

E. Fill in the blanks, using the example as a model.

	Major key	Key signature	Scale degree	Is this note
Ex.	C	0#/0b	3̂	E
1.	_____	_____	2̂	F
2.	D _b	_____	5̂	_____
3.	G	_____	_____	F#
4.	B	_____	3̂	_____
5.	A _b	_____	_____	F
6.	_____	7 _b	_____	F _b

Exercise 1-2 See Workbook.

Minor Scales

Musicians traditionally practice and memorize three minor-scale formations, although these are a simplification of how minor keys actually work, as we will see in Chapter 4. One of these is the **natural minor scale**. You can see from the following illustration that the natural minor scale is like a major scale with lowered 3̂, 6̂, and 7̂.

C major	C	D	E	F	G	A	B	C
Scale degree	1̂	2̂	3̂	4̂	5̂	6̂	7̂	1̂
c natural minor	C	D	E_b	F	G	A_b	B_b	C

Another minor scale type is the **harmonic minor scale**, which can be thought of as natural minor with a raised 7̂ or as major with lowered 3̂ and 6̂.

C major	C	D	E	F	G	A	B	C
Scale degree	1̂	2̂	3̂	4̂	5̂	6̂	7̂	1̂
c harmonic minor	C	D	E_b	F	G	A_b	B	C

The third type of minor scale is the **melodic minor scale**, which has an ascending form and a descending form. The ascending form, shown next, is like natural minor with a raised 6̂ and 7̂ or as major with lowered 3̂.

C major	C	D	E	F	G	A	B	C
Scale degree	1̂	2̂	3̂	4̂	5̂	6̂	7̂	1̂
c ascending melodic minor	C	D	E_b	F	G	A	B	C

The descending form of the melodic minor scale is the same as the natural minor scale.

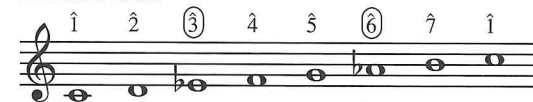
The three minor scale types are summarized in Example 1-14. The scale degrees that differ from the major are circled. Notice the arrows used in connection with the melodic minor scale in order to distinguish the ascending 6̂ and 7̂ from the descending 6̂ and 7̂. Also note that scale degrees 1̂ through 5̂ are identical in all three forms of the minor scale. This pattern of w-h-w-w is known as the **minor pentachord**.

Example 1-14

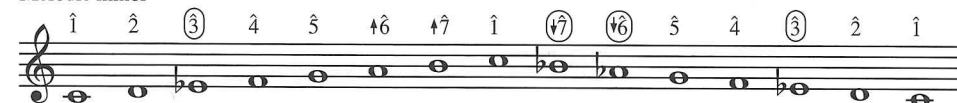
Natural minor



Harmonic minor



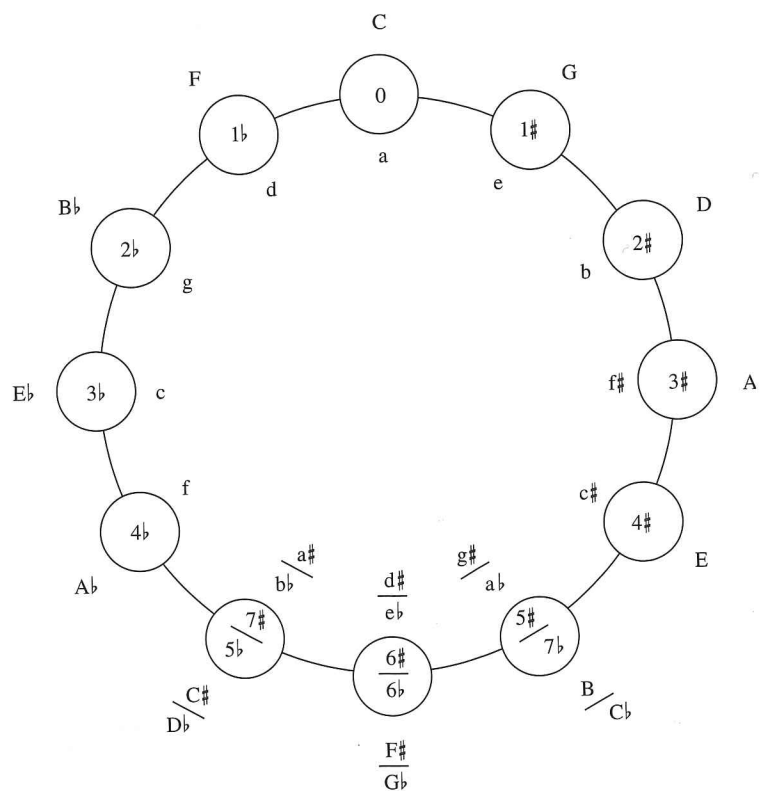
Melodic minor



Minor Key Signatures

Minor key signatures conform to the natural minor scale, no matter which minor scale type is actually in use. Looking back at Example 1-14, you can see that the natural minor scale on C requires three accidentals: B_b, E_b, and A_b. The key signature of c minor, then, is the same as the key signature of E_b major; c minor and E_b major are said to be **relatives** because they share the same key signature. The relative major of any minor key starts on 3̂ of the minor scale, and the relative minor of any major key begins on 6̂ of the major scale. If a major scale and a minor scale share the same 1̂, as do C major and c minor, for example, they are said to be **parallel keys**. We would say that C major is the parallel major of c minor.

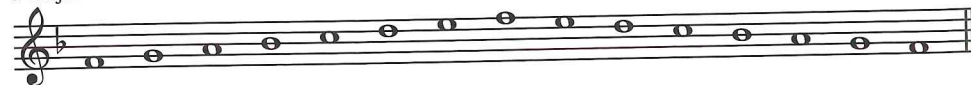
The circle of fifths is a convenient way to display the names of the minor keys and their relative majors, as well as their key signatures. In the following diagram, the names of the minor keys (in lowercase, as usual) are inside the diagram.



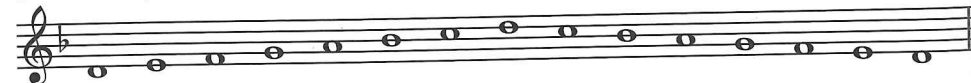
You may find it easier to learn the minor scales in terms of their relative majors, as in the preceding circle-of-fifths diagram, instead of in terms of their parallel majors, which is how minor scales were introduced on page 10. This will be most helpful regarding the keys of $g\sharp$, $d\sharp$, and $a\sharp$, which have no parallel major forms. If you do use the relative major approach, remember that the key signature for any minor scale conforms to the *natural* minor scale and that accidentals must be used to spell the other forms. Specifically, you have to raise $\hat{7}$ of the natural minor scale to produce the harmonic minor scale and raise $\hat{6}$ and $\hat{7}$ of the natural minor scale to get the ascending form of the melodic minor scale. Example 1-15 illustrates the spellings for the related keys of F major and d minor.

Example 1-15

F major scale



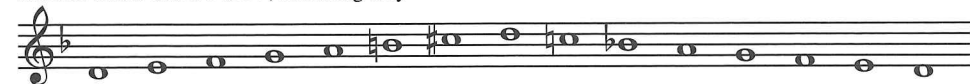
Relative minor, natural form



Harmonic minor raises $\hat{7}$



Melodic minor raises $\hat{6}$ and $\hat{7}$, ascending only



One final hint: a quick way to find any minor key signature other than $g\sharp$, $d\sharp$, or $a\sharp$ is to begin with the key signature of the *parallel* major and to add three flats and/or subtract three sharps. Examples:

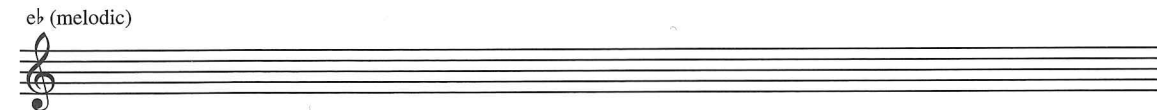
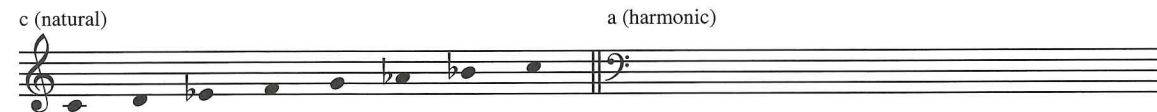
Major key	Minor key
$B\flat$ 2 flats	$b\flat$ 5 flats
E 4 sharps	e 1 sharp
D 2 sharps	d 1 flat

It is very important to practice faithfully all the major and minor scales on an instrument until they become memorized patterns. An intellectual understanding of scales cannot substitute for the secure tactile and aural familiarity that will result from those hours of practice.

Self-Test 1-3

(Answers begin on page 554.)

- A. Notate the specified scales using accidentals, *not* key signatures. The melodic minor should be written both ascending and descending.



bb (natural) g# (harmonic)

f# (melodic)

B. Identify these minor key signatures.

ex. $\frac{a}{1}$ minor $\frac{1}{2}$ minor $\frac{2}{3}$ minor $\frac{3}{4}$ minor $\frac{4}{5}$ minor $\frac{5}{6}$ minor $\frac{6}{7}$ minor

C. Notate the specified minor key signatures.

b d g# c f# a bb a#

D. Fill in the blanks.

Key signature	Name of key	Key signature	Name of key
1. _____	d minor	8. Two flats	___ minor
2. Six flats	___ minor	9. _____	f minor
3. Four sharps	___ minor	10. _____	b minor
4. _____	f# minor	11. Three flats	___ minor
5. Six sharps	___ minor	12. _____	a \flat minor
6. _____	b \flat major	13. One sharp	___ minor
7. _____	a# major	14. Five sharps	___ minor

Exercise 1-3 See Workbook.

Scale Degree Names

Musicians in conversation or in writing often refer to scale degrees by a set of traditional names rather than by numbers. The names are shown in Example 1-16. Notice that there are two names for $\hat{7}$ in minor, depending on whether or not it is raised.

Example 1-16

tonic supertonic mediant subdominant dominant submediant (subtonic) leading tone

The origin of some of these names is illustrated in Example 1-17. Notice that the mediant lies halfway between the tonic and the dominant, while the submediant lies halfway between the tonic and the subdominant.

Example 1-17

subdominant tonic dominant
submediant mediant

CHECKPOINT

Now is the time to start learning the scale degree names, if you do not know them already. Here are a couple of exercises that will help.

1. Translate these numbers aloud to scale degree names as fast as possible. Repeat as often as necessary until speed is attained.

$\hat{1} \hat{2} \hat{3} \hat{4} \hat{5} \hat{6} \hat{7} \hat{1} \hat{7} \hat{6} \hat{5} \hat{4} \hat{3} \hat{2} \hat{1}$

$\hat{3} \hat{5} \hat{7} \hat{6} \hat{4} \hat{2} \hat{1} \hat{6} \hat{3} \hat{7} \hat{2} \hat{5} \hat{4} \hat{3} \hat{1}$

$\hat{5} \hat{2} \hat{7} \hat{4} \hat{6} \hat{3} \hat{1} \hat{2} \hat{7} \hat{5} \hat{6} \hat{4} \hat{1} \hat{3} \hat{2}$