

Piano Players' Score



Middle C

C1 C2 C3 C4 C5

Bass Players' Score

C1 sounds (reading C2) C2 sounds (reading C3) C3 sounds (reading C4) C4 sounds (reading C5) C5

0 1 3 0 2 3 0 2 3 0 2 4 5 7 9 10 12 14 16 17 19 21 22 24

C1 C2 C3 C4 C5 C6 C7 C8

4 String-----

E1 E2 E3 E4 G4

5 String-----

B0 B1 B2 B3 G4

6 String-----

B0 B1 B2 B3 B4 C5

\* 8<sup>va</sup> is a way to make notes with many ledger lines easier to read. It means: Read an octave higher than written.





## Triad Inversion Summary Table

Here is a summary of the most important information about triads we have covered so far.

Examples using triads built from the root D:

	Where is the Root of the Triad?	Lowest Note (Example)	Stacked Intervals	Interval Between Lowest and Highest Note	Example
root position	bottom note	root of the chord	third + third	fifth	
major triad		D	major third+ minor third	perfect fifth	D (D-F <sup>#</sup> -A)
minor triad		D	minor third+ major third	perfect fifth	Dm (D-F-A)
diminished triad		D	minor third+ minor third	diminished fifth	D <sup>o</sup> (D-F-A <sup>b</sup> )
augmented triad		D	major third+ major third	augmented fifth	D <sup>+</sup> (D-F <sup>#</sup> -A <sup>#</sup> )
first inversion (sixth chord)	top note	third of the chord	third + fourth	sixth	
major triad inv 1		F <sup>#</sup>	minor third+fourth	minor sixth	D/F <sup>#</sup> (F <sup>#</sup> -A-D)
minor triad inv 1		F	major third+fourth	major sixth	Dm/F (F-A-D)
diminished triad inv 1		F	minor third+ augmented fourth	major sixth	D <sup>o</sup> /F (F-A <sup>b</sup> -D)
augmented triad inv 1		F <sup>#</sup>	major third+ diminished fourth	minor sixth	D <sup>+</sup> /F <sup>#</sup> or F <sup>#</sup> <sup>+</sup> (F <sup>#</sup> -A <sup>#</sup> -D)
second inversion (four six chord)	in the middle	fifth of the chord	fourth + third	sixth	
major triad inv 2		A	fourth+major third	major sixth	D/A (A-D-F <sup>#</sup> )
minor triad inv 2		A	fourth+minor third	minor sixth	Dm/A (A-D-F)
diminished triad inv 2		A <sup>b</sup>	augmented fourth+ minor third	major sixth	D <sup>o</sup> /A <sup>b</sup> (A <sup>b</sup> -D-F)
augmented triad inv 2		A <sup>#</sup>	diminished fourth+ major third	minor sixth	D <sup>+</sup> /A <sup>#</sup> or A <sup>#</sup> <sup>+</sup> (A <sup>#</sup> -D-F <sup>#</sup> )

Let's look at each chord in detail in the table below, using the example of C as the root. The grey arrows in the "Explanation" column point out the redundant naming that is dropped in the chord symbol. (There are quite a few variations possible when it comes to the actual chord symbol. The most frequently used conventions are listed).

Name	Triad	7th	Thirds Formula	Stacked Intervals	Example Spelled Out	Explanation	Chord Symbol	Sound
"C major 7"	maj	maj	maj3-min3-maj3	maj3-p5-maj7	C-E-G-B	Cmaj-maj7 	Cmaj7 Cma7 CΔ	stable, yet dissonant home jazzy
"C minor 7"	min	min	min3-maj3-min3	min3-p5-min7	C-E <sup>b</sup> -G-B <sup>b</sup>	Cmin-min7 	Cmin7 Cm7 C-7	dark mellow cool'n funky
"C7" "C dominant 7"	maj	min	maj3-min3-min3	maj3-p5-min7	C-E-G-B <sup>b</sup>	Cmaj-min7 	C7	tense bluesy wants to resolve
"C minor major 7"	min	maj	min3-maj3-maj3	min3-p5-maj7	C-E <sup>b</sup> -G-B	Cmin-maj7 	Cmin(maj7) Cm(ma7) Cm(maj7)	very wistful tense

## FOUR-NOTE CHORDS WITH A DIMINISHED OR AUGMENTED FIFTH

What if you make seventh chords with diminished and augmented triads? You will find frequently used diminished and augmented seventh chords in the chart below.

Name	Triad	7th	Thirds Formula	Stacked Intervals	Example Spelled Out	Explanation	Chord Symbol	Sound
"C minor 7 flat five" or "C half diminished"	dim	min	min3-min3-maj3	min3-dim5-min7	C-E <sup>b</sup> -G <sup>b</sup> -B <sup>b</sup>	Cdim-min7	Cmin7 <sup>b</sup> 5 C <sup>ø</sup>	tense
"C diminished 7"	dim	dim	min3-min3-min3	min3-dim5-dim7	C-E <sup>b</sup> -G <sup>b</sup> -A (really B <sup>bb</sup> )	Cdim-dim7	C <sup>o</sup> 7 Cdim7	even more tense dark
"C augmented major 7"	aug	maj	maj3-maj3-min3	maj3-aug5-maj7	C-E-G <sup>#</sup> -B	Caug-maj7	Cmaj7 <sup>#</sup> 5 C+maj7	very bright slightly mysterious
"C7 sharp five" C7 augmented	aug	min	maj3-maj3-dim3	maj3-aug5-min7	C-E-G <sup>#</sup> -B <sup>b</sup>	Caug-min7	C+7 C7 <sup>#</sup> 5	slightly jarring bright

## TEST YOUR UNDERSTANDING #3



h) Determine the interval name (quantity and quality):



C – D $\sharp$  ascending

C – F $\sharp$  descending

C – G $\flat$  descending

C – D $\sharp$  descending

C – E $\flat$  ascending

D $\times$  – G $\sharp$  ascending

VIDEO  
19

E diminished scale (contains the same notes as the G, B $\flat$ , and D $\flat$  diminished scales):

E diminished scale (contains the same notes as the G, B $\flat$ , and D $\flat$  diminished scales):

The image shows the E diminished scale on a bass staff and its corresponding fretboard diagram. The scale is: E, F $\sharp$ , G, A, B $\flat$ , C, D $\flat$ , E $\sharp$ . The fretboard diagram shows the notes on the strings from the 1st to the 12th fret. The 7th fret is circled in red.

9 8 6 5 8 7 5 4 7 6 4 3 6 5 3 2 0

F diminished scale (contains the same notes as the ~~A~~<sup>B</sup>, B, and D diminished scales):

diminished scale (contains the same notes as the A $\flat$ , B, and D diminished scales):

The image displays the A diminished scale on a grand staff. The top staff shows the ascending sequence: A $\flat$ 2, B $\flat$ 2, C $\flat$ 3, D $\flat$ 3, E $\flat$ 4, F $\sharp$ 4, G $\flat$ 5, A $\flat$ 5, B $\flat$ 6, C $\flat$ 6, D $\flat$ 7, E $\flat$ 7, F $\sharp$ 8, G $\flat$ 8, A $\flat$ 9, B $\flat$ 9, C $\flat$ 10, D $\flat$ 10, E $\flat$ 11, F $\sharp$ 11, G $\flat$ 12, A $\flat$ 12. The bottom staff shows the descending sequence: A $\flat$ 12, G $\flat$ 12, F $\sharp$ 11, E $\flat$ 11, D $\flat$ 10, C $\flat$ 10, B $\flat$ 9, A $\flat$ 9, G $\flat$ 8, F $\sharp$ 8, E $\flat$ 7, D $\flat$ 7, C $\flat$ 6, B $\flat$ 6, A $\flat$ 5, G $\flat$ 5, F $\sharp$ 4, E $\flat$ 4, D $\flat$ 3, C $\flat$ 3, B $\flat$ 2, A $\flat$ 2. Fingerings are indicated by numbers 1-10 below the notes. A red diagonal line is drawn across the image, passing through the A $\flat$ 5 and G $\flat$ 5 notes in both staves.

F# diminished scale (contains the same notes as the A, C, and E $\flat$  diminished scales):

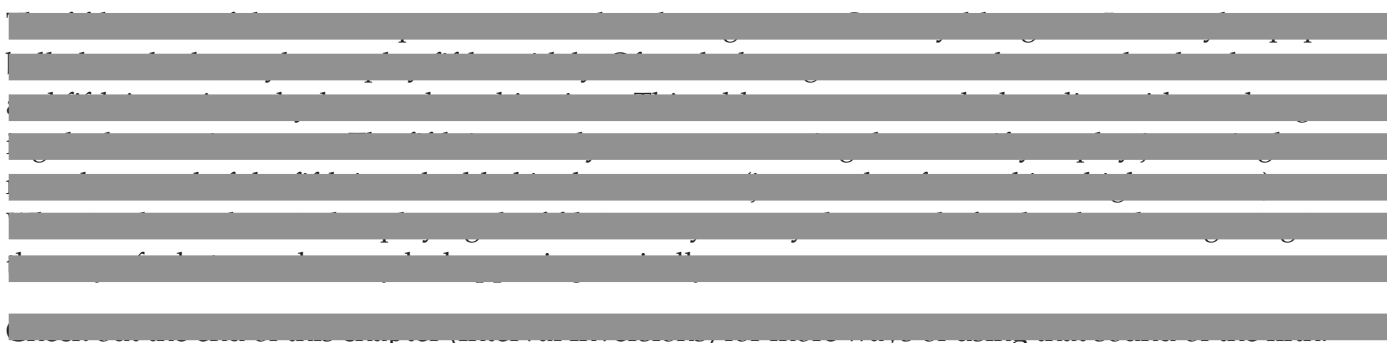
F# diminished scale (contains the same notes as the A, C, and Eb diminished scales):

The image shows the F# diminished scale in bass clef. The ascending scale is: F#2, G#2, A2, Bb2, B2, C#3, D3, Eb3, E3, F#3, G#3, A3. The descending scale is: A3, G#3, F#3, E3, Eb3, D3, C#3, B2, Bb2, A2, G#2, F#2. Fingerings are indicated by numbers 1-11 below the notes. A red line connects the F#2 in the ascending scale to the F#3 in the descending scale.

# Exercises



# Groove Examples



## Groove with Fifths



Sixteenth note funk, shuffled

D7

(harmonics)

4 14 12 10 12 10 9 11 9 7 9 7 5 7 5

3

D

etc.

5 7 7 5 7 5 5 7 7 5 7 5 5 7 5 5 5



## Exercises



## Groove Examples



## Tritone Groove



The image displays a musical score for the song "The Sound of Silence" by Simon & Garfunkel. The score is written for a bass line and a guitar line. The bass line is in 4/4 time and features a key signature of one flat (B-flat). The guitar line is in standard tuning and features a key signature of one sharp (F#). The score includes fingerings for both hands, with a red arrow pointing to the final note of the guitar line.

The bass line consists of two staves. The first staff shows the first four measures, and the second staff shows the next four measures. The guitar line also consists of two staves. The first staff shows the first four measures, and the second staff shows the next four measures. The final note of the guitar line is marked with a red arrow.

# INTERVAL INVERSIONS

## Understanding Inversions



In order to avoid unnecessarily complex scales, follow this additional rule:

**4. Names of major scales:**



black = ascending  
grey = descending

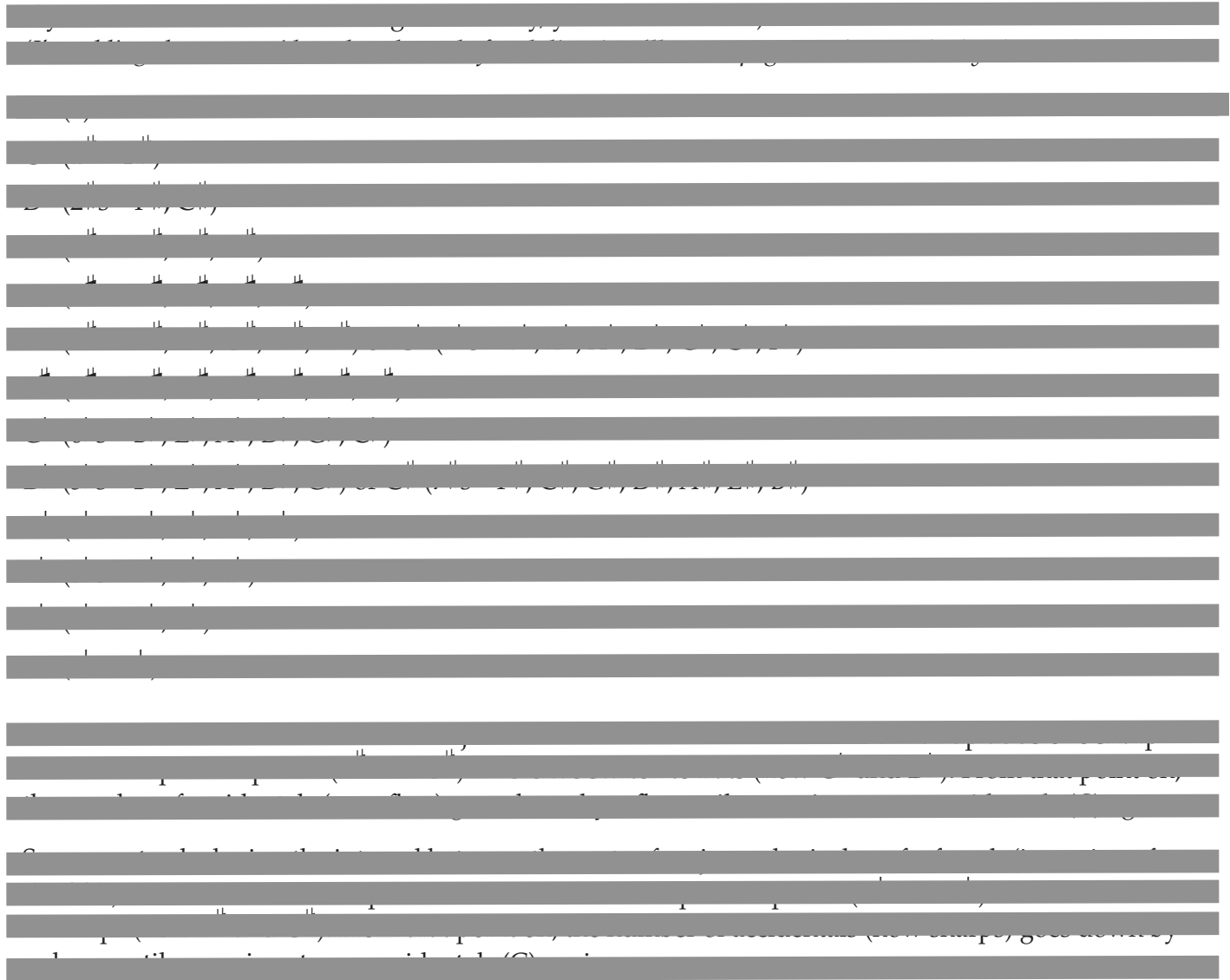
**A $\flat$  major up the G string**

**E major up the E string**

## Intervals Built from the Tonic of the Major Scale

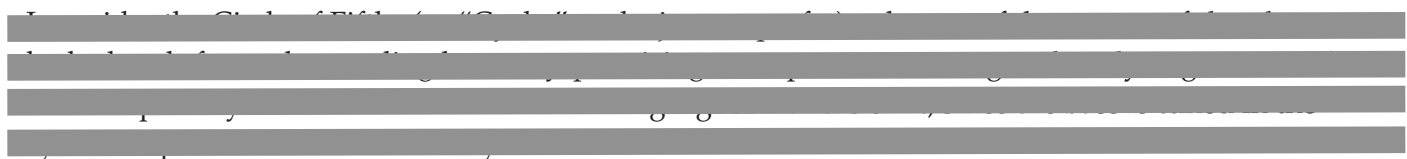


## PREPARATION FOR THE CYCLE OF FIFTHS



The added sharps occur in the order of falling (descending) fourths: F#, C#, G#, D#, A#, E#, B#

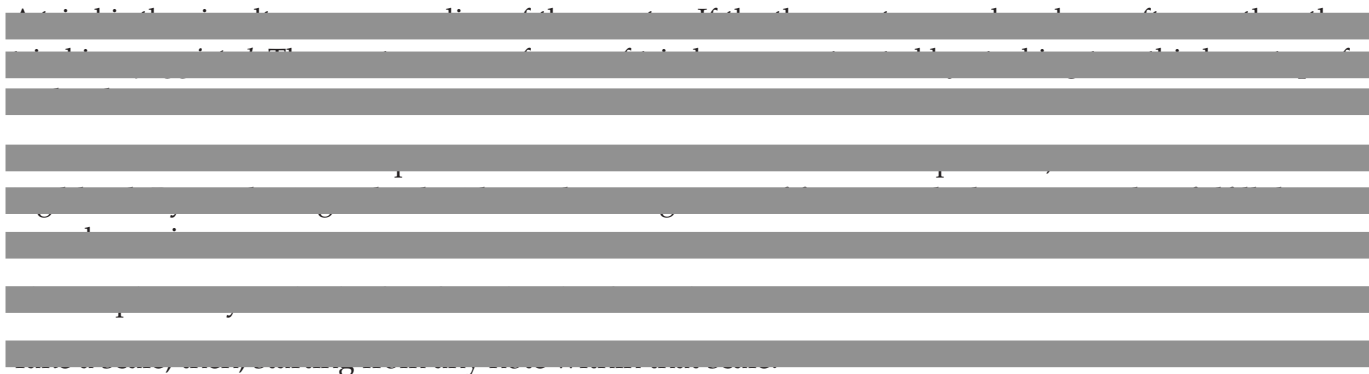
The added flats occur in the order of falling (descending) fifths: Bb, Eb, Ab, Db, Gb, Cb, Fb





# Triad Primer for the Bassist

## INTRODUCTION TO TRIADS



*play a note – skip a note – play a note – skip a note – play a note.*

Position of brackets

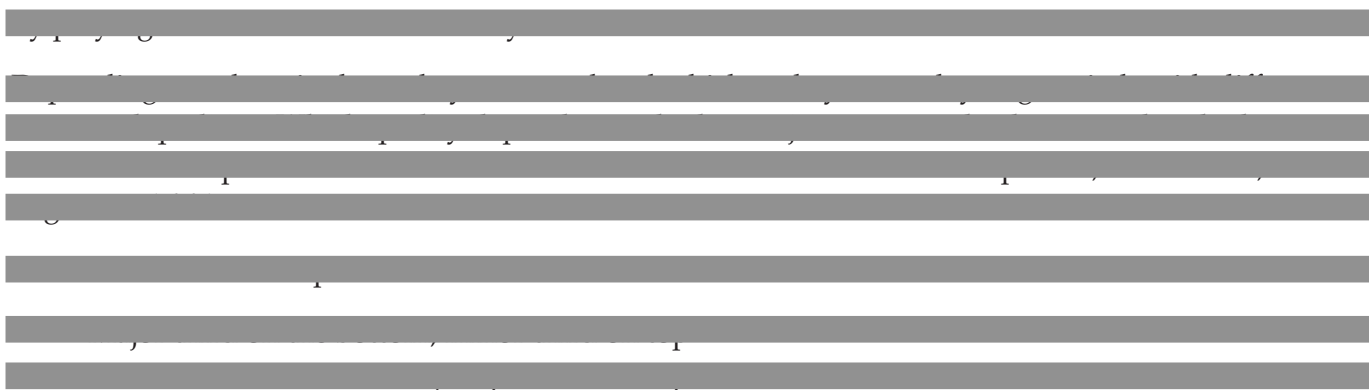
### Example

A major scale stacking thirds starting from root (A)

The example shows a bass clef staff with a major scale starting on A. Brackets above the staff indicate intervals: a major third between A and C#, and a minor third between C# and E. The scale continues with F, G, and A. A final bracket shows a major third between A and C#. Below the staff is a TAB line with fret numbers: 5, 7, 4, 5, 7. A red arrow points from the text 'Position of brackets' to the brackets in the staff.

A major scale stacking thirds from second note of the scale (B)

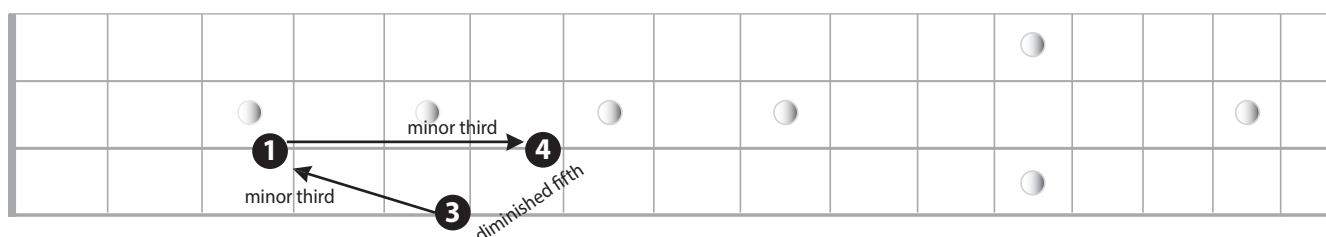
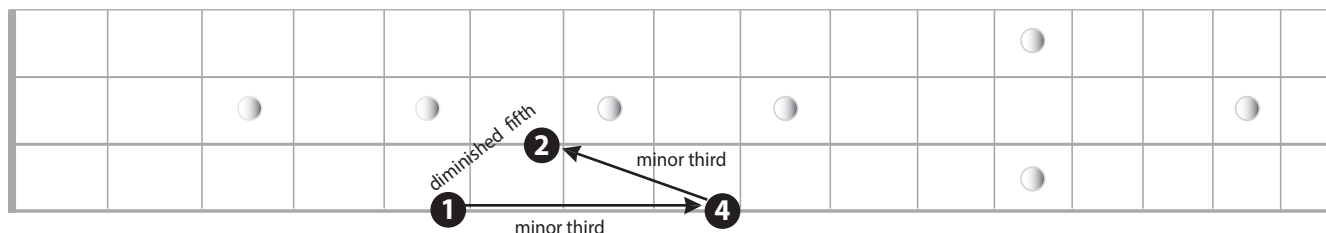
The example shows a bass clef staff with a major scale starting on B. Brackets above the staff indicate intervals: a minor third between B and D, and a major third between D and F#. The scale continues with G, A, and B. A final bracket shows a major third between B and D#. Below the staff is a TAB line with fret numbers: 5, 7, 4, 5, 7, 4. A red arrow points from the text 'Position of brackets' to the brackets in the staff.



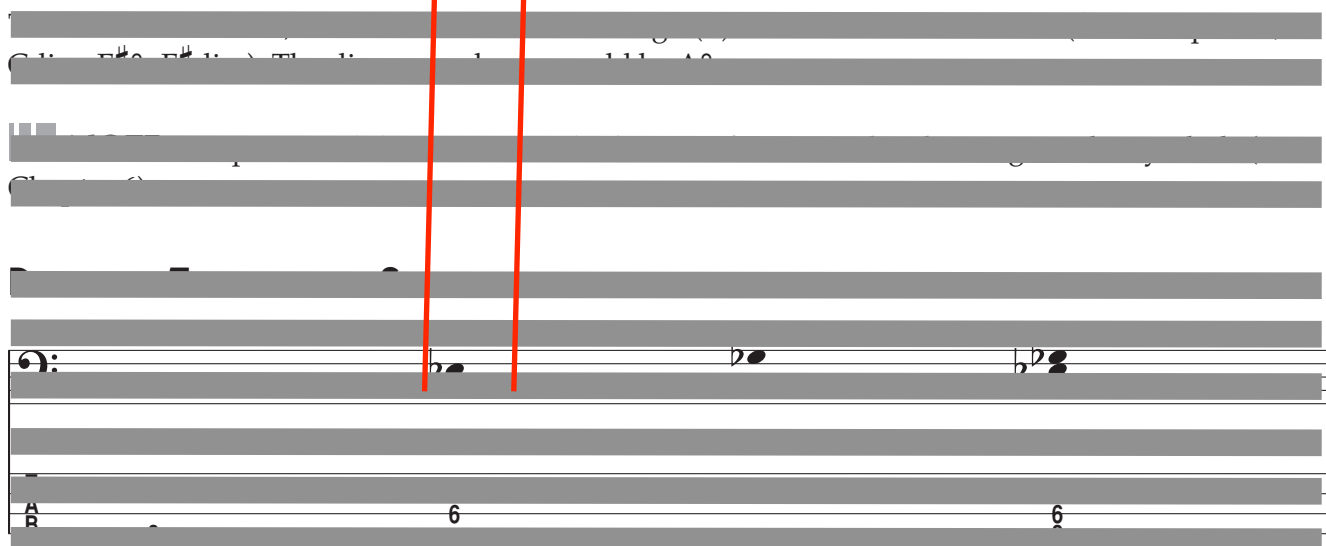
# THE DIMINISHED TRIAD

## Introducing Diminished Triads

### SUGGESTED FINGERINGS



### CHORD SYMBOL



# TRIAD PRIMER FOR THE BASSIST



Diagram showing musical notation and fingering for a triad in 3/4 time.

**Musical Notation:** Bass clef, 3/4 time. Notes: G2 (root), A2 (3), B2 (5). Interval labels: "minor third" between A2 and B2, "fourth" between B2 and G3 (root). A bracket labeled "minor sixth" spans from G2 to F#3.

**Fingering:**

Hand	Finger	Notes
Right (R)	5	G2
Right (R)	4	A2
Right (R)	7	B2
Left (L)	4	G3
Left (L)	7	A3
Left (L)	7	B3

**Alternate fingering:**

Hand	Finger	Notes
Right (R)	5	G2
Right (R)	4	A2
Right (R)	2	B2
Left (L)	4	G3
Left (L)	2	A3
Left (L)	2	B3

Diagram showing fretboard positions for a triad.

Notes: G2 (1), A2 (2), B2 (4). Interval labels: "minor sixth" between G2 and D3, "minor third" between A2 and B2, "perfect fourth" between B2 and E3.

Diagram showing fretboard positions for a triad.

Notes: G2 (1), A2 (1), B2 (2). Interval labels: "perfect fourth" between G2 and C3, "minor third" between A2 and B2, "minor sixth" between G2 and D3.

**CHORD SYMBOL**

A/C# or Am/C

Read “A over C#”: an A major triad with a C# bass note.

Read “Am over C”: an A minor triad with a C bass note.

The third is the lowest note → first inversion.

# 7

## Minor Scale Primer

### CREATING THE MINOR SCALE



1	2	3	▲ 4	5	6	7	▲ 8	2	3	4	5	6	7	▲ 8	C major
C	D	E	F	G	A	B	C	D	E	F	G	A	B	C	(relative* major of A minor)

C	D	E	▲ F	G	A	B	▲ C	D	E	▲ F	G	A	B	▲ C	A minor
3	4	5	6	7	1	2	3	4	5	6	7	8	2	3	(relative* minor of C major)

▲ = half step

\* = see below for explanation of the relative scale relationship



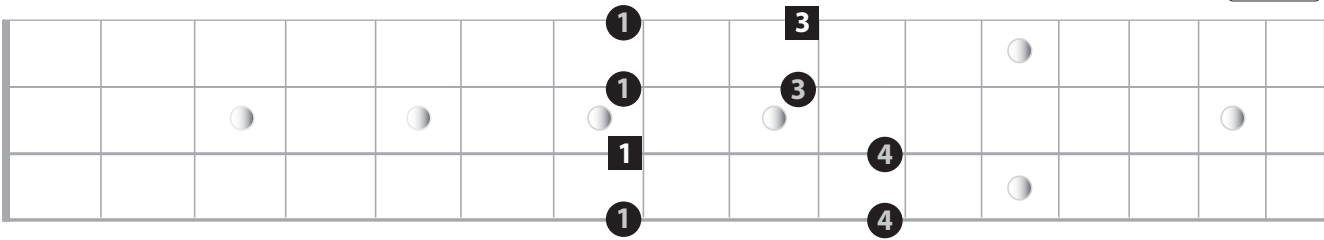
				1		3									
				1		3		4							
				1		3		4							
				1		3		4							

E MINOR PENTATONIC PATTERNS

numbers = fingering    **X** = minor root



Pattern 3: “Big Box-Little Box”



Pattern 5: Little Box-Big Box”



# ANSWERS TO THE TEST YOUR UNDERSTANDING QUESTIONS

## TEST YOUR UNDERSTANDING #1

### How The Bass is Organized Part 1

- a) E – 6 and A – 1, E – 8 and A – 3, E – 10 and A – 5
- b) E – 1 and A – 8, E – 3 and A – 10
- c) Two possible answers:  
In a) the notes have the same pitch, in b) they are an octave apart.  
In a) the formula is “minus 5”, in b) it is “plus 7.”
- d) A – 10th fret and D – 5th fret, D – 10th fret and A – 15th fret, A – 6th fret and D – 1st fret, D – 5th fret and G – open string.

## TEST YOUR UNDERSTANDING #2

### How The Bass is Organized Part 2

- a) For each note name: 7 (on a four string), 9 (five string), 11 (six string).
- b) No, the note will be played in various octaves.
- c) 2 or 3
- d)
  - D: four-string: 10 on E, 5 on A, 0 or 12 on D, 7 on G  
five-string: 3 on B, 10 on E, 5 on A, 0 or 12 on D, 7 on G  
six-string: 3 on B, 10 on E - 5 on A - 0 or 12 on D - 7 on G, 2 on C
  - A: four-string: 5, 0 or 12, 7, 2  
five-string: 10, 5, 0 or 12, 7, 2  
six-string: 10, 5, 0 or 12, 7, 2, 9
  - B: four-string: 7, 2, 9, 4  
five-string: 0 or 12, 7, 2, 9, 4  
six-string: 0 or 12, 7, 2, 9, 4, 11
  - F: four-string: 1, 8, 3, 10  
five-string: 6, 1, 8, 3, 10  
six-string: 6, 1, 8, 3, 10, 5
  - Bb: four-string: 6, 1, 8, 3  
five-string: 11, 6, 1, 8, 3  
six-string: 11, 6, 1, 8, 3, 10
  - Eb: four-string: 11, 6, 1, 8
  - five-string: 4, 11, 6, 1, 8
  - six-string: 4, 11, 6, 1, 8, 3
  - G: four-string: 3, 10, 5, 0 or 12  
five-string: 8, 3, 10, 5, 0 or 12  
six-string: 8, 3, 10, 5, 0 or 12, 7
  - G#: four-string: 4, 11, 6, 1  
five-string: 9, 4, 11, 6, 1  
six-string: 9, 4, 11, 6, 1, 8
  - C: four-string: 8, 3, 10, 5  
five-string: 1, 8, 3, 10, 5  
six-string: 1, 8, 3, 10, 5, 0 or 12
  - C#: four-string: 9, 4, 11, 6  
five-string: 2, 9, 4, 11, 6  
six-string: 2, 9, 4, 11, 6, 1
  - Ab (same as G#)
  - Db (same as C#)



h) Determine the interval name (quantity and quality):

D–F ascending = minor third ascending

D–G ascending = perfect fourth ascending

C–F ascending = perfect fourth ascending

E–A ascending = perfect fourth ascending

E♭–A♭ ascending = perfect fourth ascending

E♭–G ascending = major third ascending

E♭–G♯ ascending = augmented third ascending

D–F descending = major sixth descending

D–G descending = perfect fifth descending

C–F descending = perfect fifth descending

E–A descending = perfect fifth descending

E♭–A♭ descending = perfect fifth descending

E♭–G descending = minor sixth descending

E♭–G♯ descending = diminished sixth descending

C–F♯ ascending = augmented fourth ascending

C–G♭ ascending = diminished fifth ascending

C–D♯ ascending = augmented second ascending

C–F♯ descending = diminished fifth descending

C–G♭ descending = augmented fourth descending

C–D♯ descending = diminished seventh descending

C–E♭♭ ascending = diminished third ascending

D×–G♯ ascending = diminished fourth ascending

c) Name and play the triads:

B-D<sup>♯</sup>-F<sup>♯</sup>: B

B-D-F: B<sup>°</sup>

B<sup>♭</sup>-D-F: B<sup>♭</sup>

B<sup>♯</sup>-D<sup>♯</sup>-F<sup>♯</sup>: B<sup>♯</sup><sup>°</sup>

B<sup>♭</sup>-D<sup>♭</sup>-F<sup>♭</sup>: B<sup>♭</sup><sup>°</sup>

B-D-F<sup>♯</sup>: Bmin

B-D<sup>♯</sup>-F<sup>×</sup>: B+

B<sup>♭</sup>-D<sup>♭</sup>-F: B<sup>♭</sup>min

# GLOSSARY

**Cadence** • in our context, a cadence is a series of chords that lock you into the key of the tonic (in other words, make it easy to sing the tonic of the key. The simplest cadence is playing the triads of the following scale degrees in this order: I-IV-V-I.