

No Bull Music Theory for Guitarists – Answer Key

Volume II, Chapter 1

1. How many frets higher are the notes on the D string compared to the same notes on the low E string? → 2 frets
2. How many frets higher are the notes on the G string compared to the same notes on the A string? → 2 frets
3. How many frets higher are the notes on the B string compared to the same notes on the D string? → 3 frets
4. How many frets higher are the notes on the high E string compared to the same notes on the G string? → 3 frets

Volume II, Chapter 2

1. "Sus" is short for suspended.
2. The 3rd is replaced by either the 2nd or the 4th.
3. Sus4 formula: Root – 4th – 5th
4. Sus2 formula: Root – 2nd – 5th
5. a. Dsus4 = D – G – A
b. Dsus2 = D – E – A
6. a. Asus4 = A – D – E
b. Asus2 = A – B – E
7. Sus chords can be used as either major or minor chord substitutes, because they lack a 3rd (the note that defines a chord as major or minor).

Volume II, Chapter 3

1. The key signature is written on the staff, usually at the beginning of the piece.
2. Yes — a major key and its relative minor share the same key signature.
3. Major keys:
 - a. No sharps or flats = C major
 - b. One sharp = G major
 - c. Three sharps = A major
 - d. One flat = F major
 - e. Two sharps = D major
4. Minor keys:
 - a. No sharps or flats = A minor
 - b. Two flats = G minor
 - c. One sharp = E minor
 - d. One flat = D minor
 - e. Four sharps = C# minor

5. False — Chord sheets and guitar tabs often omit key signatures, though they may still reflect a clear key.

Volume II, Chapter 4

1. A compound interval is any interval greater than an octave. They help us understand and build extended chords like 9ths, 11ths, and 13ths.
2. The **9th** is a 2nd an octave higher.
3. The **11th** is a 4th an octave higher.
4. The **13th** is a 6th an octave higher.
5. Yes, compound intervals can be **sharpened** or **flattened**, just like smaller intervals.
6.
 - a. 11th of D = **G**
 - b. 13th of D = **B**
 - c. 9th of D = **E**
 - d. \flat 13th of D = **B \flat**
 - e. \flat 9th of D = **E \flat**
 - f. \sharp 11th of D = **G \sharp**
 - g. \sharp 9th of D = **E \sharp** (enharmonic to F)

Volume II, Chapter 5

1. Using chord inversions allows you to **control the bass line** and create smoother transitions between chords.
2. When the **root** is in the bass, the chord is in **root position**.
3. When the **3rd** is in the bass, the chord is in **1st inversion**.
4. When the **5th** is in the bass, the chord is in **2nd inversion**.
5. **B major inversions – bass notes:**
 - a. Root position = **B**
 - b. 1st inversion = **D \sharp**
 - c. 2nd inversion = **F \sharp**
6. **A major inversions – chord symbols:**
 - a. Root position = **A**
 - b. 1st inversion = **A/C \sharp**
 - c. 2nd inversion = **A/E**

Volume II, Chapter 6

1. The **9th** is the same as the 2nd scale degree, but played **an octave higher** than the root.
2. **Major add9 formula** = 1 + 3 + 5 + 9
3. **Minor add9 formula** = 1 + \flat 3 + 5 + 9

4. a. Dadd9 = D – F# – A – E
b. Dm(add9) = D – F – A – E
5. Yes — a **major add9** chord can usually replace a **major triad** to add color.
6. Yes — a **minor add9** chord can usually replace a **minor triad**, and also works well in **blues and modal** settings.
7. An **add9 chord** includes a **3rd**, while a **sus2 chord** does **not** include the 3rd (it's replaced by the 2nd). This makes add9 chords either **major or minor**, while sus2 chords are **neither**.

Volume II, Chapter 7

1. Moving **clockwise** goes up by **perfect 5ths** and adds one **sharp** per step.
2. Moving **counterclockwise** goes up by **perfect 4ths** and adds one **flat** per step.
3. To find the number of **sharps**, start at **C** and move **clockwise**. Each step = 1 sharp.
4. To find the number of **flats**, start at **C** and move **counterclockwise**. Each step = 1 flat.
5. Start at the major key and go **3 steps clockwise** to find its **relative minor**.
Example: Bb major → G minor
6. a. From the **I chord**, move **one step back** for the **IV** and **one step forward** for the **V**.
b. In Db major:
IV = Gb
V = Ab
7. a. For a **II–V–I**, start at I, move **two steps clockwise** to find the **ii chord**, then **one step back** for the **V chord**.
b. In Db major:
ii = Ebm
V = Ab
I = Db

Volume II, Chapter 8

1. **Four** common types of seventh chords are covered.
2. A **minor 7 flat 5** chord is also called **half-diminished**.
3. The **major 7** chord formula:
Root + Major 3rd + Perfect 5th + Major 7th
4. The **dominant 7** chord formula:
Root + Major 3rd + Perfect 5th + Minor 7th (b7)
5. The **minor 7** chord formula:
Root + Minor 3rd (b3) + Perfect 5th + Minor 7th (b7)
6. The **minor 7 flat 5** chord formula:
Root + Minor 3rd (b3) + Diminished 5th (b5) + Minor 7th (b7)
7. From the **G major scale (G A B C D E F#)**:
a. **Gmaj7**: G, B, D, F#
b. **Gm7**: G, Bb, D, F

- c. **G7**: G, B, D, F
- d. **Gm7b5**: G, Bb, Db, F

Volume II, Chapter 9

1. **Triad → 7th chord substitutions:**
 - a. Major → Maj7 or Dom7
 - b. Minor → Min7
 - c. Diminished → Min7b5 (*depending on context*)
2. **Seventh chord types in a major key:**
IImaj7, IIIm7, IIIm7, IVmaj7, V7, VIIm7, VIIIm7b5
3. **Yes**, you can freely mix 7ths and triads in progressions.
4. When a suspended sound is desired a **7sus4** chord works better than a dominant 7 chord.
5. The **relative minor of G major** is **E minor**.
6. Seventh chords in the key of **E minor**:

Degree	Roman Numeral	Chord
i	Em7	
ii°	F#m7b5	
III	Gmaj7	
iv	Am7	
v	Bm7	
VI	Cmaj7	
VII	D7	

Volume II, Chapter 10

1. **Roman numerals** indicate the *function* and *quality* (major, minor, diminished, etc.) of chords in a key or progression.
2. **Yes:**
 - Major chords = **uppercase** Roman numerals (e.g., I, IV, V)
 - Minor/diminished chords = sometimes lowercase (e.g., ii, iii, vii°) depending on the system. This is optional and stylistic (and we aren't using it here).
3. **Examples:**
 - a. C = IV
 - b. Em = vi, vim, VI, or VIIm (depending on notation style; we use VI here)
 - c. Bm = iii, iiim, III or IIIIm (we prefer III)
 - d. A7 = II7 (a non-diatonic dominant 7th chord)
 - e. F#° = vii° or vii or VII or VIIo
 - f. Cm = iv, ivm, or IVm
 - g. G7 = I7 (I chord changed to a dominant)
4. **Chords in E natural minor** and their Roman numerals:

Degree Chord Roman Numeral

1	Em	I
2	F#°	II
3	G	III
4	Am	IV
5	Bm	V
6	C	VI
7	D	VII

Volume II, Chapter 11

1. A **mode** is a scale derived by starting on a different note of an existing (usually major) scale.
2. The major scale we derive modes from is called the **parent scale**.
3. A mode uses the **same 7 notes** as its parent scale, but starts and ends on a **different root**.
4. The major scale is also called the **Ionian mode**.
5. The **Dorian mode** is the 2nd mode, with interval formula: **R, 2, b3, 4, 5, 6, b7**
6. The **Phrygian mode** is the 3rd mode, with interval formula: **R, b2, b3, 4, 5, b6, b7**
7. The **Lydian mode** is the 4th mode, with interval formula: **R, 2, 3, #4, 5, 6, 7**
8. The **Mixolydian mode** is the 5th mode, with interval formula: **R, 2, 3, 4, 5, 6, b7**
9. The **Aeolian mode** is the 6th mode, with interval formula: **R, 2, b3, 4, 5, b6, b7**
10. The **Locrian mode** is the 7th mode, with interval formula: **R, b2, b3, 4, b5, b6, b7**
11.
 - a. **True** – Mode formulas don't change regardless of key.
 - b. **True** – Changing the formula creates a different mode or scale.
 - c. **False** – The 4th mode is **Lydian**, not Mixolydian.
 - d. **False** – Aeolian is the **natural minor**, not harmonic minor.
 - e. **True** – Modes and parent scale share notes, but sound different due to different roots and emphasis.

Volume II, chapter 12

1. **Ionian and Lydian**
2. **Mixolydian**
3. **Dorian, Phrygian, and Aeolian**
4. **Locrian**
5. **False** – While we're using modes over single chords in this chapter, a single mode can sometimes work across multiple chords in a progression.
6. **C Ionian and C Lydian**
7. **A Mixolydian**
8. **G Dorian, G Aeolian, or G Phrygian**
9. **F Locrian**
10. **Any mode except Locrian** (because Locrian has a b5, which clashes with the power chord's perfect 5th)