APPENDIX (GENERAL MUSIC INFORMATION)

MUSICAL NOTES (WESTERN MUSIC)

Western music is made up of 12 notes. Each note has a name. The names of notes are shown below. There is one "half step" between each note. Some notes have alternate names (A# is Bb). Note that A# means A sharp, and Bb means B flat. The notes are:

```
C   C#  D  D#  E  F  F#  G  G#  A   A#   B  (C   C#  D  D#........)
   (Db)   (Eb)      (Gb)   (Ab)    (Bb)     (repeats..............)
```

MAJOR SCALE

The most familiar scale is the Major scale which is made up of 7 of the 12 notes. 5 notes are left out, or only used for variety. The scale is also called "Ionian". We refer to these 7 notes as

Do, Re, Mi, Fa, So, La and Ti.

In Major mode, there is a half step (one fret on the guitar) between the 3rd and 4th (Mi and Fa) of the seven notes and between the 7th and high 1st (8th) notes (Ti and high Do). Between all other notes there is a whole step due to the 5 left out notes. This is shown below:

```
half steps between -v------v------v------v------v------v------v------v
                (Do) 2 (Re) 2 (Mi) 1 (Fa) 2 (So) 2 (La) 2 (Ti) 1 (Do) 2 (Re)
number -------> 1  2b  2  3b  3      4  5b  5  6b  6  7b  7      8  9b  9
                  (1#)   (2#)          (4#)   (5#)   (6#)          (8#)
left out -----------^------^-------------^------^------^-------------^
```

The numbering convention above will be used to construct chords and scales. The missing notes are referred to as flat or sharp versions of the 7 used notes. Note that when we get back to Do at the high end of the scale, we can refer to the notes as 8 (or high 1), 9b (or high 2b), 9 (or high 2), etc.

With the above information, we can form all of the scales in Major and other modes.

If a Major scale is formed in some key (say F#), the name of the key is Do in the scale (Do is F#). This is the base note. Subsequent notes of the scale are formed by moving the required number of steps, as shown above. For example:

KEY OF C:

```
half steps-v------v------v------v------v------v------v
      (Do) 2 (Re) 2 (Mi) 1 (Fa) 2 (So) 2 (La) 2 (Ti) 1 (Do)
       C      D      E      F      G      A      B      C  <- notes
       1      2      3      4      5      6      7      8  <- number
```

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KEY OF F#:

```
half steps-v------v------v------v------v------v------v
      (Do) 2 (Re) 2 (Mi) 1 (Fa) 2 (So) 2 (La) 2 (Ti) 1 (Do)
       F#     G#     A#     B      C#     D#     E#(F)  F# <- notes
       1      2      3      4      5      6      7      8  <- number
```

MODES USING NOTES OF THE MAJOR SCALE

A typical song might start on "do", progress through different notes and almost always finish on "do". A song that does this is said to be in "Ionian" mode. This mode has a certain "feel" to it.

There are other modes that have a different "feel". One such mode is "Aeolian". This mode starts on "la", progresses through different notes and almost always finishes on "la". This mode has a "sad" feel to it.

In all there are seven modes, each of which as its own "feeling". The modes are characterized by the location of half steps in the progression from 1 to 8 (Note 8 is a repetition of 1). Each mode typically starts on one of the notes do re mi fa so la ti, and progresses through the song, typically "resolving" or ending on the same note. On the next page is a table showing the modes, and the notes used for each key.

If you want to find the notes used for a given key and a given mode, select the mode. Then go to the column corresponding to note 1, then go down to the key you want, and the notes are across the table from that note to the next occurrence of that note. This is illustrated in the table below on the next page for two cases:

```
Key of Bb, Mixolydian mode    Bb C  D  Eb F  G  Ab Bb
Key of F#, Locrian mode       F# G  A  B  C  D  E  F#
```

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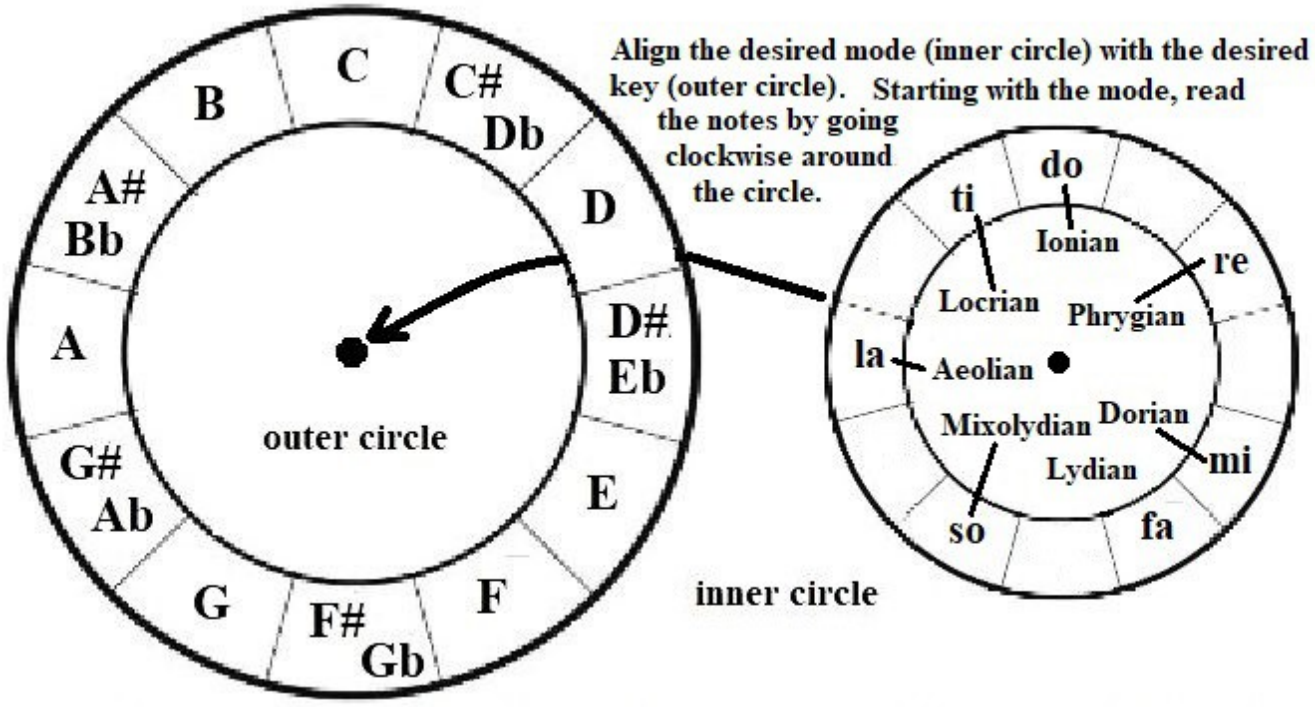
MODES CHART AND CIRCLE

```
do re mi fa so la ti do re mi fa so la ti do              start end
1  2  3  4  5  6  7  1 <-------------------- Ionian       do....do
   1  2  3  4  5  6  7  1 <----------------- Phrygian     re....re
      1  2  3  4  5  6  7  1 <-------------- Dorian       mi....mi
         1  2  3  4  5  6  7  1 <----------- Lydian       fa....fa
            1  2  3  4  5  6  7  1 <-------- Mixolydian   so....so
(minor key) |  1  2  3  4  5  6  7  1 <---- Aeolian      la....la
            |     1  2  3  4  5  6  7  1 <- Locrian      ti....ti
____________|     |_____________________________________________
            |     |
C  D  E  F  G  A  B  C  D  E  F  G  A  B
Db Eb F  Gb Ab Bb C  Db Eb F  Gb Ab Bb C
D  E  F# G  A  B  C# D  E  F# G  A  B  C#
Eb F  G  Ab Bb C  D  Eb F  G  Ab Bb C  D  <-underlined = notes in key
E  F# G# A  B  C# D# E  F# G# A  B  C# D#     of Bb, Mixolydian mode
F  G  A  Bb C  D  E  F  G  A  Bb C  D  E
F# G# A# B  C# D# F  F# G# A# B  C# D# F
Gb Ab Bb B  Db Eb F  Gb Ab Bb B  Db Eb F
G  A  B  C  D  E  F# G  A  B  C  D  E  F#  <-underlined = notes in key
Ab Bb C  Db Eb F  G  Ab Bb C  Db Eb F  G          of F#, Locrian mode
A  B  C# D  E  F# G# A  B  C# D  E  F# G#
Bb C  D  Eb F  G  A  Bb C  D  Eb F  G  A
B  C# D# E  F# G# A# B  C# D# E  F# G# A#
C  D  E  F  G  A  B  C  D  E  F  G  A  B  (A is relative minor of C)
_____________________________________                - Aeolian)
  2  2  1  2  2  2  1  2  2  1  2  2  2  <-- steps between notes
```

In the circles below, cut out the inner circle, and align the desired mode (inner circle) with the desired key (outer circle). Starting with the mode, read the notes going clockwise around the circle, for example, for Dorian mode, key of G:

mi (G), fa (G#), sol (A#), la (C), ti (D), do (D#), re (F), mi (G).



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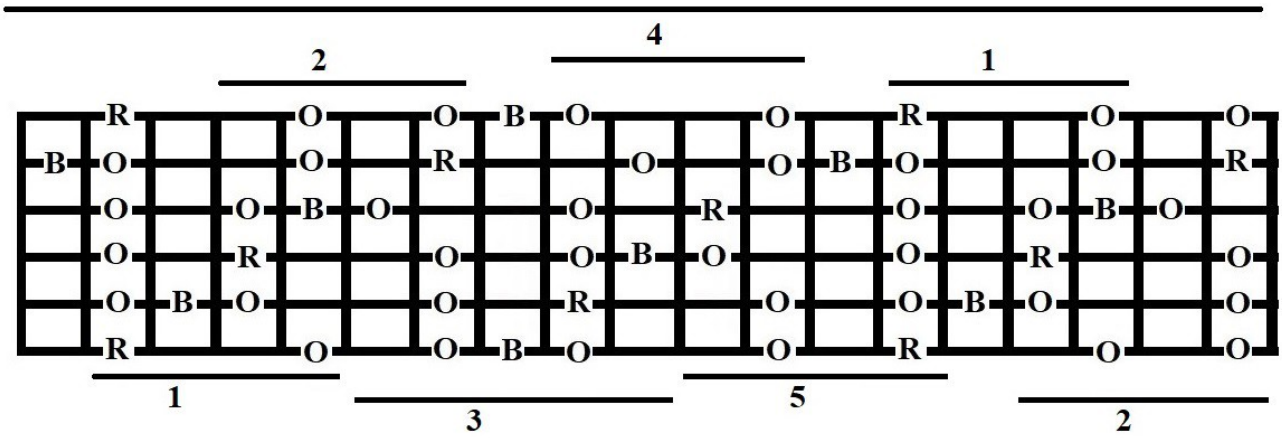
PENTATONIC SCALES

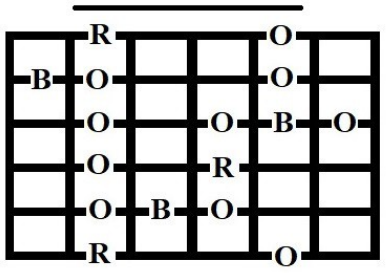
Movable scale patterns were discussed in lesson 8, where we discussed playing scales in a box of 4 frets on the guitar neck. We also discussed playing songs within the box. There we were using major mode scales. There are other scales using notes other than do, re, mi, fa, so, la, ti.

The pentatonic scale is a set of 5 notes, with R being the Root or Do. There is also a sixth note which can be added for a more Bluesy effect. The notes are as follows, shown for the key of C:

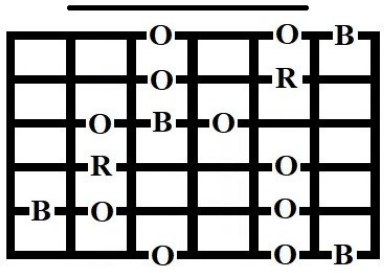
```
R          N      N   B   N          N        R
1          3b     4   5b  5          7b       8
C   C#  D  D#  E  F   F#  G  G#  A  A#   B  (C   C#  D  D#........)
    (Db)   (Eb)       (Gb)   (Ab)   (Bb)     (repeats.............)
```



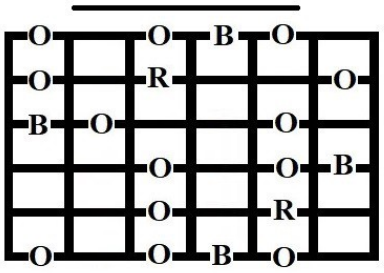
Pentatonic Notes on Keyboard



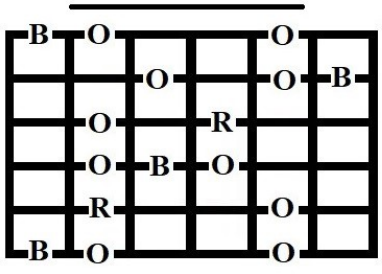
Pentatonic scale 1



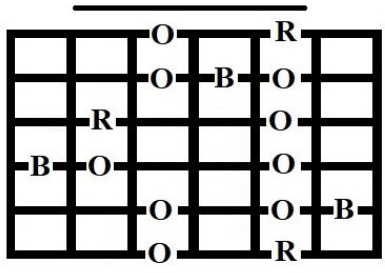
Pentatonic scale 2



Pentatonic scale 3



Pentatonic scale 4



Pentatonic scale 5

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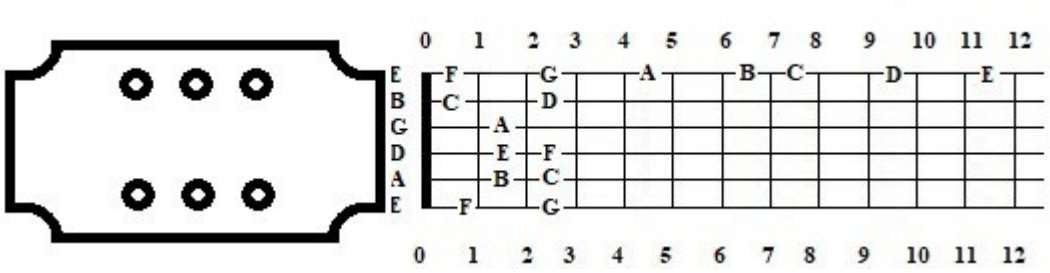
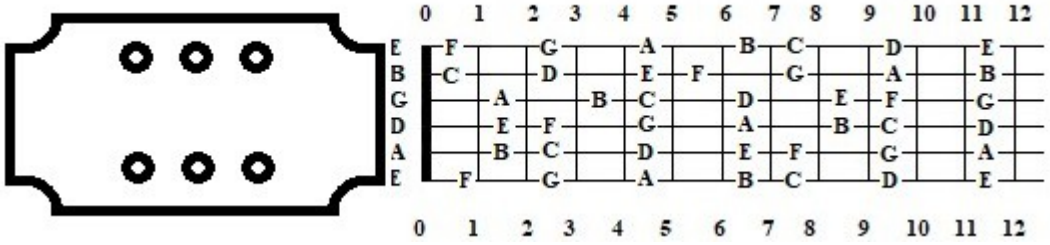
MUSICAL NOTES ON GUITAR STRINGS ON THE NECK

The next diagram shows where the notes are on the guitar string, up to fret 12. The notes on open strings are shown also. The first diagram shows the basic notes, starting on the sixth string and progressing up the strings. No sharped or flatted notes are shown.

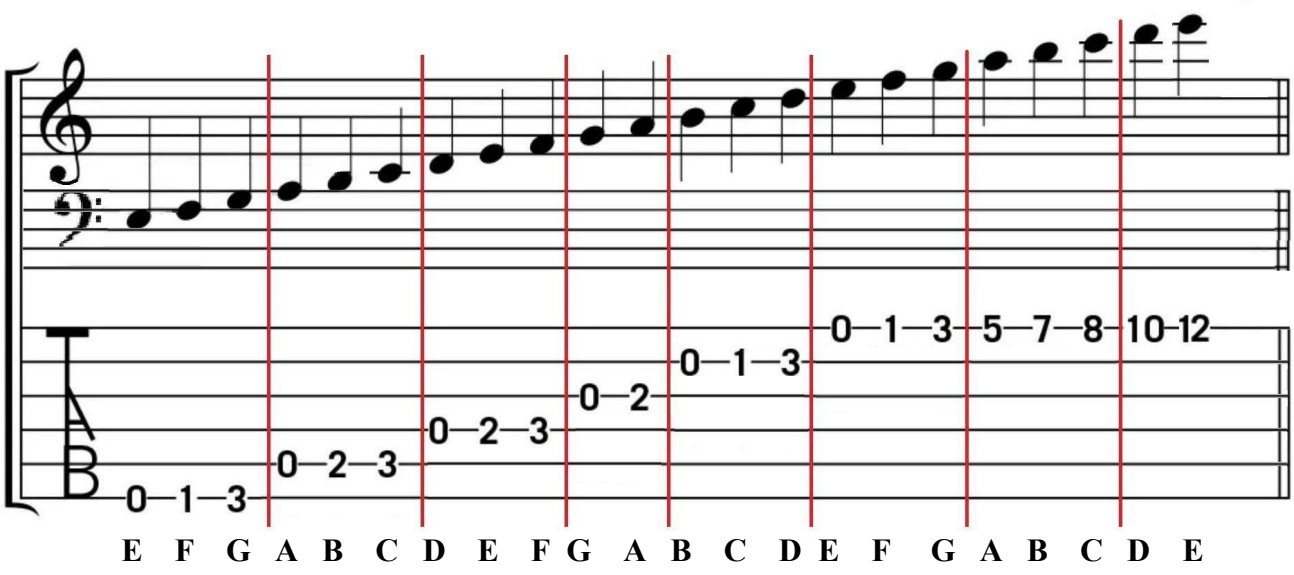


The next diagram shows all the notes on the neck up to fret 12. No sharped or flatted notes are shown.



NOTES ON MUSICAL STAFF WITH GUITAR TABLATURE

Here are the notes (no sharps or flats shown) on the music staff with tablature, progressing from string to string:



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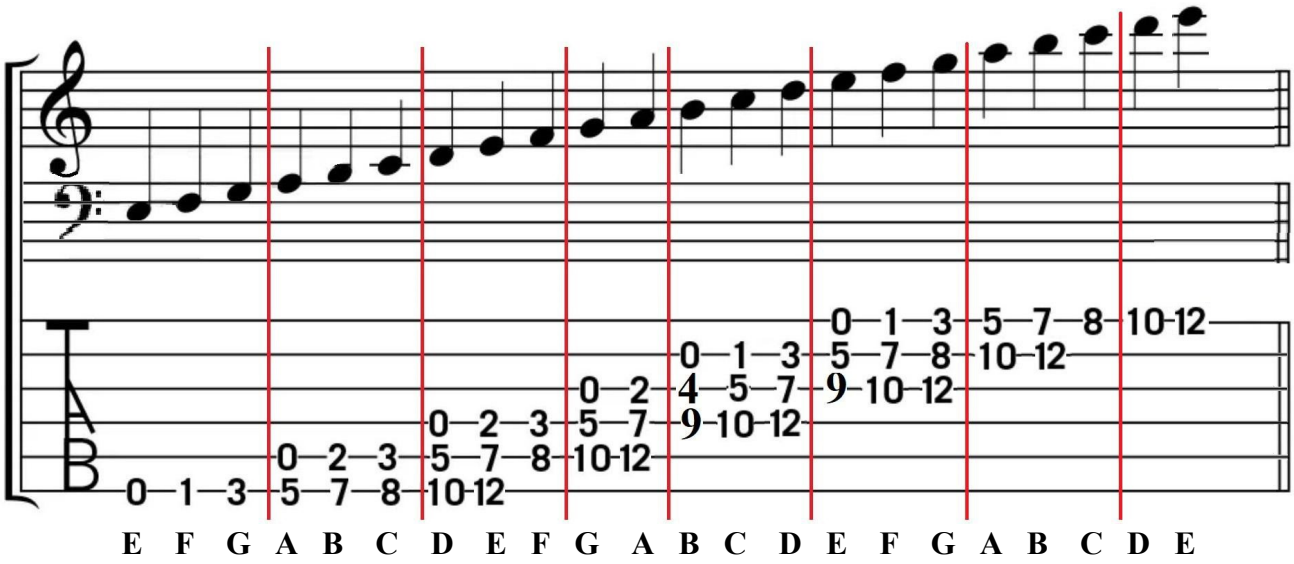
Here are all the notes (no sharps or flats shown) on the music staff with tablature. **Note that each note can be played at several different places on the guitar.**



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BARRE CHORDS

For those guitarists that have been stuck playing "easy guitar" versions of songs or not playing certain songs at all I guarantee that learning barre chords will be the single biggest leap you will ever make in playing ability, and it's no where near as difficult as some folks think. (I'm REALLY not overstating this! By learning a few basic forms, you'll be able to play any song in any key. So when you see all those C#m7, you'll think "no problem" rather than "I can't play that.")

The key to playing barre chords is developing the ability to "barre" (fret) all six strings of the guitar with your index finger. Of course, you have to do this "cleanly" and get a good tone out of all six strings. I suggest you start by holding the guitar in the "classical" position with the body of the guitar on the LEFT knee (I'll assume you're playing a right-handed guitar) and the neck held up at a 45 degree angle. This puts your left hand in a much better position for everything. (You'll be amazed at how much more speed and "reach" you'll have and you can always return to playing with the guitar in some old familiar position once you've mastered this technique.) Since everyone's index finger is shaped a little differently, you may have to experiment a little to get a good tone. Usually contact is made towards the side of the index finger rather than right on the flat part. You have to have your thumb pushing against the back of the neck, not wrapped around it. Just pinch the neck between thumb and index finger, with your finger covering all six strings (at the fret of your choice) and work until you get a passable tone from all the strings. This might not happen all at once; you need to build up a little strength, and toughness on your finger. (I've never developed a callous there, as on the fingertips, but it has gotten a little tougher.) Anyway, this is usually the most frustrating part of learning barre chords. Don't give up if it doesn't sound great at first, it will with practice. Below is an example of a chord form (like an F chord moved up the neck. It shows the index finger on some fret, holding all six strings, and the other fingers forming a chord.

Now to the chord forms. You can move the entire chord for an F chord up one fret and you'll be playing an F# chord. One more fret and you'll be playing a G chord, one more a G# chord, and so on until you run out of fretboard. So you can see, by learning a single form, you can play as many chords as you have frets. There are two basic forms, and they can be converted into minors and/or sevenths by simply raising a finger. One form requires a finger rearrangement to do the minor, so you could call it a different form. Okay, so there are three forms. By learning these three forms, you can play any, yes ANY major chord, seventh chord, minor chord, or minor seventh chord. (B-flat minor seventh? No problem!) Major sevenths and major ninths are easy too once you get the barring down. So here are the forms. Let's barre the 3rd fret and look at the form for a G chord there ("1" indicates fretting with index finger, "2" with middle finger, "3" with ring finger, and "4" with pinky. This might be an unusual diagram format, but it's

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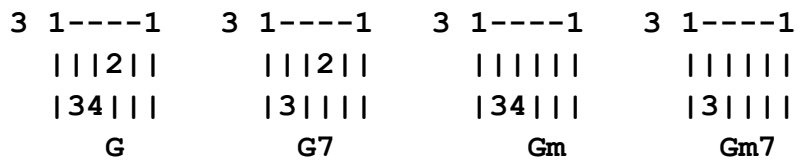
what you see if you look at the neck when the guitar is held by the neck with the body down.

Let's look at the basic G chord and some that are easily derived from it.
NOTE: Chords in this section are oriented differently, with the strings running up and down vertically.



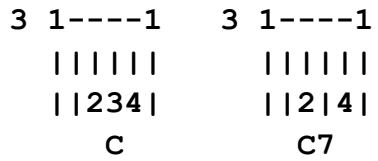
To form a seventh, start with G, and simply lift your pinky.

To form the minor, put back your pinky, and lift your middle finger (You can use your middle finger to help with the barre until your strength increases.)

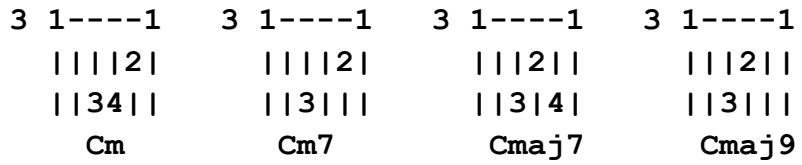
To get a minor seventh, raise both middle and pinky fingers

Now remember the utility in this is that if you slide everything up one fret you'll be playing a G#, G#7, G#m, and G#m7, respectively. Slide up another fret and you've got A, A7, Am, and Am7, and so on right up the fret board. In the opposite direction if you slide everything down one fret from the "G" position, you'll have F#, F#7, F#m, and F#m7. One more,fret down and you'll have something that should be somewhat familiar, at least on the four high strings, an F, F7, Fm, and Fm7. Actually, if you slide one more fret down, using the nut of the guitar as your barre, you're back to an E, E7, Em, and Em7, which you probably already know, using different fingers.

Now the second form. Again, barre the 3rd fret and a C chord is played as:



to get the seventh, raise your ring finger.
The minor is the same basic form with the second string dropped a fret, but the fingering needs to be rearranged, hence, a third form which is really an extension of the second.



Get the minor seventh by going to Cm and raising your pinky.
And finally, you can play major seventh, and major ninths out of this form.
As in the first form, by moving the whole thing up or down the fret board you can play as many different chords as you have frets.
One last word. Persevere. It may be a little frustrating at first, but if you force yourself to practice and play using the barre chords, your strength will increase, your hand will stop

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cramping, and you'll be able to play all songs in the book. Good luck.

Here are the above and some other forms:

```
==========================================================================
Major (1 3 5)
     1----1    1----1    |||1-1
     |||2||    ||||||    ||||2|
     |34|||    ||3-3|    ||3|||
                         |4||||
     -------------------------
     151351    515135    x13513
==========================================================================
Minor (1 3b 5)
     1----1    1----1
     ||||||    ||||2|
     |34|||    ||34||
     ----------------
     151351    515135

All chords can be turned into a minor by flatting the 3 note.
==========================================================================
Fifth (1 5)
     1|||||    |1||||
     ||||||    ||||||
     |34|||    ||33||
     ----------------
     151xxx    x151xx
==========================================================================

Sus2 (1 2 5)
     1----1    ||1-1|
     ||||||    ||||2|
     ||34||    ||||||
     ||||||    |3|||4
     ----------------
     515125    x12515
==========================================================================
Sus4 (1 4 5)
     1----1    1----1
     ||||||    ||||||
     |3-3||    ||33||
     ||||||    ||||4|
     ----------------
     151451    515145
==========================================================================
```

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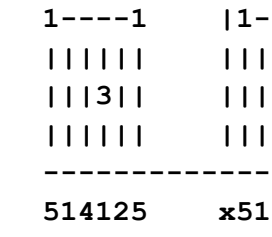
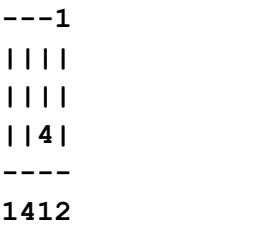
Sus2Sus4 (1 2 4 5)





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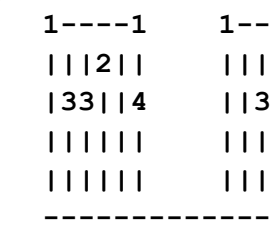
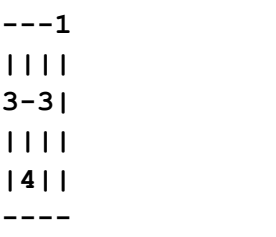
Major add 9* add9 (1 3 5 9)





* 9 = 2, but one octave higher:

1 2 3 4 5 6 7 1 2 3 4 5 6
8 9 10 11 12 13

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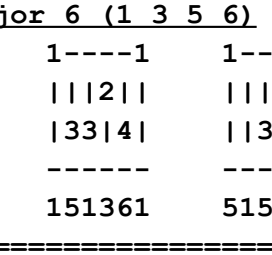
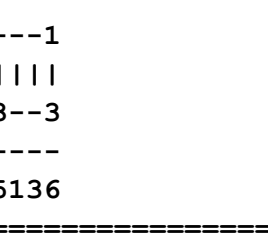
Major 6 (1 3 5 6)





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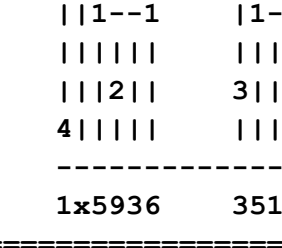
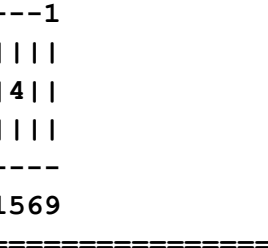
Major 6 add 9 (1 3 5 6 9)





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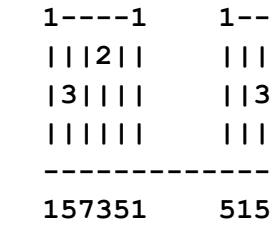
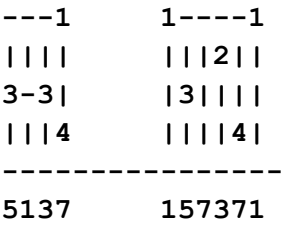
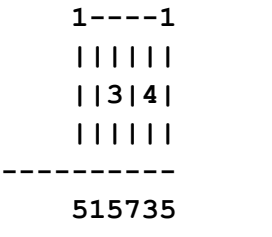
Dominant 7 [7th] (1 3 5 7b)







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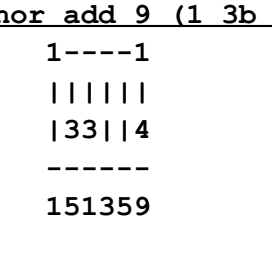
Minor add 9 (1 3b 5 9)



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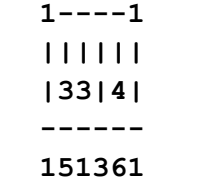
Minor 6 (1 3b 5 6)



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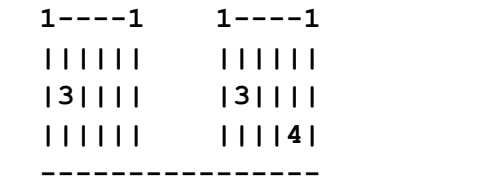
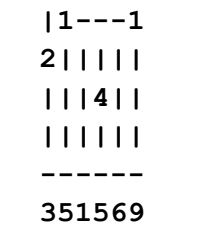
Minor 7 (1 3b 5 7b)



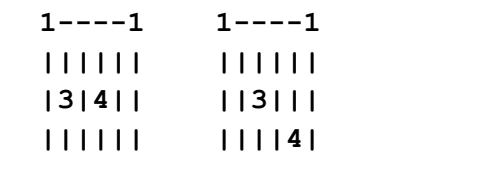
==========

Minor 6 add 9 (1 3b 5 6 9)



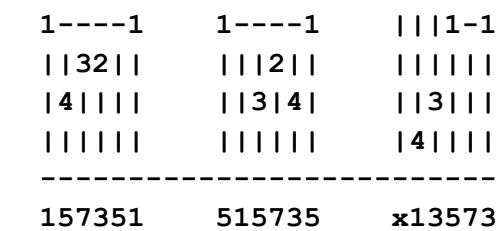
==========

Seven suspended 4 (1 4 5 7b)



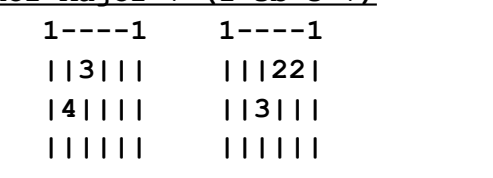
==========

Major 7 (1 3 5 7)



==========

Minor Major 7 (1 3b 5 7)



==========

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Augmented (1 3 5#)

```
     |||11|    |||||1
     ||2|||    |||32|
     |3||||    ||4|||
     |||||4    ||||||
     ---------------
     x13515    xx5135
     x51353    xx1351
     x35131    xx3513
```

Because of the nature of the formulae for augmented chords, any note played could be considered the root. Therefore, Ab+, C+, and E+ can all have exactly the same shape at the same location on the neck. The same concept applies to diminished chords.

==========

Diminished 7 (1 3b 5b 7bb)

```
     1----1    ||1|2|
     |2||||    |||3|4
     ||3 4|    ||||||
     ---------------
     151371    xx1573
     373513    xx3715
     515731    xx5137
     737157    xx7351
```

==========

Ninth (1 3 5 7b 9)

```
     1----1    ||1|||
     |||2||    |2|3-3
     |3|||4    ||||||
     ---------------
     157319    x13795
```

==========

Minor 9 (1 3b 5 7b 9)

```
     1----1    1----1
     ||||||    ||||||
     |3|||4    |2|3-3
     ---------------
     157319    x13795
```

==========

Major 9 (1 3 5 7 9)

```
     |1---1    1----1     1----1    ||1|||
     2|||3|    ||||||     |||2||    |2||3|
     ||4|||    ||||||     ||3|||    |||4||
     ||||||    |4||||     ||||||    ||||||
     ------------------------------------
     137957    319573     515795    x1379x <-no fifth
```

==========

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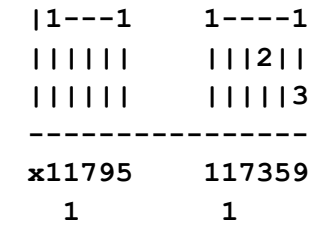
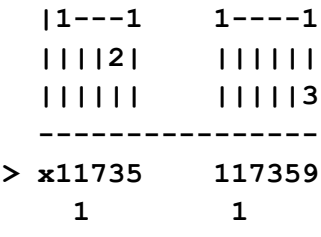
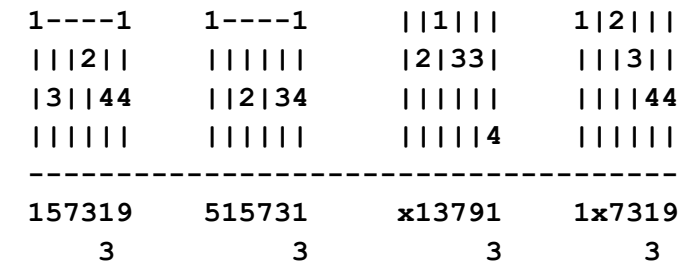
Eleventh (1 3 5 7b 9 11)



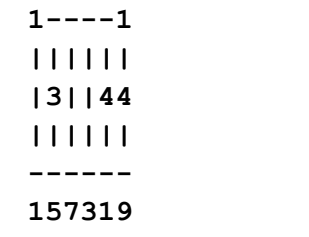
Minor 11th (1 3b 5 7b 9 11)



Thirteenth (1 3 5 7b 9 13) [no 11]



Minor 13th (1 3b 5 7b 9 13)



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POWER CHORDS

Power chords are sometimes used in pop, rock, and blues music. They are small chords, and are not usually used in acoustic guitar playing. They are called power chords because they have a very heavy, powerful sound, especially when distortion is used. Power chords are also moveable up and down the guitar neck to create other power chords.

The basic power chord is what is called a "5th" chord. We will later discuss some other simple chords that are similar to the basic "power chord".

To explain the power or fifth chord, we will first look at some common chord types, the major chord, the 7th chord and the minor chord.

A typical song might use two major chords (say C and F) and one 7th chord (say G7). Other songs may also use minor chords. Chords are built based on the scale.

```
 (Do Re  Mi Fa Sol La  Ti   Do)  The scale is counted as follows:
 ( I II III IV   V VI VII VIII)  or
 ( 1  2   3  4   5  6   7    8)

A major chord is made from notes:  1  3  5    (do mi   sol)

A minor chord is made from:        1  3b 5    (do mi_b sol)
                                   where 3b or mi_b is 3 flat or mi flat

A 7th chord is made from notes:    1  3  5 7b (do mi   sol ti_b)
                                   where 7b or ti_b is 7 flat or ti flat

A 5th or power chord has notes:    1     5 [1](do      sol [do])

major:   1  3  5
minor:   1  3b 5
7th:     1  3  5 7b
5th:     1     5
```

As it turns out, a 5th chord has the two notes that are common to the other chords. It is not a major, nor a minor, nor a 7th. The power chords are often used with electric guitars with an appropriate amount of distortion, and might be used to substitute for other more complex chords.

First we will discuss 5th power chords and show them on the guitar neck. These chords are usually played on the base strings (E, A, D, G), but for completeness, we will show 5th chords on higher strings. We will discuss both 2 string and 3 string power chords.

Here are the chords. They are shown on the guitar neck and also in tablature form below the chord. The root note is shown as R on the guitar neck and is shown in parentheses in tablature form. Remember that the chords are moveable, and can have the root on other frets.

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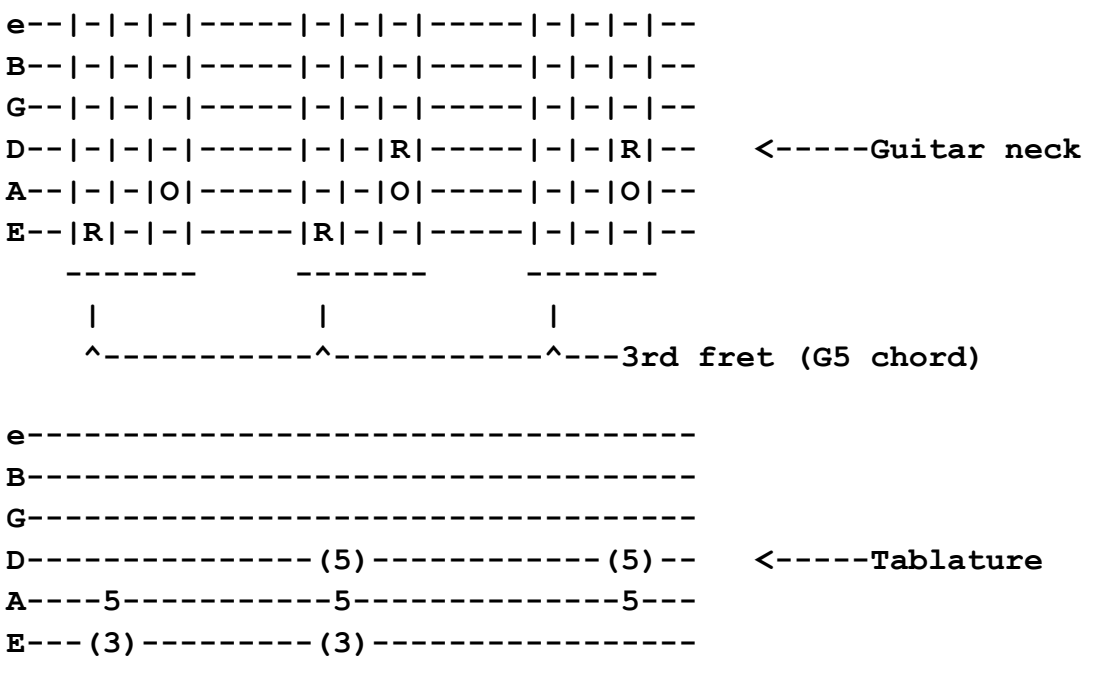
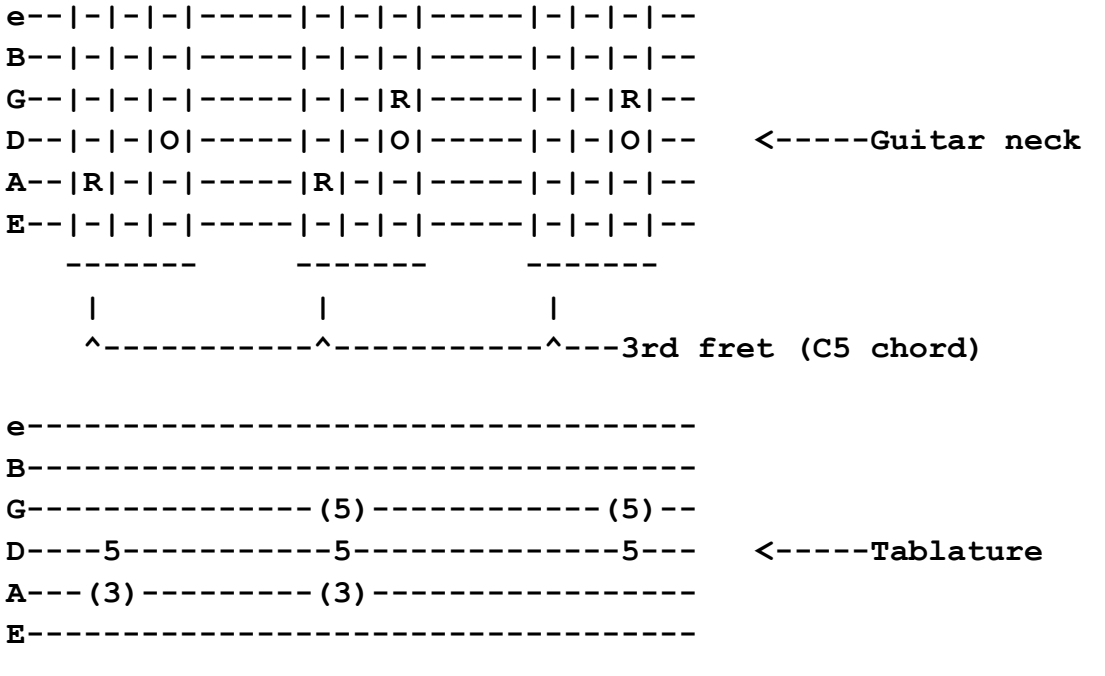
Example 1 - G5 chord (Root is string 6, fret 3 = G note)



Example 2 - C5 chord (Root is string 5, fret 3 = C note)

Note that this chord set is the same as the set in example 1, except that these chords are on strings 5, 4, 3 (A, D, G).



When you are playing a chord with the root on the 5th string, let the tip of your 1st finger touch the 6th string. That way you don't have to worry about the 6th string accidentally ringing.

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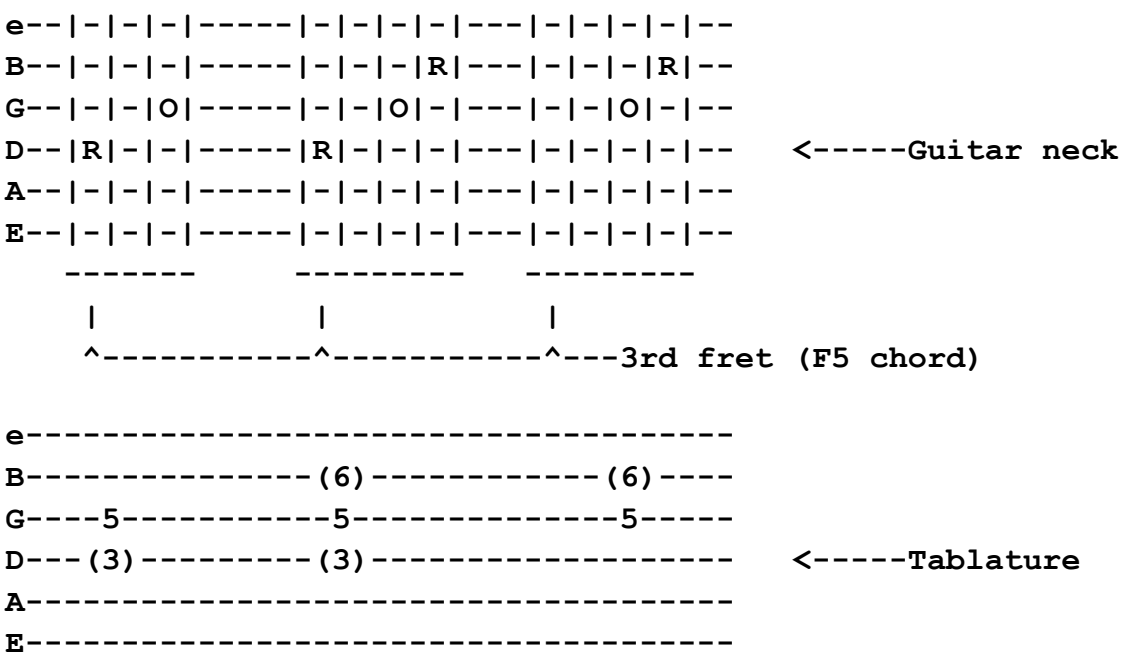
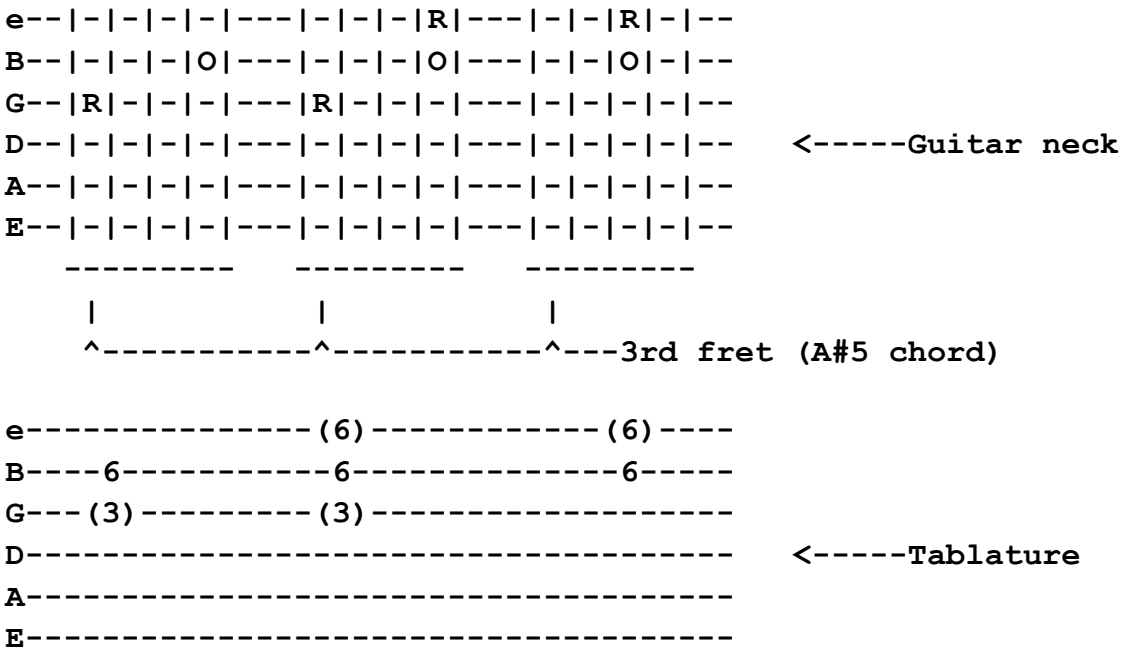
Example 3 - F5 chord (Root is string 4, fret 3 = F note)



Note: For the three note power chord with the root on the 4th string; because of the way the guitar is tuned, the octave is one fret higher than on the previous two chords.

Example 4 - A#5 chord (Root is string 3, fret 3 = A# note)



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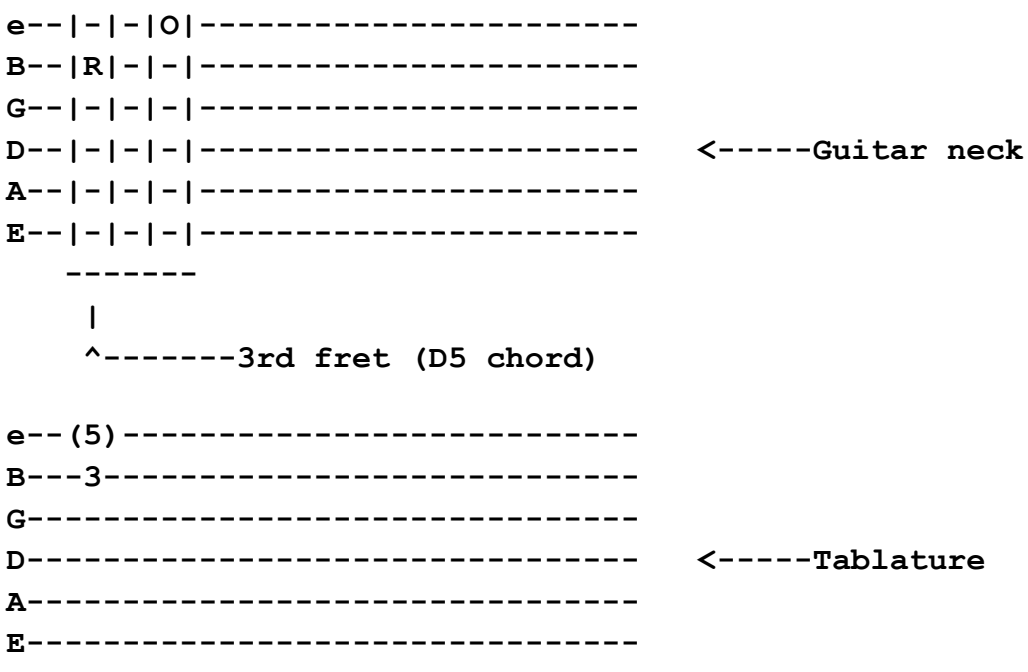
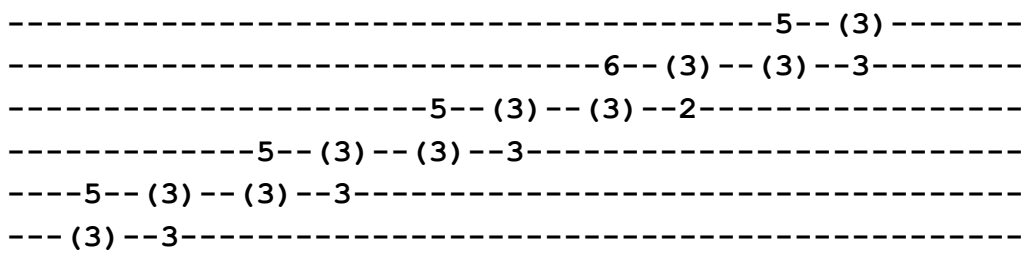
Example 5 - D5 chord (Root is string 2, fret 3 = D note)



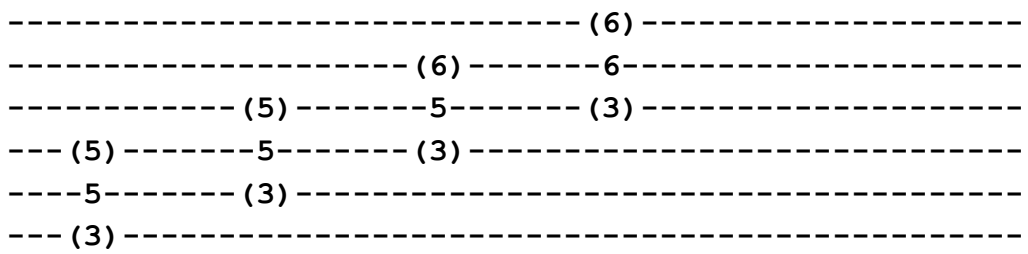
Summary of 5th power chords in tablature:

Here is a summary of the above chords in tablature. For each chord, the root is in parentheses. In the two string examples the root is shown on fret 3. Note that the chords are moveable, that is the whole chord can be moved up or down the neck to put the root at some other fret. The chords are also divided into two string chords and three string chords. Note that the three string cords are formed by adding an extra note to one of the two string chords. The added note is the root note an octave above the original root note.

Two String Chords:



Three String Chords:



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Chord Positioning

Below are several patterns used on the guitar neck for these chords. Each pattern can be played at various places on the guitar neck. They can all be moved up and down the neck on the same strings. In addition, each pattern can be used on different sets of strings. Because of the way the guitar strings are tuned, the different sets of strings available for a pattern are restricted. The patterns are numbered (pi) for reference.

You can try some different "Left Hand Chord Fingerings" to play these chords. Left hand fingers used are:

I = Index, M = Middle, R = Ring, L = Little

Possible fingerings are shown with each chord. First the chord is shown with the Root (r) identified. Then some possible left hand fingerings are shown.

---

p1:

```
                 1    2 (two possible fingerings)
                ---  ---
--|-|-|O|---     R    L
--|r|-|-|---     I    I   <-----can be string 6, 5, 4 or 2 (E, A, D or B)
```

---

p2:

```
                 1    2    3 (three possible fingerings)
                ---  ---  ---
--|-|-|r|---     L    R    L
--|-|-|O|---     R    R    L
--|r|-|-|---     I    I    I   <-----can be string 6 or 5 (E or A)
```

---

p3

```
                 1    2    3 (three possible fingerings)
                ---  ---  ---
--|-|-|r|---     L    R    L
--|-|-|O|---     R    R    L    <--- can be string 5, 4 or 2 (A, D or B)
```

---

p4

```
                 1 (one possible fingering)
                ---
--|-|-|-|r|---   L
--|-|-|O|-|---   R
--|r|-|-|-|---   I   <--- can be string 4 (D)
```

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```
P5:
                  1    2    3 (three possible fingerings)
                 ---  ---  ---
--|-|r|---        R    M    L
--|O|-|---        I    I    R <--- can be string 3 (G)
-------------------------------------------------------------------
P6:
                  1    2 (two possible fingerings)
                 ---  ---
--|-|-|-|O|---    R    L
--|r|-|-|-|---    I    I <--- can be string 3 (G)
-------------------------------------------------------------------
p7:
                  1    2    3 (three possible fingerings)
                 ---  ---  ---
--|-|-|-|r|--     R    M    R
--|-|-|-|O|--     R    M    R
--|r|-|-|-|--     I    I    I<--- can be string 3 (G)
```

Power Chord Riffs

Here are some riffs using power chords:

Slither (Velvet Revolver)

https://www.songsterr.com/a/wsa/velvet-revolver-slither-tab-s20845

This is a great riff. It's also very easy to play! It's made entirely out of power chords. Here is the tab.

Main Riff:

```
E|------------------|-----------------|
B|------------------|-----------------|
G|------------------|-----------------|
D|-2-5-6-2-8-9-2-12-|-2-8-9-2-7-2-5-6-|
A|-2-5-6-2-8-9-2-12-|-2-8-9-2-7-2-5-6-|
E|-0-3-4-0-6-7-0-10-|-0-6-7-0-5-0-3-4-|
```

Play them all as 8th notes

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Here is another riff:

Growing On Me (The Darkness) (Dropped D Tuning - Not sure this is the right link).
https://www.songsterr.com/a/wsa/darkness-growing-on-me-tab-s6514

Listen to the song to get the right timing.

Verse:

```
E|-----------------|-----------------------------------|
B|-----------------|-----------------------------------|
G|-----------------|-----------------------------------|
D|-----------------|-----------------------------------|
A|-2-2--9-9/11-11--|-2-2--9-9/11-11---7-7--6-6--6-2-----|
D|-2-2--9-9/11-11--|-2-2--9-9/11-11---7-7--6-6--6-2-----|
```

Note 9/11 is a slide from 9 to 11

Power Chords in Drop D Tuning.

The above two riffs can be made easier by a small change in tuning.

Drop D is a very simple tuning. You just lower your 6th string (E - the really thick one) down one step to D. One way to do this is to lower the string a little and play it at the 7th fret. Continue to do this until it matches the open A string. In Drop-D, power chords are 10x easier.

Here are the above two riffs in Drop-D tuning:

Slither (Velvet Revolver) (Drop-D tuning).
https://www.songsterr.com/a/wsa/velvet-revolver-slither-tab-s20845

Main Riff:

```
E|-----------------|----------------|
B|-----------------|----------------|
G|-----------------|----------------|
D|-0-3-4-0-6-7-0-10-|-0-6-7-0-5-0-3-4-|
A|-0-3-4-0-6-7-0-10-|-0-6-7-0-5-0-3-4-|
D|-0-3-4-0-6-7-0-10-|-0-6-7-0-5-0-3-4-| <-- to D
```

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Growing On Me (The Darkness) (Drop-D tuning)
https://www.songsterr.com/a/wsa/darkness-growing-on-me-tab-s6514

Verse:

```
E|---------------|---------------------------------|
B|---------------|---------------------------------|
G|---------------|---------------------------------|
D|---------------|---------------------------------|
A|-0-0--7-7/9-9--|-0-0--7-7/9-9---5-5--4-4--4-0-----|
D|-0-0--7-7/9-9--|-0-0--7-7/9-9---5-5--4-4--4-0-----| <--tuned to D
```

Going back to standard tuning, here are some songs that use a small extension of power chords:

Ain't Comin' Home (Silvertide)
https://www.songsterr.com/a/wsa/silvertide-aint-coming-home-tab-s53445

If you've never heard this song, I suggest you listen to it. This song is made up of 3 chords (thats it! Except for the bridge, when a G5 comes in). Lets look at the tab.

Main Riff:

```
E|----||------------------------||
B|----||----------------3--------||
G|-0--|o--1----2---2--x-2--2---2-o|
D|-0--|o--2----2---2--x-0--2---2-o|
A|-0--||--2----0---0--x----0---0-||
E|----||--0----------x----------||
```

That one is a little tougher, because its a little fast and uses E major.

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Lets look at a song from the masters of power chords, AC/DC.

AC/DC - Back in Black (AC?DC)
https://www.songsterr.com/a/wsa/ac-dc-back-in-black-tab-s1024

Great Song, with piles of great riffs. I suggest listening to song to get the timing. I will put the entire intro for you to try.

Main Riff:

```
E|------2-2-2------------|-3p0---------------|
B|------3-3-3----2-2-2----|-----3p0-----------|
G|------2-2-2----2-2-2----|---------2b4r2-----|
D|-2----0-0-0----2-2-2----|-------------------|
A|-2------------0-0-0----|-------------------|
E|-0---------------------|-------------------|

E|------2-2-2------------|----------------------|
B|------3-3-3----2-2-2----|----------------------|
G|------2-2-2----2-2-2----|----------------------|
D|-2----0-0-0----2-2-2----|----------------------|
A|-2------------0-0-0----|-2---2--0-2--1-2--2~---|
E|-0---------------------|---4------------------|

Chorus:
E|---------------|||-3--2----------|||---------------||
B|---------------|||-3--3----------|||---------------||
G|-2-----4--2--4--o|o-0--2--2-----2--o|o-2-----4--2--4--o|
D|-2--2--4--2--4--o|o-0--0--2-----2--o|o-2--2--4--2--4--o|
A|-0--2--2--0--2--|||-x-----0-----0--|||-0--2--2--0--2--||
E|----0----------|||-3--------3-----|||----0----------||
                  ^play x2           ^play x2           ^play 2x
```

So, you can now play some riffs, with power chords. If you want you can even go find the tabs for other songs and learn more power chords.

All that from powerchords? Thats a pretty long read for two notes! All you have to remember is that creativity is the key to building riffs and songs out of power chords. Note about tabs: about the tabs above (not directly, the ones of popular songs), these might not be 100% correct.

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Here are more songs that use power chord patterns:

Fade to Black (Metallica)
https://www.songsterr.com/a/wsa/metallica-fade-to-black-tab-s20
Creeping Death (Metallica)
https://www.songsterr.com/a/wsa/metallica-creeping-death-tab-s5194

Octaves

Next we will discuss some other small chords which are not 5th chords. The first such pattern is the octave, where the root note appears twice, an octave apart. The octaves can be moved up and down the fretboard:

```
e-----|-|-|-|-----|-|-|-|-----|-|-|-|-|-----|-|-|-|R|
B-----|-|-|-|-----|-|-|-|-----|-|-|-|R|-----|-|-|-|-|
G-----|-|-|-|-----|-|-|R|-----|-|-|-|-|-----|R|-|-|-|
D-----|-|-|R|-----|-|-|-|-----|R|-|-|-|-----|-|-|-|-|
A-----|-|-|-|-----|R|-|-|-----|-|-|-|-|-----|-|-|-|-|
E-----|R|-|-|-----|-|-|-|-----|-|-|-|-|-----|-|-|-|-|
       -------      -------      ---------      ---------
```

The middle string can be deadened by touching it with a left hand finger, so it can be strummed as if it were being sounded.

Octaves are used in:

Disappear (Metallica)
https://www.songsterr.com/a/wsa/metallica-i-disappear-tab-s23020

The next new chord is shown here by examples. Remember that the chord may be moved to other frets up and down the neck.

```
e-------------------------------5---
B---------------------------4----7---
G----------------------1----5--------
D-------------3----5----3-------------
A---1----0----5----7-----------------
E---3----2---------------------------
```

The root is not shown above. If the root is considered to be the higher pitched note, then these chords have the scale notes la and do (VI and I). If the root is considered to be the lower pitched note, then these chords have the scale notes do and re# (I and II#).

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These chords are used in:

Carpe Diem Baby (Metallica)
https://www.songsterr.com/a/wsa/metallica-carpe-diem-baby-tab-s43278

The next new chord is also shown here by examples. Remember that the chord may moved to other frets up and down the neck.

```
------------------------------5---
--------------------------4----6---
----------------------1----4-------
------------3----5----2------------
---2----0----4----6----------------
---3----1---------------------------
```

If the root is considered to be the lower pitched note, then these chords have scale note do and mi (I and III).

These chords are used in:

..And Justice for all
https://www.songsterr.com/a/wsa/metallica-and-justice-for-all-tab-s12102

Exercises

For beginners, power chords can be a challenge to hit accurately and with speed. First, you want to start out just hitting one chord, and adding more as you improve and gain confidence.

Here is a general exercise:

```
   C5      B5      Bb5     A5      F5      G5      Bb5
D--5-5-5--4-4-4--3-3-3--2-2-2------------------
A--3-3-3--2-2-2--1-1-1--0-0-0--3-3-3--5-5-5--8-8
E---------------------------1-1-1--3-3-3--6-6
```

Practice doing this riff slowly, then build up gradually, pushing yourself faster every time. Focus on your left hand technique, accurately hitting the frets. Speed will come with practice. Use whichever method of holding power chords feels right for you (index + pinky or index + 3rd). For the curious, this is a progression from

Ride The Lightning (Metallica)
https://www.songsterr.com/a/wsa/metallica-ride-the-lightning-tab-s248

Also, try this with other power chord shapes, mix and match.

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This exercise will help improve your fret board dexterity with power chords:

```
   F5   Bb5  G5   C5
D-----------------------
A--3-3--8-8--5-5--10-10---
E--1-1--6-6--3-3--8--8----
```

And finally, these will help improve your string switching abilities with power chords:

```
   F5  B5  F5  Db5 A5   G5  G5  A5  A5
G----------5-5-------- -----7-7-----9-9
D------4-4-3-3-6-6---- -----5-5-----7-7
A--3-3-2-2-----4-4-7-7 -5-5-----7-7----
E--1-1-------------5-5 -3-3-----5-5----
```

Here are some Metallica songs and links to the tab that you should learn and practice for power chord perfection.

For Whom the Bell Tolls (Metallica)
https://www.songsterr.com/a/wsa/metallica-for-whom-the-bell-tolls-tab-s572

Wherever I May Roam (Metallica)
https://www.songsterr.com/a/wsa/metallica-wherever-i-may-roam-tab-s3707

Of Wolf and Man (Metallica)
https://www.songsterr.com/a/wsa/metallica-of-wolf-and-man-tab-s12892

Die, Die, My Darling (Metallica)
https://www.songsterr.com/a/wsa/metallica-die-die-my-darling-tab-s13163

The Small Hours (Metallica)
https://www.songsterr.com/a/wsa/metallica-the-small-hours-tab-s43238

Am I Evil? (Metallica)
https://www.songsterr.com/a/wsa/metallica-am-i-evil-tab-s13462

Am I Evil? (Metallica) (Full Version)
https://www.songsterr.com/a/wsa/metallica-am-i-evil-full-version-new-tab-s485660

Devil's Dance (Metallica)
https://www.songsterr.com/a/wsa/metallica-devils-dance-tab-s43247

Phantom Lord (Metallica)
https://www.songsterr.com/a/wsa/metallica-phantom-lord-tab-s34760

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CHORD FORMATION

Chords are formed using combinations of notes (sometimes sharped or flatted) from a scale. Remember that "1" means Do, "2" means Re, "2b" means Re flatted, etc. The table shows examples in the key of A.

```
 A  B  C# D  E  F# G# A  B  C# D  E F#
 1  2  3  4  5  6  7  8  9  10 11 12 13
do re mi fa sol la ti do
```

major: 1 3 5	A C# E	[A]
minor: 1 3b 5	A C E	[Am]
seventh(dom7):	1 3 5 7b	A C# E G [A7]
minor seventh:	1 3b 5 7b	A C E G [Am7]
major seventh:	1 3 5 7	A C# E G# [Amaj7, AM7]
sixth: 1 3 5 6	A C# E F#	[A6]
minor sixth:	1 3b 5 6	A C E F# [Am6]
augmented:	1 3 5#	A C# E#(A C# F) [A+]
augmented 7th:	1 3 5# 7b	A C# E# G [A7+, A7+5]
diminished:	1 3b 5b	A C Eb [Adim. A-5]
diminished 7th:	1 3b 5b 7bb(6)	A C Eb Gb [Adim7, A°]
diminished 5th:	1 3 5b	A C# Eb [A7-5]
7th dim 5th:	1 3 5b 7b	A C# Eb G [A7dim5, A7(5b)]
min 7th (fl. 5th):	1 3b 5b 7b	A C Eb G [A7(5b)]
minor (maj 7th):	1 3b 5 7	A C E G# [Am(maj7)]
7th augmented 9th:	1 3 5 7b 9#	A C# E G A[A7+9]
ninth: 1 3 5 7b 9	A C# E G B	[A9]
minor ninth:	1 3b 5 7b 9	A C E G B [Am9]
major ninth:	1 3 5 7 9	A C# E G# B [Amaj9, AM9]
eleventh:	1 3 5 7b(9)11	A C# E G B D [A11]
minor eleventh:	1 3b 5 7b(9)11	A C E G B D [Am11]
major eleventh:	1 3 5 7 9 11#	A C# E G# B D# [Amaj11]
diminished 9th:	1 3 5 7b 9b	A C# E G Bb [Adim9, A7-9]
added ninth:	1 3 5 9(1 2 3 5)	A C# E B(A B C# E)[Aadd9, A(2)]
added fourth:	1 3 5 11	A C# E D [A(4), A(11)]
suspended(sus4):	1 4 5	A D E [Asus, Asus4]
sus 9th(sus2):	1 5 9 (1 2 5)	A E B (A B E) [Asus9, Asus2]
7th suspended 4th:	1 4 5 7b	A D E G [A7sus, A7sus4]
7th suspended 9th:	1 5 7b 9(1 2 5 7b)	A E G B(A B E G [A7sus9, A7sus2]
sus4 added 2nd:	1 2 4	A B D [Asus4(2)]
sus2 sus4:	1 2 4 5	A B D E [Asus2sus4]
fifth: 1 5	A E	[A5, A(no 3rd)]
thirteenth:	1 3 5 7b(9 11)13	A C# E G B D F# [A13]
minor thirteenth:	1 3b 5 7b(9 11)13	A C E G B D F# [A13]
major thirteenth:	1 3 5 7 9(11) 13	A C# E G# B D F# [Amaj13]
minor added ninth:	1 3b 5 9	A C E B [Am(9)]
sixth added ninth:	1 3 5 6 9	A C# E F# B [A6(9)]
minor 6th add 9th:	1 3b 5 6 9	A C E F# B [Am6(9)]
minor added fourth:	1 3b 4 5	A C D E [Am(4) Am(11)]
min. 7th added 4th:	1 3b 4 5 7b	A C D E G [Am7(4) Am7(11)]
minor 7th flat 5th:	1 3b 5b 7b	A C D# G [Am7-5]

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As an example, to form D#aug7 use (1 3 5# 7b):
     D#    F     G  G#    A#    C     D  D#
     1  1# 2  2# 3  4  4# 5  5# 6  7b 7  1
     D#          G           B     Db  <------D#aug7
```

Remember there are only 6 strings on a guitar, thus the chart will not work for chords with more than 6 notes. Theoretically, a 13th chord would have all those notes, but even on a keyboard it rarely does. In fact, a lot of these long chords often have one or two notes dropped on a guitar. You have to pick the ones which keep it sounding like the proper chord. In the case of 13, that would probably be at the very least 1 5 7 13, and probably also 3. A13 on the guitar is x02022: A E G C# F#, and that's about as close to a perfect 13th chord as you'll find.

Also, remember that on a guitar, the order of the notes can be just about anything; that's why a 2nd is the same as a 9th.

MISCELLANEOUS NOTES

Typically X/Y means "an X chord with a Y in the bass".
Sometimes Y is part of the X chord but not the root (e.g., C/G)
Sometimes it is not (e.g., Bb/C).

C/D is a C chord with a D bass note (xx0010).
A/B is an A chord with a B bass note (x22220).
G/D is a G with a D bass (xx0003). And so on.

In popular music, "diminished" is usually synonymous with "diminished seventh", which is 1 3b 5b 7bb (yes, double-flatted seventh or 6th).
So Cdim = Cdim7 = C-Eb-Gb-Bbb = C-Eb-Gb-A.

Cdim7 is often notated as "C^{o}" (C-followed-by-a-raised-circle).

A related chord, the half-diminished (also called "minor seventh/flat fifth", replaces the double-flatted seventh with a flatted seventh;

Due to the symmetry of the intervals, an augmented or diminished-seventh chord may be named after any note in it, so C+ = E+ = G#+ and Cdim = Ebdim = Gbdim = Adim.

A suspended chord typically means that the 3rd of the chord has been replaced by the 4th (Xsus4) (or, less commonly, by the 2nd in which case it is called Xsus2). Xsus = Xsus4

susn is (1 5 n) (n is normally n + 8 or one octave higher)

sus is sus4 (1 4 5). sus2 is (1 2 5).

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INTERVALS

```
 |<->|<->|<->|<-->|<->|<->|<->|<->|<->|<->|<->|<-->|<--half steps (1 fret)
Do   x  Re   x   Mi  Fa   x  Sol  x  La   x  Ti   Do
 I      II      III  IV       V      VI     VII VIII
 1       2        3   4       5       6      7     8
 |<-----------------------------------------------|  Octave
 |<---------------------------------------->|  Major 7th
 |<------------------------------------>|  Minor 7th
 |<---------------------------------->|  Major Sixth/Diminished 7th
 |<----------------------------->|  Minor 6th
 |<------------------------->|  Perfect 5th/Augmented 5th
 |<---------------------->|  Augmented 4th/Diminished 5th
 |<------------------>|  Perfect Fourth
 |<-------------->|  Major 3rd
 |<--------->|  Minor 3rd
 |<----->|  Major 2nd
 |<->|  Minor 2nd
 |  Unison
```

chords:

Major chord: Root note, Major third, Perfect fifth (from root)
Minor chord: Root note, Minor third, Perfect fifth
Diminished chord: Root note, Minor third, Diminished fifth

TRIADS

1-3-5 maj (major)
2-4-6 min (minor)
3-5-7 min (minor)
4-6-8 maj (major)
5-7-1 maj (major)
6-8-2 min (minor)
7-1-3 dim (diminished)

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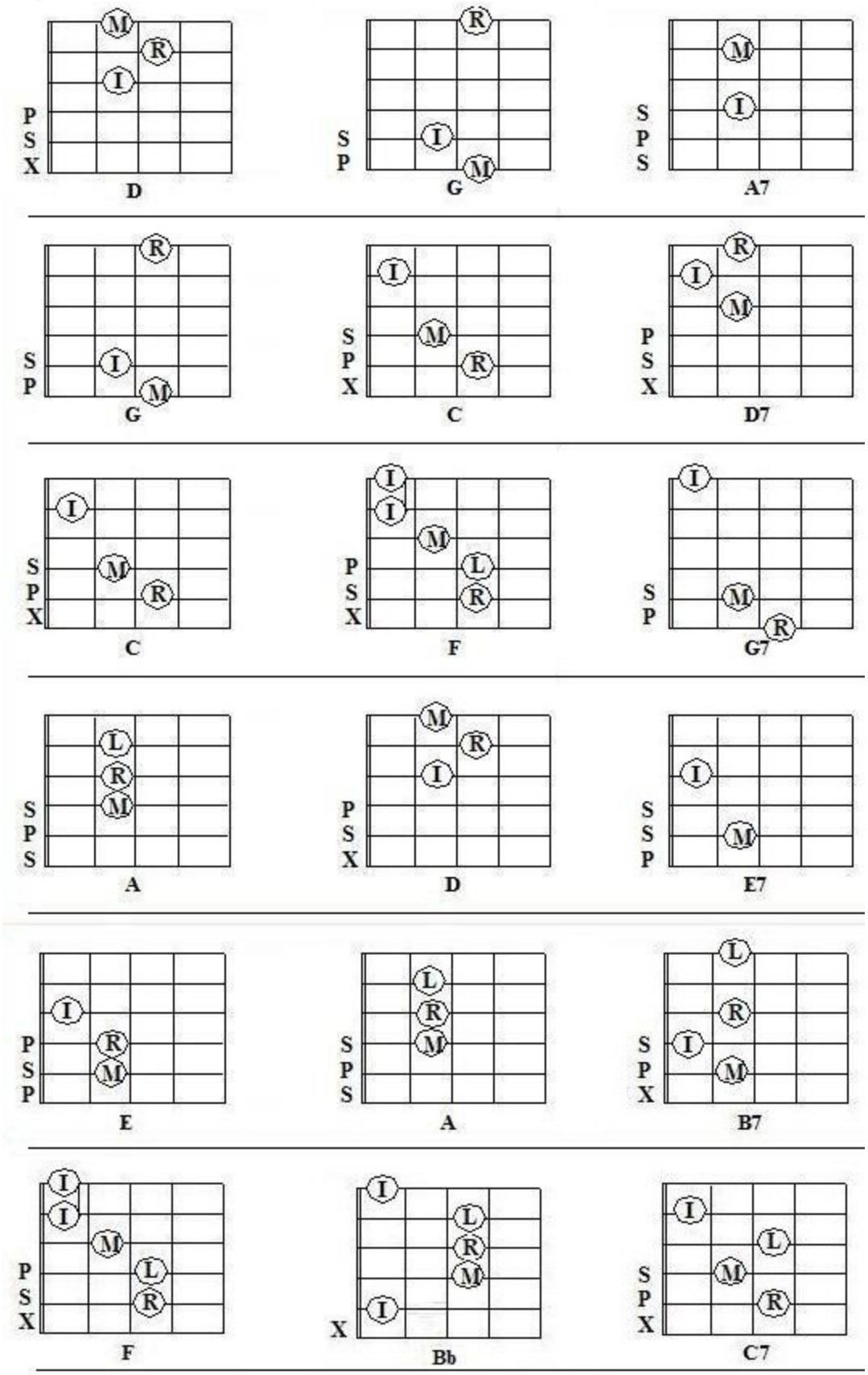
MAJOR CHORD PROGRESSIONS



Note: This and the next page can serve as a transposing table. See lesson 7.

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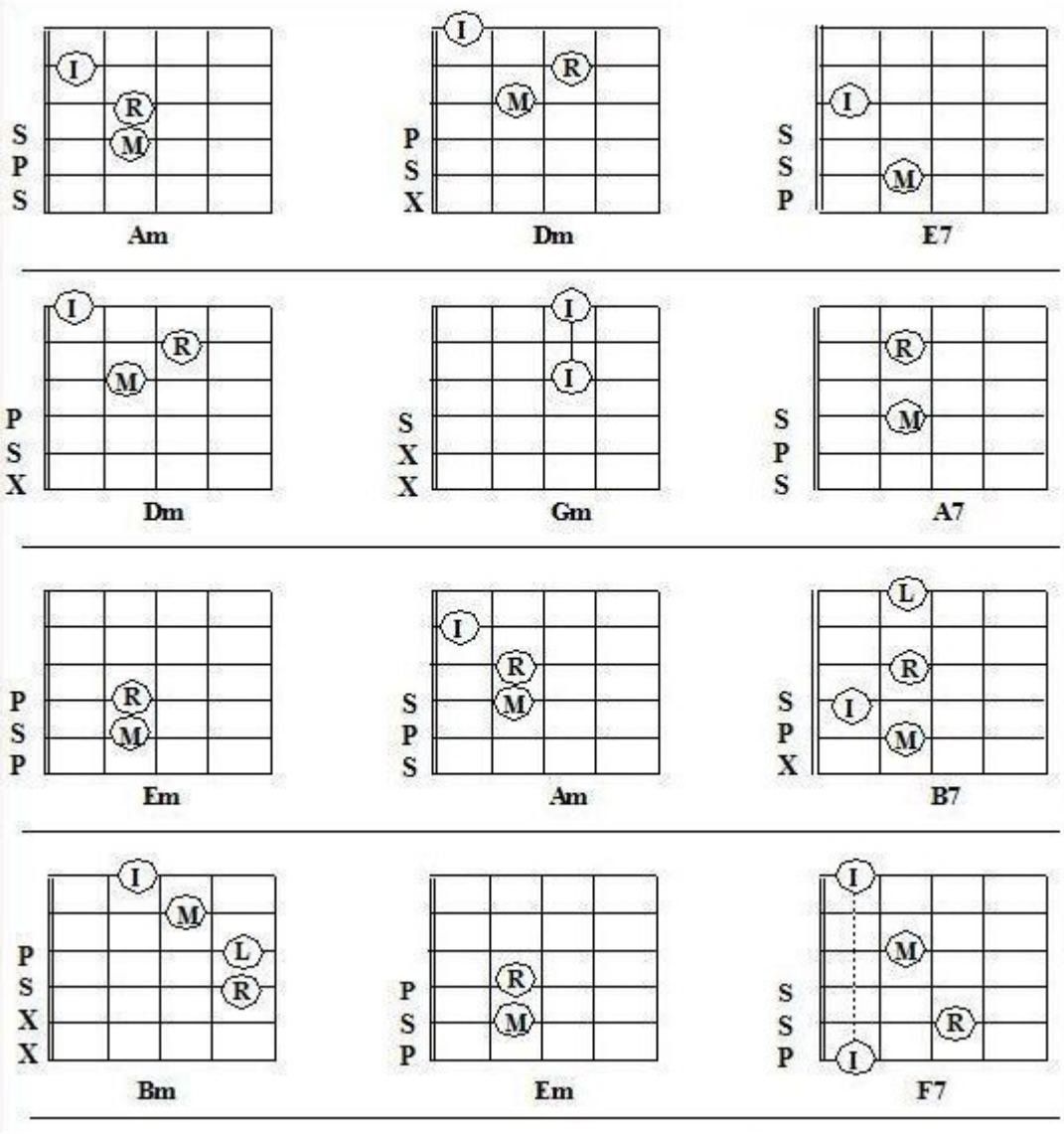
MINOR CHORD PROGRESSIONS



Note: This and the last page can serve as a transposing table. See lesson 7.

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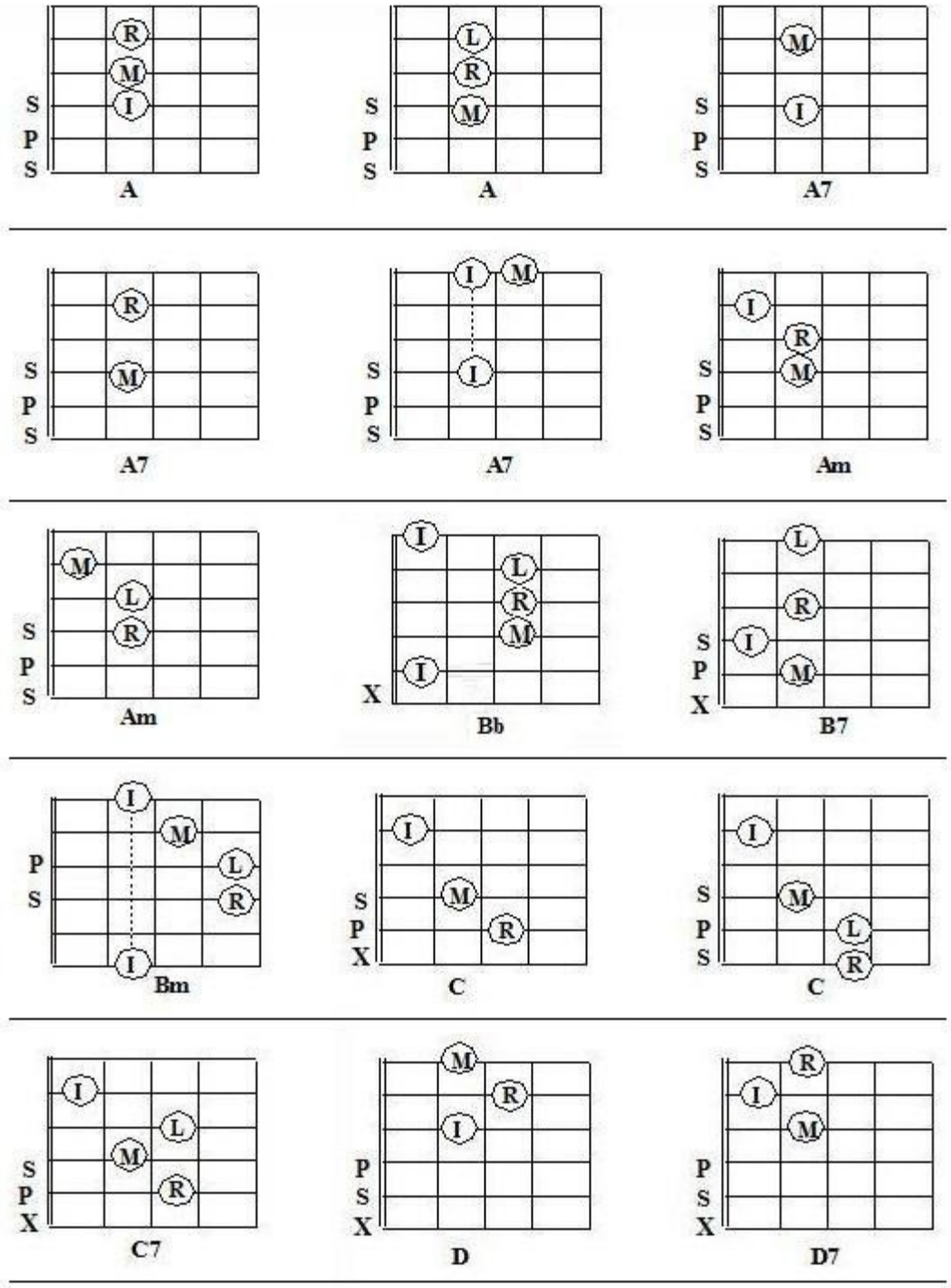
CHORDS IN ALPHABETICAL ORDER



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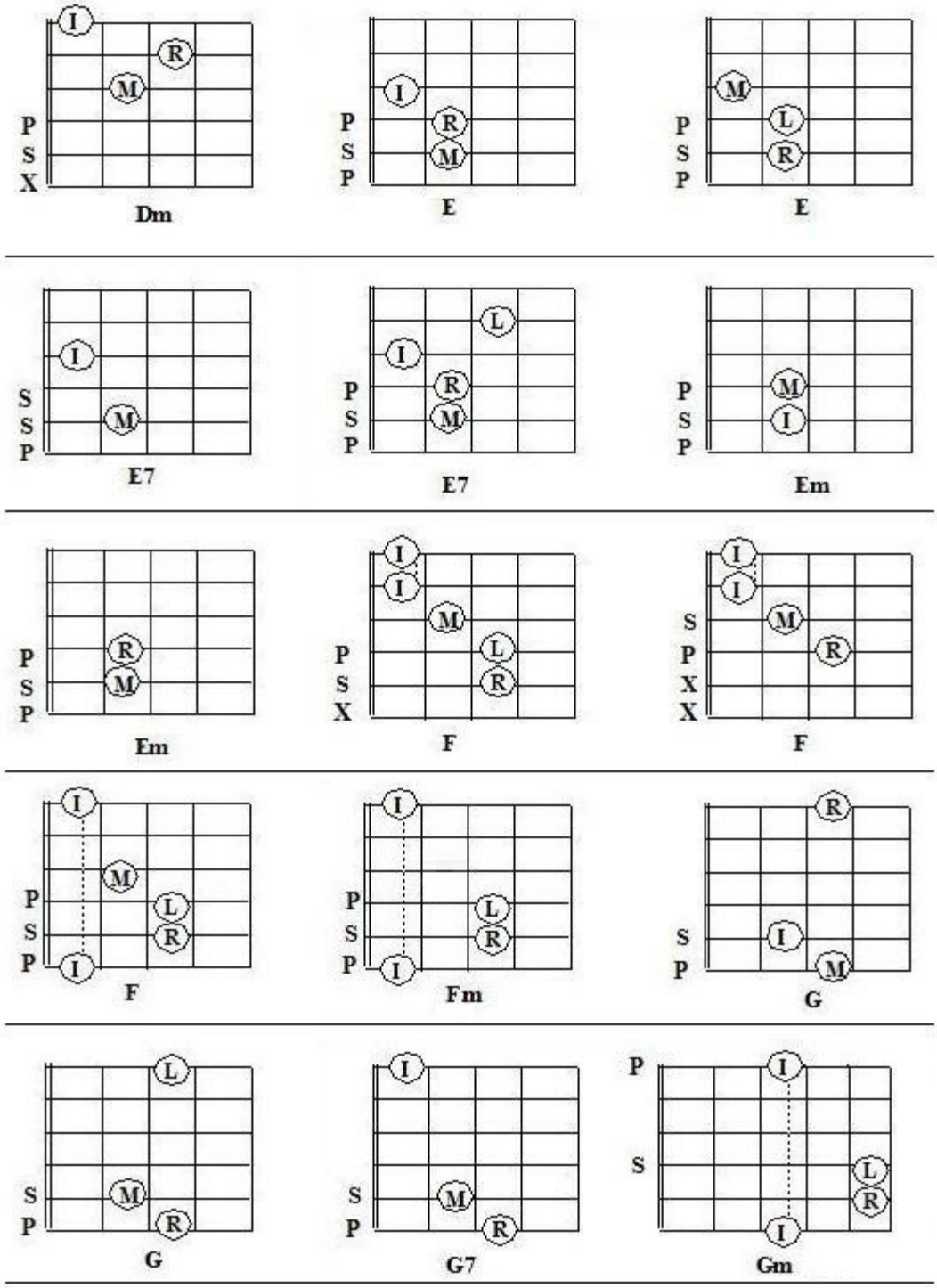
CHORDS IN ALPHABETICAL ORDER II



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