I am going to throw you on your own for building all of the rest. If you start running into trouble, just take a look at your answer key in the back of the book.

I'll start off with an A dominant seventh, or more commonly written as A7.



Let's set up the alphabet check right away in order to see the correct letters to use. The root (1) is A, so write out the rest of the letters in order, starting on A...

1	2	3	4	5	6	7
A	В	C	D	E	F	G

Now that the correct letters are in place, check the intervals...

Finding the third (3): Starting on A, count up 4 half steps, one (A#/Bb), two (B), three (C), and land on four (C#/Db).

Answer: C#

Finding the fifth (5): Starting on C#, count up 3 half steps, one (D), two (D#/Eb), and land on three (E).

Answer: E

Finding the seventh (7): Starting on E, count up 3 half steps, one (F), two (F#/Gb), and land on three (G).

Answer: G

The final spelling of the A Dominant Seventh chord is A, C#, E, and G.

Here's what this means...

• If you play the notes A, C#, E, and G on your instrument at the same time you will sound an "A dominant seventh chord."

 If someone asks you to play an A dominant seventh chord, you would play an A, C#, E, and G at the same time.

HOMEWORK (answers are in the back of the book)

1. Figure out the following dominant seventh chords starting on the given notes...

2. Figure out the following major seventh chords starting on the given notes...

3. Figure out the following minor seventh chords starting on the given notes...

4. Figure out the following minor-major seventh chords starting on the given notes...

5. Figure out the following half-diminished seventh chords starting on the given notes...

6. Figure out the following diminished seventh chords starting on the given notes...

Be absolutely sure to check your spellings! Diminished chords of any kind will most likely produce some spellings that include double flats (bb) or double sharps (X).

I know I have given you an insane amount of homework at the end of this chapter. But by the time you have written out every single possible combination of chords, you will have vastly improved your knowledge of music. The next step after writing them out is to practice playing them on your instrument. This will take *time*, and lots of it. Study hard and practice!

INTRODUCTION TO SUSPENDED CHORDS

Suspended chords have the largest variation in the formula so far. These chords are more commonly referred to as "sus" chords. Somewhere along the line, somebody decided that the word "suspended" took too much effort to say. There are three types of sus chords that you will see written...

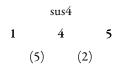


So, what makes a sus chord a sus chord? Sus chords have *no third* (3)! The third (3) is replaced by a second (2) in a sus2, a fourth (4) in a sus4, and a sixth (6) in a sus6. All of these chords will still have a fifth (5). The next few chapters will show you how to build sus chords...

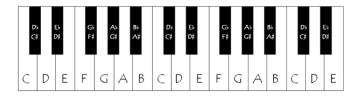
BUILDING SUS4 CHORDS

The sus4 chord is the most common suspended chord. It sounds rather nice, kind of like clouds parting the way to heaven, like dreams coming true, like love blossoming in the spring air, like...

Err...you get the picture! Check out of the formula for a sus4 chord...



It always helps to have the piano when you are building chords...



I'm going to start off building something a little more challenging, like an Ebsus 4. I'm throwing you in the fire once again. First, take a look at the letters to get an idea of what to expect when building this chord...

1	2	3	4	5
F.	F	G	Α	В

The root (1) letter fell on an E. So, the fourth (4) and fifth (5) letters would have to be A and B respectfully.

In order to find the fourth (4), count 5 half steps up from the root (1), which is Eb. One (E), two (F), three (F#/Gb), four (G), and land on five (G#/Ab). Through much

experience building chords, you would absolutely know that the note would have to be spelled as Ab rather than G#, because the letter G does not exist in this chord.

Now that you have found the fourth (4) to be Ab, count 2 half steps up from Ab to find the fifth (5): One (A), and land on two (A#/Bb). This note has to be spelled as Bb because you cannot use the letter A twice. So here is what the final answer looks like...

Here's what this means...

- If you play the notes Eb, Ab, and Bb on your instrument at the same time you will sound an "Eb sus4 chord."
- If someone asks you to play an Ebsus4 chord, you would play Eb, Ab, and Bb at the same time.

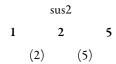
HOMEWORK (answers are in the back of the book)

1. Figure out the following sus4 chords starting on the given notes...

C, C#, Db, D, D#, Eb, E, F, F#, Gb, G, G#, Ab, A, A#, Bb, and B

BUILDING SUS2 CHORDS

Sus2 chords will have a root (1), a second (2), and a fifth (5). The formula looks like this...

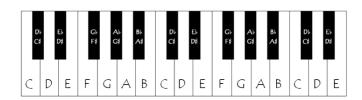


The first sus2 chord I'm going to have you build is a Bbsus2. Once again, it's not the easiest chord to build, but after building this chord you will find most of the rest to be quite a bit easier.

Set up the alphabet right away so that you know what letters must be used in the chord.

The chord will contain some spelling of B, D, and F. The root (1) starts on Bb. If you count 2 half steps up from Bb, you will find the second (2).

Bring back ye old piano...



Starting on Bb, count up one (B), and land on two (C). Piece of cake! Now that you know the second (2) is C, count up 5 half steps to find out what the fifth (5) is. Starting on C, and counting up one (C#/Db), two (D), three (D#/Eb), four (E), and land on five (F). The fifth (5) in this chord is F.

Here is the final spelling for the Bbsus2 chord...

	Bbsus2	
1	2	5
Bb	C	F

Here's what this means...

- If you play the notes Bb, C, and F on your instrument at the same time, you will sound a "Bbsus2 chord."
- If someone asks you to play a Bbsus2 chord, you would play Bb, C, and F at the same time.

HOMEWORK (answers are in the back of the book)

1. Figure out the following sus2 chords starting on the given notes...

BUILDING SUS6 CHORDS

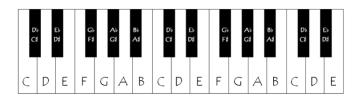
Sus 6 chords have a root (1), a fifth (5), and a sixth (6). The formula for a sus6 looks like this...



The sus6 formula looks very similar to the sus2 formula, the only difference is that the *intervals* are reversed. The first chord I'll have you do is an Asus6 chord. First, use the alphabet to find out which letters must be used in the chord...

1	2	3	4	5	6
A	В	С	D	E	F

In this case you must use the letters A, E, and F. Always refer to the piano diagram when you are building chords...



First, count up 7 half steps starting on A, one (A#/Bb), two (B), three (C), four (C#/Db), five (D), six (D#/Eb), and land on seven which is E. The next task is to figure out the sixth (6) in order to complete the chord...

In order to find the sixth (6) you must count up 2 half steps from the fifth (5). Starting on E, count up one (F), and land on two (F#/Gb). You must call this F# instead of Gb because the letter G does not exist in this chord.

The final spelling for the Asus6 chord is as follows...

	Asus6	
1	5	6
A	E	F#

Here's what this means...

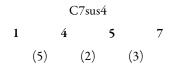
- If you play the notes A, E, and F# on your instrument at the same time, you will sound an "Asus6 chord."
- If someone asks you to play an Asus6 chord, you would play A, E, and F# at the same time.

HOMEWORK (answers are in the back of the book)

1. Figure out the following sus6 chords starting on the given notes...

BUILDING SUSPENDED SEVENTH CHORDS

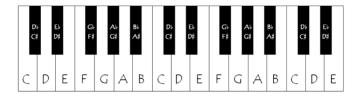
Sometimes a three-note chord just doesn't cut it. People have found a way to make seventh chords out of just about anything, including suspended chords. Thankfully, the founding fathers of music didn't go overboard when it came to adding sevenths to suspended chords. If you'd like to use sus2 and sus6 chords for the basis of your suspended sevenths, then be my guest. However, I think you might find that they are a little less than desirable or useful for that matter. Thus, the only suspended seventh chord that is discussed in this book uses the sus4. The formula for such a chord starting on C would look like this...



Run with that example, and check out which letters are used in a C7sus4. The alphabet will always determine what the correct letters will be...

1	2	3	4	5	6	7
С	D	E	F	G	A	В

Then, another appearance by our mighty friend...



The letters used in this chord will be spelled as C, F, G, and B, with the root (1) being C. In order to find the fourth (4), count up 5 half steps from C. Starting on C, count up one (C#/Db), two (D), three (D#/Eb), four (E), and land on five (F). The fourth (4) in this chord is F.

To find the fifth (5), count up 2 half steps from the fourth (4), which was F. Starting on F, count up one (F#/Gb), and land on two (G). The fifth (5) in this chord is G

In order to find the seventh (7), count up 3 half steps from the fifth (5), which was G. Starting on G, count up one (G#/Ab), two (A), and land on three (A#/Bb). The correct spelling would be Bb instead of A# because any form of the letter A cannot exist in this chord.

Hence, the final spelling for the C7sus4 chord reads as follows...

Here's what this means...

- If you play the notes C, F, G, and Bb on your instrument at the same time, you
 will sound a "C7sus4 chord."
- If someone asks you to play a C7sus4 chord, you would play C, F, G, and Bb at the same time.

HOMEWORK (answers are in the back of the book)

1. Figure out the following 7 sus 4 chords starting on the given notes...

C, C#, Db, D, D#, Eb, E, F, F#, Gb, G, G#, Ab, A, A#, Bb, and B

NINTH CHORDS AND BEYOND

They say it was curiosity that killed the cat. While it might not kill the reader of this book, it will open your mind to the vast number of possibilities for different types of chords. If you can have a chord that has 3 notes or 4 notes, what's to stop you from having a chord with 5 or *more* notes?

I'm not going to dive too far into this because I rarely find these chords in my fields of expertise (Classical, Rock/Metal, Pop). If you ever plan on learning jazz theory, or playing any sort of jazz, then you'll find yourself doing some heavy research and studying in these kinds of chords. Jazz is loaded with 9th chords, 11th, chords, 13th chords, and beyond. Either way, take a quick look and see what happens when you start piling on more notes...

How do you construct chords that go beyond a seventh? Simple, just keep stacking oddnumbered letters. Check out how a ninth chord would look if you started on the letter C...

C9

1 2 3 4 5 6 7 8 9

C D E F G A B C D

Also, an eleventh chord...

C11

1 2 3 4 5 6 7 8 9 10 11

C D E F G A B C D E F

You get the picture. If you keep stacking up all of the letters that correspond to the odd numbers, you will get 9th, 11th, and 13th chords. The example I used is actually a C Major 9. There are many variations of 9th chords, 11th chords, and beyond. At this stage of the game, I'd rather see you master the chords that have been given in this book so far.

Here is what I have touched on briefly...

- If you play the notes C, E, G, B, and D on your instrument you will sound a "C9 chord."
- If someone asks you to play a C9 chord, you would play C, E, G, B, and D at the same time.

HOMEWORK

1. Study and play all of the chords we have gone over thus far. For the most part, I have taught you a vast majority of the chords you will ever see, hear, and use in music. The better you know this stuff, the easier the rest of this book, and your career as a musician will be. There's no such thing as too much practice!

DIATONIC TRIADS (MAJOR)

Diatonic Triads – Chords that naturally occur in a given scale.

Now that you are beginning to master the art of building chords and building scales, I'm going to combine that knowledge to show you how to figure out which chords *belong* in which scales.

I am going to give you an assignment that will seem virtually impossible right now, but by the end of the chapter might be the easiest thing you have done thus far...

Write a song without an instrument. It better sound good when I play it.

How can anyone write a song without an instrument? Don't you have to play it to test it? Or just pick up that guitar and start strumming, hoping to make something fantastic? Not a chance. Ludwig Van Beethoven was deaf for the last 20 years of his life, yet it was during this time he composed some of the most highly acclaimed music in history. Here is how he did it, and how you can do it too...

We you build a song from scratch, the first thing you will need to do is pick a key for the song. There is no wrong answer, but as you might have guessed: Some keys are more difficult to work with than others due to variances in the number of sharps and flats they contain. This might sound like the beginning of a "pick a card, any card" trick...and that's actually not too far from the truth.

I'm going to pick the key of D major for you because I don't want to you pick anything too easy or too difficult to start off with. Write out the scale of D major in order to find out the correct notes in the key...

D E F# G A B C#

As stated in previous chapters, using any of these notes in a song composed in D major is correct. Knowing this information completely in advance is the foundation for writing a song without an instrument. With this information, you can also determine which *chords*

you can use, and which ones you can't. The following formula should look should look all too familiar...

1 3 5

Let's see how you can apply this formula to the scale of D major in order to find what are called d*iatonic triads*.

I'm going to use each of the seven notes once as a root (1), and then build a third (3), and a fifth (5) off of each of the roots. I'm going to start with D as my root (1), and using the alphabet see what other notes in this scale become the third (3) and fifth (5).

D	E	F#	G	A	В	C#
1	2	3	4	5	6	7

This time around, you will not have to count up half steps and whole steps to find correct spellings. This is already done for you because of the predetermined notes in the scale. By applying this formula to each note in the scale, you can find all of the chords that will work in this key.

If you combine a D – F# - A, you will form a D major chord.

Here's what this means...

- A D major chord is one of the chords that can be used when composing a song in D major. It is guaranteed to work and sound good.
- Any other kinds of D chords will not work. This includes D minor, D augmented, D diminished, or anything else that contains Db or D#.
- If the note isn't listed, it doesn't work in the key! If the chord isn't listed, it doesn't work in the key!

I am going to introduce to you a system for organizing the chords you will find in the key. I'm going to use both uppercase and lowercase roman numerals too keep track of the findings. The uppercase roman numerals will represent major chords, and the lowercase roman numerals will represent minor chords. There are additional names for each of the degrees on the scale depending on the number. Here is a reference guide for both...

<u>Uppercase (Major)</u> <u>Lowercase (Minor)</u>

1 = I	(Tonic)	1 = i	(Tonic)
2 = II	(Supertonic)	2 = ii	(Supertonic)
3 = III	(Mediant)	3 = iii	(Mediant)
4 = IV	(Subdominant)	4 = iv	(Subdominant)
5 = V	(Dominant)	5 = v	(Dominant)
6 = VI	(Submediant)	6 = vi	(Submediant)
7 = VII	(Subtonic)	7 = vii	(Subtonic)

As you can see, no matter if a chord is major or minor, the 1 chord is always referred to as the *tonic*, the 2 chord is the *supertonic*, the 3 chord is the *mediant*, the 4 chord is the *submediant*, the 5 chord is the *dominant*, the 6 chord is the *submediant*, and the 7 chord is the *subtonic*.

Going back to the key of D major, I'm going to represent the first chord with a roman numeral. Since it was a major chord, it will be written in uppercase. Next to the roman numeral, I will write what chord it was, and the letters used in that chord...

Just as there are 7 notes in the scale, there are 7 *chords* in the scale as well. The next letter in line after D, is E...

D E F# G A B C#

By using E as the root (1) and applying the formula, the next chord in the scale is generated...

D E F# G A B C# 7 1 2 3 4 5 6

If E is used as the root note (1), then the third (3) becomes G, and the fifth (5) becomes B.

E - G - B = E minor chord

Here's what this means...

- An E minor chord is one of the chords that can be used in this song. It is guaranteed to work and sound good.
- Any other kinds of E chords will not work. This includes E major, E augmented, E diminished, or anything else that contains Eb or E#.
- If the note isn't listed, it doesn't work in the key! If the chord isn't listed, it doesn't work in the key!

I'm going to assign this chord a roman numeral as well. This is the second chord appearing in the scale, so give it a number 2. The chord is minor, so it has to be written in a lowercase roman numeral...

See where this is going? Follow the same pattern for the rest of the notes as they appear in the scale, continuing with F#...

D	E	F#	G	Α	В	C#	
6	7	1	2	3	4	5	

If F# is the root (1), then A becomes the third (3), and C# becomes the fifth (5).

$$F# - A - C# = F# minor$$

This will be the third diatonic triad in the Key of D major. Since the chord produced in minor, label it with a lowercase roman numeral 3. Here is my updated chart...

Onwards to complete them all...

With G as the root (1)...

G - B - D = G major

I – D major – D F# A

ii - E minor - E G B

iii – F# minor – F# A C#

IV - G major - G B D

With A as the root (1)...

A - C# - E = A major

I – D major – D F# A

ii - E minor - E G B

iii – F# minor – F# A C#

IV – G major – G B D

V – A major – A C# E

With B as the root (1)...

B - D - F# = B minor

I – D major – D F# A

ii – E minor – E G B

iii - F# minor - F# A C#

IV - G major - G B D

V – A major – A C# E

vi – B minor – B D F#

With C# as the root (1)...

D	E	F#	G	A	В	C#
2	3	4	5	6	7	1

C# - E - G = C# diminished

When you want to represent a diminished chord with roman numerals, use lowercase with a small degree° sign° like° this...

I – D major – D F# A

ii - E minor - E G B

iii – F# minor – F# A C#

IV - G major - G B D

V – A major – A C# E

vi – B minor – B D F#

vii° - C# diminished – C# E G

The diagram below is another way of expressing the diatonic triads. The roman numerals will serve to number the chords as they appear in the scale, name the notes in the chords, and also tell whether the chord is major, minor, or diminished...

I	ii	iii	IV	\mathbf{V}	vi	viio	
D	E	F#	G	A	В	C#	
F#	G	A	В	C#	D	E	
A	В	C#	D	E	F#	G	

Here's what this means...

- Any of the following chords will work in the key of D major:
 - o D major
 - o E minor
 - o F# minor
 - o G major
 - A major
 - o B minor
 - C# diminished
- All other chords that are not listed above will not work in the key of D major.
- If the note isn't listed, it doesn't work in the key! If the chord isn't listed, it doesn't work in the key!
- There are no naturally occurring augmented chords in a major scale.
- There are only seven chords and seven notes that will work in each key.
- For any major key, you will always find this pattern...

I ii iii IV V vi viiº

- The (Tonic) first chord will always be major
- The (Supertonic) second chord will always be minor
- The (Mediant) third chord will always be minor
- The (Subdominant) fourth chord will always be major
- The (Dominant) fifth chord will always be major
- The (Submediant) sixth chord will always be minor
- The (Subtonic) seventh chord will always be diminished

Remember the seemingly impossible assignment?

Write a song without an instrument. It better sound good when I play it.

No problem! My song is in D major. Play these chords on the instrument of your choice in the following order...

I (D Major) – D F# A

vi (B Minor) - B D F#

IV (G Major) - G B D

ii (Eminor) – EGB

V (A Major) – A C# E

I (D Major) – D F# A

SOUNDS GREAT!

HOMEWORK (answers are in the back of the book, and in your mind)

1. Use what you have learned so far in this chapter to write out all seven chords that will work in each of the following major keys:

C, Db, D, Eb, E, F, F#, Gb, G, Ab, A, Bb, and B

- 2. Write a song without an instrument in any major key. Make sure it has at least 6 chords.
- 3. Write another in a different key.
- 4. Write another in a different key.
- 5. Play them all.

DIATONIC TRIADS (NATURAL MINOR)

Music is comprised of many formulas that never change. This chapter will continue on that philosophy, as much of what you have learned in the last chapter will apply when you find the diatonic triads in the natural minor scale. Although the formula for doing so will be the same, some of the outcomes will be different. Start off with the key of E natural minor...

E F# G A B C D

Once again, there are seven notes we can use in this key. Thus, seven chords can be built using the seven notes. The first chord will be built on E...

E F# G A B C D
1 2 3 4 5 6 7

E - G - B = E minor

The roman numeral system is still used to keep track of the chords. The chord based on E is E minor, so a lowercase roman numeral must be used...

i = E minor = E G B

By practicing and following the pattern, you will be able to construct these chords rather quickly...

E F# G A B C D
7 1 2 3 4 5 6

F# - A - C = F# diminished

$$i = E minor = E G B$$

 $ii^{\circ} = F\# diminished = F\# A C$

$$G - B - D = G$$
 major

$$i = E minor = E G B$$

$$ii^{o} = F# diminished = F# A C$$

$$III = G \text{ major} = G B D$$

$$A - C - E = A minor$$

$$i = E minor = E G B$$

$$III = G \text{ major} = G B D$$

$$iv = A minor = A C E$$

$$B - D - F# = B minor$$

$$i = E \text{ minor} = E G B$$

$$III = G \text{ major} = G B D$$

$$iv = A minor = A C E$$

y = B minor = B D F#

E	F#	G	A	В	C	D
3	4	5	6	7	1	2

$$C - E - G = C$$
 major

$$i = E minor = E G B$$

$$III = G \text{ major} = G B D$$

$$iv = A minor = A C E$$

$$v = B \text{ minor} = B D F#$$

$$VI = C \text{ major} = C E G$$

$$i = E minor = E G B$$

$$III = G \text{ major} = G B D$$

$$iv = A minor = A C E$$

$$v = B \text{ minor} = B D F#$$

$$VI = C$$
 major $= C E G$

$$VII = D \text{ major} = D F \# A$$

Let's organize those chords into something a little more readable. From here we can make a few observations...

i	iiº	III	iv	\mathbf{v}	VI	VIII
E	F#	G	A	В	С	D
G	A	В	С	D	E	F#
В	С	D	Е	F#	G	Α

Here's what this means...

0	E minor
0	F# diminished
0	G major
0	A minor
0	B minor
0	C major
0	D major

If the note isn't listed, it doesn't work! If the chord isn't listed, it doesn't work!

- There are no naturally occurring augmented chords in a natural minor scale.
- There are only seven chords and seven notes that will work in each key.
- For any natural minor key, you will always find this pattern...

i iiº Ш iv VI VIII

- The (Tonic) first chord will always be minor
- The (Supertonic) second chord will always be diminished
- The (Mediant) third chord will always be major
- The (Subdominant) fourth chord will always be minor
- The (Dominant) fifth chord will always be minor
- The (Submediant) sixth chord will always be major
- The (Subtonic) seventh chord will always be major

HOMEWORK (answers are in the back of the book, and in your mind)

1. Use what you have learned so far in this chapter to write out all seven chords that will work in each of the following NATURAL MINOR keys:

C, C#, D, D#, Eb, E, F, F#, G, G#, A, Bb, and B

- $2. \ \ Write a song without an instrument in any Natural Minor key. \ Give it at least 6 chords.$
- 3. Write another in a different key.
- 4. Write another in a different key.
- 5. Play them all.

TONIC, DOMINANT, AND TONIC

Before we embark on our journey through harmonic minor diatonic triads, I'm going to go on a bit of a tangent. Don't worry it's absolutely necessary. I am not here to waste your time, nor my energy.

Through playing your various compositions thus far (you should have 6 of them: 3 major, 3 natural minor), you will begin to hear the unique sound properties that occur when changing from chord to chord.

For instance in a major scale, when you play a I (Tonic), then play a V (Dominant), then finish with another I (Tonic). You have created something with a nice beginning (Tonic - I), some tension in the middle (Dominant - V), and finished with a nice resolution (Tonic - I).

The relationship between the Tonic (I) and Dominant (V) chords are very important to say the least. There have been countless songs created that consist entirely of Tonic (I) and Dominant (V) chords. Songs you were born into and raised on such as Twinkle, Twinkle Little Star and Mary Had A Little Lamb. We are almost pre-programmed to love and desire the I-V-I relationship. Needless to say, it is the most widely used chord progression in the history of music; it serves as our foundation for songwriting, and how we perceive the beginning and ending of a musical phrase.

We'll discuss this subject towards the end of this book. I gave you this tidbit of information in order to prepare you for the next chapter...

DIATONIC TRIADS (HARMONIC MINOR)

Way back in Chapter 5, I had mentioned that there are 3 different minor scales. I demonstrated how to build the natural minor scale as well as find the diatonic triads within those scales in Chapter 19. A solid understanding of the natural minor scale is required in order to understand both the harmonic and melodic minor scales. The good news is, they really aren't that different from one another. Why the big speech on the importance of the Tonic (I) and the Dominant (V) in the last chapter? It was the basis for the *dissatisfaction* of the natural minor scale. Why is the natural minor scale all of a sudden unsatisfactory? The natural minor scale's $\mathbf{i} - \mathbf{v} - \mathbf{i}$ pales in comparison to the major scale's $\mathbf{I} - \mathbf{V} - \mathbf{I}$.

The I-V-I progression is unmatched in terms of beginning – tension – resolution. If you think of music in terms of film, most (successful) films follow the same formula of: Beginning – tension – resolution in the story line. Films "borrowed" that idea from music, and created the same effect using different forms of communication. The natural minor scale's version of i-v-i just doesn't deliver the same quality "tension – resolution" part of that formula. Remember, we have been pre-programmed to *desire* and *anticipate* a certain sound quality on all music we hear. If we hear it, we are satisfied. If we don't, then we just aren't *completely* satisfied. It's really as simple as that.

So what does human kind do in such a situation? We just change out what we don't like, and replace it with something that works a little better. Aren't we brilliant?

The Tonic – Dominant – Tonic progression creates better tension and resolution when both chords are major (as they are in the major scale). In the natural minor scale however, they are both minor, which can create a less than desirable effect.

If both of the chords were changed to major, then there would really be no point in having the minor scale in the first place. But, maybe if just *one* of them was changed a major chord, it might sound a little better and still retain the overall sound quality of the minor scale.

Pure brilliance...but do we change the Tonic (I) or the Dominant (V)?

If we change the Tonic (I), then it sounds far too much like the major scale. Plus, doing that changes the tonal center too much, and the ear becomes lost. However, if the Dominant (V) is changed, a drastically more pleasing effect is achieved, while still keeping the overall sound quality of the minor scale.

There you have it: A slightly modified version of the minor scale that has been tastefully altered to suit our fancy.

We shall call it harmonic minor.

So what exactly does the harmonic minor scale look like? Let me show you a side-by-side (in this case top-to-bottom) comparison of a B natural minor scale and a B harmonic minor scale...

		Вn	atural mi	nor		
В	C#	D	E	F#	G	A
		B ha	rmonic m	ninor		
В	C#	D	E	F#	G	A

Ha-ha, very funny.

The extremely *slight* difference actually lies in the diatonic triads...

B Natural Minor

i	iiº	III	iv	v	VI	VII
В	C#	D	E	F#	G	A
D	E	F#	G	A	В	C#
F#	G	A	В	C#	D	E

B Harmonic Minor

i	iiº	III	iv	V	VI	VII
В	C#	D	E	F#	G	A
D	E	F#	G	A#	В	C#
F#	G	A	В	C#	D	E

The ever so slight difference occurs in the V (Dominant) chord where the third (3) of the chord is sharped (raised one half step). In this case, the A became an A#. By making just one adjustment in one chord, the minor scale has been given a dramatic new twist.

Try playing the difference on your instrument:

- 1. Play i v i (B minor F# minor B minor)
- 2. Play i V i (B minor F# major B minor)

Hear the difference? This is why the harmonic minor scale is the most widely used minor scale, even more so than the natural minor scale.

Here's what this means...

- Any of the following chords will work in the key of B harmonic minor:
 - o B minor
 - o C# diminished
 - D major
 - o E minor
 - o F# major
 - C major
 - D major
- All other chords that are not listed above will not work in the key of B harmonic minor.
- If the note isn't listed, it doesn't work in the key! If the chord isn't listed, it doesn't work in the key!

- Do *not* substitute the altered note (in this case it's A#) in any other chords containing an A. The only one that needed change in the first place was the V, so leave it that way!
- There are only seven chords and seven notes that will work in each key.
- For any harmonic minor key, you will always find this pattern...

i iiº III iv V VI VIII

- The (Tonic) first chord will always be minor
- The (Supertonic) second chord will always be diminished
- The (Mediant) third chord will always be major
- The (Subdominant) fourth chord will always be minor
- The (Dominant) fifth chord will always be major
- The (Submediant) sixth chord will always be major
- The (Subtonic) seventh chord will always be major

HOMEWORK (answers are in the back of the book, and in your mind)

1. Use what you have learned so far in this chapter to write out all seven chords that will work in each of the following harmonic minor keys:

C, C#, D, D#, Eb, E, F, F#, G, G#, A, Bb, and B

- 2. Write a song without an instrument in any harmonic minor key. Give it at least 6 chords, and be sure to include at least one Dominant (V) chord.
- 3. Write another in a different key, be sure to include at least one Dominant (V) chord.
- 4. Write another in a different key, be sure to include at least one Dominant (V) chord.
- 5. Play them all.
- 6. Which scale is more widely used: natural minor or harmonic minor?

MELODIC MINOR

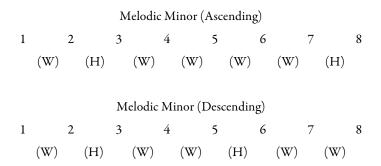
Ascending - Playing a series of notes that go up in pitch.

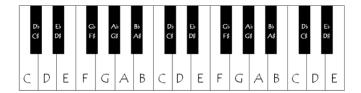
Descending – Playing a series of notes that go down in pitch.

This will most likely be the most uninformative and shortest chapter in this book. (Hey, every book has to have one!) Welcome to melodic minor, the least used minor scale in history.

At this point in 2008, I have never once used the melodic minor scale in my professional songwriting career. Not to say I haven't studied it thoroughly and played pieces that were written using the melodic minor scale, because I've done plenty of both. Also, plenty of other people have used it and made it sound great. I will show you how to build it, but I'm not going to spend an enormous amount of time on it due to its unpopularity.

The melodic minor scale actually consists of *two* different scales. The scale will vary depending on if you are ascending or descending. One of the scales is an exact replica of the natural minor scale; which is used when the scale is descending. When the melodic minor scale is played ascending, it becomes unique as shown below...





Since you have already written out the natural minor scales, I'm not going to torture you with doing the same thing again for homework in this chapter.

HOMEWORK (answers are in the back of the book)

1. Write out the following ascending melodic minor scales, starting on the given notes.

C, C#, D, D#, Eb, E, F, F#, G, G#, A, Bb, and B.

READING FIGURED BASS

<u>Figured Bass</u> – A way to write music based on numbers that refer to a specific chord in a scale.

At some point in your musical endeavors, you might have heard one musician say to another "Play a one, four, five in the key of G major." Both musicians proceed to pick up their instruments and play the exact same thing.

How did they know what to play?

They both know how to read and understand figured bass. In order to do that, both musicians needed excellent knowledge of all major and minor scales, as well as the diatonic triads contained within them. This probably took both of them quite some time to study and practice, but the results of that will produce a top-notch musician.

Figured bass provides an ultra fast form of communication. By simply writing the key and a few numbers, you can express exactly what chords to play in what order to another musician.

Here are two different methods to communicate the exact same thing to a fellow musician without using sheet music...

1. Figured Bass

E Major: I vi iii IV V

2. Mommy, please hold my hand

First, play an E major chord (E-G#-B), then a C# minor chord (C#-E-G#), then a G# minor chord (G#-B-D#), then an A major chord (A-C#-E), and then a B major chord (B-D#-F#), and finally an E major chord (E-G#-B). Good job, Junior.

Unfortunately, Mommy can't come to band practice. In order to read and communicate figured bass, you must identify what *key* the piece is in. Without the key, the roman numerals will mean absolutely nothing.

In the previously written figured bass, the key is established as E major. This information alone will tell us *exactly* what notes and chords we can play, and can't play. Here is the E major scale with all diatonic triads written out...

I	ii	iii	IV	\mathbf{V}	vi	viio
E	F#	G#	A	В	C#	D#
G#	A	В	C#	D#	E	F#
В	C#	D#	E	F#	G#	A

The roman numerals are nicely labeled with the correct combination of notes to play. So, if I asked you to play a I (Tonic), you would play an E major chord (E - G# - B). If I then asked you to play a vi (Submediant), you would play a C# minor chord (C# - E - G#). By simply referring to a roman numeral in a given key, you can express an entire chord.

Keep in mind, every time you change key, you *must* re-write your figured bass. For instance, if I asked you to play the same roman numerals (I and vi) in the key of Bb Major, your chords would change. However, the *integrity* of the chord progression will not change. The progression will *sound* the same; it simply starts in a different place. Observe...

Bb Major:	I	vi	iii	IV	V	I	
	I	ii	iii	IV	V	vi	viiº
	Bb	С	D	Eb	F	G	A
	D	Eb	F	G	A	Bb	С
	F	G	A	Bb	С	D	Eb

The Tonic (I) has now changed to a Bb Major Chord (Bb - D - F), and all other Roman numerals have changed as well. This is why the knowledge of what key you are in is imperative for reading figured bass.

$\underline{HOMEWORK} \ (\textit{answers are in the back of the book})$

1.	Write out and	play the f	following	chord pr	ogression	in the ko	ey of D major:
		I	V	vi	ii	IV	I
2.	Write out and	play the s	same cho	rd progre	ssion in tl	ne key of	Ab major:
		I	V	vi	ii	IV	I
3.	Write out and	play the f	following	chord pr	ogression	in the ko	ey of A harmonic minor
		i	VI	iv	VII	V	i
4.	Write out and	play the s	same cho	rd progre	ssion in tl	ne key of	G harmonic minor:
		i	VI	iv	VII	V	i

CHORD ABBREVIATIONS

There is yet another alternative to the "Mommy, please hold my hand" method of communicating between fellow musicians: Chord abbreviations. Chord abbreviations are more popular nowadays than figured bass because they require less information, and are a little easier to understand. I'm going to write out a chord progression in figured bass, and then I'm going to express that *same* chord progression using chord abbreviations...

Figured Bass

Bb Major: I vi iii IV V I

Chord Abbreviations

Bb Gm Dm Eb F Bb

I know I've put the horse before the carriage by not giving you a good explanation of how to read chord abbreviations, but just take a moment to observe what I have written above. Try to guess what the abbreviations stand for...

Notice that in the chord abbreviation section, I didn't even specify what key I was in. If I'm using that method, I don't *need* to specify a key. I'm simply specifying what chords to play.

Here is a brief rundown of (almost) everything you will see when it comes to chord abbreviations. (There are some additional aspects to this covered in the next chapter.)

Bb = Bb major D = D major F# = F# major

If you see just a capital letter, it means to play the respective major chord

Dbm = Db minor Gm = G minor G#m = G# minor

If you see a capital letter followed by a lowercase m, it means to play the respective Minor chord.

Abdim = Ab diminished Cdim = C diminished

D#dim = D#diminished

- or -

Abo = Ab diminished

 $C^{\circ} = C$ diminished

 $D^{\#o} = D^{\#}$ diminished

If you see a capital letter followed by a lowercase *dim* or a *degree* osign o, it means to play the respective diminished chord.

Ebaug = Eb augmented Aaug = A augmented

C#aug = C# Augmented

- or -

Eb+=Eb augmented

A+=A augmented

C#+ = C# augmented

If you see a capital letter followed by a lowercase *aug* or a *plus+sign+*, it means to play the respective augmented chord.

 $Bb7 = Bb dominant 7^{th} D7 = D dominant 7^{th}$

F#7 = F# dominant 7th

If you see a capital letter followed by a number 7, it means to play the respective dominant seventh chord.

Gbsus4 = Gb Sus 4 Dsus6 = D Sus 6 F#sus2 = F# Sus 2

If you see a capital letter followed by a *sus*, followed by a *2, 4, or 6* it means to play the respective sus2, sus4, or sus6 chord.

C#maj7sus4

You may also see combinations of all such abbreviations above. This tricky little monster is a C# major seventh sus 4(C#, F#, G#, and B).

HOMEWORK (answers are in the back of the book)

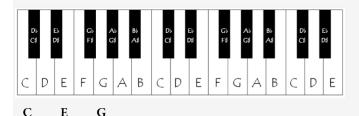
1. Identify the following chord abbreviations:

Gm Eb F7 Bb+ Db° E

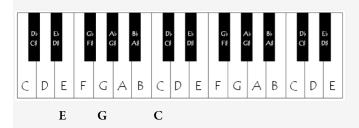
Ddim Am Caug F# Abm B7

CHORD INVERSIONS

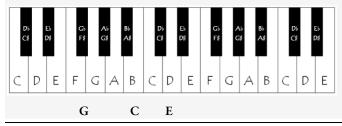
Root Position – Arranging and playing a chord where the root (1) is the lowest note, the third (3) is directly above the root (1), and the fifth (5) is directly above the third (3). Here is what a C major chord in root position looks like on the piano...



<u>First Inversion</u> – Arranging and playing a chord where the third (3) is the lowest note, the fifth (5) is directly above the third (3), and the root (1) is directly above the fifth (5). Here is what a C major chord in first inversion looks like on the piano...



<u>Second Inversion</u> – Arranging and playing a chord where the fifth (5) is the lowest note, the root (1) is directly above the fifth (5), and the third (3) is directly above the root (1). Here is what a C major chord in second inversion looks like on the piano...

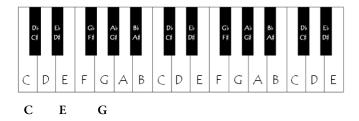


What makes a C major chord a C major chord? If the definition of a C major chord were to be written out, it would look something like this...

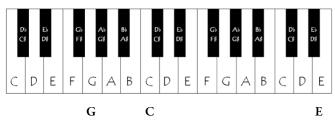
<u>C Major Chord</u> – Any combination of the notes C, E, and G played at the same time.

Let's pick apart that definition and highlight some key words...

Notice that it says *any* combination of C, E, and G. It didn't specify what *order* the notes were played in, as long as all of them were sounded at the same time. It doesn't matter if you play this...



Or this....



It is still a C major chord no matter how the notes are arranged. Although the actual chord did not change, the *inversion* changed. We can represent *inversions* in both figured bass and chord abbreviations.

First, take a look at how to represent chord inversions using figured bass. Anytime you use figured bass, you *must* identify which key you are playing in. This time I'm going to use the key of C major...

I	ii	iii	IV	V	vi	viiº
С	D	E	F	G	A	В
E	F	G	A	В	С	D
G	Α	В	C	D	E	F

Here is a quick rundown of what you can expect to see when you add an inversion to a chord represented in figured bass...

Root position looks like this:

 $I \qquad \quad ii \qquad iii \qquad IV \qquad V \qquad vi \qquad vii^o$

Anytime you see a roman numeral all by itself, it indicates that the given chord is played in root position.

First inversion looks like this:

 I^6 ii^6 iii^6 IV^6 V^6 vi^6 vii^{o^6}

Anytime you see a roman numeral followed by a superscripted⁶, it indicates that the given chord is in first inversion.

Second inversion looks like this:

 $I^6_4 \qquad i i^6_4 \qquad i i i^6_4 \qquad I V^6_4 \qquad V^6_4 \qquad v i^6_4 \qquad v i i^{o6}_4$

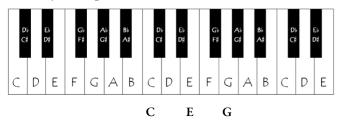
Anytime you see a roman numeral followed by a superscripted⁶ and a subscripted₄, it indicates that the given chord is in second inversion.

Here is a quick chord progression written in figured bass with inversions...

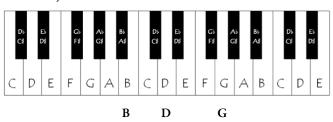
C major: I V^6 vi ii_4^6 V^6 I

Here's what it looks like on the piano in order. (Play these on a piano if you have access to one; it's always better to hear what's going on...)

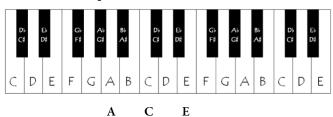
I = C major root position



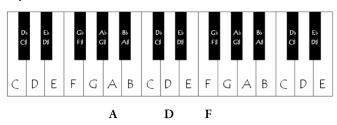
$V^6 = G$ major first inversion



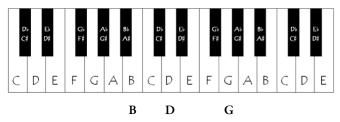
vi = A minor root position



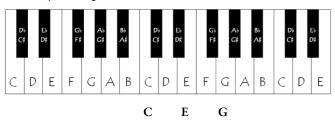
$Ii^{6}_{4} = D$ minor second inversion



$V^6 = G$ major first inversion



I = C major root position



Beautifully done! Now I will take the exact same song and write it in chord abbreviations...

Figured bass

C major: I V^6 vi ii^6_4 V^6 I

Chord abbreviations

C G/B Am Dm/A G/G C

So what do you make of that? Once again, chord abbreviations are more commonly used than figured bass because they convey more information with less to think about. Although the chord abbreviations will not tell you directly what inversion a chord is in, it will tell you what note is on the bottom (thus ultimately revealing it's inversion).

Let's use the following examples that will demonstrate how to read chord abbreviations that may or may not contain inversions...

C Ebm F#dim D#aug G° B+

If just the letter of the chord is written, the chord is to be played in root position.

D/F# F#m/C# Gdim/Bb

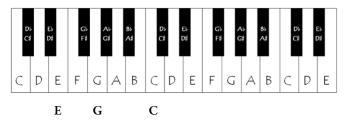
Caug/E A°/Eb D+/A#

If there is a letter followed by a slash and another letter, it means that the chord is *inverted*. The first letter will represent the chord; the second letter will represent the note that is on the bottom.

Let's practice these a bit...

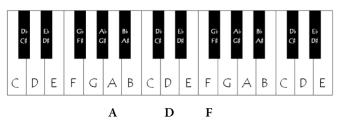
C/E = C major first inversion

Looks like this...



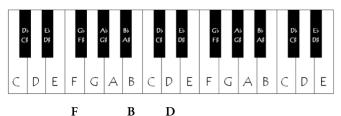
Dm/A = D minor second inversion

Looks like this...



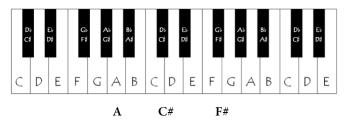
 $B^{\circ}/F = B$ diminished second inversion

Looks like this...



F#m/A = F# minor first inversion

Looks like this...



Inversions are *incredibly* important. They provide more specific instructions on which way to play the chord desired. Not only will they will play a crucial part in the next chapter on arranging music, they will help expand your creativity when composing music.

HOMEWORK (answers are in the back of the book)

1. Identify the following figured bass with inversions for the key of Bb minor ($Example: VI^6 = Gb \ major \ first \ inversion$)

 i^6 VI_4^6 ii^{o6} VII_4^6 III_4^6 V_4^6 iv^6 i_4^6

2. Identify the following chord abbreviations with inversions

(Example: Cm/G = C minor second inversion)

Eb/Bb Fm/Ab Gdim/Db D+/F# A/E

Abm/CbF#/A# E°/Bb F/C E+/B#

ARRANGEMENT

Voicing - How you choose to invert a chord.

Now that you have this wonderful knowledge of inversions, it's time to put it to practical use. You can pick the best sounding chords in the world, but if you don't have a good arrangement, it's going to sound sub-par. Take a few chords in the key of C major, and see if you can come up with the best possible arrangement for them. I'm going to throw a set of suggestions at you before we start. They aren't a set of *rules*, however they are highly suggested.

Tips for making the best arrangement possible.

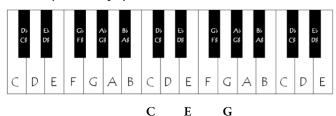
- 1. When moving from one note to the next, move to the next closest letter.
- 2. If at all possible, keep the same note when changing from one chord to the next.

Let's find the best possible arrangement for this chord progression...

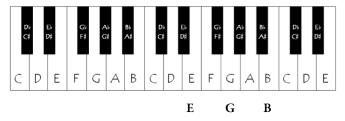
C -> Em -> Am

Without any sort of inversions or arrangement, the chords would be played like this on the piano...

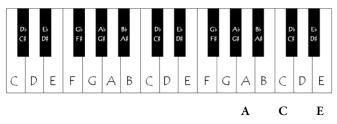
(C) First you would play here...



(Em) Then move your hand here...



(Am) Then move your hand all the way up here...



Nothing screams "amateur" like hearing someone play a set of chords like this. It's illogical because your hand is jumping around far too much for no reason. The more your hand jumps around, the more the listener's ear jumps around in confusion. Notice this way of playing the chords completely disregards the set of suggestions. It's all about making *smooth* movements. Let's take a more detailed look at how each of the notes in the chords are being voiced...

	C		Em		Am
Bottom Note	С	->	E	->	A
Middle Note	E	->	G	->	С
Top Note	G	->	В	->	E

Let's find a better way to arrange these notes so that the movements become a little smoother starting with just the first two chords...

	C		Em/B
Bottom Note	С	->	В
Middle Note	E	->	E
Top Note	G	->	G

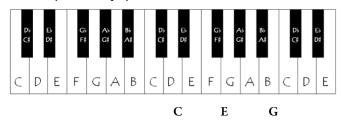
What is the only difference between a C major chord and an E minor chord? The B. Since both chords contain both an E and a G, keep those notes in the same voice when moving from chord to chord. When playing that progression on the piano, all you would have to do is move one note down from C and play a B, while keeping the E and G in the same position. The Em chord now becomes an Em/B (second inversion) because the bottom note is now the fifth (5).

I'd say this certainly beats moving your hand all around your instrument, and sounds 100% better as well! To complete this progression, I'll show you how to move logically from Em/B to Am...

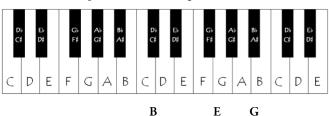
	C		Em/B		Am/C	
Bottom Note	С	->	В	->	С	
Middle Note	E	->	E	->	E	
Top Note	G	->	G	->	A	

By keeping that middle note (E) you can create a beautiful and sensible transition between Em and Am. You hand is no longer making leaps and bounds across your instrument. Instead, a few slides of the fingers will get it done. The Am now becomes an Am/C (first inversion) because the bottom note is the third (3). Let's take a look on how it appears on the piano...

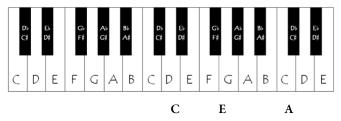
(C) First you would play here...



(Em/B) Then a quick slide of the finger...



(Am/C) Then a slick little change...

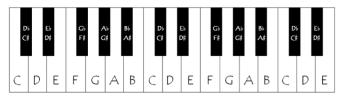


Congratulations! You now play and think like a true professional! Arranging music is highly important. Knowing how to *arrange* the chords are just as important as composing them. The arrangement of your song will make it or break it. I can immediately tell how much someone knows about music just by his or her arrangement. There are so many hack job lazy musicians who embarrass themselves on stage night after night playing original material that has little music thought behind it. I just can't help but laugh because I know that they haven't studied, they haven't put forth any effort in bettering themselves, and they will never make it in a million years! The pros will see (and hear) right through you. I can judge someone in 3 chords, and so can the top people in the music business. It pays to know this stuff!

Therefore I am going to give you plenty of homework. The good news is that there are no wrong answers. There are many possibilities for arrangement in the following pieces. This large amount of homework will make the next chapter much easier...

HOMEWORK

(The piano will come in very handy!)



1. Write the best possible arrangement for the following 4 chord progressions written in chord abbreviations.

$$C \longrightarrow Em \longrightarrow B^{\circ} \longrightarrow G$$

2. Write the best possible arrangement for the following 4 chord progressions written in figured bass.

COMPOSITION

Now that you have mastered the arrangement of chords that contain three notes, let's move on towards mastering the ability to write a song without an instrument.

You now have all of the skills needed to accomplish one of the most sought after abilities in the music world. When I was in college, my assignments were to write symphonies and other types of classical music using *sheets of paper*. I wrote parts for violins, violas, cellos, trumpets, saxophones, clarinets, and more instruments of the genre. Replacing those instruments with electric guitars, bass, and keyboards is a cinch because no matter what instrument you are using to create the sound, the *process* of creating the sound never changes.

Let's begin by writing a 6-chord progression for one guitarist, bassist, and keyboardist. I've written out a progression for you in both figured bass and chord abbreviation...

D major:I	V	vi	I	V	viiº	
	D	A	Bm	D	A	C#º

Before we start assigning parts to people, let's arrange our song so it avoids the "amateur" sound. So...what's the best possible arrangement for this song? Grab a sheet of paper, write out the above chord progressions and come up with the best arrangement.

Check the next page to see if you are correct...

I V⁶ vi I⁶₄ V viio⁶₄ - or - D A/C# Bm D/A A C#o/G

Now that we have our chords arranged, we can start dishing out parts to our musicians. I'm going to assign each of them parts, and then explain to you why I chose them. Read the notes from the bottom up...

Chord	I	V^6	vi	I_4^6	\mathbf{V}	viiº64
	D A/C#	Bm	D/A	A	C#º/G	
Guitar	A	A	F#	F#	E	E
	F#	E	D	D	C#	C#
	D	C#	В	A	A	G
Keys	F#	E	D	D	C#	C#
	D	C#	В	A	A	G
	A	A	F#	F#	E	E
Bass	D	C#	В	A	A	G

Changing which note gets played on the bottom is the *only* thing that makes a chord inversion, a chord inversion. Remember that! The notes the bassist plays will determine the inversion, with complete disregard to anything else anybody is playing. The bass is the lowest sounding instrument in the band; therefore the bass (and *only* the bass) will determine the inversion of the chord. This is why we can switch around the keyboard parts (or any other part) to be something entirely different. The other instruments may choose to follow one another in terms of playing the same inversions, and it produces a nice effect.

Analyzing the Bass: The bassist MUST follow the inversion pattern since it is the lowest sounding instrument. The bassist part is straightforward and non-negotiable. If no inversion is given, he plays the root note. If the inversion note is given, he *must* play that note.

Analyzing the Guitar: I chose to have the guitar follow the chord inversions exactly as they are written. Remember, the guitar does not have to do this, I simply wanted it to do so.

Analyzing the Keys: I chose not to have the keyboardist follow the chord inversions. Instead, I wrote a completely new part.

Let's have some fun and throw some additional musicians into the mix....

Chord		I	V^6	vi	I_{4}^{6}	V	vii ^{o6}
	D	<i>A/C</i> #	Bm	D/A	A	C#º/G	
Singer		F#	E	F#	F#	E	C#
Guitar 2 A		C#	В	A	C#	E	
Guitar		A	A	F#	F#	E	E
		F#	E	D	D	C#	C#
		D	C#	В	A	A	G
Keys		F#	E	D	D	C#	C#
		D	C#	В	A	A	G
		A	A	F#	F#	E	E
Bass		D	C#	В	A	A	G

We can easily add as many musicians as necessary and create *millions* of different variations of the same chord progression.

Let's analyze the singer: At some point in your life, you have probably had the displeasure of hearing a singer sing horribly out of tune. What does it mean to sing out of tune? Simple: The singer is not singing a note that is within the chord being played by the rest of the band, or singing a note that is not even in the scale. The notes I have given the singer will all work because they are already being sounded by another instrument. If I told the signer to start off the song by singing an E, I know in advance he would be out of tune because there is no "E" in a D major chord. I have 3 options for my singer in the first chord: D, F#, or A. All other notes are sour.

Let's analyze the 2nd Guitarist: Just like the singer, I can write any notes for him that are contained in the chord.

Here's what this means...

- The only instrument that will determine the inversion is the *lowest sounding instrument*. In this case it is the bass player.
- The other instruments may play *any other notes in the chord in any order they want*. They may play as few notes, or as many notes as they desire.

HOMEWORK

1. Listen to classical music in order to hear the best possible demonstration of this knowledge.

Example composers: J.S. Bach, Beethoven, Mozart, Handel, Vivaldi, and Haydn.

- 2. Compose a 6-chord song for yourself or your band. Assign everyone parts. Play the song and see how it sounds.
- 3. Re-write your song using the same chords, but different arrangements.
- 4. Re-write it yet again with a different arrangement.

CADENCES

Cadence - A series of chords that imply an ending to the ear.

Now that you are gifted in the art of writing songs without an instrument, let's explore some common techniques used by other musicians over time.

Every good song needs a good ending. Have you ever heard a song where it ended unexpectedly or abruptly? The audience pauses for a few seconds before realizing that the performance is over and they should applaud...or not! Our ears have been trained since birth to recognize what the end of a song is supposed to sound like. If we do not hear one of the appropriate endings, we question the quality of the music. These same types of endings are used so much, that they have each been given their own names. Here are a few of the most common cadences...

Authentic Cadence V -> I

The authentic cadence is the most commonly used ending in history. Nothing says 'ending' like hearing V to I.

Plagal Cadence IV -> I

The plagal cadence is sometimes called the "*Amen cadence*" because of its widespread use in hymns. Still, the IV to I chord progression makes for a highly effective ending.

Deceptive Cadence V -> vi

As it's name implies, it's actually not an ending. Rather, it's a fake ending. Since our most popular way to end a song is V to I, people almost *expect* to hear a I chord after you play a V. But, when you replace the I with a vi, the audience is pleasantly fooled.

That's it? That's all that has been used for countless years? For the most part, yes. It has been tried, tested, and approved for your use.

Also, another timeless piece of advice: Start your beginning compositions on the Tonic (I) before exploring other possibilities. The purpose of the Tonic chord is to establish tonality, or simply put: Give your listeners a good beginning. A song takes a listener on a

journey. Every journey has a beginning point and an ending point. The stuff in the middle will determine what kind of journey the listener has traveled on.

HOMEWORK

- 1. Write and play a chord progression that ends with an authentic cadence
- 2. Write and play a chord progression that ends with a plagal cadence
- 3. Write and play a chord progression that contains a deceptive cadence
- 4. Write and play a chord progression that uses the following alternative endings?

Are any of these usable? Why or why not?

OTHER BOOKS BY LLOYD STEINER

Make A Fortune Teaching Private Music Lessons: How To Quit Your Job And Become A Professional Musician In 30 Days

The Unsigned Band's Black Book: The Definitive Guide To The Music Business

ANSWER KEY

CHAPTER 3

2. Answer the following statements with True or False...

```
_FALSE_ The F Major Scale contains the note Ab.
```

_TRUE__ The F Major Scale contains the note G.

FALSE The note A# is part of the F Major Scale.

FALSE The F Major Scale has 6 notes.

CHAPTER 4

1. You will now figure out all of the following major scales...

CDEFGABC

Db Eb F Gb Ab Bb C Db

DEF#GABC#D

Eb F G Ab Bb C D Eb

E F# G# A B C# D# E

FGABbCDEF

F# G# A# B C# D# E# F#

Gb Ab Bb Cb Db Eb F Gb

GABCDEF#G

Ab Bb C Db Eb F G Ab

ABC#DEF#G#A

Bb C D Eb F G A Bb

B C# D# E F# G# A# B

2. You will now find the significance of the scales being written in the following order, this knowledge will come in handy in later chapters...

C, G, D, A, E, B, F#, F, Bb, Eb, Ab, Db, Gb

The scales are written in order of the *number* of sharps and flats contained in the scale.

3. Two of the scales share an enharmonic spelling, which two are they? Is there is significance in the number of sharps and/or flats those two scales

have?

F# and Gb. F# has 6 sharps, and Gb has 6 flats.

CHAPTER 5

1. You will write out the following Natural Minor Scales, starting on the given notes. This will be every Natural Minor Scale you will ever use.

C D Eb F G Ab Bb C

C# D# E F# G# A B C#

DEFGABbCD

D# E# F# G# A# B C# D#

Eb F Gb Ab Bb Cb Db Eb

EF#GABCDE

FG Ab Bb CDb Eb F

F# G# A B C# D E F#

GABbCDEbFG

G# A# B C# D# E F# G#

ABCDEFGA

Bb C Db Eb F Gb Ab Bb

BC#DEF#GAB

2. Two of the scales share an enharmonic spelling, which two are they? Is there is significance in the number of sharps and/or flats those two scales have?
D# and Eb. D# has 6 sharps, and Eb has 6 flats.
CHAPTER 7
1. Figure out the following Major chords starting on the given notes
CEG
Db F Ab
D F# A
E G# B
Eb G Bb
FAC
F# A# C#
Gb Bb Db
GBD
Ab C Eb
A C# E
Bb D F
B D# F#
Extra Credit:
Cb Eb Gb
Fb Ab Cb
2. How many half steps are there between the Root (1) and the Third (3) in any given Major Chord?
Four.

3. How many half steps are there between the Third (3) and the Fifth (5) in any given Major Chord?
Three.
CHAPTER 8
1. Figure out the following Minor chords starting on the given notes
C Eb G
C# E G#
DFA
D# F# A#
EGB
F Ab C
F# A C#
Gb Bbb Db
G Bb D
G# B D#
ACE
Bb Db F
BDF#
Extra Credit:
Ab Cb Eb
Db Fb Ab
2. How many half steps are there between the Root (1) and the Third (3) in any given Minor Chord?
Three.

Minor Chord?
Four.
rour.
CHAPTER 9
1. Figure out the following Augmented chords starting on the given notes
C E G#
Db F A
D F# A#
Eb G B
E G# B#
F A C#
Gb B D
GBD#
Ab C E
A C# E#
Bb D F#
B D# Fx
Extra Credit:
Latia Citcait.
C# E# Gx
G# B# Dx
Extra Extra Credit:
A# Cx Ex

2. How many half steps are there between the Root (1) and the Third (3) in any given Augmented Chord?
Four.
3. How many half steps are there between the Third (3) and the Fifth (5) in any given Augmented Chord?
Four.
CHAPTER 10
1. Figure out the following Diminished chords starting on the given notes
C Eb Gb
C# E G
D F Ab
D# F# A
E G Bb
F Ab Cb
F# A C
G Bb Db
G# D B
A C Eb
Bb Db Fb
B D F
Extra Credit:
Db Fb Abb
Ab Cb Ebb

Extra Extra Credit:
ЕЬ GЬ ВЬЬ
CHAPTER 11
1. Figure out the following Dominant Seventh Chords starting on the given notes
CEGBb
C# E# G# B
Db F Ab Cb
DF#AC
D# Fx A# C#
Eb G Bb Db
E G# B D
F A C Eb
F# A# C# E
Gb Bb Db Fb
GBDF
G# B# D# F#
Ab C Eb Gb
A C# E G
A# Cx E# G#
Bb D F Ab
B D# F# A
2. Figure out the following Major Seventh Chords starting on the given notes
CEGB
C# E# G# B#

Db F Ab C

D F# A C# D# Fx A# Cx Eb G Bb D E G# B D# FACE F# A# C# E# Gb Bb Db F GBDF# G# B# D# Fx Ab C Eb G A C# E G# A# Cx E# Gx Bb D F A B D# F# A# 3. Figure out the following Minor Seventh Chords starting on the given notes... C Eb G Bb C# E G# B Db Fb Ab Cb DFAC D# F# A# C# Eb Gb Bb Db EGBD F Ab C Eb F# A C# E Gb Bbb Db Fb GBbDF G# B D# F# Ab Cb Eb Gb ACEG A# C# E# G# Bb Db F Ab

4. Figure out the following Minor-Major Seventh Chords starting on the given notes...

C Eb G B C# E G# B# Db Fb Ab C DFAC# D# F# A# Cx Eb Gb Bb D EGBD# F Ab C E F# A C# E# Gb Bbb Db F GBbDF# G# B D# Fx Ab Cb Eb G ACEG# A# C# E# Gx Bb Db F A B D F# A# 5. Figure out the following Half-Diminished Seventh Chords starting on the given notes... C Eb Gb Bb C# E G B Db Fb A Cb D F Ab C D# F# A C# Eb Gb Bbb Db E G Bb D F Ab Cb Eb

F# A C E

Gb Bbb Dbb Fb

G Bb Db F

G# B D F#

Ab Cb Ebb Gb

A C Eb G

A# C# E G#

Bb Db Fb Ab

BDFA

6. Figure out the following Diminished Seventh Chords starting on the given notes...

C Eb Gb Bbb

C# E G Bb

Db Fb A Cbb

D F Ab Cb

D# F# A C

Eb Gb Bbb Dbb

E G Bb Db

F Ab Cb Ebb

F# A C Eb

Gb Bbb Dbb Fbb

G Bb Db Fb

G#BDF

Ab Cb Ebb Gbb

A C Eb Gb

A# C# E G

Bb Db Fb Abb

BDFAb

CFG
C# F# G#
Db Gb Ab
D G A
D# G# A#
Eb Ab Bb
EAB
F Bb C
F# B C#
Gb Cb Db
GCD
G# C# D#
Ab Db Eb
ADE
A# D# E#
Bb Eb F
B E F#
CHAPTER 14
1. Figure out the following sus2 Chords starting on the given notes
CDG
C# D# G#
Db Eb Ab
DEA

1. Figure out the following sus4 Chords starting on the given notes...

D# E# A#

E F# B	
FGC	
F# G# C#	
Gb Ab Db	
GAD	
G# A# D#	
Ab Bb Eb	
ABE	
A# B# E#	
Bb C F	
B C# F#	
CHAPTER 15	
1. Figure out the following sus6 Chords starting on the given notes	
CGA	
C G A C# G# A#	
C# G# A#	
C# G# A# Db Ab Bb	
C# G# A# Db Ab Bb D A B	
C# G# A# Db Ab Bb D A B D# A# B#	
C# G# A# Db Ab Bb D A B D# A# B# Eb Bb C	
C# G# A# Db Ab Bb D A B D# A# B# Eb Bb C E B C#	
C# G# A# Db Ab Bb D A B D# A# B# Eb Bb C E B C# F C D	
C# G# A# Db Ab Bb D A B D# A# B# Eb Bb C E B C# F C D F# C# D#	
C# G# A# Db Ab Bb D A B D# A# B# Eb Bb C E B C# F C D F# C# D# Gb Db Eb	
C# G# A# Db Ab Bb D A B D# A# B# Eb Bb C E B C# F C D F# C# D# Gb Db Eb G D E	

Eb F Bb

A# E# Fx

Bb F G

B F# G#

CHAPTER 16

1. Figure out the following 7 sus4 Chords starting on the given notes...

CFGBb

C# F# G# B

Db Gb Ab Cb

DGAC

D# G# A# C#

Eb Ab Bb Db

EABD

FBbCEb

F# B C# E

Gb Cb Db Fb

GCDF

G# C# D# F#

Ab Db Eb Gb

ADEG

A# D# E# G#

Bb Eb F Ab

BEF#A

CHAPTER 18

1. Use what you have learned so far in this chapter to write out all seven chords that will work in each of the following MAJOR keys:

I	ii	ii	IV	V	vi	viiº
С	D	E	F	G	A	В
E	F	G	A	В	C	D
G	A	В	С	D	E	F
I	ii	ii	IV	V	vi	viiº
Db	Eb	F	Gb	Ab	Bb	C
F	Gb	Ab	Bb	C	Db	Eb
Ab	Bb	C	Db	Eb	F	Gb
I	ii	ii	IV	V	vi	viiº
D	E	F#	G	A	В	C#
F#	G	A	В	C#	D	E
A	В	C#	D	E	F#	G
I	ii	ii	IV	V	vi	viiº
Eb	F	G	Ab	Bb	С	D
G	Ab	Bb	C	D	Eb	F
Bb	C	D	Eb	F	G	Ab
I	ii	ii	IV	V	vi	viiº
E	F#	G#	A	В	C#	D#
G#	A	В	C#	D#	E	F#
В	C#	D#	E	F#	G#	A
I	ii	ii	IV	V	vi	viiº
F	G	A	Bb	C	D	E
A	Bb	C	D	E	F	G
C	D	E	F	G	A	Bb

I	ii	ii	IV	V	vi	viiº
F#	G#	A#	В	C#	D#	E#
A#	В	C#	D#	E#	F#	G#
C#	D#	E#	F#	G#	A#	В
I	ii	ii	IV	V	vi	viiº
Gb	Ab	Bb	Cb	Db	Eb	F
Bb	Cb	Db	Eb	F	Gb	Ab
Db	Eb	F	Gb	Ab	Bb	Cb
I	ii	ii	IV	V	vi	viiº
G	A	В	С	D	E	F#
В	С	D	E	F#	G	A
D	E	F#	G	A	В	C
I	ii	ii	IV	V	vi	viiº
Ab	Bb	C	Db	Eb	F	G
C	Db	Eb	F	G	Ab	Bb
Eb	E	G	Ab	Bb	C	Db
I	ii	ii	IV	V	vi	viiº
A	В	C#	D	E	F#	G#
C#	D	E	F#	G#	A	В
E	F#	G#	A	В	C#	D
I	ii	ii	IV	V	vi	viiº
		D		F	G	A
D	Eb	F	G	A	Bb	С
F	G	A	Bb	С	D	Eb

Ι ii IV V ii vi viio В C# D# E F# G# A# D# E F# G# A# В C# F# G# A# В C# D# E

CHAPTER 19

1. Use what you have learned so far in this chapter to write out all seven chords that will work in each of the following NATURAL MINOR keys:

i	iiº	III	iv	v	VI	VII
C	D	Eb	F	G	Ab	Bb
Eb	F	G	Ab	Bb	C	D
G	Ab	Bb	С	D	Eb	F
i	iiº	III	iv	\mathbf{v}	VI	VII
C#	D#	E	F#	G#	A	В
E	F#	G#	A	В	C#	D#
G#	A	В	C#	D#	E	F#
i	iiº	III	iv	v	VI	VII
D	E	F	G	A	Bb	C
F	G	A	Bb	С	D	E
A	Bb	C	D	E	F	G
i	iiº	III	iv	v	VI	VII
D#	E#	F#	G#	A#	В	C#
F#	G#	A#	В	C#	D#	E#
A#	В	C#	D#	E#	F#	G#

i	iiº	III	iv	v	VI	VII
Eb	F	Gb	Ab	Bb	Cb	Db
Gb	Ab	Bb	Cb	Db	Eb	F
Bb	Cb	Db	Eb	F	Gb	Ab
i	iiº	III	iv	v	VI	VII
E	F#	G	A	В	С	D
G	A	В	C	D	E	F#
В	С	D	E	F#	G	A
i	iiº	III	iv	v	VI	VII
F	G	Ab	Bb	С	Db	Eb
Ab	Bb	С	Db	Eb	F	G
C	Db	Eb	F	G	Ab	Bb
i	iiº	III	iv	v	VI	VII
F#	G#	A	В	C#	D	E
A	В	C#	D	E	F#	G#
C#	D	E	F#	G#	A	В
i	iiº	III	iv	v	VI	VII
G	A	Bb	С	D	Eb	F
Bb	С	D	Eb	F	G	A
D	Eb	F	G	A	Bb	С
i	iiº	III	iv	v	VI	VII
G#	A#	В	C#	D#	E	F#
В	C#	D#	E	F#	G#	A#
D#	E	F#	G#	A#	В	C#

i	iiº	III	iv	v	VI	VII
A	В	С	D	E	F	G
С	D	E	F	G	A	В
E	F	G	A	В	C	D
i	iiº	III	iv	v	VI	VII
Bb	С	Db	Eb	F	Gb	Ab
Db	Eb	F	Gb	Ab	Bb	C
F	Gb	Ab	Bb	С	Db	Eb
i	iiº	III	iv	v	VI	VII
В	C#	D	E	F#	G	A
D	E	F#	G	A	В	C#
F#	G	A	В	C#	D	Е

1. Use what you have learned so far in this chapter to write out all seven chords that will work in each of the following HARMONIC MINOR keys:

i	iiº	III	iv	V	VI	VII
D	E	F	G	A	Bb	С
F	G	A	Bb	C#	D	E
A	Bb	С	D	E	F	G
i	iiº	III	iv	V	VI	VII
D#	E#	F#	G#	A#	В	C#
F#	G#	A#	В	Cx	D#	E#
A#	В	C#	D#	E#	F#	G#
i	iiº	III	iv	V	VI	VII
Eb	F	Gb	Ab	Bb	СЬ	Db
Gb	Ab	Bb	Cb	D	Eb	F
Bb	Cb	Db	Eb	F	Gb	Ab
i	iiº	III	iv	V	VI	VII
E	F#	G	A	В	C	D
G	A	В	С	D#	E	F#
В	С	D	E	F#	G	A
i	iiº	III	iv	V	VI	VII
F	G	Ab	Bb	С	Db	Eb
Ab	Bb	С	Db	E	F	G
С	Db	Eb	F	G	Ab	Bb
i	iiº	III		V	VI	VII
F#		A		C#	D	E
A	В	C#	D	E#	F#	G#
C#	D	E	F#	G#	A	В

i	iiº	III	iv	V	VI	VII
G	A	Bb	С	D	Eb	F
Bb	C	D	Eb	F#	G	A
D	Eb	F	G	A	Bb	С
i	iiº	III	iv	V	VI	VII
G#	A#	В	C#	D#	E	F#
В	C#	D#	E	Fx	G#	A#
D#	E	F#	G#	A#	В	C#
i	iiº	III	iv	V	VI	VII
A	В	C	D	E	F	G
С	D	E	F	G#	A	В
E	F	G	A	В	C	D
i	iiº	III	iv	V	VI	VII
Bb	С	Db	Eb	F	Gb	Ab
Db	Eb	F	Gb	A	Bb	С
F	Gb	Ab	Bb	С	Db	Eb
i	iiº	III	iv	V	VI	VII
В	C#	D	E	F#	G	A
D	E	F#	G	A#	В	C#
F#	G	Α	В	C#	D	E

 $1. \ \ Write out the following ASCENDING Melodic Minor Scales, starting on the given notes.$

CDEbFGABC

C# D# E F# G# A# B# C#

DEFGABC#D

D# E# F# G# A# B# Cx D#

Eb F Gb Ab Bb C D Eb

E F# G A B C# D# E

FGAbBbCDEF

F# G# A B C# D# E# F#

GABCDEF#G

G# A# B C# D# E# Fx G#

ABCDEF#G#A

Bb C Db Eb F G A Bb

BC#DEF#G#A#B

CHAPTER 23

1. Write out and play the following chord progression in the key of D Major:

I	V	vi	ii	IV	Ι
D	A	C#	E	G	D
F#	C#	E	G	В	F#
Α	E	G	В	D	Α

2. Write out and play the same chord progression in the key of Ab Major:

I	V	vi	ii	IV	I
Ab	Eb	C	Bb	Db	Ab
C	G	Eb	Db	F	С
Eb	Bb	G	F	Ab	Eb

3. Write out and play the following chord progression in the key of A Harmonic Minor:

i	VI	iv	VII	V	i
A	F	D	G	E	A
C	A	F	В	G#	С
E	С	A	D	В	Е

4. Write out and play the same chord progression in the key of G Harmonic Minor:

i VI VII iv V i G Eb C F G D Bb G Eb Α F# Bb Bb G C D Α D

CHAPTER 24

1. Identify the following Chord Abbreviations:

G Minor Eb Major F Dominant 7th Bb Augmented Db Diminished E Major

Ab Minor

B Dominant 7th

C Augmented F# Major

CHAPTER 25

D Diminished A Minor

1. Identify the following Figured Bass with inversions for the Key of Bb Minor

 $(Example: VI6 = Gb\ Major\ First\ Inversion)$

Bb Minor First Inversion

Gb Major Second Inversion

C Diminished First Inversion

Ab Major Second Inversion

Db Major First Inversion

F Major Second Inversion

Eb Minor First Inversion

Bb Minor Second Inversion

2. Identify the following Chord Abbreviations with inversions

(Example: Cm/G = C Minor Second Inversion)

Eb/Bb = Eb Major Second Inversion

Fm/Ab = F Minor First Inversion

Gdim/Db = G Diminished Second Inversion

D+/F# = D Augmented First Inversion

A/E = A Major Second Inversion

Abm/Cb = Ab Minor First Inversion

F#/A# = F# Major First Inversion

E°/Bb = E Diminished Second Inversion

F/C = F Major Second Inversion

E+/B# = E Augmented Second Inversion