

Intervals For The Guitar

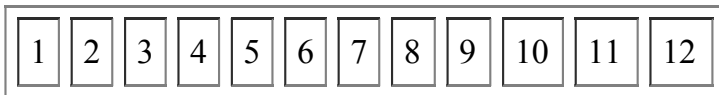
Intervals are the distance between 2 notes.

We can take an originating tone and give every other note an interval name to describe each tone's distance in relation to the originating tone for a total of 12 different intervals.

In music it seems like every important concept has 3 or 4 different names and it's no different here with intervals, so before we talk about these 12 different intervals, let's learn about special names for two of these intervals.

Terminology

There are 12 different notes in music. Imagine them as blocks:

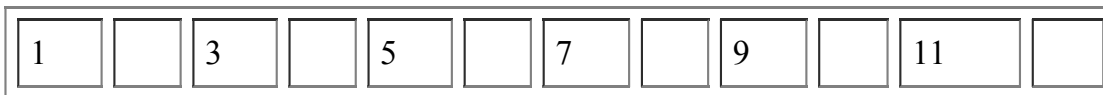


The distance between each note block is called a **half step** or semitone. For example, the distance between blocks 1 and 2 is a half step. The distance between block 2 and 3 is a half step, and so on. This is the same thing as a **minor 2nd**.

A half step interval on the guitar's fretboard is **one fret**. So the distance between fret 1 and 2 is a half step and the distance between frets 2 and 3 is a half step interval, and so on.

A **whole step** is 2 half steps. It's also called a **whole tone** and **major 2nd**. A whole step in the guitar's fretboard is 2 frets. For example, the distance between the 1st note and the 3rd note is a whole step interval. The distance between the 3rd note and the 5th is a whole step, etc. The **major 2nd** is a whole step.

See the blocks below:



So let's recap.

- **A half step/semitone/minor 2nd = 1 fret**
- **A whole step/whole tone/major 2nd = 2 frets**

Why The Different Terminology? Using the different terminology comes in handy in different scenarios, such as when start talking about scales.

For example, you probably remember singing the Do-Re-Mi song when you were a kid. If so, you probably already know the major scale, because the Do-Re-Mi song IS the major scale. You've heard it in songs all your

life.

The major scale is a pattern of 7 notes from the 12 different notes in music. You can construct the major scale by using this interval pattern:

whole step, whole step, half step, whole step, whole step, whole step, half step.

This pattern is the formula for the major scale. Look at the blocks below to see the intervals of the major scale.

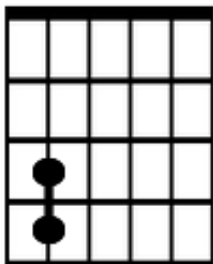
The "WS" means whole step and the "HS" means half step:

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

The Intervals

Intervals only work when there is an originating tone. The originating tone can be any of the 12 notes in music. The diagrams of the intervals that I will present to you show the geometrical locations of the intervals. The diagrams are a physical representation of your guitar's fretboard. The black dots indicate the two notes needed to create the interval. The note with the lowest pitch will be our originating tone. The next note will be 2nd note needed to create the interval.

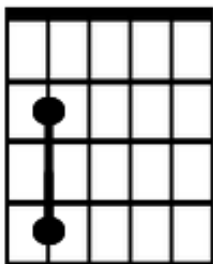
Minor 2nd



(anywhere)

Remember, that the minor 2nd is a half step from the originating tone and, on the guitar, it is one fret higher than the originating tone. This is also called a semitone.

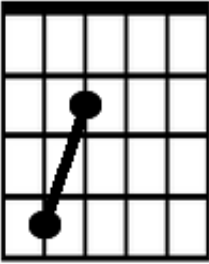
Major 2nd



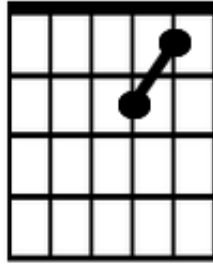
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The major 2nd is the same as a whole tone and a whole step. If you take two half tones what do you get? That's right, a whole tone. Two halves make a whole. It's the span of two frets on the guitar.

Minor 3rd



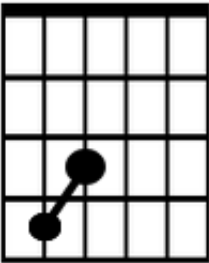
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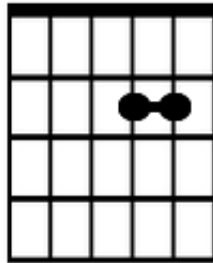
When top note
is on B string

The minor 3rd is 3 semitones or frets away from the originating tone. The common way to play this interval is as in the minor 3rd diagram above where we shift the minor 3rd to the adjacent string.

Major 3rd



Anywhere except:

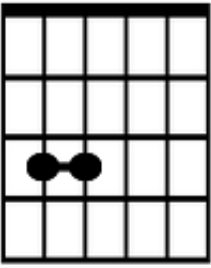


When top note
is on B string

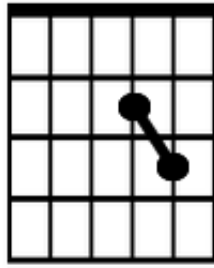
The major 3rd is 4 semitones, or 2 whole steps away from the originating tone.

The major and minor 3rd intervals are very important in music. Every chord has one or the other (except for a few exceptions). There are two fundamental types of chords: major and minor. The 3rd interval is what determines if the chord is major or minor.

Perfect 4th



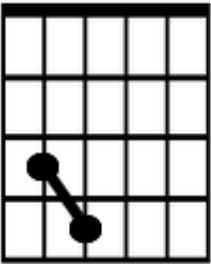
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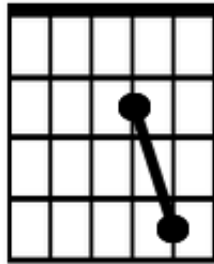
When top note is on B string

The perfect 4th is 5 semitones from the originating tone.

Flat 5th



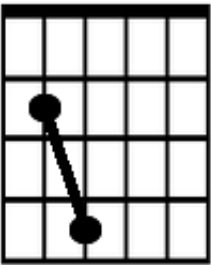
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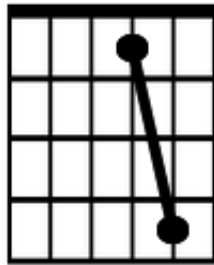
When top note is on B string

The flat 5th is 6 semitones away. This is one of the "blue" notes in the blues scale.

Perfect 5th



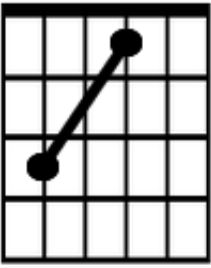
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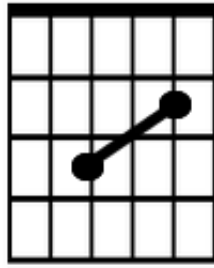
When top note is on B string

7 semitones away we get the perfect 5th.

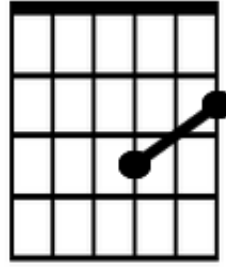
Minor 6th



Anywhere except:



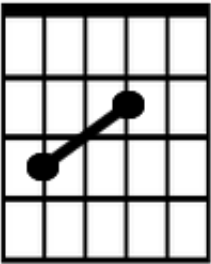
When top note is on B string



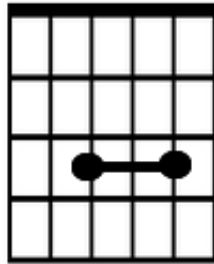
...or E string

The minor 6th is 8 semitones away.

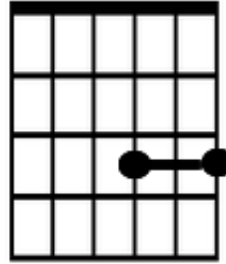
Major 6th



Anywhere except:



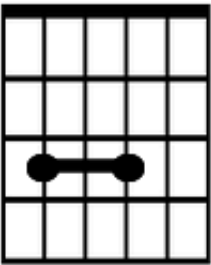
When top note is on B string



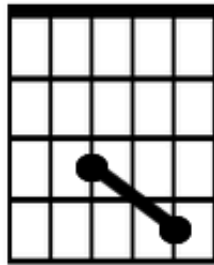
...or E string

The major 6th is 9 semitones away

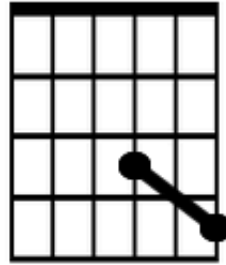
Minor 7th



Anywhere except:



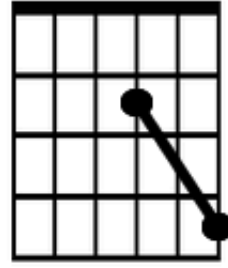
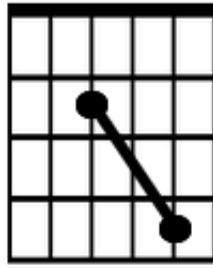
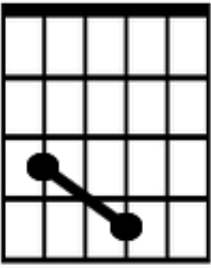
When top note is on B string



...or E string

The minor 7th is 10 semitones.

Major 7th



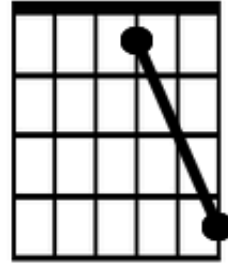
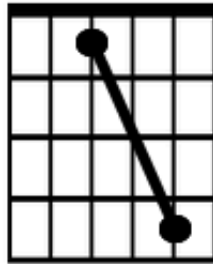
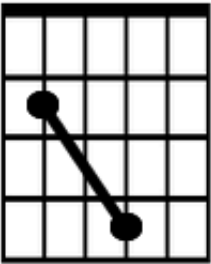
Anywhere except:

When top note is on B string

...or E string

The major 7th is 11 semitones away.

Octave



Anywhere except:

When top note is on B string

...or E string

Now, we've come full circle. At 12 semitones away from the originating tone, the octave is the same note, only at a higher (or lower) pitch.

Intervals And Scales

Remember our talk about the major scale? We used whole step, half step terminology to describe it, but now we can describe it as such:

- The second scale step is a **major second**. On the guitar it is 2 frets from the root note.
- The third scale step is called a **major third**. On the guitar it is 4 frets from the root note.
- The fourth scale step is a **perfect fourth**. On the guitar it is 5 frets from the root note.
- The fifth scale step is **perfect fifth**. On the guitar it is 7 frets from the root note.
- The sixth scale step is **major sixth**. On the guitar it is 9 frets from the root note.
- The seventh scale step is called a **major seventh**. On the guitar it is 11 frets from the root note.
- 12 frets above the root note is the **octave**. From C to the next C at a higher pitch is an octave. They are the same notes and sound alike except they are at different pitches.

Intervals And Chords

As you can see, using intervals to describe distances comes in handy when it comes to scales, but what about chords? Well, chords are built with intervals, too.

Below are the formulas for building common chords with intervals. The root (symbolized by an 'R') is our originating tone.

Major Chords

major	R	major 3rd	perfect 5th	
M6	R	major 3rd	perfect 5th	major 6th
M7	R	major 3rd	perfect 5th	major 7th

minor	R	minor 3rd	perfect 5th	
m6	R	minor 3rd	perfect 5th	major 6th
m7	R	minor 3rd	perfect 5th	minor 7th

Dominant 7th	R	major 3rd	perfect 5th	minor 7th
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In Closing...

Understanding intervals helps you understand the language of music. I hope this tutorial help to shed some light on the subject for you.

Sincerely,
Kenny Mann