

from Basic music theory for beginner-level adult piano players

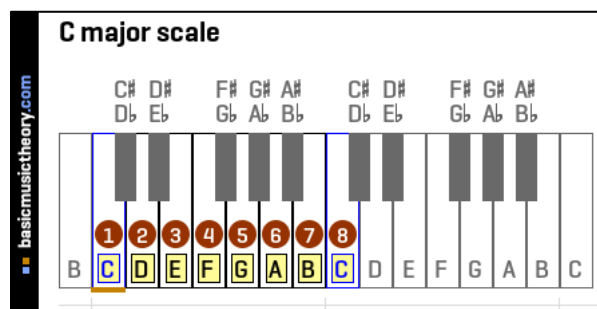
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What is a tritone?

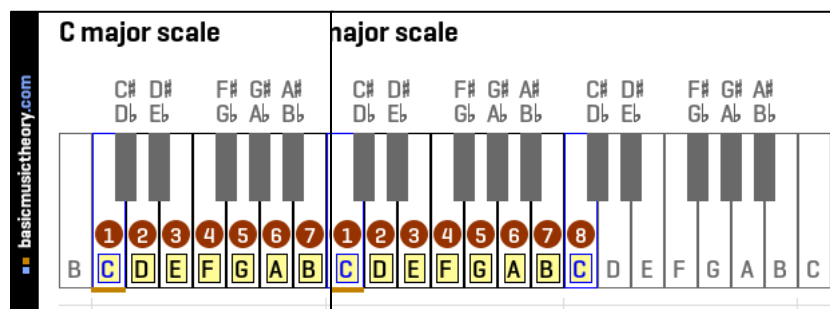
A tritone is a music interval composed of six half steps, which is 3 whole steps or whole tones (hence, *tritone*). For example in the key of C major, F to B is a tritone, since it encompasses three whole tones: F–G, G–A, and A–B.

Each major scale has only one tritone per octave, as shown below for C major, where the sole tritone is F to B. Start on any note other than F, count 6 half-steps up, and you won't end on a scale note.



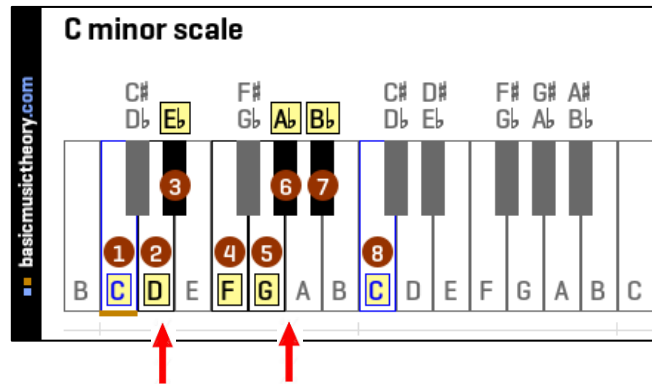
Tritone is F to B in C major scale

If we consider the *key* of C major, which can include more than one octave, we find two different tritones: F to B *and* B to F. This is shown below for two octaves of C major. No matter how many octaves you include, you will find just two different tritones. So when reading about tritones (if you do), don't confuse statements about there being a *single tritone* of the *major scale* with other statements about there being *two tritones* of the *major key*. They are both correct.



Tritones are F to B an B to F in key of C major

There is also one tritone in the natural minor scale, between the 2nd and 6th notes, as shown below for C minor; the tritone is D to Ab. If we consider more than a single octave for C minor, i.e., the *C minor key*, then you encounter two different tritones: D to Ab and Ab to D.



Tritone is D to Ab in C minor scale

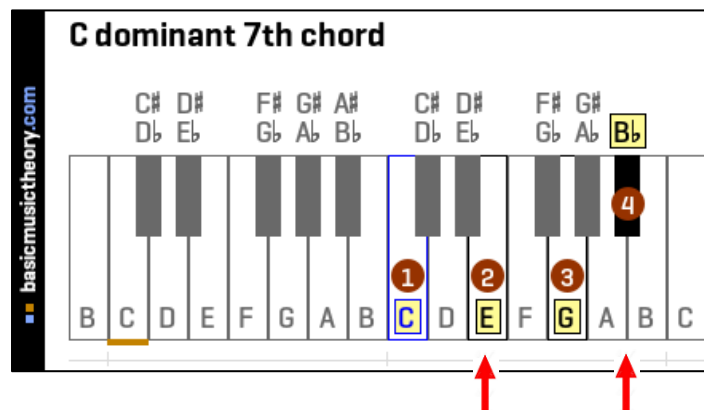
The tritone is considered a dissonant interval, in contrast to others like the perfect 4th and perfect 5th, and for this reason was rarely used in the Middle Ages. Some sources say it was outright banned from music during this period, and was considered the “devil in music,” but that is apparently not true. Considered unpleasant, it was simply used infrequently. For an interesting history of this interval, view the following 10-minute Youtube video, “The Devil in music.”



The Devil in music (an untold history of the Tritone)

<https://www.youtube.com/watch?v=eR5yzCH5CsM>

Also note that the tritone is an interval in dominant chords, like C7 and D7, when in their root position, i.e., not inverted. It occurs between the third and seventh note above the root, so in C7 the tritone is E to Bb. This interval of course doesn’t hold if the chord is inverted (see Chord Inversions, Section 9). Below is the C7 chord. E to Bb is 6 half steps and is a tritone.



Tritone is E to Bb in D7 chord

Today the tritone is commonly used to create tension. The tritone seeks “resolution”, so in tonal music is always followed by another chord or chords to resolve the tension. The typical resolution for a dominant 7th chord is to move to a major or minor chord, e.g., G7 resolves to C Major or minor, D7 resolves to G Major or minor, F7 resolves to Bb Major or minor (<https://pianowithwillie.com/tritones-and-chord-substitutions/>).

Finally, a word about nomenclature. Below is the table of intervals with their half steps, presented earlier in this Section. Note a 6-step interval can be either a diminished 5th or an augmented 4th (highlighted in yellow). So, every tritone is either a D5 or an A4. Stated another way, D5, A4 and tritone are enharmonic. They are different names applied in different situations, but the intervals — 6-half steps each — are the same.

No. of half steps in each specific interval

	<u>Diminished</u>	<u>Minor</u>	<u>Perfect</u>	<u>Major</u>	<u>Augmented</u>
Unison			0		1
Second	0	1		2	3
Third	2	3		4	5
Fourth	4		5		6
Fifth	6		7		8
Sixth	7	8		9	10
Seventh	9	10		11	12
Eighth	11		12		13

Music theory about tritones can become quite complex, and this is more than enough for beginner-level piano players. There are many more tritone videos on Youtube. The four below range from 2 to 10 minutes. If you only have time for one, I recommend the 6-minute video from PianoTV.



2-minute video: The tritone: the devil’s interval? https://www.youtube.com/watch?v=wKF-j_3gTKA

4-minute video: What is a tritone? <https://www.youtube.com/watch?v=fQhKAzemonc>

6-minute video from PianoTV: <https://www.youtube.com/watch?v=I7YGO2arIEg>

10-minute video: Understanding tritones: <https://www.youtube.com/watch?v=ziZpQhTYG80>