Major and minor scales form the basis for nearly all Western music written from 1600-1900. You have already learned how to construct major scales; now you will discover the relationships between minor and major keys, and you will learn how to construct the various forms of minor scales.

There are two kinds of relationship possible between major and minor keys. If a major and a minor key share the same keynote, these keys are said to be parallel keys. (For example, A major is the parallel major key of A minor; F# minor is the parallel minor key of F# major.)

The other kind of relationship between major and minor keys is based on key signatures. A major and a minor key that share the same key signature are said to be relative keys. To determine relative key relationships:

1. If the known key is major, the relative minor key is built on the sixth degree of the major scale. Or, if you prefer, the relative minor is built a major sixth above the keynote. (So if you want to determine the relative minor of D major, simply figure out what the sixth note of the D major scale is - B; therefore, B minor is the relative minor of D major.)

2. If the known key is minor, the relative major key is built on the third degree of the minor scale. Or, if you prefer, the relative major is built a minor third above the keynote. (So if you want to determine the relative major of C minor, simply figure out what the third note of the C minor scale is - Eb [see below]; therefore, E♭ major is the relative major of C minor.)

Unlike major scales, there are three forms of minor scales. The simplest of these forms is the natural minor. All natural minor scales have exactly the same pattern of whole and half steps:

| Whole Step | between notes 1 and 2 |
| Whole Step | between notes 2 and 3 |
| Whole Step | between notes 3 and 4 |
| Whole Step | between notes 4 and 5 |
| Half Step  | between notes 5 and 6 |
| Whole Step | between notes 6 and 7 |
| Whole Step | between notes 7 and 8 |

Using the same procedure you use in constructing major scales, you construct the scale following the pattern of whole and half steps.
You will notice that a natural minor scale has exactly the same accidentals that occur in the key signature of its relative major key. One shortcut in constructing natural minor scales is to determine the relative major key and write out the scale using accidentals as indicated by the key signature.

<table>
<thead>
<tr>
<th>Given</th>
<th>Relative major key signature</th>
<th>Natural minor</th>
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<tbody>
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Another type of minor scale is called harmonic minor. All harmonic minor scales have exactly the same pattern:

- Whole step between notes 1 and 2
- Half step between notes 2 and 3
- Whole step between notes 3 and 4
- Whole step between notes 4 and 5
- Half step between notes 5 and 6
- Step & a half between notes 6 and 7
- Half step between notes 7 and 8

In comparing natural and harmonic minor scale forms, you will notice they are identical except that the harmonic minor has a raised seventh degree of the scale. To accommodate that raised seventh, harmonic minor scales use accidentals that do not occur in the key signature. These accidentals must always be written into a piece of music.
The other remaining form of minor scale is the melodic minor. Melodic minor differs from the others in that it has ascending and descending forms. All melodic minor scales have exactly the same pattern:

**ASCENDING**

WHOLE STEP  between notes 1 and 2
HALF STEP    between notes 2 and 3
WHOLE STEP  between notes 3 and 4
WHOLE STEP  between notes 4 and 5
WHOLE STEP  between notes 5 and 6
WHOLE STEP  between notes 6 and 7
HALF STEP    between notes 7 and 8

**DESCENDING**

WHOLE STEP  between notes 8 and 7
WHOLE STEP  between notes 7 and 6
HALF STEP    between notes 6 and 5
WHOLE STEP  between notes 5 and 4
WHOLE STEP  between notes 4 and 3
HALF STEP    between notes 3 and 2
WHOLE STEP  between notes 2 and 1

In comparing natural and ascending melodic minor forms, you will notice they are identical except the sixth and seventh degrees of the scale are raised in the ascending melodic form. To create these alterations you must always use accidentals which are not included in the key signature. In comparing natural and descending melodic minor forms, you will notice they are identical. The only alterations you must make are those necessary to negate the accidentals you added to construct the ascending form.

Ascended natural (with accidentals)

Ascended melodic (with accidentals)

1/2

1/2

Descended natural (with accidentals)

Descended melodic (with accidentals)

1/2

1/2

Ascending and descending melodic (with key signature and required accidentals)
Assignment 4
Music D100

1. Making a Minor Circle of Fifths

Determine the relative minor key for each position on your major circle of fifths (handed out during Week 2). Make yourself a minor circle of fifths by writing the names of the minor keys on the blank circle of fifths you received with this assignment.

2. Writing Minor Scales

Write twelve different minor scales, one for each key you have identified on your minor circle of fifths. Use the following distribution of forms of minor scale:

Four natural minor scales;
Four harmonic minor scales;
Four melodic minor scales.
Circle of Fifths