Chapter 5. Key Signatures

In this chapter you will:
1. Identify the notes affected by a key signature
2. Number the sharps and flats in each key
3. Name the key given its key signature
4. Use some tricks to find the key
5. Write scales given their key signatures
6. Relate the order of sharps to the order of keys
7. Relate the order of flats to the order of keys
8. Write key signatures in treble clef
9. Write key signatures in bass clef
10. Write scales given their key note

5.1 Identify the notes affected by a key signature

• Sharps and flats are not usually written next to every note which is played sharp or flat. Instead these sharps and flats are indicated by a key signature. A key signature is a group of sharps or flats at the beginning of a staff which indicates the notes which are to be played sharp or flat in the following music. See the illustration above.
• The sharps or flats in a key signature are the same as those of a scale.
• Sharps and flats in the key signature apply to all notes with the same letter name regardless of octave.
• Recall that in the second measure of the bottom staff above, the second middle C is still sharp. See worksheet 4.3.

DRAW flats to the left of notes which are to be played flat according to the key signature.
5.2 Number the sharps and flats in each key
• The number of sharps in a scale increases by one proceeding clockwise around the circle of fifths, and
• The number of flats in a scale increases by one proceeding counterclockwise around the circle of fifths. See worksheets 4.9 and 4.10.

**FILL IN** the keys and the number of sharps or flats for each key in the boxes below.
5.3 Name the key given its key signature

To name a key given its key signature:

a. COUNT the number of flats or sharps in the key signature.

b. SAY the phrase “Five Big Elephants ...” for flats, or “Giant Dogs Always ...” for sharps while counting the words on your fingers.

c. STOP when you have said as many words as there are sharps or flats in the key signature. The last word gives the key.

1. NAME the keys for the following key signatures.

2. For the following, say one of the two phrases while counting on your fingers until you have reached the appropriate word.

   a. How many sharps are there in the key of B? ________

   b. How many flats are there in the key of G? ________
Date:

5.4 Use some tricks to find the key

- For flat key signatures \textbf{the key is the next-to-the-last flat}.
- For sharp key signatures \textbf{the key is a half step above the last sharp}.

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1. \textit{CIRCLE} the next to the last flat and \textbf{NAME} the key.

\begin{align*}
\text{Example} \\
\begin{array}{cccccc}
\text{E} & b & b & b & b & b \\
\end{array}
\end{align*}

2. \textit{WRITE} the note above the last sharp and \textbf{NAME} the key.

\begin{align*}
\text{Example} \\
\begin{array}{cccccc}
\text{E} & & & & & \\
\end{array}
\end{align*}

\text{This note and this key are sharp}

3. \textit{GO ONLINE} to www.gmajormusictheory.org
   a. \textit{CLICK} "Music Fundamentals"
   b. \textit{CLICK} in the "Virtual Flash Cards" column:
      5.3 Key Signatures, All Major Keys
   c. \textit{PRACTICE} the key signatures you have learned.
5.5 Write scales given their key signatures

• When the key signature is given, there is no need to figure out half steps and whole steps to write scales.

WRITE these scales

a. FIND the key note and WRITE it on the staff with its sharp or flat if needed.
b. DRAW the other seven note heads in ascending order. Do not skip any lines or spaces. Leave enough room between notes to insert sharps or flats.
c. CHECK that the first note has the same letter name as the last note.
d. If the key note has a sharp or flat, DRAW a sharp or flat in front of the last note as well.
e. INSERT, next to the affected notes, the sharps or flats which appear in the key signature.
5.6 Relate the order of sharps to the order of keys

The order of sharps in key signatures follows the order of keys in the circle of fifths. The letter for the first sharp, F, can be found as a key in the upper left of the circle. The letter for the next sharp, C, can be found as the key next to F proceeding clockwise.

Fill in the sharps for each sharp key consulting the keys in the circle of fifths.
5.7 Relate the order of flats to the order of keys

- The order of flats in key signatures also follows the order of keys in the circle of fifths.

The letter for the first flat, B, can be found as a key in the lower right of the circle. The letter for the next flat, E, can be found as the key next to B proceeding counter-clockwise.

*FILL IN* the flats for each flat key consulting the keys in the circle of fifths.
5.8 page 1  Write key signatures in treble clef

- Key signatures are ultimately derived from a pattern of whole steps and half steps. This is because key signatures are based on scales, and scales are based on the pattern,
  \[
  \text{whole whole half whole whole whole half}
  \]

- Sharps and flats in key signatures must be placed in the proper octave on the staff. This placement is illustrated above for the keys of C flat and C sharp.

- The flats can be visualized in pairs, each pair going down a line or space.

- The sharps can be visualized as groups of 2, 3 and 2, each group going up a line or space.

- The placement of sharps and flats is the same for key signatures other than C sharp and C flat.

\[
\begin{align*}
\text{C flat key signature} & \quad \text{C sharp key signature} \\
\text{\includegraphics{cflat.png}} & \quad \text{\includegraphics{csharp.png}}
\end{align*}
\]
5.8 page 2  Write key signatures in treble clef

*WRITE* all keys in the boxes and all key signatures on the staffs. Use the previous page as a guide.
Date:

5.9 Write key signatures in bass clef

\[ \text{WRITE all keys in the boxes and all the key signatures on the staffs. Use the key signatures above, for C flat and C sharp, as a guide.} \]
5.10 Write scales given their key note

1. FILL IN the keys in the circle of fifths.
2. WRITE the key signatures and scales.

3. GO ONLINE to www.gmajormusictheory.org
   a. CLICK "Music Fundamentals"
   b. CLICK in the "Virtual Flash Cards" column:
      5.6 Sharps and Flats in Major Keys
   c. PRACTICE the key signatures you have learned.