



PIANO THEORY

ANSWER KEY

Student answers are in **red**.

Teacher examples are in **blue**.

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To the Student

I wrote these books with you in mind. As a young student I often wondered how completing theory workbooks would make me a better musician. The theory work often seemed separate from the music I was playing. My goal in *Essential Elements Piano Theory* is to provide you with the tools you will need to compose, improvise, play classical and popular music, or to better understand any other musical pursuit you might enjoy. In each “Musical Mastery” section of this book you will experience creative applications of the theory you have learned. The “Ear Training” pages will be completed with your teacher at the lesson. In this series you will begin to learn the building blocks of music, which make it possible for you to have fun at the piano. A practical understanding of theory enables you to see what is possible in music. I wish you all the best on your journey as you learn the language of music!

Sincerely,
Mona Rejino

To the Teacher

I believe that knowledge of theory is most beneficial when a concept is followed directly by a musical application. In *Essential Elements Piano Theory*, learning theory becomes far more than completing worksheets. Students have the opportunity to see why learning a particular concept can help them become a better pianist right away. They can also see how the knowledge of musical patterns and chord progressions will enable them to be creative in their own musical pursuits: composing, arranging, improvising, playing classical and popular music, accompanying, or any other.

A free download of the *Teacher's Answer Key* is available at www.halleonard.com/eeptheory5answer.

Acknowledgements

I would like to thank Hal Leonard Corporation for providing me the opportunity to put these theoretical thoughts down on paper and share them with others. I owe a debt of gratitude to Jennifer Linn, who has helped with this project every step of the way. These books would not have been possible without the support of my family: To my husband, Richard, for his wisdom and amazing ability to solve dilemmas; to my children, Maggie and Adam, for helping me think outside the box.

TABLE OF CONTENTS

UNIT 1	Review Notes • Rests • Counting • Ledger Line Notes • Intervals Major Scales • Key Signatures • Tonic	4
UNIT 2	Time Signatures and Rhythm 3/8 • 6/8 • Triplet • Syncopation	7
UNIT 3	Primary Triads in Major Keys Tonic • Subdominant • Dominant	12
UNIT 4	Triads and Inversions Root Position • 1st Inversion • 2nd Inversion	14
MUSICAL MASTERY	Ear Training • Analysis • Reading Mastery	17
UNIT 5	Minor Key Signatures Relative Minor Keys (C/a, G/e, D/b, F/d, and B♭/g)	20
UNIT 6	Relative Minor Scales a, e, b, d, and g minor	22
UNIT 7	Forms of Minor Scales Natural • Harmonic • Melodic	24
UNIT 8	Major and Minor Triads Major 3rds • Minor 3rds • Perfect 5ths Identifying and Naming Major and Minor Triads	27
UNIT 9	Primary Triads in Minor Keys Tonic • Subdominant • Dominant	29
MUSICAL MASTERY	Ear Training • Match Game • Key Signature Discoveries	31
UNIT 10	Musical Signs and Terms Tempo • Articulation • Mood • Symbols	35
UNIT 11	Review Terms and Symbols • Time Signatures • Rhythms • Syncopation Relative Major and Minor Key Signatures • Primary Triads Root Position, 1st Inversion and 2nd Inversion Triads Minor Scales • Identifying Triads in a Key	38
MUSICAL MASTERY	Ear Training • Analysis • Reading Mastery	42
THEORY MASTERY	Review Test • Ear Training	45

UNIT 1

REVIEW

1. Draw one note in each box to solve the music math equations. *The first one is done for you.*

$\text{quarter} + \text{quarter} = \text{half}$
 $\text{half} + \text{quarter} = \text{three-quarters}$
 $\text{quarter} + \text{quarter} + \text{quarter} = \text{half}$
 $\text{half} + \text{quarter} = \text{three-quarters}$
 $\text{quarter} + \text{quarter} = \text{half}$
 $\text{quarter} + \text{quarter} = \text{half}$
 $\text{quarter} + \text{quarter} = \text{half}$
 $\text{quarter} + \text{quarter} + \text{quarter} = \text{half}$
 $\text{quarter} + \text{quarter} + \text{quarter} + \text{quarter} = \text{whole}$

2. Each measure below is incomplete. Draw one **note** in each box to complete the measure.

$\frac{4}{4}$ | quarter | quarter | quarter | quarter | quarter | quarter | quarter ||

3. Each measure below is incomplete. Draw one **rest** in each box to complete the measure.

$\frac{3}{4}$ | quarter | quarter | quarter | quarter | quarter | quarter | quarter ||

4. Add the missing bar lines to the rhythm. Write the counts below each measure.

$\frac{4}{4}$ | quarter | quarter | quarter | quarter | quarter | quarter | quarter | quarter | quarter | quarter | quarter | quarter | quarter ||
 1 2 + 3 + 4 1 + 2 + 3 4 1 2 3 + 4 + 1 2 + 3 4

5. Name the following ledger line notes.

G B A C E F B D

4

6. Name these intervals.

6th 8th 5th 7th 3rd 4th 2nd 7th

7. On each staff below, add the sharps or flats needed to form these Major scales. Mark the half steps with a curved line. Use the Major scale pattern: 1 W 2 W 3 H 4 W 5 W 6 W 7 H 8

G Major

Bass clef staff with notes G, A, B, C, D, E, F#.

F Major

Treble clef staff with notes F, G, A, Bb, C, D, E.

D Major

Bass clef staff with notes D, E, F#, G, A, B, C#.

C Major

Treble clef staff with notes C, D, E, F, G, A, B.

Bb Major

Bass clef staff with notes Bb, C, D, Eb, F, G, A.

5

5. Each row contains one scale, key signature or tonic (keynote) that does not belong in the given key. Place an "X" through the one that doesn't belong.

Bb Major			
F Major			
C Major			
G Major			
D Major			

6

UNIT 2

Time Signatures and Rhythm

A **TIME SIGNATURE** tells two things:

Top number = How many beats are in each measure

Bottom number = What kind of note gets one beat

$\frac{3}{8}$ = 3 beats in a measure

$\frac{3}{8}$ = eighth note (♪) gets one beat

In $\frac{3}{8}$ time: ♩ = 1 beat ♪ = 2 beats ♪ = 3 beats

1. Clap and count this rhythm.

$\frac{3}{8}$ | quarter | quarter | quarter | quarter | quarter | quarter | quarter | quarter ||
 1 2 3 1 2 3 1 2 3 1 2 3

2. Write the counts below each measure, then clap and count the rhythm.

$\frac{3}{8}$ | quarter | quarter | quarter | quarter | quarter | quarter | quarter | quarter ||
 1 2 3 1 2 3 1 2 3 1 2 3

3. Add bar lines where needed. Write the counts below each measure. Choose one key on the piano and play the rhythm while counting aloud.

$\frac{3}{8}$ | quarter | quarter | quarter | quarter | quarter | quarter | quarter | quarter ||
 1 2 3 1 2 3 1 2 3 1 2 3

7

6/8 TIME SIGNATURE

6 = 6 beats in a measure
8 = eighth note (♪) gets one beat

NOTES	RESTS	NUMBER OF BEATS
♪	7	1
♪	z	2
♪	z	3
♪	-	6

4. Write the number of beats each note or rest receives in $\frac{6}{8}$ time.

♪ = 1 ♩ = 2 ♪ = 3 ♫ = 6 ♮ = 2 ♯ = 3 ♭ = 1

5. Clap and count this rhythm.



6. Write the counts below each measure, then clap and count the rhythm.



7. Add bar lines where needed. Write the counts below each measure. Choose one key on the piano and play the rhythm while counting aloud.



8

In faster tempos, $\frac{6}{8}$ can be counted with 2 beats per measure, "in 2."



8. Write the counts below each measure in a fast $\frac{6}{8}$. Choose one key on the piano and play the rhythm "in 2," while counting aloud. The first measure is done for you.



9. Some measures below have the wrong number of counts. Draw an "X" through any measures that are incorrect. Notice the time signature.

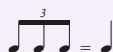


9

The **EIGHTH NOTE TRIPLET** = 1 beat of sound

The word **triplet** means three.

An eighth note triplet is equal to one quarter note in $\frac{2}{4}$, $\frac{3}{4}$, or $\frac{4}{4}$ time.



10. Clap and count this rhythm, keeping a steady beat.



11. Write the counts below each measure, then clap and count each rhythm.

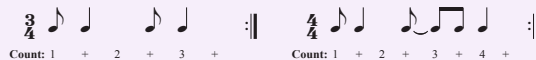


12. Draw an eighth note triplet in each box. Choose one key on the piano and play the rhythm.



10

SYNCOPIATION occurs in rhythm when emphasis is placed on a weak beat instead of a strong beat. When a long note is played on the weak part of a beat, the rhythm is **syncopated**.



13. Write the counts below each measure. Circle each long note that comes on a weak beat. Choose one key on the piano and play each rhythm.



11

UNIT 3

Primary Triads in Major Keys

Triads built on the 1st, 4th and 5th notes of a Major scale are called **PRIMARY TRIADS**.

Primary Triads are labeled with Roman numerals.

I = Tonic

IV = Subdominant

V = Dominant

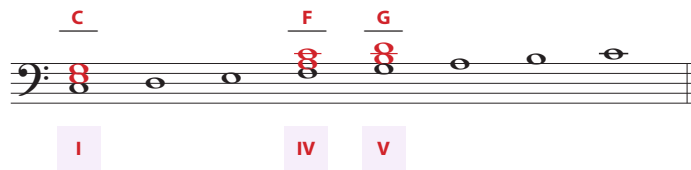
Primary Triads in C Major are:



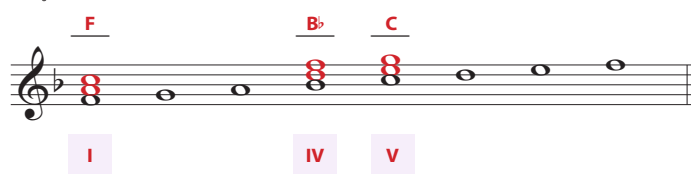
The triad is named by its root (lowest note). In Major keys, primary triads are Major triads.

1. Draw the primary triads on the 1st, 4th and 5th note of each scale. Label the primary triads in two ways: Roman numerals below, and letter names above. *Notice the key signature when identifying letter names.*

C Major

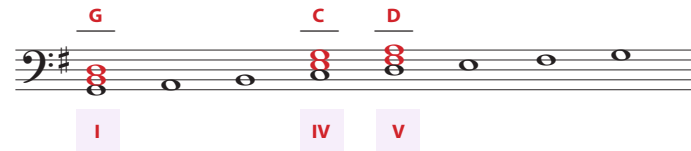


F Major

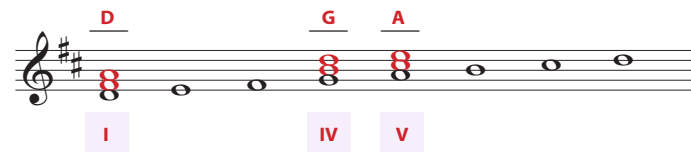


12

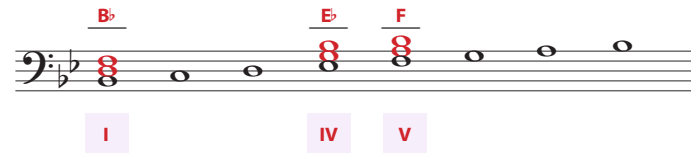
G Major



D Major

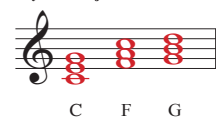


Bb Major



2. Draw the chords (triads) indicated in each Major key below. Use whole notes. Play each example on the piano.

Key of C Major



Key of C Major



Key of G Major



Key of F Major



Key of Bb Major



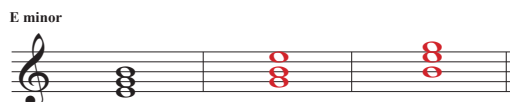
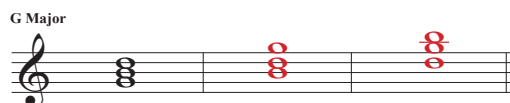
Key of D Major



13

1. Draw the inversions of these triads. Add accidentals where needed.

Root Position 1st Inversion 2nd Inversion



15

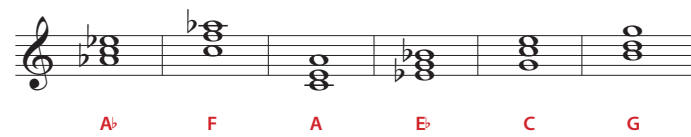
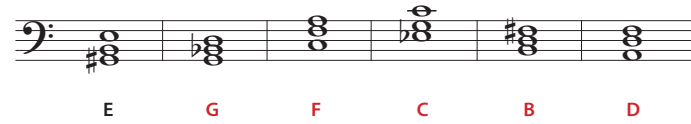
2. Fill in the root in these 1st inversion triads. *The first one is done for you.*



3. Fill in the root in these 2nd inversion triads. *The first one is done for you.*



4. Name the root in each triad. *The first one is done for you.*



16

MUSICAL MASTERY

Ear Training

1. You will hear one rhythm from each pair. Circle the rhythm you hear.

1.

or

2.

or

3.

or

2. You will hear intervals of a 2nd, 3rd, 5th or 7th played in broken and blocked form. Name the correct interval in each blank.

1. 2nd 2. 7th 3. 3rd 4. 2nd 5. 5th 6. 3rd

3. You will hear four measures of melodic dictation. Fill in the blank measures with the notes and rhythms you hear. *After playing the entire example, you may separate it into smaller segments. For example, play the first two measures, then begin with the last note in measure 2 and play to the end.*

4. One chord is missing from each group below. Listen for the missing blocked root position chord. Write I, IV or V in each box.

a. I IV V I

b. I IV I V

c. I V IV V

d. I IV V IV

e. I V IV I

f. I IV V I

17

Analysis

Follow the directions under each musical excerpt.

Allegretto by Gurliitt

- What kind of note gets one count? eighth notes
- Name the key signature. D major
- Write the counts under each note and rest.
- Play the excerpt.

Etude, Op. 823 No. 15 by Czerny

- Name the key signature. C major
- Block the circled triad. Is it in root position, 1st inversion or 2nd inversion? 2nd inversion
- Write the counts under each note, counting in a slow $\frac{6}{8}$ tempo.
- Play the excerpt.

Eccosaie by Beethoven

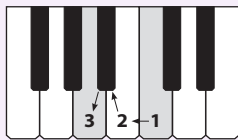
- Name the key signature. G major
- Write the counts under each note and rest.
- Circle the syncopated rhythms.
- Play the excerpt.

18

UNIT 5

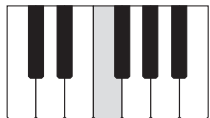
Minor Key Signatures

Every Major key has a **RELATIVE MINOR KEY** which uses the same key signature. To find the relative minor key, count down three half steps from the tonic of the Major key.

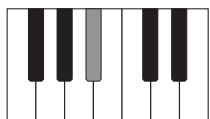


C Major and A minor share the same key signature: *no sharps and no flats*

1. Find the relative minor key for the Major keys below. On each keyboard, count down three half steps from the shaded key. Fill in the blank with the correct letter.



F Major and D minor share the same key signature: *one flat, B \flat*



B \flat Major and G minor share the same key signature: *two flats, B \flat and E \flat*



G Major and E minor share the same key signature: *one sharp, F \sharp*



D Major and B minor share the same key signature: *two sharps, F \sharp and C \sharp*

20

2. Name the Major and relative minor keys for each key signature.

B \flat Major
G minor

G Major
E minor

C Major
A minor

F Major
D minor

D Major
B minor

3. Draw the minor key signature named below each measure in both clefs, then draw the tonic (keynote.) *The first one is done for you.*

B minor

D minor

E minor

A minor

G minor

21

UNIT 6

Relative Minor Scales

Every Major scale has a **RELATIVE MINOR SCALE** which uses the same key signature. The relative minor scale begins on the sixth note (degree) of the Major scale.

C Major Scale



A Natural Minor Scale

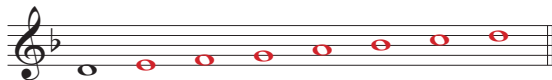


1. Draw the notes of the D natural minor scale. It is the relative minor scale of F Major.

F Major Scale



D Natural Minor Scale



2. Draw the notes of the A natural minor scale. It is the relative minor scale of C Major.

C Major Scale



A Natural Minor Scale



3. Draw the notes of the E natural minor scale. It is the relative minor scale of G Major.

G Major Scale



E Natural Minor Scale



4. Draw the notes of the G natural minor scale. It is the relative minor scale of Bb Major.

Bb Major Scale

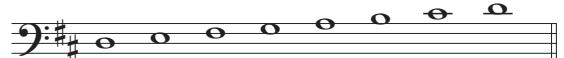


G Natural Minor Scale



5. Draw the notes of the B natural minor scale. It is the relative minor scale of D Major.

D Major Scale



B Natural Minor Scale



1. Below each natural minor scale, draw the harmonic and melodic forms of that minor scale. Use accidentals where needed. *Notice the key signature.*

E Natural Minor



E Harmonic Minor



E Melodic Minor



D Natural Minor



D Harmonic Minor



D Melodic Minor



B Natural Minor



B Harmonic Minor



B Melodic Minor



G Natural Minor



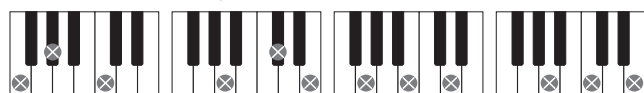
G Harmonic Minor



G Melodic Minor



1. In the box below each keyboard, write the letter name of the triad. Tell whether it is Major or minor. *The first one is done for you.*

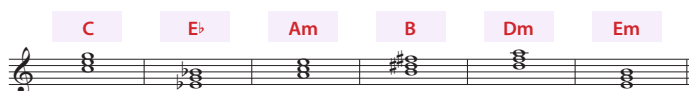


F minor A Major G Major A minor



E Major D minor C minor E minor

2. Write the letter name of the root in the box above each triad. If the triad is minor, add a small m after the root letter name. *The first two are done for you.*



Primary Triads in Minor Keys

Triads built on the 1st, 4th and 5th notes of a minor scale are called **PRIMARY TRIADS**.

Primary Triads are labeled with Roman numerals.

i = Tonic

iv = Subdominant

V = Dominant

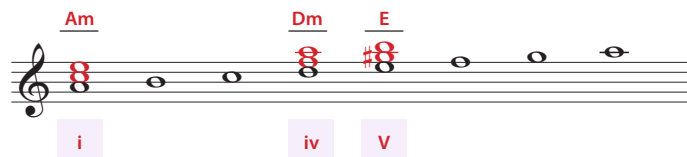
Primary Triads in A minor are:



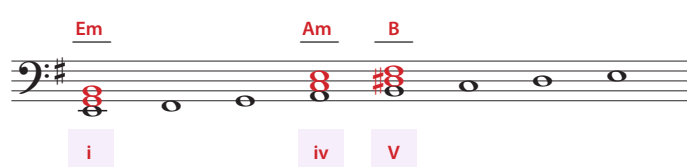
In minor keys, the i and iv chords are minor. The V chord is Major. The 3rd of the V chord is raised a half step to form a Major triad.

1. Draw the primary triads on the 1st, 4th and 5th note of each scale. Label the primary triads in two ways: Roman numerals below, and letter names above. *Notice the key signature when identifying letter names. Remember to raise the 3rd of each V chord a half step.*

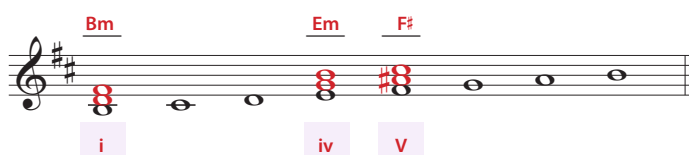
A minor



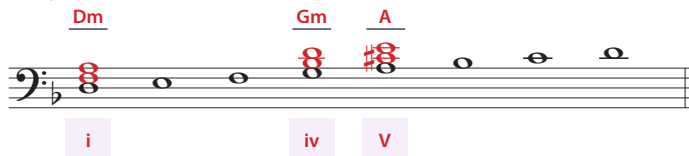
E minor



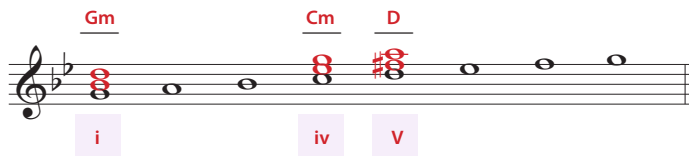
B minor



D minor



G minor



2. Draw the chords (triads) indicated in each minor key below. Use whole notes. Play each example on the piano.

Key of A minor



Am Dm E

Key of A minor



i iv V

Key of D minor



Dm Gm A

Key of E minor



i iv V

Key of G minor



Gm Cm D

Key of B minor



i iv V

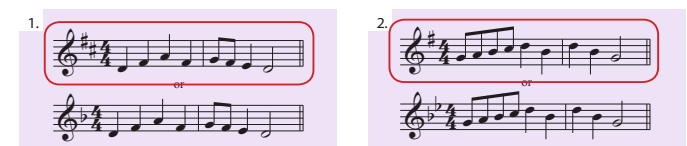
MUSICAL MASTERY

Ear Training

1. You will hear four measures of rhythmic dictation. Fill in the blank measures with the rhythm you hear. *Accent the first note of each measure. Play in two-measure segments, if needed.*



2. The first melody in each pair is Major. The second melody in each pair is minor. Circle the one you hear.



3. You will hear six scales. Each will ascend and descend. Identify each scale as either Major (**Maj.**) or natural minor (**nat. min.**).

1. nat. min 2. Maj. 3. Maj. 4. nat. min 5. Maj. 6. nat. min



The Match Game

1. Match each term or symbol with its description by writing the correct number in the blank.

- | | | |
|------------------------------------|-----------|-------------------------------|
| 1. I | <u>7</u> | 5th is lowest note |
| 2. 1st inversion triad | <u>4</u> | dominant |
| 3. Major 3rd | <u>2</u> | 3rd is lowest note |
| 4. V | <u>8</u> | W W H W W H |
| 5. Perfect 5th | <u>6</u> | subdominant |
| 6. IV | <u>1</u> | tonic |
| 7. 2nd inversion triad | <u>10</u> | harmonic minor scale |
| 8. Major scale | <u>3</u> | made up of 4 half steps |
| 9. relative keys | <u>11</u> | made up of 3 half steps |
| 10. 7th note is raised a half step | <u>13</u> | root is lowest note |
| 11. minor 3rd | <u>5</u> | made up of 7 half steps |
| 12. forms of minor scales | <u>14</u> | emphasis on a weak beat |
| 13. root position triad | <u>12</u> | natural, harmonic and melodic |
| 14. syncopation | <u>9</u> | share the same key signature |

32

Key Signature Discoveries

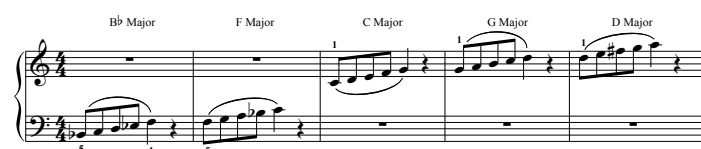
1. Name the tonic (I) and dominant (V) notes for these Major scales. *The first one is done for you.*

B \flat Major: I B \flat V F
 F Major: I F V C
 C Major: I C V G
 G Major: I G V D
 D Major: I D V A

2. In each blank write the letter name of the interval that is a Perfect 5th (7 half steps) up or down from C. Use capital letters.

Down by Perfect 5ths ← Start on → Up by Perfect 5ths
B \flat F C G D

3. Play the following Major 5-finger patterns.



33

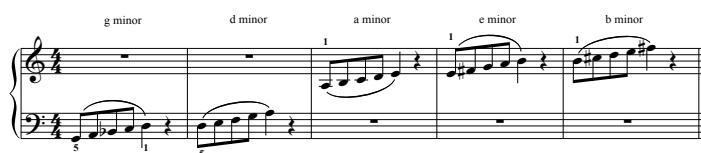
4. Name the tonic (i) and dominant (V) notes for these minor scales. *The first one is done for you.*

g minor: i g V d
 d minor: i d V a
 a minor: i a V e
 e minor: i e V b
 b minor: i b V f \sharp

5. In each blank write the letter name of the interval that is a Perfect 5th (7 half steps) up or down from a. Use lower case letters.

Down by Perfect 5ths ← Start on → Up by Perfect 5ths
g d a e b

6. Play the following minor 5-finger patterns.



34

UNIT 10

Musical Signs and Terms

An asterisk (*) indicates words that are new to this book.

TEMPO marks tell what speed to play the music.

Italian Name	Meaning
largo	slow and broad, slower than <i>adagio</i>
andantino	slightly faster than <i>andante</i>
allegretto	moderately fast, slightly slower than <i>allegro</i>
vivace	lively, quick
presto	very fast
accelerando (accel.)	becoming gradually faster
rallentando*	slowing the tempo
piu mosso*	more motion; quicker
meno mosso*	less motion; slower
con brio*	with spirit
con moto*	with motion

1. In each blank write the Italian name for the following tempo marks.

slightly faster than *andante* andantino
 lively, quick vivace slowing the tempo rallentando
 with spirit con brio very fast presto
 slow and broad, slower than *adagio* largo
 becoming gradually faster accelerando
 with motion con moto more motion; quicker piu mosso
 moderately fast, slightly slower than *allegro* allegretto
 less motion; slower meno mosso

35

Name	Sign (Symbol)	Meaning
sforzando	<i>sfz</i> or <i>sf</i>	sudden, strong accent

Italian Name	Meaning
dolce	sweetly
grazioso	gracefully
maestoso	majestic; stately
poco	little
molto	very
allargando*	growing broader and slower
espressivo*	expressively
poco a poco*	little by little
sempre*	always
subito*	suddenly

poco little allargando growing broader and slower

sempre always grazioso gracefully

sforzando sudden, strong accent molto very




dolce sweetly espressivo expressively

subito suddenly maestoso majestic; stately

poco a poco little by little

<u>c</u> sempre	a. growing broader and slower
<u>a</u> allargando	b. suddenly
<u>f</u> meno mosso	c. always
<u>i</u> coda	d. return to S , play to C , skip to <i>Coda</i>
<u>g</u> molto	e. with spirit
<u>e</u> con brio	f. less motion; slower
<u>d</u> D.S. al Coda	g. very
<u>k</u> poco a poco	h. with motion
<u>m</u> rallentando	i. ending section
<u>b</u> subito	j. more motion; quicker
<u>n</u> accelerando	k. little by little
<u>j</u> piu mosso	l. expressively
<u>o</u> D.C. al Coda	m. slowing the tempo
<u>h</u> con moto	n. becoming gradually faster
<u>l</u> espressivo	o. return to beginning, play to C , skip to <i>Coda</i>

38

3 = 3 beats per measure 3 = 3 beats per measure 6 = 6 beats per measure
4 =  gets one beat 8 =  gets one beat 8 =  gets one beat

3 4 3 8 6 8 2 4

1 2 3 1 2 3 1 2 3 1 2 3

3/4 ♩ ♩ ♩ | ♩ ♩ ♩ | ♩ ♩ ♩ | ♩. ||

1 + 2 + 3 + 1 + 2 + 3 + 1 + 2 + 3 + 1 + 2 + 3 +

6/8 

2/4  1 2 and a 1 2  1 and a 2 1 2 ||







F Major D minor D Major B minor C Major A minor Bb Major G minor G Major E minor

The diagram illustrates the four basic triads on a musical staff. Each triad is shown with its constituent notes and labeled with Roman numerals below:

- Bb Major:** Notes are Bb, D, and F. Roman numerals are I, IV, and V.
- A minor:** Notes are A, C, and E. Roman numerals are i, iv, and V.
- E minor:** Notes are E, G, and B. Roman numerals are i, iv, and V.
- G Major:** Notes are G, B, and D. Roman numerals are I, IV, and V.

The image displays four musical staves, two in bass clef and two in treble clef, illustrating the progression of the 'Twinkle, Twinkle, Little Star' melody. Red annotations are used to indicate specific performance techniques:

- Staff 1 (Bass Clef):** Shows the first measure with a red 'b' (bend) on the second note and a red 'v' (vibrato) on the third note.
- Staff 2 (Bass Clef):** Shows the second measure with a red 'b' on the second note and a red 'v' on the third note.
- Staff 3 (Treble Clef):** Shows the third measure with a red 'b' on the second note and a red 'v' on the third note.
- Staff 4 (Treble Clef):** Shows the fourth measure with a red 'b' on the second note and a red 'v' on the third note.

40

6. Name these Major and relative minor key signatures. In the first blank, name the Major key. In the second blank, name the minor key.

F Major
D minor

G Major
E minor

C Major
A minor

D Major
B minor

Bb Major
G minor

7. Add the correct accidentals to form these scales.

D Natural Minor

B Harmonic Minor

E Melodic Minor

46

8. Draw the corresponding root position triads in each key.

D minor i

D Major V

G minor iv

E minor V

C Major IV

9. Fill in the blanks with the correct answer.

- How many half steps are in a Perfect 5th? seven
- Triads built on the 1st, 4th and 5th notes of a scale are called primary triads.
- The natural minor scale uses the key signature of the relative Major scale with no changes.
- In a Major key, the Roman numeral for a subdominant chord is IV.
- Root position triads consist of intervals of a 3rd.
- Triads in 1st inversion and 2nd inversion consist of an interval of a 3rd and an interval of a 4th.
- The melodic minor scale is different ascending and descending.
- How many half steps are there between a Major key and its relative minor? three
- The relative minor scale begins on the sixth note (degree) of its relative major scale.
- In a harmonic minor scale, the seventh scale degree of a natural minor scale is raised a half step.

47

Ear Training

1. You will hear one rhythm from each pair. Circle the rhythm you hear.

1. or

2. or

2. You will hear intervals of a 2nd, 3rd, 5th or 7th played in broken and blocked form. Name the correct interval in each blank

1. 5th 2. 7th 3. 3rd 4. 5th 5. 2nd 6. 7th

3. You will hear four measures of melodic dictation. Fill in the blank measures with the notes and rhythms you hear.

4. You will hear six scales ascending and descending. Identify each scale as Major (**Maj.**) or natural minor (**nat. min.**).

1. Maj. 2. nat. min. 3. Maj. 4. nat. min. 5. nat. min. 6. Maj.

1.

2.

3.

4.

5.

6.

48