

Explanation of Scales & Key Signatures

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A scale is a series of pitches arranged in a specific pattern of whole-step (W) and half-step (H) intervals. Notes of a scale are often referred to as degrees- the lowest note in the scale is called the "1st degree," the next note is the "2nd degree," and so forth.

There are some other important terms to remember: the 1st degree is also known as "tonic"- it's like the home base of the key and it's the note that the scale is named after; the 7th degree is also known as the "leading tone" because it leads the scale back to tonic.

A MAJOR scale has the following interval pattern: W-W-H-W-W-W-H.

C Major scale

INTERVAL W W H W W W H
SCALE DEGREE 1 2 3 4 5 6 7 1

A MINOR scale in its un-altered, or NATURAL, form has the following interval pattern: W-H-W-W-H-W-W.

A Minor (natural form)

W H W W H W W

It's important to realize that within every major scale is hidden a minor scale. Notice how the A Minor scale can be found within the C Major scale.

A Minor

C Major *C Major*

That is why the C Major and A Minor scales have the same key signature. This relationship is called "relative"- C Major's *relative* minor is A Minor.

A major and minor scale that start on the same note are "parallel" to each other- C Major's *parallel* minor is C Minor. Parallel scales DO NOT share the same key signature.

C Major

C Minor

FORMS OF THE MINOR SCALE

A minor scale that has no altered notes is called a "natural" minor.



The most commonly used form of the minor is the "harmonic" minor. It's a natural minor with a raised 7th degree. This alteration preserves the half-step relationship between the leading tone and the tonic.



The third form of the minor is the "melodic" minor. In this form, the 6th and 7th degrees are raised when going up the scale and lowered (or un-altered) when going down. This is a result of a vocal tradition during the Medieval Period (c. 450-1450 A.D.) that avoided the augmented interval found between the 6th and 7th degree of a harmonic minor.



Key Signatures

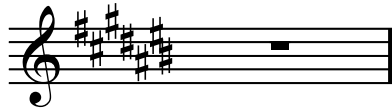
A key signature tells the performer which notes, if any, are raised or lowered in a piece. The flats and sharps in a key signature are always shown in the same order and on the same staff lines. You can use the key signature to help you determine what key a piece is written in.

To determine the possible key of a key signature containing flats, you simply look at the next-to-last flat in the signature starting from the left. Since there is sometimes only one flat in the key signature, you'll have to remember that one flat signifies F Major. The flats from left to right are: BEADGCF.



For example: a key signature with 4 flats (B, E, A, D) indicates A^b Major.

To determine the key of a signature containing sharps, find the last sharp and go up one half-step. The sharps are shown in opposite order from the flats: FCGDAEB.



So, a key signature with three sharps represents A Major- the third sharp is a G# and one half-step above that is an A.

MAJOR or MINOR?

Remember that every major key has a related minor key. So, each key signature represents both a major AND minor key. Once you have mastered to major key signatures you can determine minor key signatures.

It's helpful to remember the relationship between C Major and A Minor- they are relative to each other since they share the same key signature (see page 1).

To determine the key signature of a minor key, go up 3 half-steps from the minor tonic and use the major key signature of the note you land on. For example, go up 3 half-steps from A and you land on a C- the key signature for C Major is no sharps or flats, so the key signature of A Minor also has no sharps or flats.

If you know the key signature but want to determine what minor key it represents, you first determine what major key it represents then count down 3 half-steps from that tonic note. The note you land on will be the tonic of the relative minor. For example, if you have a key signature with 3 flats, you should be able to determine that it represents E \flat . If you count down 3 half-steps from the tonic (E \flat) you get a C, so the key signature of 3 flats represents both E \flat Major and C Minor.

Since the key signature can represent a major and minor key, how do you determine which key the piece is really in? You have to look at other clues. Does the piece have any scale-like passages that may give you a clue? Does it begin or end on a note or chord that matches the tonic of either the major or minor? Are there any altered pitches that could indicate the raised leading tone of a minor key? The key signature is the most important clue since it narrows your choices down to two, but that's just the beginning.