

CLARKE'S MUSIC & PIANO LESSONS

Harmony Foundations • Student Packet

WORKSHEET 1

Building Chords

Name: _____

Date: _____

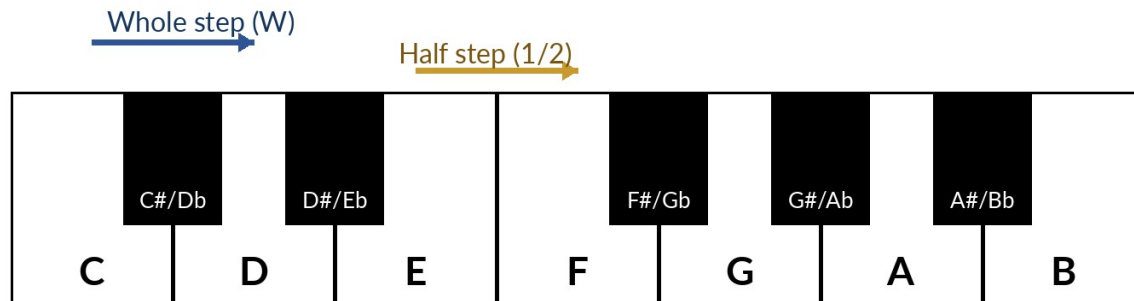
1 Whole Steps, Half Steps & Major Scales

A chord is built from notes in a scale. Before building chords, you need to be able to build the scale correctly.

- A half step (1/2) moves to the very next key on the piano, black or white.
- A whole step (W) equals two half steps. There is exactly one piano key between the starting and ending keys.
- Major scales use the same interval pattern regardless of the starting note.

Major-scale formula

W - W - 1/2 - W - W - W - 1/2



Worked example: C major = C - D - E - F - G - A - B - C. Notice the half steps E-F and B-C.

Build the following major scales

Key	1	2	3	4	5	6	7	8
G	-----	-----	-----	-----	-----	-----	-----	-----
D	-----	-----	-----	-----	-----	-----	-----	-----
F	-----	-----	-----	-----	-----	-----	-----	-----
Bb	-----	-----	-----	-----	-----	-----	-----	-----
Eb	-----	-----	-----	-----	-----	-----	-----	-----

Check yourself

Circle every place in your completed scales where the major-scale pattern uses a half step.

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WORKSHEET 2

Triads: The Four Basic Chord Qualities

Name: _____

Date: _____

Triads use three chord tones. The numbers describe scale degrees measured from the root of the chord.

Chord quality	Formula	C example
Major	1 - 3 - 5	C - E - G
Minor	1 - b3 - 5	C - Eb - G
Augmented	1 - 3 - #5	C - E - G#
Diminished	1 - b3 - b5	C - Eb - Gb

Build each chord

Write the chord formula first, then spell the chord with the correct note names. Keep one letter name per chord tone: root, third, fifth.

#	Chord	Formula	Notes
1	F	_____	_____
2	Gm	_____	_____
3	Daug	_____	_____
4	Bdim	_____	_____
5	Bb	_____	_____
6	Em	_____	_____
7	Aaug	_____	_____
8	C#dim	_____	_____

Why spelling matters

A augmented is A-C#-E#, not A-C#-F. E# and F sound the same on the piano, but E# is the correctly spelled raised fifth of an A chord.

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WORKSHEET 3

Sixth & Seventh Chords

Name: _____

Date: _____

Chord quality	Formula	C example
Dominant 7	1 - 3 - 5 - b7	C - E - G - Bb
Major 7	1 - 3 - 5 - 7	C - E - G - B
Minor 7	1 - b3 - 5 - b7	C - Eb - G - Bb
Minor-Major 7	1 - b3 - 5 - 7	C - Eb - G - B
Major 6	1 - 3 - 5 - 6	C - E - G - A
Minor 6	1 - b3 - 5 - 6	C - Eb - G - A
Augmented 7	1 - 3 - #5 - b7	C - E - G# - Bb
Aug. Major 7	1 - 3 - #5 - 7	C - E - G# - B
Half-diminished 7	1 - b3 - b5 - b7	C - Eb - Gb - Bb
Diminished 7	1 - b3 - b5 - bb7	C - Eb - Gb - Bbb

Build each chord

#	Chord	Formula	Notes
1	G7	_____	_____
2	FMaj7	_____	_____
3	Dm7	_____	_____
4	AmMaj7	_____	_____
5	C6	_____	_____
6	Fm6	_____	_____
7	Caug7	_____	_____
8	CaugMaj7	_____	_____
9	Bm7b5	_____	_____
10	Cdim7	_____	_____

Important notation

In a fully diminished 7th chord, the seventh is double-flat. Cdim7 is spelled C-Eb-Gb-Bbb. Bbb sounds like A on the piano, but Bbb shows that the note is functioning as the seventh.

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WORKSHEET 4

Extended & Altered Chords

Name: _____

Date: _____

After the 7th, continue stacking thirds. The scale degrees 2, 4 and 6 become 9, 11 and 13 when they are treated as chord extensions.

Stacked thirds	1 - 3 - 5 - 7 - 9 - 11 - 13	
Chord quality	Formula	C example
Dominant 9	1 - 3 - 5 - b7 - 9	C - E - G - Bb - D
Minor 9	1 - b3 - 5 - b7 - 9	C - Eb - G - Bb - D
Major 9	1 - 3 - 5 - 7 - 9	C - E - G - B - D
6/9	1 - 3 - 5 - 6 - 9	C - E - G - A - D
Minor 6/9	1 - b3 - 5 - 6 - 9	C - Eb - G - A - D
Dominant 11	1 - 3 - 5 - b7 - 9 - 11	C - E - G - Bb - D - F
Dominant 13	1 - 3 - 5 - b7 - 9 - 11 - 13	C - E - G - Bb - D - F - A

Common alterations change an extension by a half step: b9, #9, #11 and b13. In common lead-sheet notation, #11 is much more common than b11.

Build each chord

#	Chord	Formula	Notes
1	C9	_____	_____
2	Fm9	_____	_____
3	BbMaj9	_____	_____
4	D6/9	_____	_____
5	Cm6/9	_____	_____
6	G11	_____	_____
7	G13	_____	_____
8	C7b9	_____	_____
9	F9#11	_____	_____
10	Bb7b13	_____	_____

Practice note: Build the complete theoretical spelling here. In actual playing, extended chord voicings may omit some tones for clarity.