

How to Practice Intervals: 3rds, 6ths, Octaves, and 10ths in First Position, Part One

By Douglas Niedt

Copyright Douglas Niedt. All Rights Reserved.

This article may be reprinted, but please be considerate and give credit to Douglas Niedt.

Intervals are Important

Almost all classical guitarists are familiar with Mauro Giuliani's 120 right-hand arpeggio studies. But along with those he also included studies to practice intervals for the left hand. Fernando Sor included the practice of intervals in his guitar method. Other guitar methods both old and new also include interval practice.

Intervals are a fundamental part of musical structures. Layers of intervals that are sounded simultaneously form harmonies. Scales and melodies are formed when sequences of intervals are sounded successively. Intervals are the basis of entire tuning systems in all cultures. They are the building blocks of tonal harmony in Western music. For guitarists, they are an essential part of the repertoire from the classical period (Sor, Giuliani, Carulli, Carcassi).

For those who are a bit weak in their ability to read music, intervals are also very helpful in music reading, learning the fretboard, and seeing relationships between notes on the fretboard. Intervals are important! Practicing intervals is an essential exercise for all classical guitarists.

Our focus is to practice playing sequences of intervals LEGATO. This means we want to seamlessly connect one interval to another. No dead space or air space between intervals.

What is an Interval?

An interval is the distance between two pitches or, as we commonly say in Western music, the distance between two notes. We have our musical alphabet: A, B, C, D, E, F, G:

The Musical Alphabet, A through G. Repeats...

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

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

0 2 3 0 2 3 0 2 0 1 3 0 1 3 5

If we count on our fingers from C to F (always count the beginning note and ending note) we have C, D, E, F. Therefore, from C to F is an interval of a 4th:

What is this interval? Count the letters from the lower note to the higher note: C to F is an interval of a fourth.

F C D E F F

4th

There are 4 note names.

F C D E F F

1 1 1 1 1 1

C C D E F C

If we count from B to G we have B, C, D, E, F, G. That is 6 notes. Therefore, B to G is an interval of a 6th:

What is this interval?

Count the letters from the lower note to the higher note:

B to G is an interval of a sixth.

There are 6 note names.

The diagram shows a musical staff with a treble clef and a guitar tablature below it. The treble staff has a B on the second line and a G on the first space. The guitar tablature has three strings: T (Treble), A (Alto), and B (Bass). The B string has a 3 at the 3rd fret, the A string has a 0 at the 0th fret, and the T string has a 0 at the 0th fret. The interval is labeled as a sixth.

If we count from E to B we have E, F, G, A, B. That is 5 notes. Therefore, E to B is an interval of a fifth:

What is this interval?

Count the letters from the lower note to the higher note:

E to B is an interval of a fifth.

There are 5 note names.

The diagram shows a musical staff with a treble clef and a guitar tablature below it. The treble staff has an E on the first space and a B on the second line. The guitar tablature has three strings: T (Treble), A (Alto), and B (Bass). The B string has a 0 at the 0th fret, the A string has a 2 at the 2nd fret, and the T string has a 0 at the 0th fret. The interval is labeled as a fifth.

An interval from one pitch to the exact same pitch is called a unison. Think of how you can tune your guitar by fretting a note at the 5th fret (on the 3rd string it's the 4th fret) and then playing the same pitch on the next open string. That is a unison:

What is this interval? E to the same E is a unison.

EE E 1st string open = E 2nd string at 5th fret EE

5th fret 5th fret

TAB T A B T A B T A B

0 5 0 5 0 5 0 5

An interval containing eight notes (A to A, F to F, etc.) is called an octave:

What is this interval? Count the letters from the lower note to the higher note: C to C is an interval of an octave.

C C D E F G A B C C

There are 8 note names.

Octave

TAB T A B T A B T A B T A B

1 3 3 0 2 3 0 2 0 1 1

C C C C

We also have compound intervals that span distances greater than an octave. In other words, we can keep counting past 8 to include 9ths, 10ths, 11ths, 12ths, and 13ths. We usually don't go past 13.

For example, if we start with C on the fifth string and count C, D, E, F, G, A, B, C (that's an octave but we keep counting), D, E (first string open), that is 10 notes. So, from the fifth string 3rd fret C to the first string open E is an interval of a 10th:

What is this interval?

Count the letters from the lower note to the higher note:

C to E is an interval of a tenth.

There are 10 note names.

The diagram shows a treble clef staff with a C note below the staff and an E note on the first line. The interval is labeled '10th'. Above the staff, the letters C, D, E, F, G, A, B, C, D, E are written, representing the 10 note names between the two notes. Below the staff, the fretboard is shown with fret numbers for the strings T, A, B, and C. The fret numbers are: T (0), A (3), B (3), and C (0) for the first position, and T (0), A (2), B (2), and C (0) for the second position.

By the way, you may notice that an interval of a 3rd from C to E contains the same note names as the compound interval of a 10th (C to E). The difference is that the compound interval is an octave PLUS a third. It is the same two pitches, but spaced much further apart on the fretboard:

The interval of a third and tenth from C both contain the notes C and E:

Interval of a 3rd

Interval of a 10th

The diagram shows two musical staves. The first staff shows a C note below the staff and an E note on the first line, labeled 'Interval of a 3rd'. The second staff shows a C note below the staff and an E note on the first line, labeled 'Interval of a 10th'. Below the staves, the fretboard is shown with fret numbers for the strings T, A, B, and C. The fret numbers are: T (0), A (2), B (3), and C (0) for the first position, and T (0), A (0), B (3), and C (0) for the second position.

I don't want to get into the "weeds" on intervals, but intervals are classified not just by number (3rds, 6ths, 10ths, etc.) but also by quality. We have:

Major intervals

Minor intervals

Perfect intervals

Augmented intervals

Diminished intervals

For our purposes, it is necessary only to understand how intervals are numbered.

Will practicing intervals in legato style improve my guitar playing?

Oh my gosh, mastering the playing of legato intervals is an essential skill and will do a world of good for your guitar playing.

The Left Hand Will Learn:

1. Improved finger independence
2. Improved coordination
3. Synchronization on a very foundational level.
4. Fundamental principles of left-hand fingering.

v

The Right Hand Will Learn To:

1. Pluck two notes simultaneously, free stroke. Advanced players should also learn to play the intervals, when possible, rest stroke with the fingers or rest stroke with the thumb.
2. Play with all combinations of thumb and fingers with alternation.

IMPORTANT: Great News

Once you have mastered interval practice within a few weeks or months, you won't have to practice them anymore! The lessons learned will stick without requiring ongoing practice.

HOW TO PRACTICE

- Practice only in 1st position (frets one through four). We do not want to incorporate shifts yet. Shifts are a problem unto themselves. Stay in 1st position!
- Practice slowly. Goes without saying. Speed is not a goal.
- Play the lower note of each interval with the thumb free stroke. Play the upper note of each interval with a finger, free stroke. Advanced players can add rest stroke with the thumb or fingers later (best to learn on the 10ths).
- Stick with the keys indicated. No need at this point to read tons of sharps or flats, especially if you want to improve your basic note reading. Also, these keys require no shifts or squeaky slides.

First, Practice 6ths in 1st Position, Key of C

Why begin with 6ths?

The reaches are easier than the other intervals. 6ths are commonly found in beginning, intermediate, and advanced pieces by Sor, Giuliani, Carcassi, etc.

Begin practicing with all pi, pm, or pa. Do not alternate fingers. This will allow full focus on the left hand.

6ths in 1st Position, Key of C

This fingering is used because it does not require any shifts and provides extra exercise for 3 and 4.

Could use 1 on B and then 3 and 2 on next C and A. But most players need more exercise with the weaker 3rd and 4th fingers.

If the 4 on the B and 3 on the high G is too difficult, play the B open and use the 4th finger to play the high G.

Could use 3 on the C and 2 on the A, and then the 1st finger on the next 5th-string B. But most players need more exercise with the weaker 3rd and 4th fingers.

RIGHT-HAND ALTERNATION PATTERNS:
 No alternation: pi all the way through, pm all the way through, pa all the way through.
 Then, alternate: pi-pm, pm-pi, pm-pa, pa-pm, pi-pa, pa-pi.

T		0	1	3	1	0	3	1	0	2	0	3	2	0	3	1	0
A	0	2	3	0	2	0	2	3	0	2	0	3	2	0	3	1	0
B	3	0	1	3	0	2	3	0	2	3	0	2	3	0	2	3	0

GOALS CHECKLIST:

Left Hand

1. **Play absolutely legato. Move seamlessly from interval to interval. There should be no dead space between intervals.**
2. Do not play interval X, lift, and then play interval Y.
3. Lift the finger or fingers off interval X at the EXACT SAME MOMENT you pluck interval Y.
4. **If an interval requires two fingers, be certain both fingers land on the strings SIMULTANEOUSLY.**
5. At all times, keep ALL of the fingers bent, close to the strings, with the tips pointing down at the strings.
6. As interval X is played, prepare the fingers to play interval Y. This means moving the finger or fingers required to play interval Y directly over the required string(s) no more than 1/4 inch above the string(s) with the tips pointed down at the string(s). Any unused fingers should also be no more than 1/4 inch above the strings with the fingertips pointing directly down at the strings.

If you are having difficulties, especially with a particular change, practice that change left hand alone. That will allow you to focus entirely on the left hand to fix the problem. It is a fantastic practice technique.

Watch Video #1. How to Practice 6ths, the Basics for the Left Hand. I demonstrate the basic left-hand techniques required to learn to play 6ths in legato style. Don't miss this one. It is definitely Oscar material.

Tech Tip Intervals in 1st Position Video #1: Practicing 6ths-The Basics

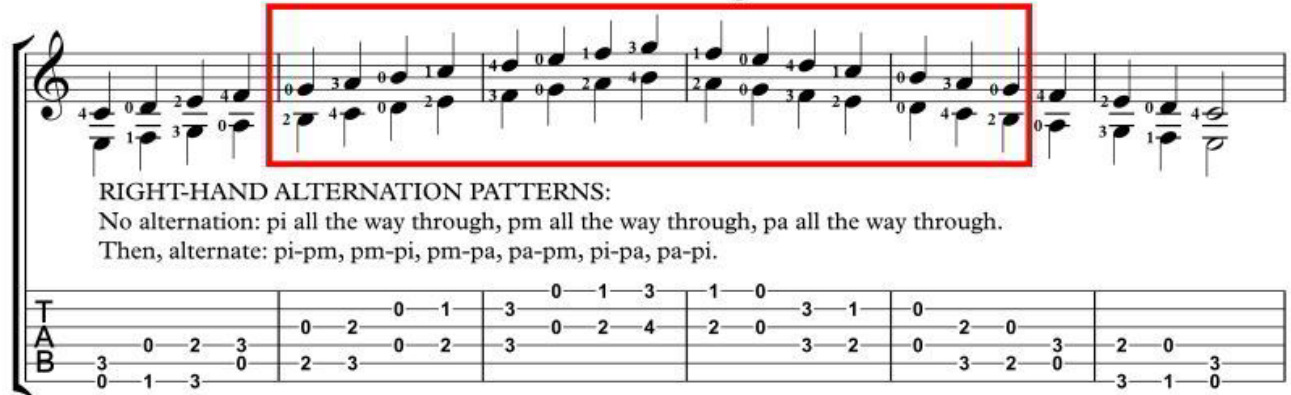


Right Hand Goals Checklist:

1. Practice with all free stroke and do not alternate the fingers so you can focus on the left hand.
2. **Be certain to pluck both strings of the interval simultaneously.**
3. On free stroke, immediately after a finger plucks, relax the finger so that it returns to a position in front of the next string it is to play. Only allow a finger to follow through when going from a higher-pitched string to a lower-pitched string (for example 1st string to the 2nd string).
4. Once the left hand is working confidently and the interval changes are legato, introduce right-hand finger alternation. Do all combinations: pi-pm, pm-pi, pm-pa, pa-pm, and pi-pa, pa-pi.
5. Advanced players can practice, where possible (from the 5th-string B and 3rd-string open G on up), the intervals with the fingers rest stroke and thumb free stroke, and then with the thumb rest stroke and fingers free stroke. Be certain both notes of each interval are always plucked simultaneously.

6ths in 1st Position, Key of C. Rest stroke.

Advanced players can play this section rest stroke with the fingers and free stroke with the thumb and rest stroke with the thumb and free stroke with the fingers. Practice all combinations of alternation.



RIGHT-HAND ALTERNATION PATTERNS:

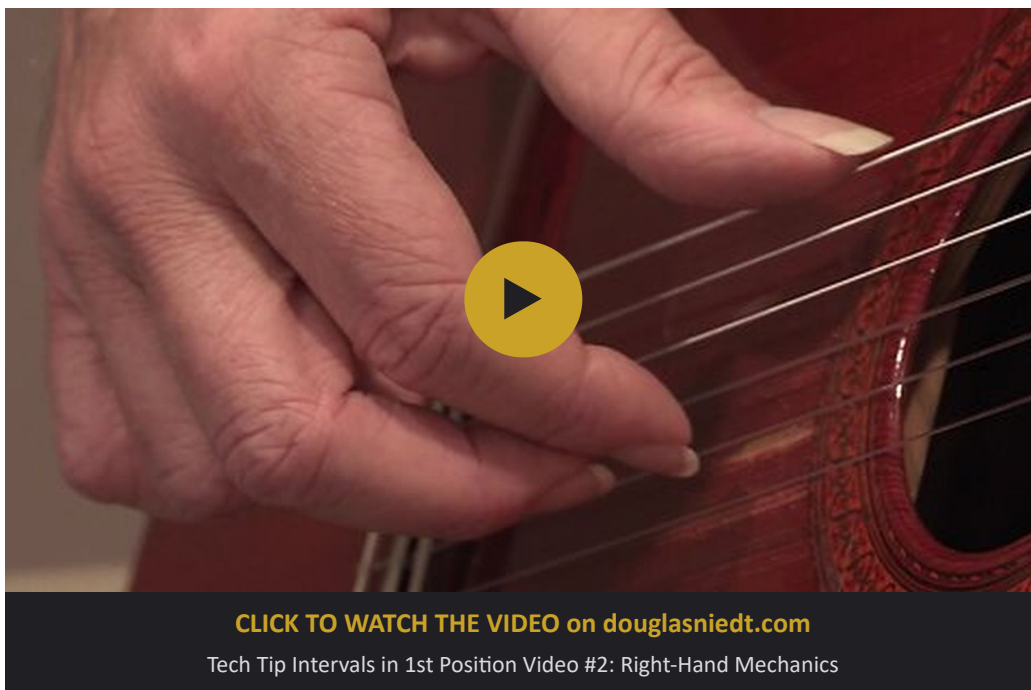
No alternation: pi all the way through, pm all the way through, pa all the way through.

Then, alternate: pi-pm, pm-pi, pm-pa, pa-pm, pi-pa, pa-pi.

T				0	1	3	1	0	3	1	0	2	0	3	2	0	3
A	0	2	3	0	2	4	2	0	3	2	0	2	0	3	2	0	3
B	3	0	1	3	2	3	3	2	0	3	2	0	3	2	0	3	2

Watch Video #2. I demonstrate the right-hand techniques you should use to practice intervals. Rumor has it that this video is being considered for Cannes.

Tech Tip Intervals in 1st Position Video #2: Right-Hand Mechanics

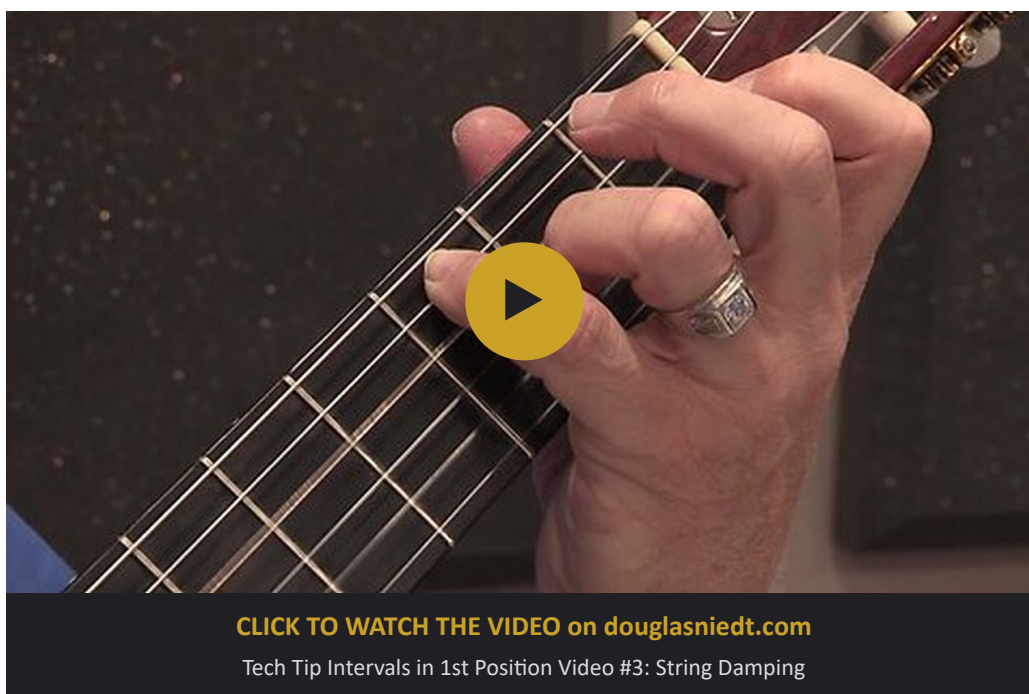


A note about string damping on the descent

On the descent, you may damp ringing open strings with the left hand by leaning the finger over slightly to touch the open string and/or allowing the tip joint of the finger to slightly collapse. Some players may prefer to damp the open strings with the right hand. Or, you can allow the open strings to ring and not worry about it. On other interval exercises to come, a combination of left and right-hand damping must be employed if you wish to damp all open strings. For extensive information on string damping see my four-part technique tip [String Damping](#).

Watch me in Video #3. I sent a note to Robert de Niro asking if he wanted to do a cameo on this one. Haven't heard back...

Tech Tip Intervals in 1st Position Video #3: String Damping



If you are having difficulties with the right hand, forget the left hand and practice all the alternation patterns right hand alone on all combinations of open strings. The following exercises will apply to and help you master the playing of ALL intervals, not just 6ths:

If needed, practice all right-hand patterns with free stroke on all combinations of open strings.

RIGHT-HAND ALTERNATION PATTERNS:

No alternation: pi all the way through, pm all the way through, pa all the way through.

Then, alternate: pi-pm, pm-pi, pm-pa, pa-pm, pi-pa, pa-pi.

Watch me demonstrate in Video #4. If this doesn't get your heart pumping, nothing will.

Tech Tip Intervals in 1st Position Video #4: Right-Hand Open String Practice



Here is the Most Thorough and Complete Practice Method to Master the Exercise:

Practice each interval change at least four times. That way, as you practice each change, you can go through the Goals Checklist to be certain you are playing each change with perfect technique. Difficult changes should be practiced 8-20 times each. **PRACTICE SLOWLY!**

6ths in 1st Position, Key of C. Practicing each change multiple times.

REFER TO GOALS CHECKLIST TO BE SURE YOU ARE PRACTICING CORRECTLY!

Any changes that are challenging should be circled to help you remember to practice them several times during a practice session or to focus on them tomorrow.

This is also a great way to practice if you are having problems with alternating the fingers with certain patterns or difficulties plucking the two notes simultaneously. Do more repetitions on difficult fingering

patterns for extra focus. If the right hand is having a lot of difficulty, go back and practice these particular interval changes on open strings right hand alone.

6ths in 1st Position, Key of C. Open strings, right hand alone.

RIGHT-HAND ALTERNATION PATTERNS:

No alternation: pi all the way through, pm all the way through, pa all the way through.

Then, alternate: pi-pm, pm-pi, pm-pa, pa-pm, pi-pa, pa-pi.

The image displays three systems of musical notation for guitar, each consisting of a treble clef staff and a tablature staff. The first system shows a sequence of chords (C, F, C, F, C, F, C, F) with a melody of eighth notes. The second system shows a sequence of chords (C, F, C, F, C, F, C, F) with a melody of eighth notes. The third system shows a sequence of chords (C, F, C, F, C, F, C, F) with a melody of eighth notes. Each system is divided into three measures by double bar lines.

In Video #5, I show you how to use this practice technique of repeating changes over and over to achieve mastery. Note: if you fall asleep watching this, you aren't going to achieve mastery.

Tech Tip Intervals in 1st Position Video #5: Practicing Interval Changes Many Times



I'm Having a Lot of Left-Hand Difficulty Playing a Certain Interval Change. What Do I Do?

There is a good chance many players will have difficulty with certain changes. For example, this change:

Difficult left-hand change for many players:



Step #1:

Place the finger(s) on interval X. Do not lift. Left-hand alone, place and lift the finger(s) of interval Y. The goal is to **place and lift the finger(s) of interval Y simultaneously**. Do not allow any finger to rise more than 1/4 inch above the strings at any time. Keep the fingertips pointing down directly at the strings:

Practice Left-Hand Alone

HOLD
Interval X: Place and Lift Interval Y:

TAB

Step #2:

If the two fingers do not land simultaneously, observe which finger lands last. Then, **intentionally place that weaker finger first** on each repetition:

Practice Left-Hand Alone. Place weaker finger first.

HOLD
Interval X:

TAB

Once you can consistently place the weaker finger first, you should be able to place both fingers simultaneously.

Step #3:

Reverse Step #1. Place the finger(s) on interval Y. Do not lift. Left-hand alone, place and lift the finger(s) of interval X. The goal is to **place and lift the finger(s) of interval X simultaneously**. Do not allow any finger to rise more than 1/4 inch above the strings at any time. Keep the fingertips pointing down directly at the strings:

Practice Left-Hand Alone

HOLD
Interval Y: Place and Lift Interval X:

TAB

3 4 1 2 1 2

Step #4:

If the two fingers do not land simultaneously, observe which finger lands last. Then, **intentionally place that weaker finger first** on each repetition. Once you can consistently place the weaker finger first, you should be able to place both fingers simultaneously.

Step #5:

Play interval X to Y with both hands but keep the finger(s) down on interval X. Connect the change as smoothly as possible. Do not allow any finger to rise more than 1/4 inch above the strings at any time. Keep the fingertips pointing down directly at the strings:

Practice Both Hands Together

HOLD Interval X: Place and Lift Interval Y (but keep holding interval X)

Fundamental Principles of Fingering

As mentioned earlier, another benefit of practicing intervals is that one learns a feel for good fingering. For example, one of the fundamental principles of good fingering is not to use the same finger consecutively on two different strings:

Bad fingering. Jumping the 3rd finger from the 6th to 4th string cuts off the G early, making the change sound choppy.

Good fingering. No finger jumps. Can be played absolutely legato.

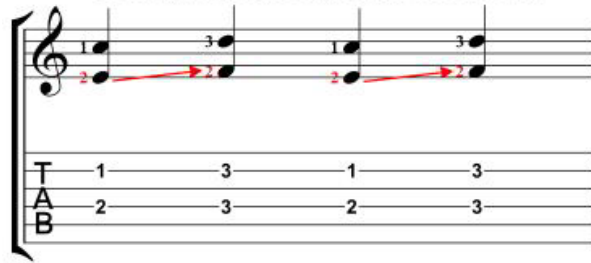
Bad fingering. Jumping the 2nd finger from the 5th to 3rd string cuts off the B early, making the change sound choppy.

Good fingering. No finger jumps. Can be played absolutely legato.

Or, use 1 on 5th-string B with open G, and then 3 on 5th-string C and 2 on 3rd-string A.

It's also always good to avoid fingerings that produce unwanted finger noises such as squeaks:

Bad fingering. Using the 2nd and 3rd fingers on the F/D interval uses strong fingers, but a squeak is inevitable when sliding the 2nd finger on the wound 4th string from the 2nd fret to the 3rd fret.



Good fingering. No finger slides, no string squeaks.



PROCEED WITH THE FOLLOWING ADDITIONAL INTERVAL EXERCISES

You don't have to practice all of these every day. Pace yourself! Focus on one or two, master each one, and then move on to another.

Use the same system of practice I described to learn the preceding 6ths in C major:

1. Follow the Goal Checklist
2. Practice slowly. Speed is not a goal.
3. Practice all free stroke with all right-hand finger combinations. Advanced players can add rest stroke with the fingers and thumb later (best to start with 10ths).
4. If you have trouble playing the two notes of an interval simultaneously, practice on open strings.
5. String damping is optional.
6. In the early stages, practice each interval change at least four times. Difficult changes should be practiced with more repetitions.
7. If you have difficulty with a particular interval change, go through the 5-step process I described earlier.

Learn to play legato 6ths in the key of G:

Use the same practice techniques discussed above. Notice that the fingerings require no finger jumping or sliding.

6ths in 1st Position, Key of G

This fingering is used because it does not require any shifts and provides extra exercise for 3 and 4.

0 2 0 1 3 0 2 4 2 0 3 1 0 2 0

T 0 2 0 1 3 0 2 4 2 0 3 1 0 2 0

A 0 2 0 1 3 0 2 4 2 0 3 1 0 2 0

B 2 3 0 2 4 0 2 4 2 0 3 2 0 3 2

6ths in G (extended scale)

This fingering is used because it does not require any shifts, provides extra exercise for 3 and 4, and includes some mild stretches.

[illegible]

In Video #7, watch me demonstrate how to play 6ths in the key of G. By the way, I think it was very rude that some guy sent me an anonymous note that he uses my videos instead of Ambien to get to sleep.

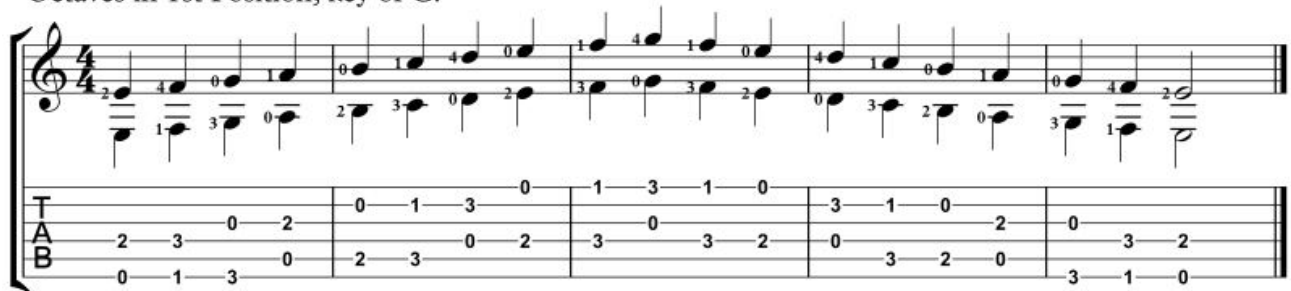
Tech Tip Intervals in 1st Position Video #7: 6ths in G Major and Extended Scale



Octaves are Awesome

Octaves are a fabulous interval to practice because they are widely spaced on the fretboard (but not too much) and require a good amount of finger independence and nimbleness to play well. And, they are common in the repertoire.

Octaves in 1st Position, key of C.



Standard notation (treble clef, 4/4 time):

Hand 1 (Right): C4 (open), D4 (2), E4 (4), F4 (1), G4 (0), A4 (2), B4 (4), C5 (1), D5 (0), E5 (2), F5 (4), G5 (1), A5 (0), B5 (2), C6 (4).

Hand 2 (Left): C4 (open), D4 (2), E4 (4), F4 (1), G4 (0), A4 (2), B4 (4), C5 (1), D5 (0), E5 (2), F5 (4), G5 (1), A5 (0), B5 (2), C6 (4).

Tablature (TAB):

Hand 1 (Right): 2 3 0 2 | 0 1 3 0 | 1 3 1 0 | 3 1 0 2 | 0 3 2 |

Hand 2 (Left): 0 1 3 0 | 2 3 0 2 | 3 0 3 2 | 0 3 2 0 | 3 1 0

Octaves in 1st Position, key of C.

Play the B's on the 3rd-string for an extra challenge.

Octaves in 1st Position, key of G.

Octaves in 1st Position, key of G. Play B's on 3rd string instead of open.

Play the B's on the 3rd-string for an extra challenge.

The chromatic octave scale in 1st position can be a particularly challenging exercise to play well:

Chromatic Octave Scale in 1st Position

The image displays three systems of musical notation for a chromatic octave scale in 1st position. Each system consists of a standard staff with a treble clef and a guitar TAB line below it. The first system covers the first octave (E2 to E3), the second system covers the second octave (E3 to E4), and the third system covers the third octave (E4 to E5). The notation includes fingerings (0-4) and a final double bar line at the end of the third system.

System 1: First Octave (E2 to E3)

Staff	Measure 1	Measure 2	Measure 3	Measure 4
Standard	E2 (0)	F2 (1)	G2 (2)	A2 (3)
TAB	0	1	2	3

System 2: Second Octave (E3 to E4)

Staff	Measure 1	Measure 2	Measure 3	Measure 4
Standard	B2 (0)	C3 (1)	D3 (2)	E3 (3)
TAB	0	1	2	3

System 3: Third Octave (E4 to E5)

Staff	Measure 1	Measure 2	Measure 3	Measure 4
Standard	B3 (0)	C4 (1)	D4 (2)	E4 (3)
TAB	0	1	2	3

In Video #8, watch me demonstrate all the octave exercises. Hold onto your seat. This is riveting.

Tech Tip Intervals in 1st Position Video #8: Octaves



Now, Learn to Play 10ths in 1st Position

Once again, you will find 10ths to be plentiful in the classical guitar repertoire. These are excellent for learning left-hand finger preparation. As I demonstrate in the following video, it is important that the fingers anticipate their positioning for each successive interval. This results in increased accuracy, precision, and very legato, connected changes.

If you have been wanting to experiment with using rest stroke with the fingers or thumb to play intervals, it is a good idea to start with 10ths. Since 10ths are spread apart more widely than the previous intervals, they are a little more rest stroke "friendly".

10ths in 1st Position, Key of C.

0 2 0 1 3 0 1 3 1 0 3 1 0 2 0

0 1 3 0 2 3 0 2 0 3 2 0 3 1 0

10ths in 1st Position, Key of G.

0 2 0 1 3 0 2 3 2 0 3 1 0 2 0

0 2 3 0 2 3 0 2 0 3 2 0 3 2 0

In Video #9, watch me demonstrate how to practice 10ths and the importance of left-hand finger preparation. Be sure you aren't operating heavy machinery while watching this.

Tech Tip Intervals in 1st Position Video #9: How to Practice 10ths



Finally, Learn to Play 3rds in 1st /2nd Position:

We are very limited in practicing 3rds without any shifting. But that's okay, this exercise serves its purpose quite well. In fact, it straddles 1st *and* 2nd position. In addition to all the right-hand patterns specified earlier, also practice the thirds with "im" (no thumb) and "ma" (no thumb).

3rds in 1st/2nd Position, Key of D

This fingering is used because it does not require any shifts or finger jumps.

Measure	T	A	B
1	0	4	5
2	2	2	4
3	0	2	4
4	0	0	0

Watch me in Video #10. Yes, this is the last video.

Tech Tip Intervals in 1st Position Video #10: How to Practice 3rds



Part 2, Coming Up: How to Master Playing "Broken" Intervals