



TOPICS

- sharps, flats, and naturals
- double sharps and flats
- writing pitches with accidentals
- half steps and whole steps
- hearing half and whole steps

MUSIC

- John Barry and Tim Rice, "All Time High"
- Scott Joplin, "Solace"
- Mel Leven, "Cruella de Vil," from *101 Dalmations*
- Willie Nelson, "On the Road Again"

CHAPTER 2

Accidentals and Half and Whole Steps

Sharps, Flats, and Naturals

Listen to the melody from Joplin's "Solace" while looking at Example 2.1. The first four notes in each line are marked on the keyboard below.

EXAMPLE 2.1 Joplin, "Solace," mm. 1-8a (right hand only) ①

sharp

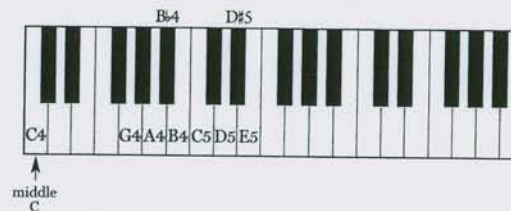
1 2 3 4

mf
C₅ D₅ E₅ D₅♯

flat

5 6 7 8

mf
B₄ B₄ A₄ G₄



EXAMPLE 2.3 Nelson, "On the Road Again," mm. 7b–14

Just can't wait to get...

EXAMPLE 2.4 Barry and Rice, "All Time High," mm. 33b–37a

So hold on tight...

Double sharped or flatted notes are often played on the white keys of the piano. For example, the $F\#4$ in the Nelson song is enharmonic with G, and the $B\flat$ in "All Time High" is enharmonic with A. Figure 2.3 shows other examples.

FIGURE 2.3 Enharmonic pitches with double sharps and flats

SUMMARY

Accidentals:	
\sharp (sharp):	raises the pitch a half step
\flat (flat):	lowers the pitch a half step
\times (double sharp):	raises the pitch a whole step
\natural (double flat):	lowers the pitch a whole step
\natural (natural):	cancels a sharp, double sharp, flat, or double flat
Enharmonic notes: sound the same but are spelled differently	

Writing Pitches with Accidentals

As you can see in Example 2.5, the beginning of "Cruella de Vil," in a musical score an accidental is positioned before (to the left of) the note head.

EXAMPLE 2.5 Leven, "Cruella de Vil," mm. 1–2a

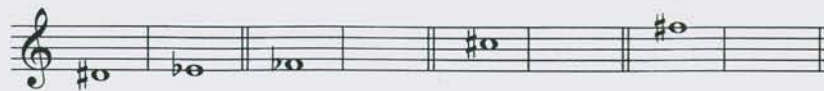
When you write or say note names, however, the accidental goes after (to the right of) the note name; for example, $C\sharp$ (C-sharp). For an accidental on a space (see the $A\flat$ and $F\sharp$ above), the middle of the accidental is centered within the space, not on the line above or below. For an accidental on a line (see the $B\flat$ and $D\flat$), the line passes through its middle. Always be careful to notate an accidental exactly on the line or space you intend, not floating above or below the note, and to place the accidental before the note.

TRY IT #1

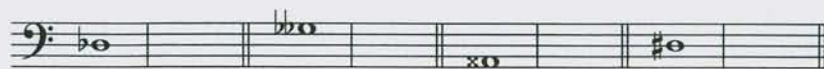
(a) Name the enharmonic equivalent.

- | | |
|---|-------------------------------------|
| (1) $G\flat$ is enharmonic with $F\sharp$ | (5) $D\flat$ is enharmonic with ___ |
| (2) $B\sharp$ is enharmonic with ___ | (6) B is enharmonic with ___ |
| (3) $A\sharp$ is enharmonic with ___ | (7) $A\flat$ is enharmonic with ___ |
| (4) $E\sharp$ is enharmonic with ___ | (8) $E\flat$ is enharmonic with ___ |

- (b) For each note below, write its letter name in the space beneath. Then write the enharmonically equivalent note in the blank measure to the right, and that note's name beneath.



(1) D# Eb (2) (3) (4)



(5) (6) (7) (8)

ASSIGNMENT 2.1

Half Steps and Whole Steps

The distance between any two notes is called an **interval**. The first two intervals in "Solace," shown in Example 2.6—B4 to Bb4 and Bb4 to A4—are half steps; the third, A4 to G4, is a whole step. Half and whole steps are basic building blocks in music.

EXAMPLE 2.6 Joplin, "Solace," mm. 5–8a (right hand only)



KEY CONCEPT A **half step** (or **semitone**) is the interval between any pitch and the next closest pitch on the keyboard in either direction. The combination of two half steps forms a **whole step** (or **whole tone**). A whole step always has one note in between.

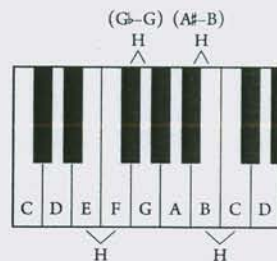
Example 2.7 shows half and whole steps on the keyboard. Usually a half step (part a) spans a white key to a black key (like B to A#) or black to white (like Gb to G). The only exceptions are B to C and E to F, which naturally span a half step. Whole steps (part b) usually span two keys of the same color: white to white (like C to D) or black to black (like Bb to Ab). Again, those spelled with E, F, B, or C are exceptions.

EXAMPLE 2.7 Half and Whole Steps

(a) Half steps



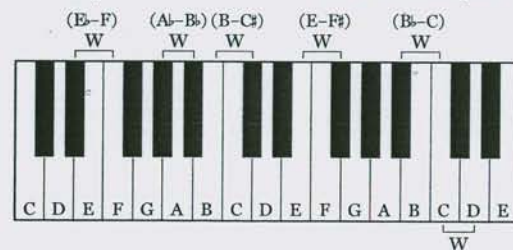
white to black = H black to white = H
white-key exceptions



(b) Whole steps



white to white = W black to black = W
E-F and B-C exceptions



Half steps that are spelled with two different letter names (G–Ab) are called **diatonic half steps**. Half steps that are spelled with the same letter name (G–G#) are called **chromatic half steps**. Both spellings are correct; they are enharmonic equivalents. Both types of half steps are found in Example 2.7: B–A#, E–F, and B–C are diatonic half steps; Gb–G is a chromatic half step.

SUMMARY

Half and whole steps:

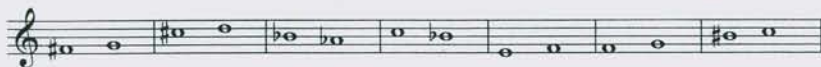
- (a) Half steps usually span keys of different colors: white to black or black to white (Example 2.7a).
(b) The exceptions are E–F and B–C, the white-key half steps (Example 2.7a).
- (a) Whole steps usually span keys the same color: white to white or black to black (Example 2.7b).
(b) The exceptions are Eb–F, E–F#, Bb–C, and B–C# (Example 2.7b).
- Double-check the spelling of any half or whole step that includes E, F, B, or C.

TRY IT #2

(a) Name the pitch requested, then for the half steps, identify an enharmonically equivalent pitch.

- | | |
|--|----------------------------|
| A half step: | A whole step: |
| (1) above G: <u>G#</u> or <u>Ab</u> | (6) above F#: <u> </u> |
| (2) below C#: <u> </u> or <u> </u> | (7) below C: <u> </u> |
| (3) below B: <u> </u> or <u> </u> | (8) above D: <u> </u> |
| (4) above E: <u> </u> or <u> </u> | (9) above C#: <u> </u> |
| (5) above D: <u> </u> or <u> </u> | (10) below Bb: <u> </u> |

(b) Identify whether each pair of pitches below spans a whole step (W), half step (H), or neither (N). ④



- (1) H (2) (3) (4) (5) (6) (7)



- (8) (9) (10) (11) (12) (13) (14)

(c) Identify each pair of bracketed pitches as a whole step (W), half step (H), or neither (N).

Leven, "Cruella de Vil," mm. 1-2 ④



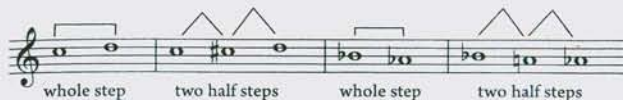
Cru - el - la de Vil, Cru - el - la de Vil,

H

Hearing Half and Whole Steps

Listen now to Example 2.8 to hear the difference in sound between half and whole steps. When you hear a whole step (C-D), you can imagine a note between them on the keyboard (C#). When you hear a half step, you can't. Practice playing whole and half steps at the keyboard. For each whole step, insert the note between to hear how it divides the whole step in half.

EXAMPLE 2.8 Whole steps divided in half ④



ASSIGNMENT 2.2, 2.3, AURAL SKILLS 2.1

Did You Know?

Scott Joplin's father was a former slave. One of Joplin's most famous compositions, "The Maple Leaf Rag" (published in 1899), earned him one penny for every sheet-music copy sold. His opera *Treemonisha* (composed in 1911) won an award for being the "most American opera" ever written, yet Joplin never saw it fully staged. Joplin's music was played in bars, dance halls, and other popular gathering places from the 1890s to the 1910s. It became popular once again in the 1970s after it was featured in the movie *The Sting* (1973), with Paul Newman and Robert Redford. Joplin's rags have remained among the best-known American music of the early twentieth century.



Terms You Should Know

accidentals	enharmonic
flat (b)	interval
sharp (#)	half step (semitone)
natural (n)	chromatic half step
double flat (bb)	diatonic half step
double sharp (x)	whole step (whole tone)

Questions for Review

1. What is the effect of adding a sharp to a note? adding a flat? adding a natural?
2. What is an example of an enharmonic spelling?
3. What is the effect of adding a double sharp to a note? a double flat?
4. Does an accidental precede or follow a note's letter name when spoken or written? Does an accidental precede or follow the note head in a musical score?
5. Which white-key pairs on the keyboard don't have a black key between them?
6. Which pairs of white keys span a half step? Which span a whole step?
7. Are there any half steps that span a black key to a black key?
8. How can you distinguish whole and half steps by ear?

Match the terms on the left with the best answer on the right.

- | | |
|--------------------------------|---|
| _____ (1) half step | (a) symbol that raises a pitch a whole step |
| _____ (2) interval | (b) the distance between two pitches |
| _____ (3) enharmonic spelling | (c) symbol that raises a pitch a half step |
| _____ (4) # | (d) half step with a different letter name for each note |
| _____ (5) ♭ | (e) interval between any key on the keyboard and the next closest key |
| _____ (6) whole step | (f) symbol that lowers a pitch a whole step |
| _____ (7) ♯ | (g) interval spanning two half steps |
| _____ (8) * | (h) notes written with different letter names that sound the same |
| _____ (9) accidentals | (i) half step with the same letter name for both notes |
| _____ (10) chromatic half step | (j) symbols that indicate how much to raise or lower a pitch |
| _____ (11) natural | (k) symbol that cancels a sharp or flat |
| _____ (12) diatonic half step | (l) symbol that lowers a pitch a half step |

 Additional review and practice available at www.norton.com/studyspace

Class Activities

A. At the keyboard


1. Play the following pitches on a piano, or touch them on your model keyboard. Then name an enharmonic spelling. (Middle C is C4.)

- | | | | |
|---------|---------|---------|---------|
| (a) C#4 | (f) D#3 | (k) G#4 | (p) Cb5 |
| (b) Ab3 | (g) Bb5 | (l) F#2 | (q) Eb2 |
| (c) Eb5 | (h) Ab4 | (m) Db5 | (r) D#4 |
| (d) G#2 | (i) C#2 | (n) A#2 | (s) Bb4 |
| (e) F#4 | (j) E#3 | (o) B#3 | (t) Gb3 |

2. Start with the given pitch, then move your finger on the piano (or along your model keyboard), following the pattern of whole and half steps indicated. Write the name of the pitch at the end of the sequence.

- (a) Begin on C: down W, down H, down W, up H, up H = A
- (b) Begin on E: up W, up H, up W, down H, up W, up W =
- (c) Begin on F#: down W, down W, up H, down W, down H, up W =
- (d) Begin on Ab: up W, up W, up W, down H, up W, up W =
- (e) Begin on C#: down W, up H, up W, up W, up H, up H =
- (f) Begin on B: up H, up H, down W, down H, down W, down W =
- (g) Begin on D: up H, down W, down W, down H, down H, up W =
- (h) Begin on Eb: down W, down W, down H, down W, up H, up H =

B. Listening and writing

1. Hearing accidentals 

Listen to the following pairs of notes (played in class or on your recording). First a pitch will be played, then raised or lowered one half step. Its original accidental is given. Circle the arrow that shows the pitch's change of direction, then circle its new accidental.

- | | | | | | |
|-------------|---|---|---|---|---|
| (a) sharp | ↑ | Ⓣ | ♭ | Ⓢ | # |
| (b) natural | ↑ | ↓ | ♭ | ♯ | # |
| (c) flat | ↑ | ↓ | ♭ | ♯ | # |
| (d) sharp | ↑ | ↓ | ♭ | ♯ | # |
| (e) natural | ↑ | ↓ | ♭ | ♯ | # |
| (f) natural | ↑ | ↓ | ♭ | ♯ | # |

2. Hearing half and whole steps

Listen to the following pairs of notes (played in class or on your recording). Each pair will be repeated. The pitches make either a half step (H) or whole step (W). Write H or W in the blank, and ↑ for ascending or ↓ for descending.

- | | | | |
|---------------|-----------|-----------|-----------|
| (a) <u>W↑</u> | (f) _____ | (k) _____ | (p) _____ |
| (b) _____ | (g) _____ | (l) _____ | (q) _____ |
| (c) _____ | (h) _____ | (m) _____ | (r) _____ |
| (d) _____ | (i) _____ | (n) _____ | (s) _____ |
| (e) _____ | (j) _____ | (o) _____ | (t) _____ |

C. Singing

Mark the half steps with brackets, as shown in Melody 1. Then perform the melodies below in the following ways.

- Echo melodies after your teacher.
- Sing the hollow notes so they last twice as long as filled notes.
- Sing on a neutral syllable (like "la") or with letter names.
- Play the melodies at the keyboard.
- Play at the keyboard and sing with a neutral syllable or letter names.
- Play the melodies on another instrument if you can.

Melody 1



Melody 2



Melody 3



Melody 4



Melody 5



Melody 6

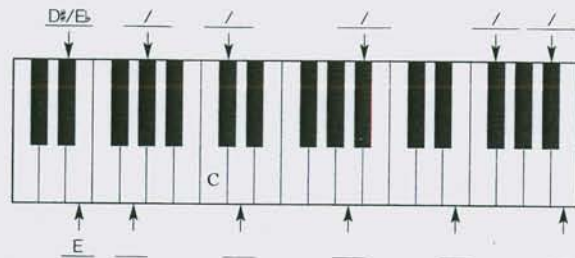


NAME _____

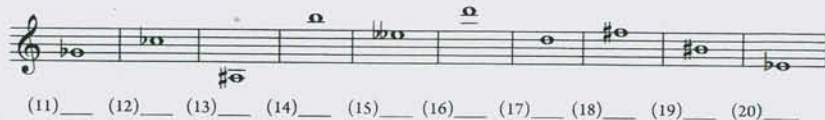
Workbook ASSIGNMENT 2.1

1. Identifying pitches with accidentals

- a. On the keyboard diagram below, middle C is labeled for you. Below the diagram, write one letter name for each white key marked with an arrow; above, write two possible enharmonic names for each black key marked with an arrow.



- b. Write the name of each pitch, together with its octave number, in the blank beneath the staff.



2. Writing pitches with accidentals

- a. Use the staves below to practice writing accidentals.

- (1) Write flat signs before each pitch.

- (2) Write natural signs.

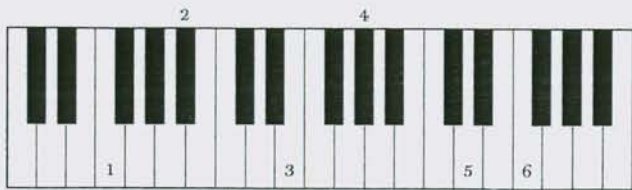


- (3) Write sharp signs before each pitch.

- (4) Write natural signs.



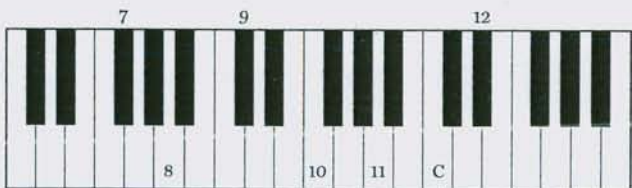
b. Notate each numbered keyboard pitch with a hollow note head on the staff, above the corresponding number. Write the letter name and octave number in the blank. (Choose either enharmonic spelling for black keys.)



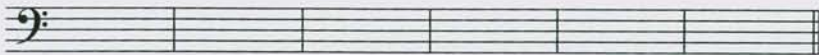
middle C (C4)



(1) F3 (2) _____ (3) _____ (4) _____ (5) _____ (6) _____



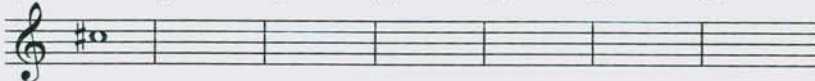
middle C



(7) _____ (8) _____ (9) _____ (10) _____ (11) _____ (12) _____

c. Write the specified pitches using hollow note heads.

(1) (2) (3) (4) (5) (6) (7)



C#5 Bb3 F4 D#5 G#5 E4 C4

(8) (9) (10) (11) (12) (13) (14)



Bb3 F#2 A2 Gb3 D#2 A#3 B2

Workbook ASSIGNMENT 2.2

1. Reading and writing enharmonic pitches

a. In the first row of blanks below the staff, write the letter name for each pitch. In the second row, give the letter name of one possible enharmonic equivalent.

(1) (2) (3) (4) (5) (6) (7) (8) (9) (10)



Letter name:

Gb _____ _____ _____ _____ _____ _____ _____ _____ _____

Enharmonic equivalent:

F# _____ _____ _____ _____ _____ _____ _____ _____ _____

(11) (12) (13) (14) (15) (16) (17) (18) (19) (20)



Letter name:

_____ _____ _____ _____ _____ _____ _____ _____ _____ _____

Enharmonic equivalent:

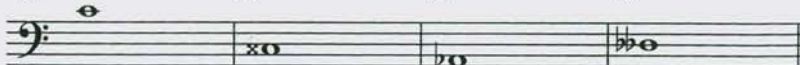
_____ _____ _____ _____ _____ _____ _____ _____ _____ _____

b. Notate an enharmonic equivalent for each pitch below.

(1) (2) (3) (4)



(5) (6) (7) (8)



2. Identifying and writing half and whole steps

a. For each pair of pitches, write W (whole step), H (half step), or N (neither) in the blank.

- (1) G \sharp -A H (4) B-C ____ (7) A-G \sharp ____
 (2) E \flat -F \sharp ____ (5) F \sharp -G \sharp ____ (8) C-B \flat ____
 (3) A \flat -B \flat ____ (6) D \sharp -C \sharp ____ (9) E \sharp -F ____

b. Write a whole step above the given note. Use adjacent letter names (not the same letter name).

(1) (2) (3) (4) (5) (6)

c. Write a whole step below the given note. Use adjacent letter names.

(1) (2) (3) (4) (5) (6)

d. Write a half step above the given note. When you write black-key pitches, choose either enharmonic spelling; remember to write a natural sign, if needed, to cancel a sharp or flat.

(1) (2) (3) (4) (5) (6)

e. Write a half step below the given note. For black-key pitches, use either enharmonic spelling.

(1) (2) (3) (4) (5) (6)

NAME _____

Workbook ASSIGNMENT 2.3

1. Identifying and writing whole and half steps

a. Label each pair below as a whole step (W), half step (H), or neither (N).

(1) W (2) ____ (3) ____ (4) ____ (5) ____ (6) ____

(7) ____ (8) ____ (9) ____ (10) ____ (11) ____ (12) ____

(13) ____ (14) ____ (15) ____ (16) ____ (17) ____ (18) ____

(19) ____ (20) ____ (21) ____ (22) ____ (23) ____ (24) ____

b. Write the specified whole or half step above the given note. For half steps, write the chromatic spelling (same letter names).

(1) (2) (3) (4) (5) (6)

W W H W H W

(7) (8) (9) (10) (11) (12)

H W H W W H

c. Write the specified whole or half step below the given note. For half steps, write the diatonic spelling (different letter names).

(1) (2) (3) (4) (5) (6)

H W W W H H

(7) (8) (9) (10) (11) (12)

W H W W H W

2. Identifying whole and half steps in musical literature

Each melody below features whole and half steps. Beneath each bracketed interval, write W or H in the blank. The first melody has been started for you. Listen to the recorded examples to hear how the whole and half steps sound or play the pitches at the piano.

a. Sousa, "The Stars and Stripes Forever," mm. 1-4a

b. "Greensleeves," mm. 1-4a

c. Chance, *Variations on a Korean Folk Song*, mm. 12-15a

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d. John Williams, "Imperial March," from *The Empire Strikes Back*, mm. 5-8

e. Bruce Miller, theme from *Frasier*, mm. 2-5

NAME _____

Workbook AURAL SKILLS 2.1

1. Playing and hearing half and whole steps

a. Play each of these half (H) and whole (W) steps at the keyboard in any octave. Name the second pitch you play with an adjacent (different) letter name and write it in the blank. The first one is completed for you.

- | | | |
|------------------------|-------------------------|-------------------------|
| (1) H above A <u>B</u> | (6) H below C _____ | (11) W above E _____ |
| (2) W below A <u>B</u> | (7) W above E <u>B</u> | (12) W below A _____ |
| (3) H above F <u>G</u> | (8) H below F <u>G</u> | (13) W above D <u>E</u> |
| (4) W below D <u>E</u> | (9) W above A <u>B</u> | (14) W below D <u>E</u> |
| (5) H above E <u>F</u> | (10) H below E <u>F</u> | (15) H above D <u>E</u> |

b. Beginning with the given pitch, a two-pitch pattern will be played on the recording, then repeated. In the blank beneath each exercise, write the interval between the two pitches, W or H. Notate the second pitch with an adjacent note name and with its accidental—b, ♯, or ♮.

(1)	(2) _____	(3) _____	(4) _____	(5) _____
(6)	(7) _____	(8) _____	(9) _____	(10) _____
(11)	(12) _____	(13) _____	(14) _____	(15) _____
(16)	(17) _____	(18) _____	(19) _____	(20) _____

2. Performing a melody at the keyboard

- Listen to the recording of either "Amazing Grace" or "Home on the Range" enough times that you can sing it from memory in an octave that is comfortable for you.
- Find the song's music in your anthology. Say the letter name for each pitch, and play it on the keyboard. Play every F as F \sharp (we will learn why in Chapter 6).
- Compare what you play with what you remember from singing the melody, and correct any mistakes. When you can play the pitches well, play them with the correct rhythm too, if possible. Be ready to sing and play the melody in class.

3. Composing with whole and half steps

a. Compose four short melodies—two in the treble clef and two in the bass clef. Follow the steps below.

- Choose a different “home” pitch for each melody. Start and end each melody on this pitch.
- Include 10–12 pitches in each melody. Make a pleasing contour.
- Compose in a register you or a partner can sing comfortably. (Keep most pitches on the staff, with few ledger lines.)
- Use only adjacent letter names (e.g., B–C, F–G–A–G).
- Notate all accidentals, even naturals (on white keys).
- Write two or three times as many whole steps as half steps.
- Notate with note heads only. Mix hollow and filled note heads, playing or singing hollow ones twice as long as filled ones.

b. Prepare to perform your melodies in the following ways.

- Sing on a neutral syllable (such as “la”) or with letter names.
- Play the melodies at the keyboard.
- Play at the keyboard and sing with a neutral syllable or letter names.
- Play melodies on another instrument.

Sample melody 1

C = home

Sample melody 2

Bb = home

Your melodies