

Intervals

An interval describes the distance between any two notes.

Different intervals have specific 'names' that describe specific 'distances'.

Intervals are the fundamental building blocks of music.

All scales and chords can be described in terms of intervals.

Essentially, intervals are to music what an alphabet is to a written language.

The name of the interval is described with two parameters..

- The first parameter is the nature of the interval itself - minor, major, diminished, augmented, perfect, sharpened major, flattened minor.

- The second parameter is a numeric value that describes the distance between the note values themselves. Simply the distance between one note's "letter" value and another note's "letter" value. It is here where most confusion occurs because there is no need to consider if a note is 'natural', 'sharp' ['#'] or 'flat' [b] at this point. When talking about the letter that denotes a note value, to make things simple let's consider it as 'anything': i.e. 'A' anything so we are not being specific.

'A' anything to 'B' anything = some kind of 2nd

A - B , 1 - 2 so it is some kind of 2nd

'A' anything to 'C' anything = some kind of 3rd

A - B - C , 1 - 2 - 3 so it is some kind of 3rd

'A' anything to 'D' anything = some kind of 4th

A - B - C - D , 1 - 2 - 3 - 4 so it is some kind of 4th

'A' anything to 'E' anything = some kind of 5th

A - B - C - D - E , 1 - 2 - 3 - 4 - 5 so it is some kind of 5th

'A' anything to 'F' anything = some kind of 6th

A - B - C - D - E - F , 1 - 2 - 3 - 4 - 5 - 6 so it is some kind of 6th

'A' anything to 'G' anything = some kind of 7th

A - B - C - D - E - F - G , 1 - 2 - 3 - 4 - 5 - 6 - 7 so it is some kind of 7th

Remember: 1 semi-tone = 1 fret distance

The examples below show the names that describes an interval between one note and another.

1 semi-tone = minor 2nd

1 tone = major 2nd or a flattened minor 3rd

1 1/2 tones = minor 3rd or a sharpened major 2nd

2 tones = major 3rd or a diminished 4th

2 1/2 tones = perfect 4th or a sharpened major 3rd

3 tones = augmented 4th or a diminished 5th

3 1/2 tones = perfect 5th or a flattened minor 6th

4 tones = minor 6th or an augmented 5th

4 1/2 tones = major 6th or a flattened minor 7th

5 tones = minor 7th or a sharpened major 6th

5 1/2 tones = major 7th

6 tone = an octave

As we see, most of the intervals have more than one possible name.

So for example, why would you call an interval minor 3rd or a sharpened major 2nd?

You have to look at the value of the note.

What is the interval between E and G?

Counting the number of 'note values' from and including E to G we can see that the distance is 3 notes [E, F, G]. This means that the interval is 'some kind of 3rd'.

By looking at the interval of E to G and counting the semi-tones we can see that the interval is 1 1/2 tones.

From the list above we can see that E to G is a minor 3rd interval.

What is the interval between F and G#?

Counting the number of 'note values' from and including F to G# we can see that the distance is 2 notes [F, G#]. This means that the interval is 'some kind of 2nd'.

By looking at the interval of F to G# and counting the semi-tones we can see that the interval is 1 1/2 tones.

From the list above we can see that F to G# is a sharpened major 2nd interval.

Note: These reason for having different names to describe an interval – in terms of the number of semi-tones between each pitch – may seem strange right now. However this will become apparent when looking at some scales and chords in the future.

Right now, simply try to accept that this is the case and try to understand for example, that a minor 3rd and a sharpened major 2nd are different interval names for two pitches that are the same number of semi-tones apart.

For the more advanced guys:

Admittedly the sharpened major 2nd appears to be a strange interval, so where would it occur?

Take a look at the minor scale. In this case the interval between the 6th and the 7th is a major 2nd. When chord V7 appears as a dominant 7th in a minor key the 3rd of the chord is shifted from minor to major. The effect of this on the scale is to shift the 7th note from a minor 7th to major 7th.

Am scale = A, B, C, D, E, F, G and chord V = Em [E, G, B]

V7 = E7 [E, G#, B, D] and the scale becomes A harmonic minor = A, B, C, D, E, F, G#

The interval between the 6th and the 7th changes from 'major' to 'sharpened major'.