Pitch Line

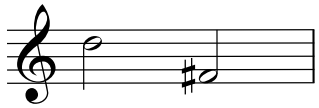
Frequencies for Note Names

	207.6		233			277.1		311.1			369.9		415.3		466.1			554.3		622.2			739.9		830.6		932.3			1108		1244				
	Ab		Bb			Db		Eb			Gb		Ab		Bb			Db		Eb			Gb		Ab		Bb			Db		Eb				
G	G#	A	A#	B	C	C#	D	D#	E	F	F#	G	G#	A	A#	B	C	C#	D	D#	E	F	F#	G	G#	A	A#	B	C	C#	D	D#	E	F		
196		220		246.9	261.6		293.6		329.6	349.2		392		440		493.8	523.2		587.3		659.2	698.4		783.9		880		987.7	1046		1174		1318	1396		

How to find interval name:

Locate first note on Pitch Line. Count up or down until you arrive at the next note. Use chart to the right to find name of interval.

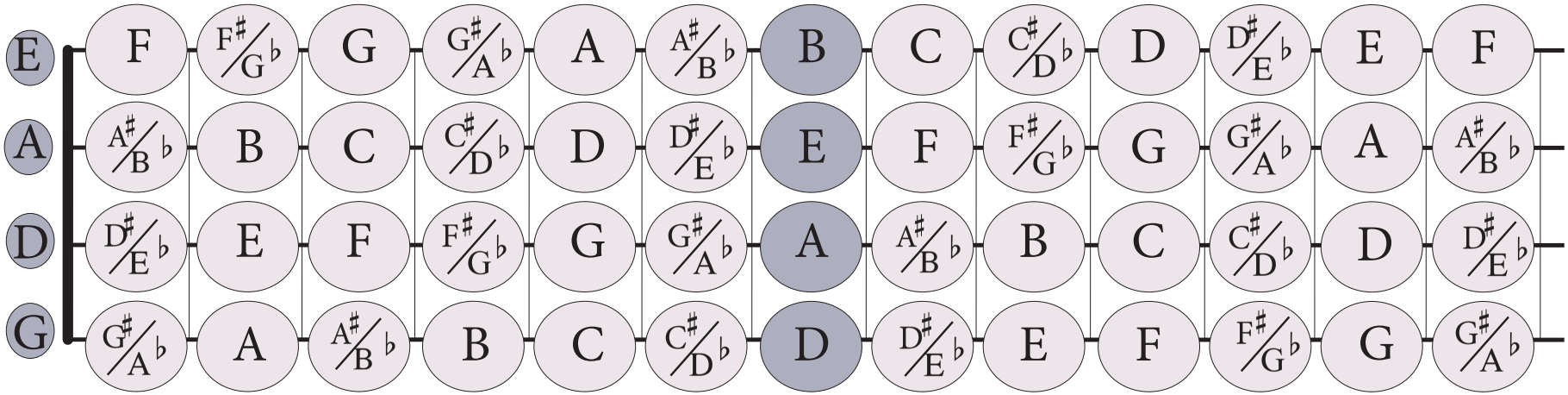
There are 5 half steps from F to Bb. That's a perfect 4th.



There are 8 half steps from D to F#. That's a minor 6th.

Minor 2nd (Half Step)	1	Jaws, Pink Panther, Fuür Elise, Oh Little Town of Bethlehem
Major 2nd (Whole Step)	2	Do a Deer, Happy Birthday, Mary Had a Little Lamb, Yesterday
Minor 3rd	3	Greensleeves, Brahm's Lullaby, This Old Man, Hey Jude
Major 3rd	4	Kumbaya, Oh When the Saints, Swing Low Sweet Chariot, Summertime
Perfect 4th	5	Here Comes the Bride, Amazing Grace, I've Been Working on the Railroad, Eine Kleine
Tritone	6	The Simpsons, Maria
Perfect 5th	7	Twinkle Twinkle, Blackbird, Flinstones, Feelings
Minor 6th	8	In My Life, Love Story
Major 6th	9	NBC, My Bonnie Lies Over the Ocean, Man in the Mirror, Down By the Riverside
Minor 7th	10	Somewhere (West Side Story), Star Trek Theme, Lady Jane
Major 7th	11	Somewhere Over the Rainbow (1st and 3rd pitch), Superman Theme
Octave	12	Singin' in the Rain, Let it Snow, There's No Business Like Show Business (2nd and 3rd notes)

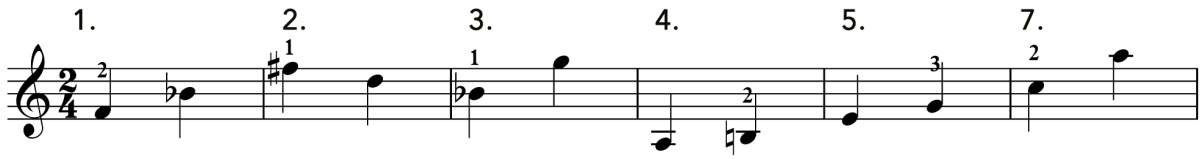
©ViolinLab.com


E
A
D
G
F
F♯/G♭
G
G♯/A♭
A
A♯/B♭
B
C
C♯/D♭
D
D♯/E♭
E
F
A♯/B♭
B
C
C♯/D♭
D
D♯/E♭
E
F
F♯/G♭
G
G♯/A♭
A
A♯/B♭
B
D♯/E♭
E
F
F♯/G♭
G
G♯/A♭
A
A♯/B♭
B
C
C♯/D♭
D
D♯/E♭
E
F
F♯/G♭
G
G♯/A♭
A
A♯/B♭
B
C
C♯/D♭
D
D♯/E♭
E
F
F♯/G♭
G
G♯/A♭

Interval and Interval Spacing Worksheet

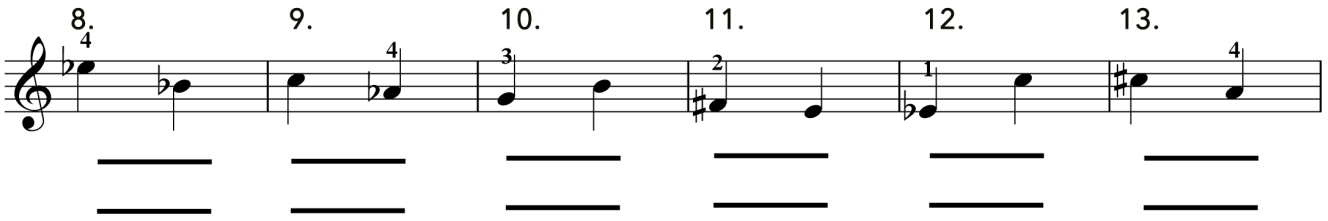
For each measure:

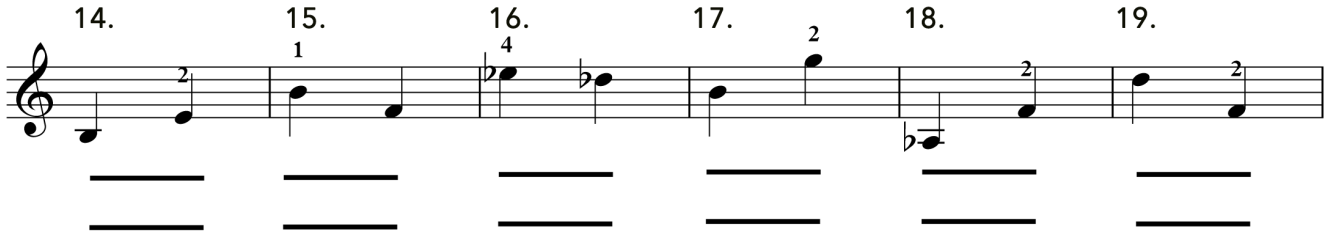
1. Fill in the missing finger numbers.
2. Fill in the Interval name on the top line.
3. Fill in the interval spacing name on the bottome line.

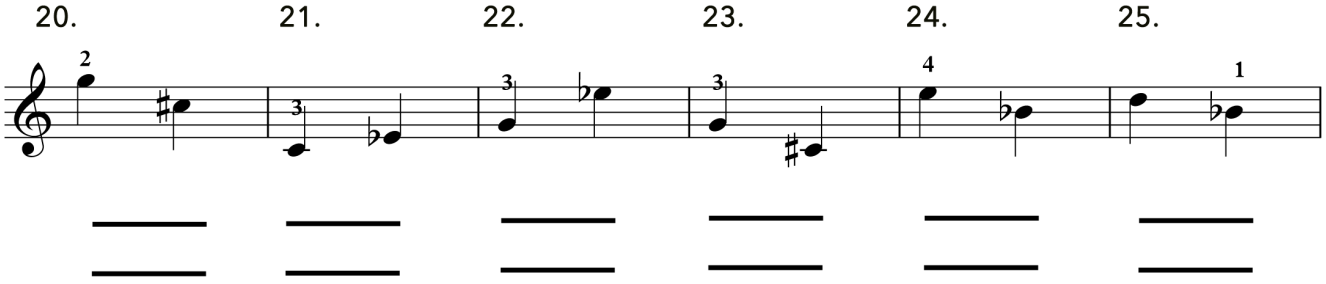


Interval Name Perfect Fourth M3

Interval Spacing Whole Step m3





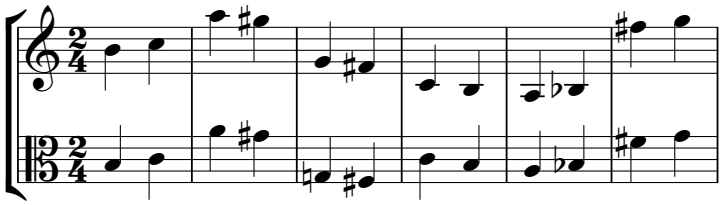


Kinesthetic Intonation

Intervals and Spacing relationships

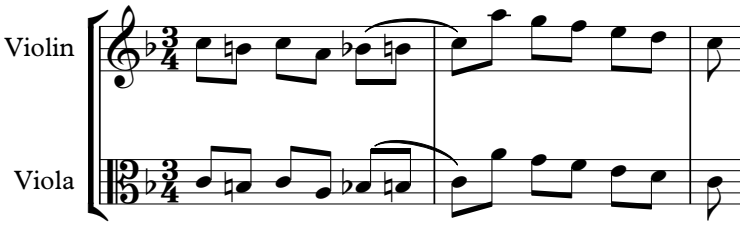
1 Half Step Spacing Between Adjacent Fingers

Same String: Half Step

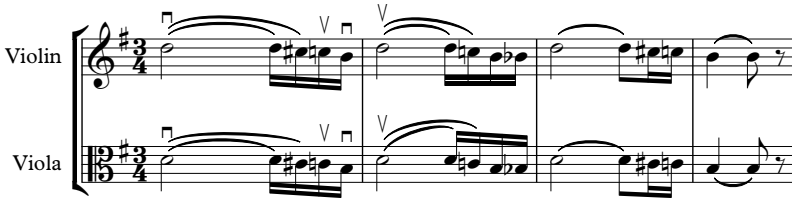


There is a strong kinesthetic reference for half steps as the fingers lightly touch in lower positions. The fingers will touch more tightly in higher positions, and will even start to crowd each other.

Wohlfahrt op.45 no.23

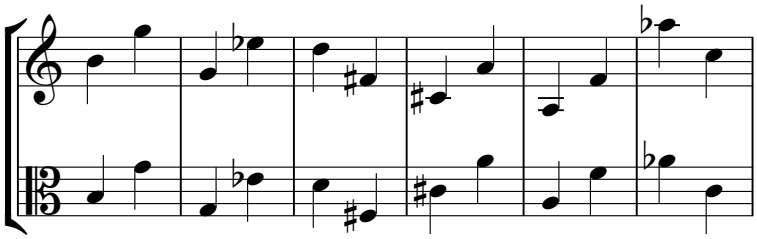


N Rimsky-Korsakov



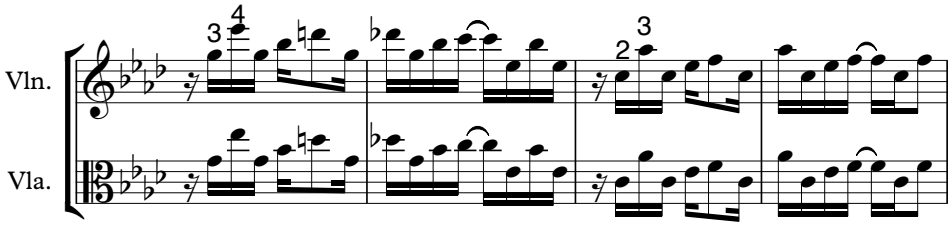
2

Adjacent Strings: Lower finger -lower string = Minor 6th

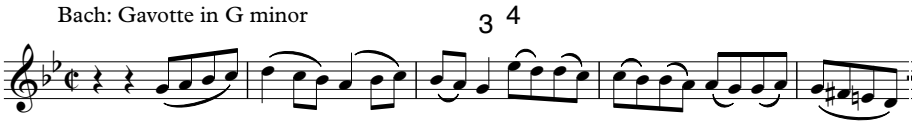


Minor 6ths have an "easy" feel. Both fingers have the same arching and also lightly touch in lower positions, becoming tighter in higher positions.

Scott Joplin: Maple Leaf Rag

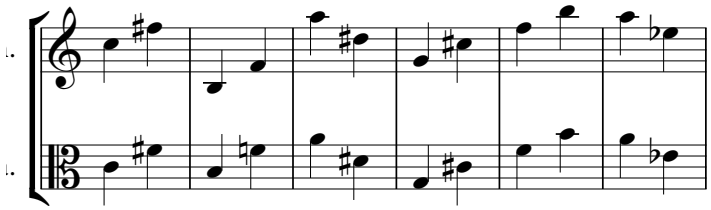


Bach: Gavotte in G minor



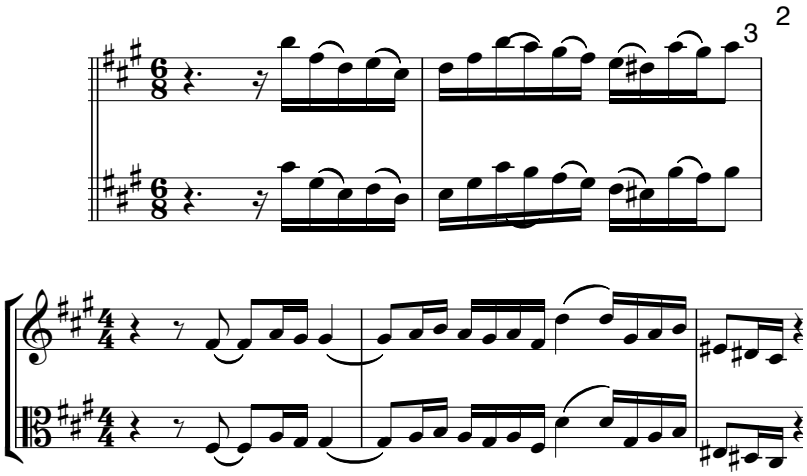
3

Adjacent strings: Higher finger on lower string = Tritone



The tritone is a difficult interval to learn. It feels like hand calisthenics and like the higher finger is "sandwiching" on top of the lower finger. Sudents often underestimate how close together they should be. It is helpful to play more on the far edge of the lower finger to help the hand pivot, and to allow for the higher finger to snuggle more closely.

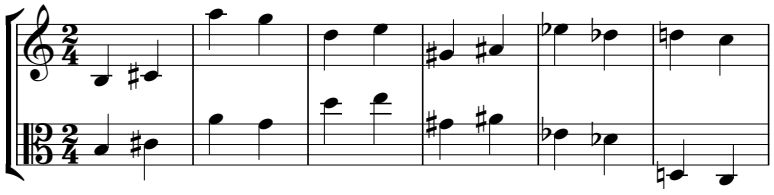
Bach A major Sonata for Violin and Piano



Whole Step Spacing Between Adjacent Fingers

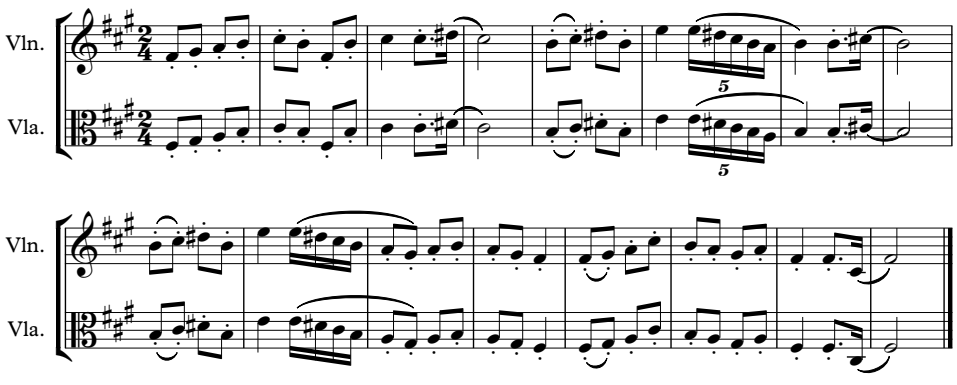
1

Same String: Whole Step



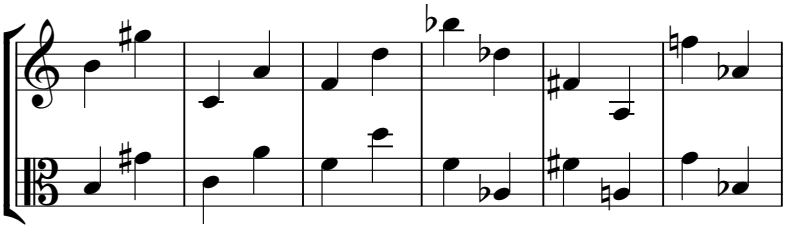
The whole step feels effortless, as it approximates the natural spacing between adjacent fingers. However, in high positions the whole step starts to feel like a half step.

Bartok: Romanian Folk Dances (II Braul)



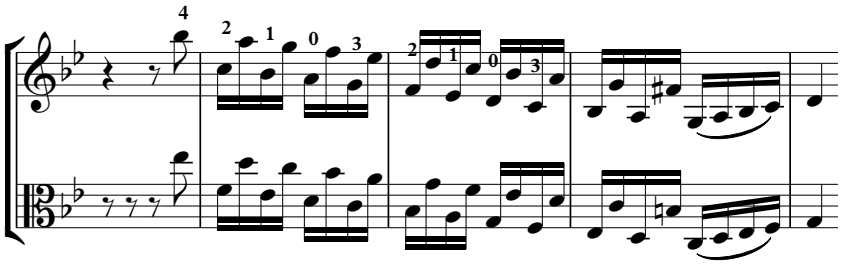
2

Adjacent Strings: Lower finger -lower string = Major 6th

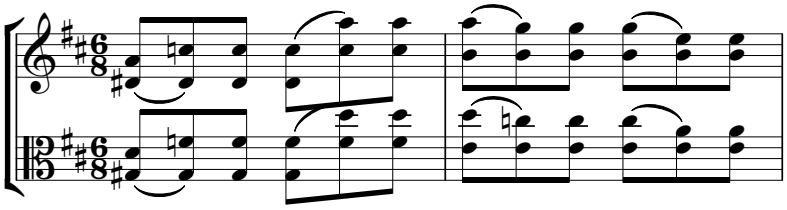


Major sixths are comfortable to play, but their is more of a stretch at the base of the fingers than there is for the basic whole step on one string.

Vivaldi G minor Co.

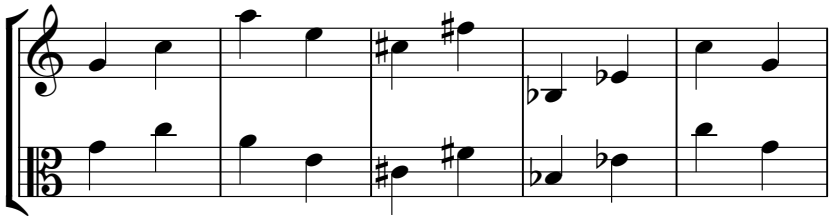


Seitz Concerto No. 5 3rd Movement



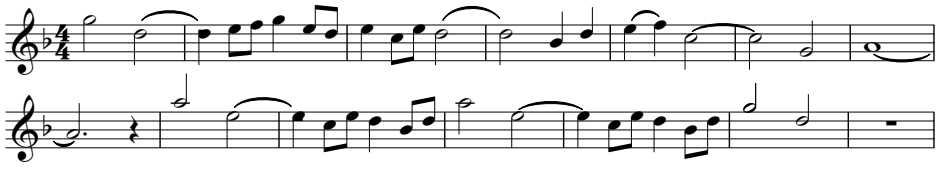
3

Adjacent strings: Higher finger on lower string = Perfect 4th

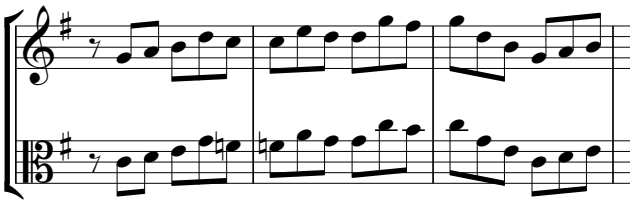


In playing a perfect 4th, the upper finger will stretch while the lower finger stays squared.

Claude Debussy: Reverie



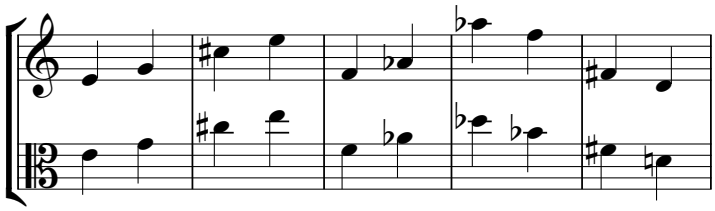
Bach Jesu Joy of Man's Desiring



Minor Third Spacing: the one-three and two-four combinations

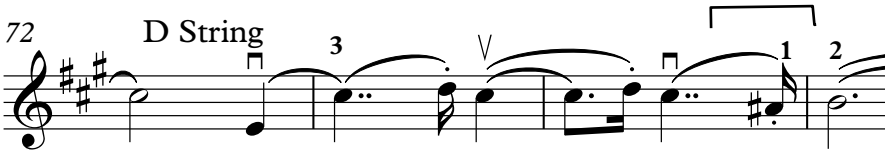
1

Same string = minor 3rd

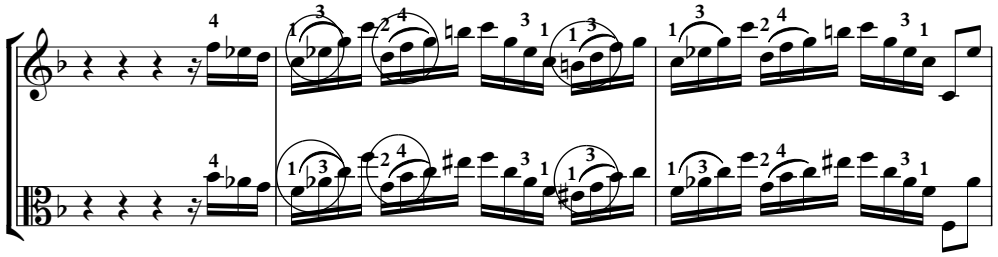


Like the whole step, the minor third fingerling shape approximates the natural distance that exists between the "every other" finger pair, and therefore is comfortable to the hand.

Kreisler: Leibeslied

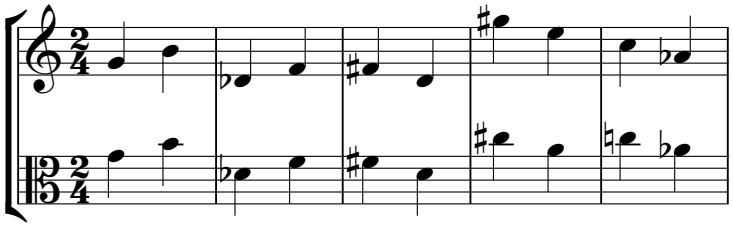


Bach: Concerto in D minor for two violins



2

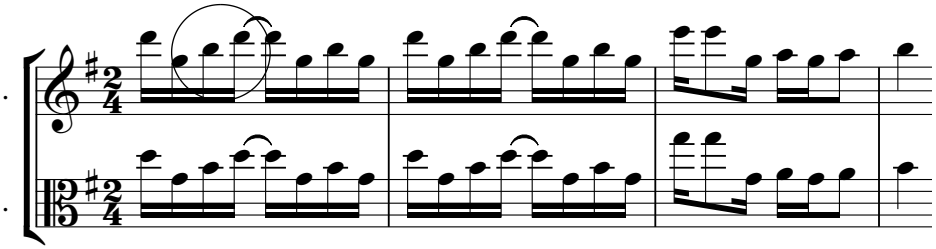
Adjacent strings: higher finger on lower string = Major 3rd



The major third interval still retains the feel of the minor third spacing, the only difference being the higher finger reaches ever so slightly across to the lower strings.

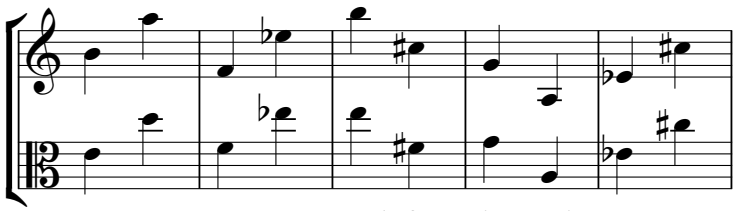
Bach Minuet No.2

Scott Joplin: Maple Leaf Rag



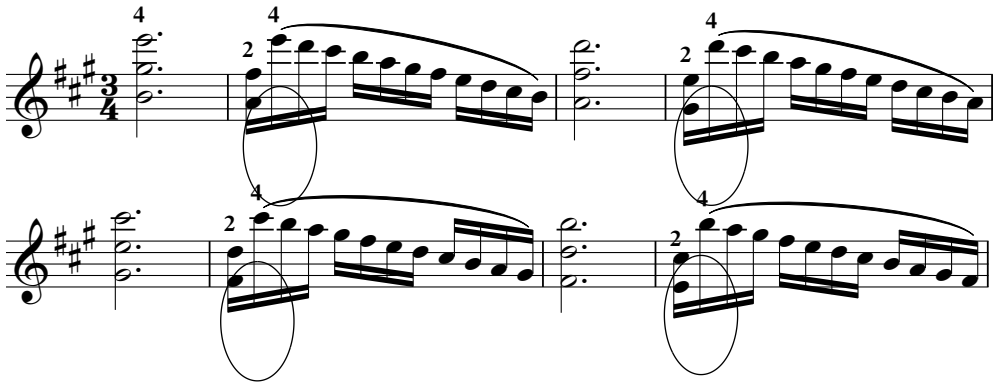
3

Adjacent strings: lower finger on lower string = Minor 7



Minor 7ths also feel natural to the hand. In a 2nd - 4th finger combination, the pinky can stay comfortably curvedsince it has the minor 3rd fingerling spacing.

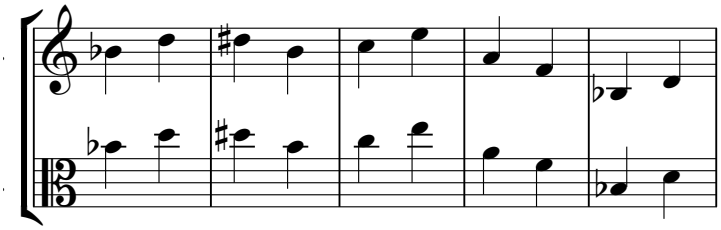
Bach: Sonata in A Major BWV 1015



Major Third Spacing: the one-three and two-four combinations

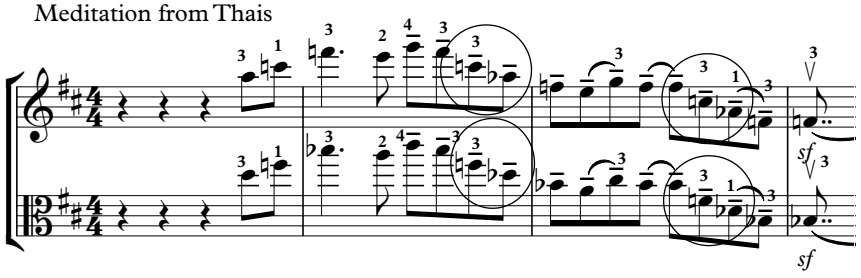
1

Same string = Major 3rd

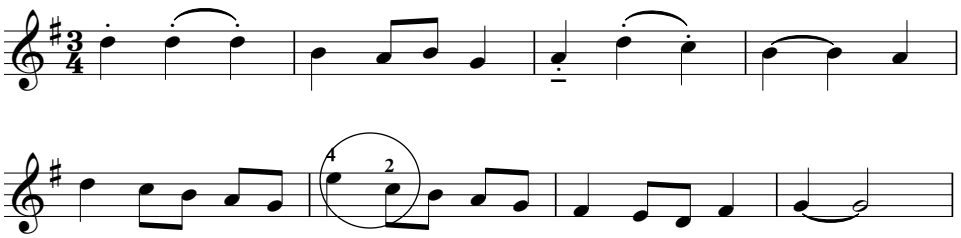


The major 3rd feels a little less natural to the hand as we have to allow for a widened finger configuration. However, in higher positions, the spacing is more natural in higher positions and feels like the minor third configuration.

Meditation from Thais

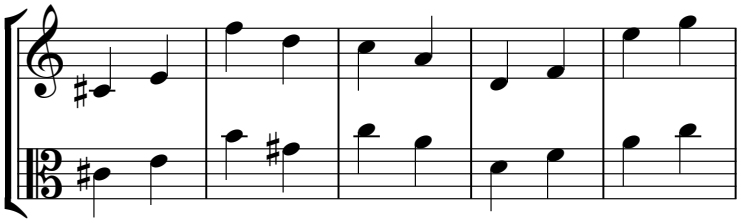


Bach Minuet No. 1



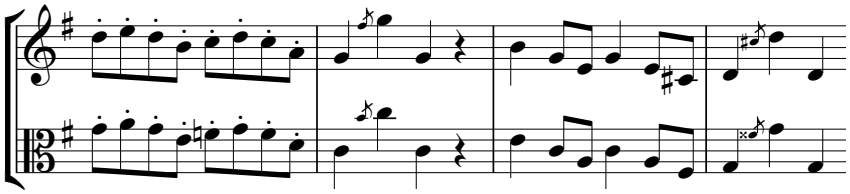
2

Adjacent strings: higher finger on lower string = minor 3rd

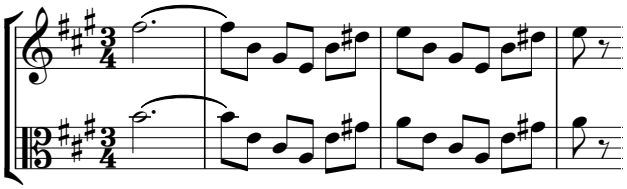


It's confusing to remember, but the Major 3rd fingerling on two strings is the actual interval of a minor third. There is a pronounced difference in the arching of the fingers in lower positions. The higher finger is stretched and the lower finger is squared. Often, beginning students underestimate the stretch of the higher finger and play the note too low.

Gossec Gavotte

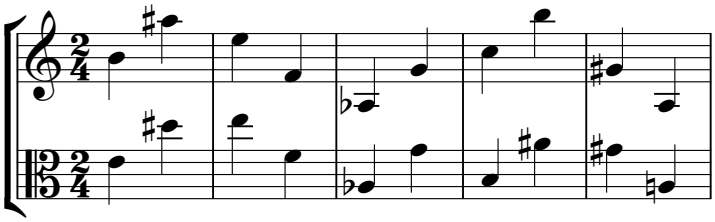


Bach A Major Sonata BWV 1015



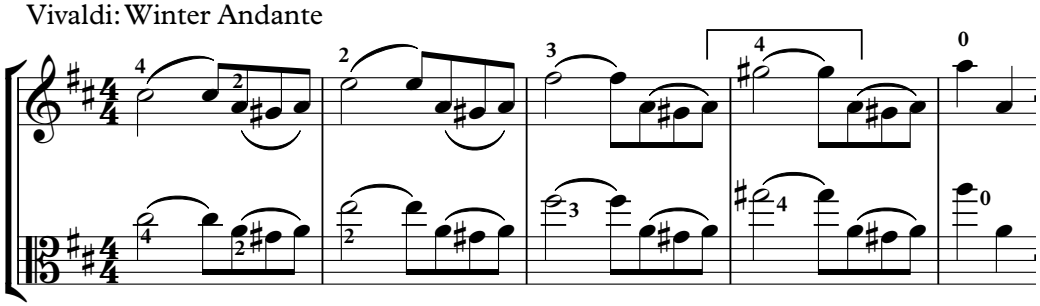
3

Adjacent strings: higher finger on higher string = Major 7th

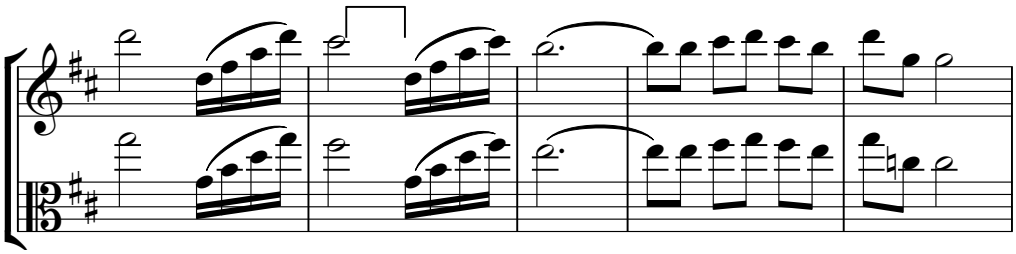


The Major 7th has the same shape profile with the higher finger stretching out from the base knuckle. The pronounced stretch is more difficult in the 2-4 combinations since the pinky can't stretch as far as 3rd fingers.

Vivaldi: Winter Andante



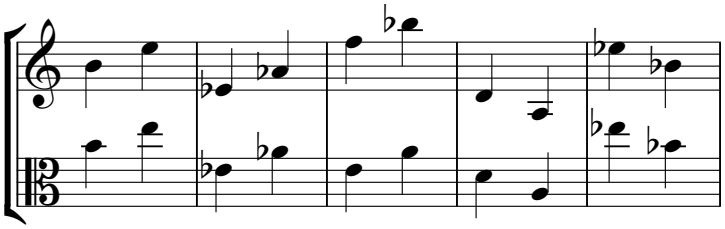
Musetta's Waltz Puccini



Major Fourth Spacing: the one-four combinations

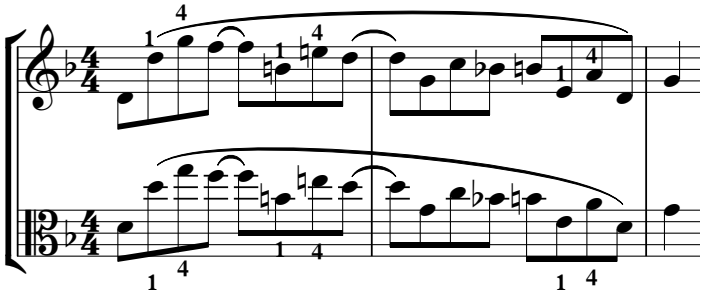
1

Same string = Perfect Fourth

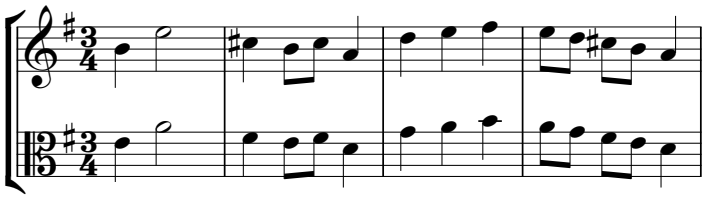


The perfect fourth spacing relationship between 1st and 4th fingers is also referred to as the "hand frame" The 1st and 4th fingers serve to provide a frame inbetween which we measure the placements of the other fingers.

Beethoven Spring Sonata

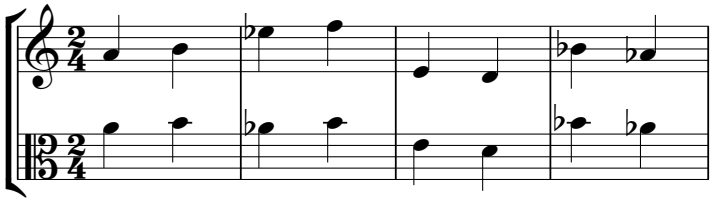


Bach Minuet No. 1



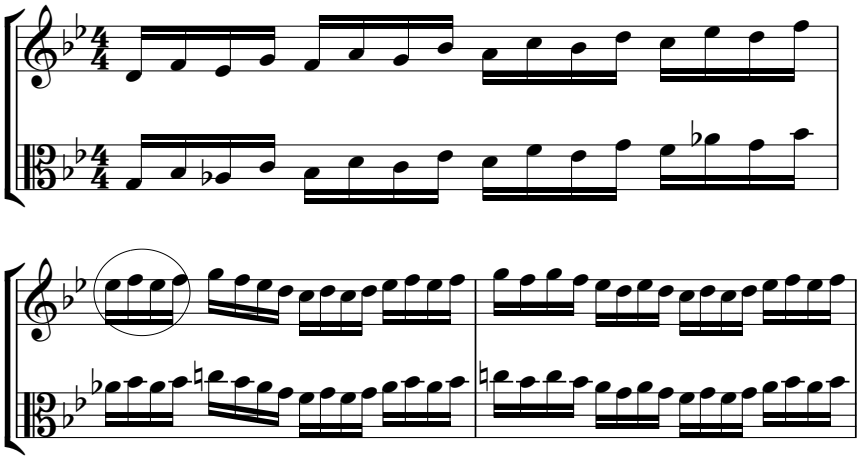
2

Adjacent strings: higher finger on lower string = Major 2nd



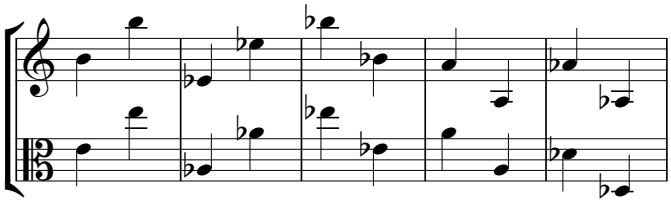
The difference in finger shape is quite pronounced in this configuration. The 1st finger is tightly squared and the 4th finger is stretched. Bringing the elbow further under the instrument and playing on the inside edge of the 1st finger helps the hand achieve accurate placement and allows the 4th finger to curve and to clear the higher string.

Handel: Queen of Sheba



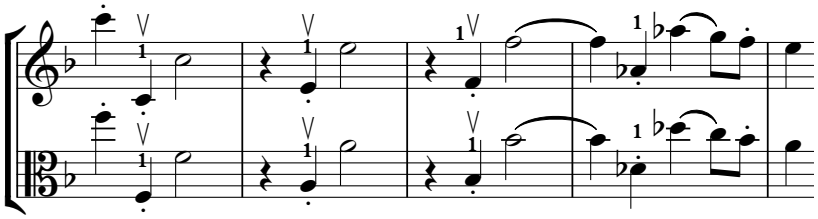
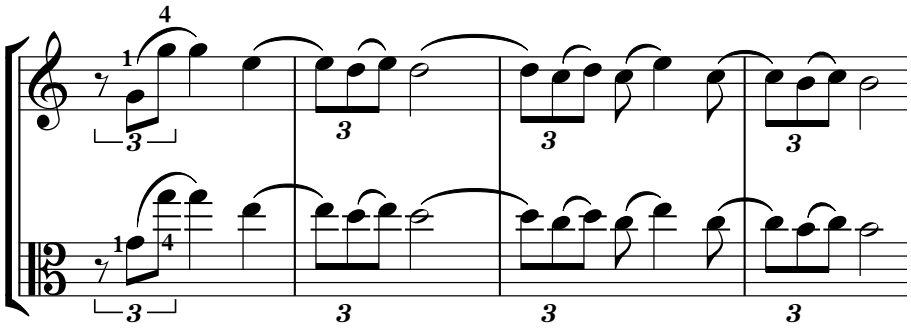
3

Adjacent strings: higher finger on higher string = Octave



The octave is for some people the most difficult interval to tune. The octave is a perfect interval, thus requiring absolute perfection in finger placement. Also, measuring the distance between 1st and 4th fingers is more difficult as there is more space in between the fingers.

Beethoven Spring Sonata



Debussy: Clair De Lune