

# Music Theory — Workbook

This workbook turns the course into a daily practice you can actually do at the instrument or away from it. Work through it module by module: drill notation and the 12-note system, build every interval and scale from formulas, construct chords and analyze real progressions by Roman numeral, then lock in rhythm and a structured ear-training habit. Use the templates to fill in scales, build a personal chord and progression library, and log your ear-training streak so the theory moves from the page into your hands and your ear.

## Reading Music: Notation, Pitch, and the 12 Notes

Lock in fluent reading of the grand staff, the 12-note chromatic system, and key signatures before anything else.

### Exercise: Grand Staff Speed-Naming

Open MuseScore or the musictheory.net Note Trainer and run timed flashcards across both clefs. Name each note out loud before checking. Repeat daily until you are fast and accurate, not just correct.

- Treble clef: name all five lines (E G B D F) and four spaces (F A C E) without the mnemonic.
- Bass clef: name all five lines (G B D F A) and four spaces (A C E G) without the mnemonic.
- Where is middle C in each clef, and how many ledger lines away is it?
- What is your current time to name 20 random notes correctly, and did it improve from yesterday?

### Worksheet: Half Steps, Whole Steps, and the Keyboard

Using a keyboard diagram (real or on screen), answer each prompt by counting keys. The goal is to internalize that B to C and E to F are the only natural half steps.

The two pairs of white keys with no black key between them (the natural half steps)

C up a whole step = \_\_\_\_ ; E up a half step = \_\_\_\_ ; B up a half step = \_\_\_\_

Two names for the black key between F and G (enharmonic equivalents)

Number of half steps in one octave

A note's frequency if A above middle C is 440 Hz and you go up one octave

### Checklist: Key Signature Fluency Check

- I can recite the order of sharps (F C G D A E B) and flats (reverse) from memory
- I can name a sharp key by going up a half step from the last sharp
- I can name a flat key as the second-to-last flat (and know one flat is F major)

[ ] I can name the relative minor of any major key (sixth degree, three half steps down)

[ ] I can identify all 15 major key signatures from sight

## Intervals, Scales, and Keys

Build any interval and scale from a formula, then use the circle of fifths to navigate and transpose between all keys.

### Worksheet: Interval Builder by Half Step

For each interval, write the upper note above the given lower note by counting half steps, then name a song anchor that starts with that interval. Verify in MuseScore.

Major third above C (count 4 half steps) = \_\_\_\_

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Perfect fifth above C (count 7 half steps) = \_\_\_\_

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Perfect fourth above G (count 5 half steps) = \_\_\_\_

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Minor third above A (count 3 half steps) = \_\_\_\_

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Tritone above C (count 6 half steps) = \_\_\_\_

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Song anchor I will use for each of the above

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### Exercise: Build a Scale From the Formula

Pick a key you do not know well. Apply the major formula W-W-H-W-W-W-H from the tonic, write out all seven notes, then confirm the accidentals match the key signature. Repeat for a minor key using natural, harmonic, and melodic forms.

- Chosen major key and the seven notes you derived from W-W-H-W-W-W-H.
  - Do the accidentals match the official key signature? If not, where did the step pattern break?
  - Chosen minor key: write natural, then harmonic (raise the 7th), then melodic (raise 6 and 7 ascending).
  - Which scale degree is the leading tone, and how does raising it in harmonic minor change the sound?
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### Worksheet: Transpose by Scale Degree

Take a short progression in one key, convert it to scale-degree numbers, then rewrite it in two new keys by reading the same degrees. Check by ear.

Original key and chords

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Progression as scale degrees / Roman numerals

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Same progression transposed up a whole step (new key and chords)

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Same progression transposed down a minor third (new key and chords)

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Interval of transposition in half steps, and how you confirmed it by ear

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### Checklist: Circle of Fifths Mastery

- I can draw all 12 keys clockwise (adding sharps) and counterclockwise (adding flats)
- I can state how many sharps or flats each key has without reference
- I can name the relative minor sitting inside each major key
- I understand that down a fifth (G to C) is the strongest chord motion
- I can transpose a progression to any key by reading scale degrees

### Chords and Functional Harmony

Construct triads and sevenths, harmonize a key into its diatonic chords, and analyze real progressions by Roman numeral and function.

#### Worksheet: Triad and Seventh-Chord Builder

Build each chord from the given root by stacking the right thirds, write the notes, and label the quality. Confirm each by playing it in MuseScore.

C major triad (root, +4, +7 half steps) = \_\_\_\_

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C minor triad (root, +3, +7) = \_\_\_\_

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C diminished triad (root, +3, +6) = \_\_\_\_

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C augmented triad (root, +4, +8) = \_\_\_\_

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C dominant seventh (major triad + minor 7th) = \_\_\_\_

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C major seventh and C minor seventh = \_\_\_\_ / \_\_\_\_

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#### Exercise: Harmonize the C Major Scale

Build a diatonic triad on each degree of C major using only scale notes, then identify the quality and the Roman numeral. Notice the fixed pattern that applies to every major key.

- Write the triad on each degree: C-E-G, D-F-A, E-G-B, and so on through the scale.

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- Label the quality of each (major, minor, or diminished).

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- Assign the Roman numeral (I, ii, iii, IV, V, vi, vii diminished).

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- What is the fixed quality pattern, and why does it let you know any major key's chords instantly?

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#### Worksheet: Analyze a Real Song by Function

Pull a chord chart for a song you like (Ultimate Guitar or Hooktheory), identify the key, then map every chord to a Roman numeral and a function. Find the cadence at each section end.

Song title and key

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Chords in order, written as Roman numerals

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Function of each chord (tonic / subdominant / dominant)

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Cadence type at the end of each section (authentic, plagal, half, deceptive)

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The single most common progression you found, and where it repeats

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### Checklist: Harmony Self-Check

- I can build all four triad qualities from any root by half-step count
- I can spell dominant, major, and minor seventh chords
- I can harmonize any major scale into its seven diatonic chords
- I can read a chord chart as Roman numerals and identify the key
- I can name the function of any chord and the four cadence types

## Rhythm, Meter, and Ear Training

Count any rhythm accurately, identify simple versus compound meter, and run a daily ear-training routine that ties everything together.

### Exercise: Subdivision Clapping Drill

Set a metronome to 80 BPM. Clap one bar each of quarter, eighth, and sixteenth notes while counting out loud, keeping every beat aligned to the click. Then clap a four-bar mixed rhythm with one rest per bar.

- Quarter notes counted 1 2 3 4: were all beats even against the click?

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• Eighth notes counted 1 and 2 and: did the off-beats land cleanly?

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• Sixteenth notes counted 1 e and a: could you keep them even at 80 BPM?

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• In your four-bar rhythm, did each rest get its exact full value?

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### Worksheet: Identify the Meter

Listen to five songs and count along. For each, decide the time signature and whether each beat divides into two (simple) or three (compound).

Song 1: time signature, simple or compound, and how you could tell

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Song 2: time signature, simple or compound

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Song 3: time signature, simple or compound

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Song 4 and 5: time signatures and division

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Which song uses the backbeat (accent on beats 2 and 4), and how it changes the feel

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### Checklist: Daily Ear-Training Routine (15 minutes)

- Intervals (4 min): identified ascending and descending intervals, using song anchors when stuck
- Chord quality (4 min): named chords major, minor, diminished, augmented, then added seventh qualities
- Scale degrees (4 min): sang or named a short melody's degrees over a held tonic using solfege
- Progressions (3 min): identified I-V-vi-IV or ii-V-I by function and bass motion
- Logged today's session in the ear-training tracker template

## Exercise: Transcription Capstone

Choose a simple two-chord or nursery-tune recording. Slow it with Transcribe! or a media-player speed control, and notate the melody, bass, and chords in MuseScore. This combines every skill in the course.

- What melody notes (as scale degrees) did you hear in the first phrase?
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- What are the two chords, named by Roman numeral in the key you chose?
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- What is the time signature and the basic rhythm of the melody?
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- Where did your ear and the recording disagree, and how did you resolve it?
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## Your Action Plan

1. Spend 10 minutes a day naming notes on the grand staff in MuseScore or Tenuto until you hit any note in under two seconds.
2. Memorize the two natural half steps (B to C and E to F) and the order of sharps (F C G D A E B) and flats (reverse), then identify all 15 major key signatures from sight in one sitting.
3. Build the major scale from W-W-H-W-W-W-H in three new keys, write each in MuseScore, and confirm the accidentals match the key signature.
4. Learn the common intervals by half step and attach a song anchor to each (perfect fifth equals Star Wars), then run a daily interval-ID drill in the Functional Ear Trainer.
5. Draw the circle of fifths from memory once a day for a week until you can place every key, its signature, and its relative minor.
6. Build all four triad qualities and the three common seventh chords from a root, then harmonize the C major scale into its seven diatonic chords.
7. Take three songs you like, identify the key, and rewrite every chord as a Roman numeral, labeling each chord's function as tonic, subdominant, or dominant.
8. Clap quarter, eighth, and sixteenth subdivisions against an 80 BPM metronome, then count along to five songs to identify simple versus compound meter.
9. Run the four-part, 15-minute daily ear-training routine (intervals, chord quality, scale degrees, progressions) for two weeks straight.
10. Transcribe one simple two-chord song by ear into MuseScore, slowing the audio if needed, as a capstone that combines every skill in the course.









