JOHN PETRUCCI

WITH TABLATURE

CD INCLUDED

ROCK DISCIPLINE

TROY DEST

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MIAMI, FLORIDA 33014

VIDEO
TRANSCRIPTION
SERIES

JOHN PETRUCCI

ROCK DISCIPLINE

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Preface

About Influences. . .

John first began playing guitar at age 12 and had some of the typical influences that many other kids his age had at that time; Black Sabbath, Led Zeppelin, The Who, and Iron Maiden. As he progressed, he became drawn to players that really had a unique style; Alex Lifeson of Rush, Steve Howe of Yes, and Randy Rhoads from Ozzy Osbourne. When he heard Steve Morse's "The Bash," a burning country tune by the Dixie Dregs, he purchased every Dixie Dregs and Dregs album. Also, players like Al Di Meola, Allan Holdsworth and Stevie Ray Vaughan have been a never-ending source of inspiration.

Lessons and Berklee. . .

John never really took any formal guitar lessons prior to his studies at Berklee School of Music. He did study some classical based music theory during his last two years of high school, but spent the majority of the time developing technique and chops.

Berklee introduced whole new areas of musicianship such as arranging, sight singing, and jazz harmony. Jazz harmony provided chord structure and progressions that have since proved to be an invaluable resource for both composition and improvisation. Most importantly, studying music in such a disciplined environment taught John how to continue to learn, enabling him to continue to develop his level of musicianship throughout his life. There is an unlimited resource of materials to draw from and having the ability to absorb, understand and apply this information, provides any artists with the ability to grow infinitely. However, you have to seek out this type of information. John remembers classmates at Berklee who diligently applied themselves; at the library, in the listening rooms, and they always attended concerts and recitals. They continued to excel as a result of their dedication while other students who sat around, expecting all of this information to be spoon-fed to them, eventually left.

Writing with the Band. . .

The majority of the band's compositions are spawned from jam sessions; someone comes in with a riff, chord progression or groove, and everyone proceeds to develop it. Out of some of these jams, all of which are performed as the tape is rolling, many solid ideas start to happen and the band begins to work on arrangements. Not only does John function as the cornerstone for the band's innovative song structures, he also contributes many of the lyrics. He is constantly aware of the importance of the song's melodic and lyrical content, and how they contribute to the song as a whole.

It is fortunate that each of the band members shares the same influences; Rush, Yes, The Dregs, Genesis and Frank Zappa. Many of the attributes of Dream Theater's style, odd time signatures and experimental harmonies, are the natural result of these common influences.

On Practicing. . .

In order to maintain and develop technique during a given practice session, John subdivides his technical needs into four different categories and proceeds to study examples and exercises that pertain specifically to each of these categories. This workout consists of: 1. Scalar, or linear examples 2. arpeggios 3. legatos and 4. sweep picking.

John has extensive files containing information from instructional videos, books, lessons, etc., organized according to specific topics. If for example he comes across an arpeggio example in a magazine, he will rip it out and file it in the arpeggio section. He continuously updates and revises the contents in these files and logs them on a master list that he keeps handy. This gives him a vast resource to tap into when it comes time to practice. Instead of overwhelming himself with all of the materials he has filed over the years, John will sit down and customize a practice session each day. If he has about two hours to practice on a given day, he will find an example or exercise from each of these four categories and study each of them for thirty minutes. Two hours of this disciplined and highly productive approach will cover the entire topic of technique.

Equipment

Guitars: John uses five different custom Ibanez guitars made of basswood. Each guitar has a rosewood, 24 fret fretboard. The fret width is 61. The custom paint work was by Dan Lawrence. Two of these guitars are seven-string models, with the low 7th string tuned down to the note B.

Strings: John uses D'Addario strings, exclusively. The string gauges on the six-string guitars go from .09 to .46. The low B string on the seven-string guitars has a diameter of .56.

Pickups: Each guitar features two DiMarzio humbuckers; one in the neck and one in the bridge, direct-mounted into the body. The pickups were custom designed to John's specifications by Steve Blucher.

Picks: Jim Dunlop Jazz III for electric playing and a Jim Dunlop .71mm for acoustic. The lighter gauge is ideal for strummed passages.

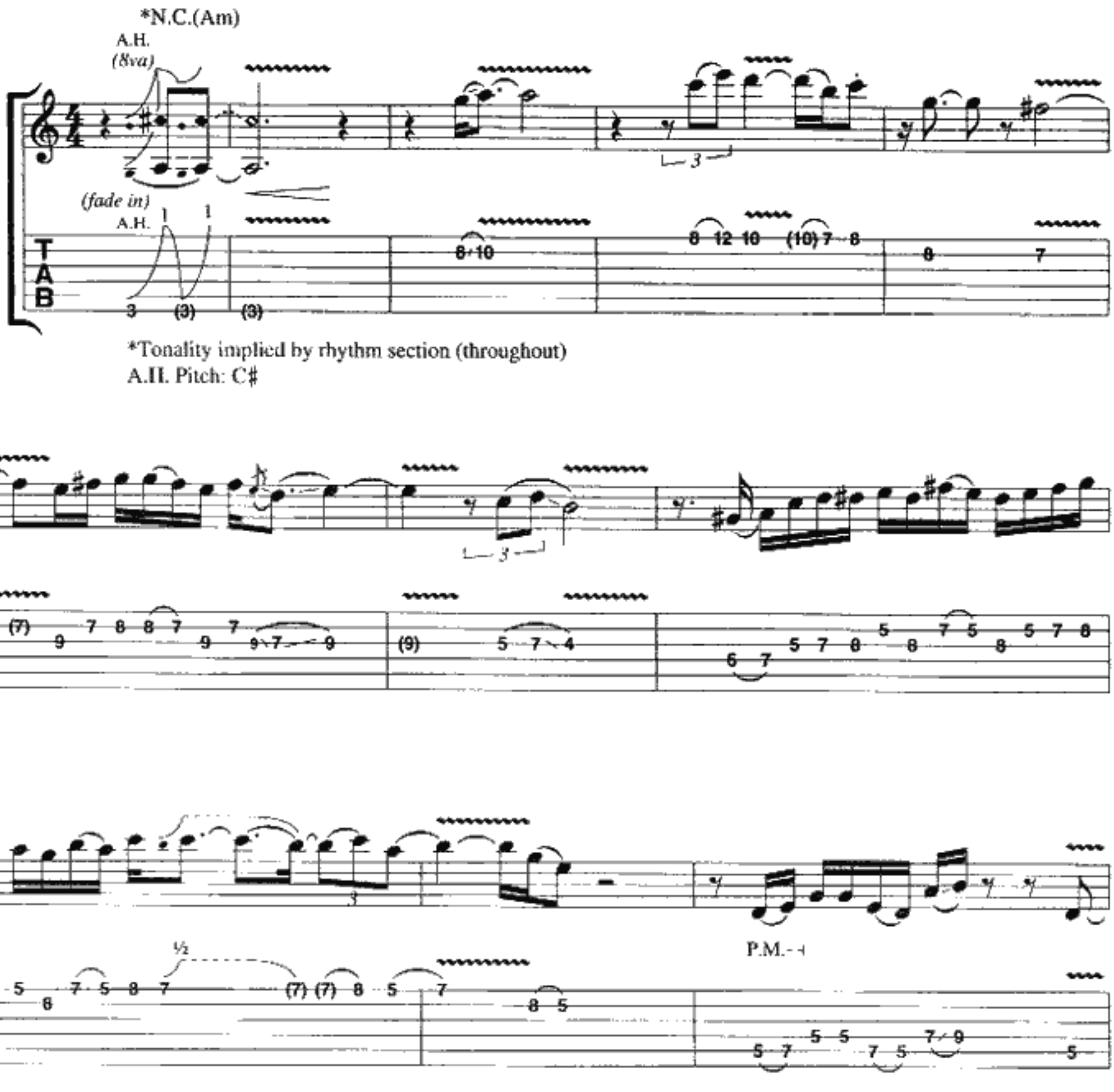
Rack: Everything in the rack (designed by Mark Snyder) is wired through a multi-pin system that goes directly to a Mesa/Boogie Abacus pedal board, including the Noise-Gate, Crybaby, Volume and Parameter pedals. This makes his live set-up as hassle-free as possible. The rack also has an Alesis Data Disk that allows you to save, or re-load any midi programs for the Lexicon PCM70, T.C. Electronics 2290, and the pre-amps. John programmed many different patches that he uses to vary his clean and distorted tone using delays, choruses and other effects. A parameter pedal varies the amount of reverb or delay during solos or other sections in real time. This enables him to instantly reduce these effects during faster passages to avoid washing out the sound.

Pre-Amps: Incorporating a switching system into a custom designed rack-mounted set-up, allows John to choose among three different pre-amps: Two Triaxis pre-amps and a Mesa/Boogie Mark IIC Plus.

Speaker Cabinets: Mesa/Boogie speaker cabinets loaded with Celestion vintage 30-watt speakers.

Intro Music

To start things off, here's a transcription of an extended jam that showcases many of the techniques which will be discussed throughout this book. This was recorded live with Dream Theater's John Myung (bass), Mike Portnoy (drums) and Kevin Moore (keyboards).



*Tonality implied by rhythm section (throughout)
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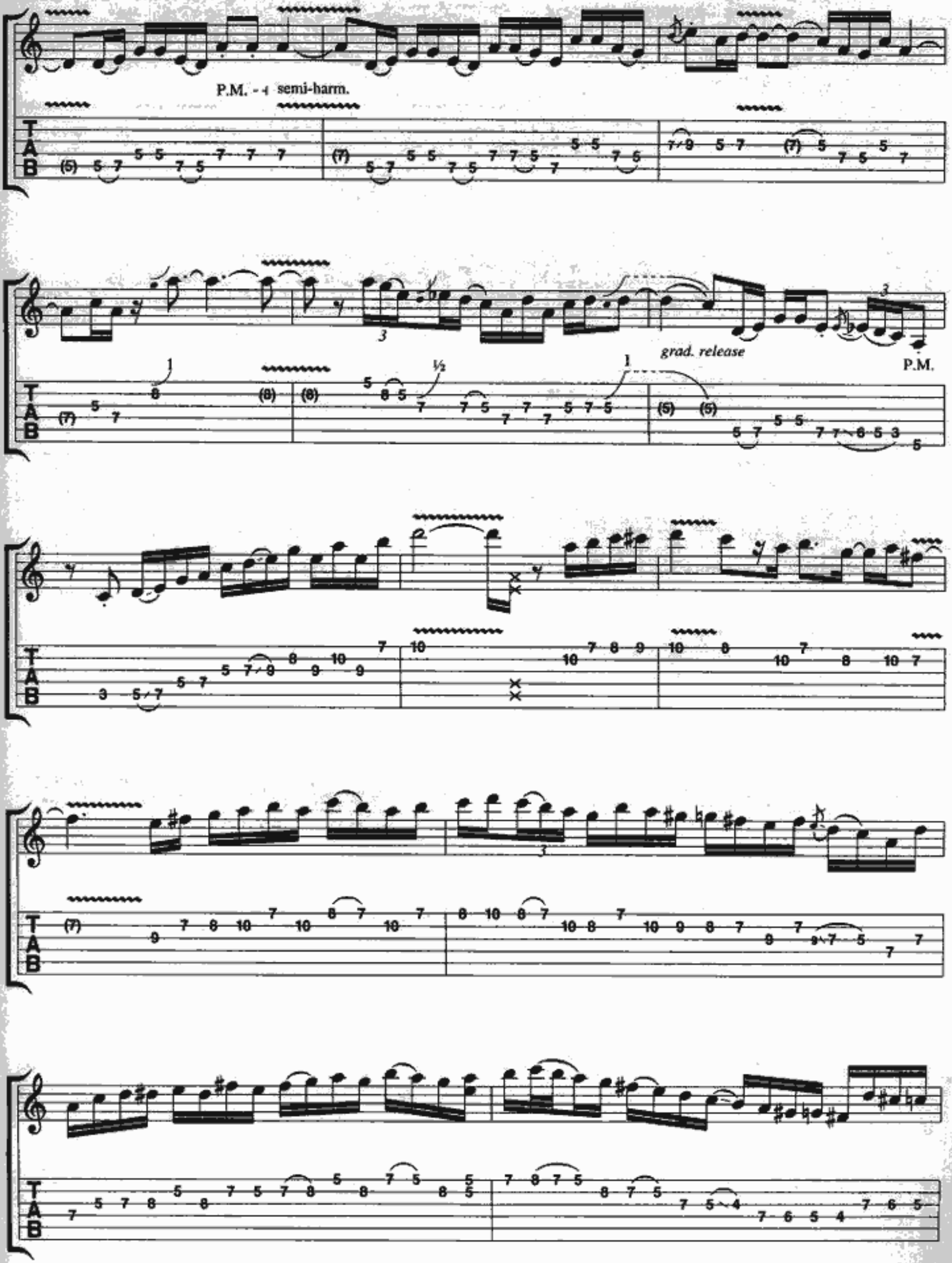
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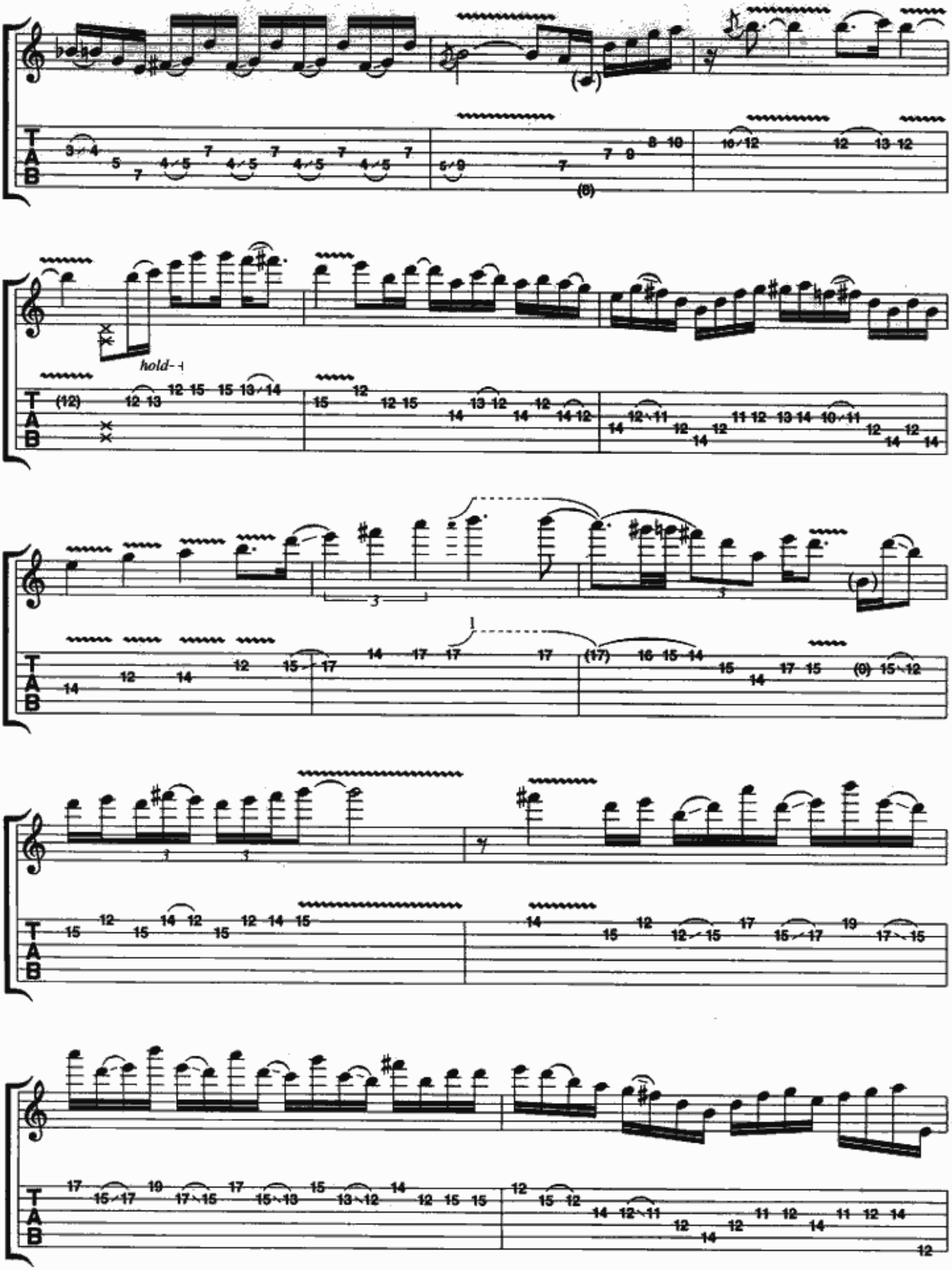
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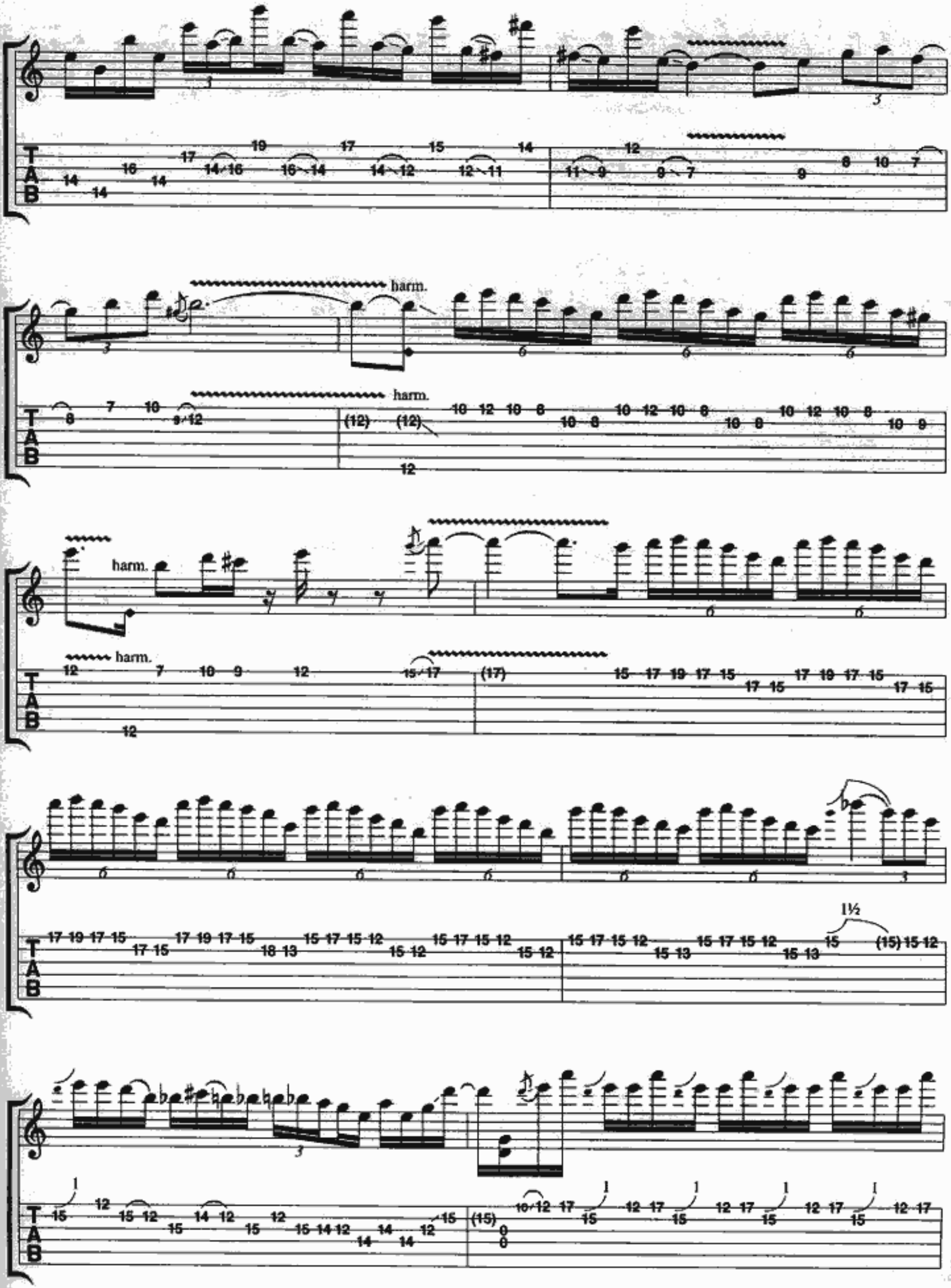
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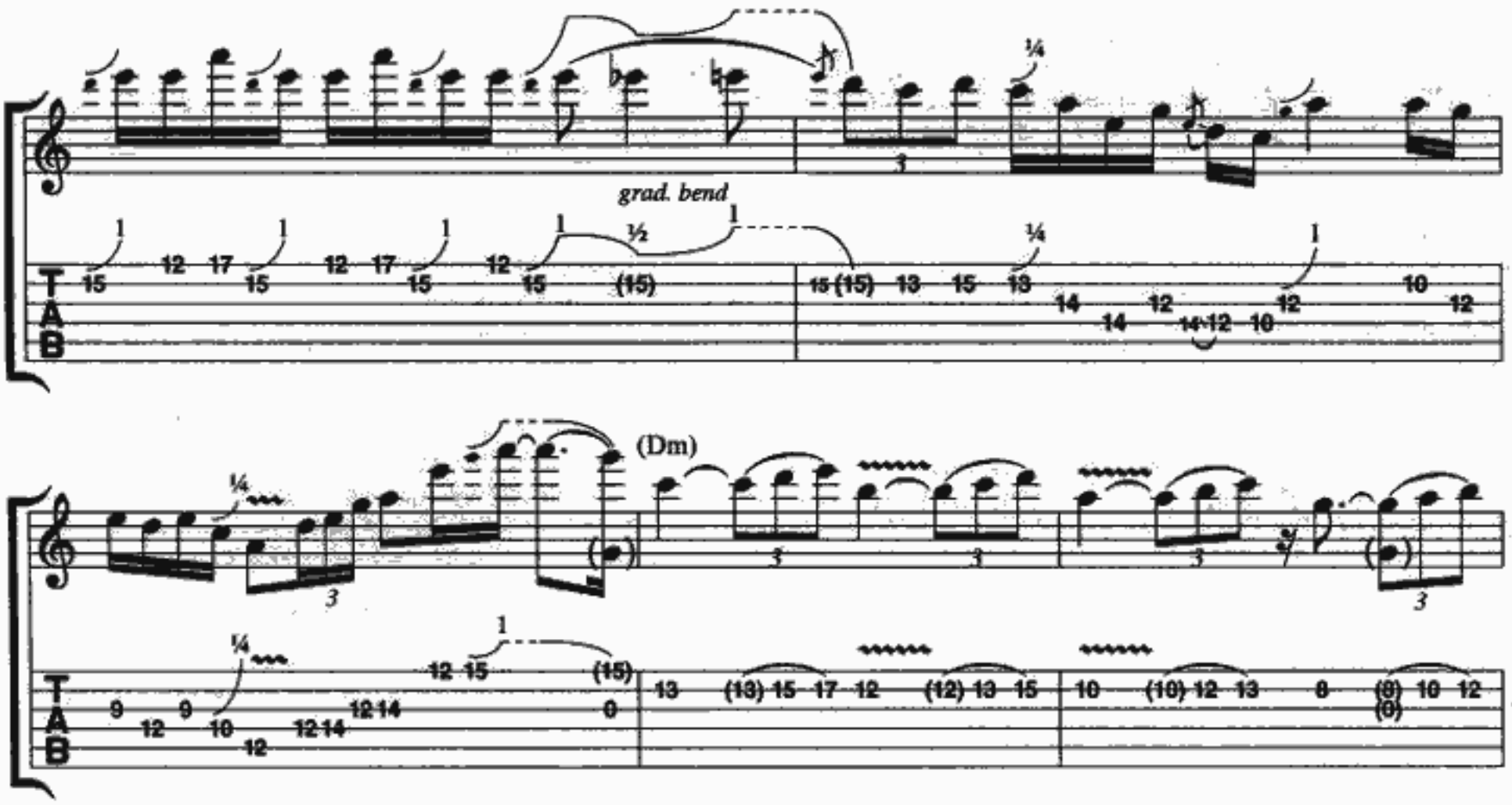
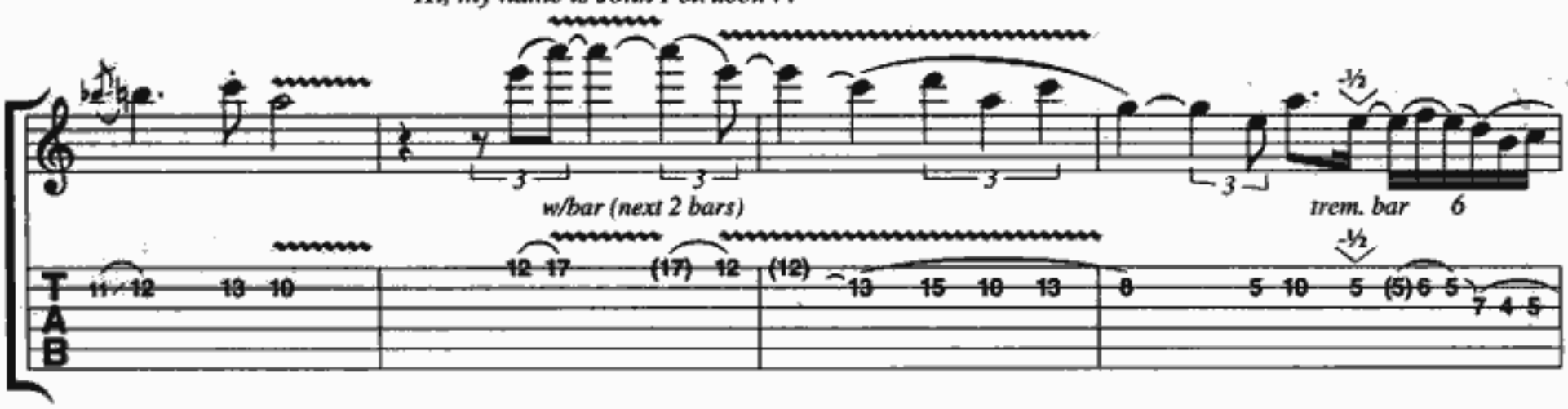
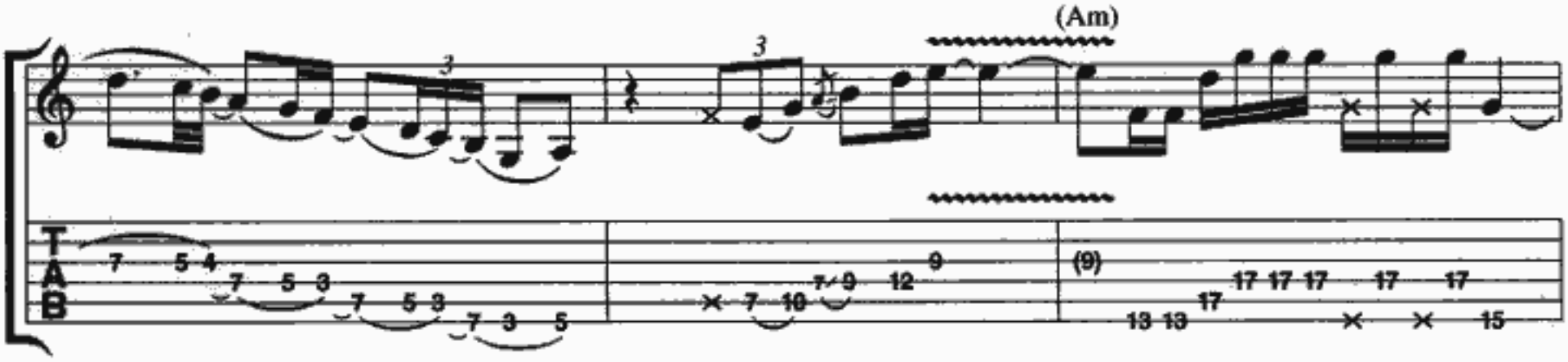
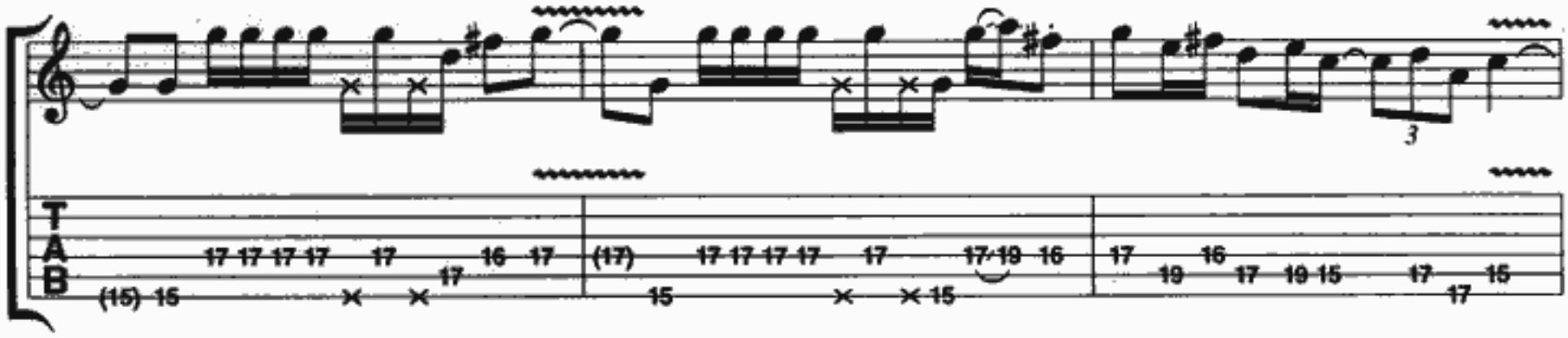
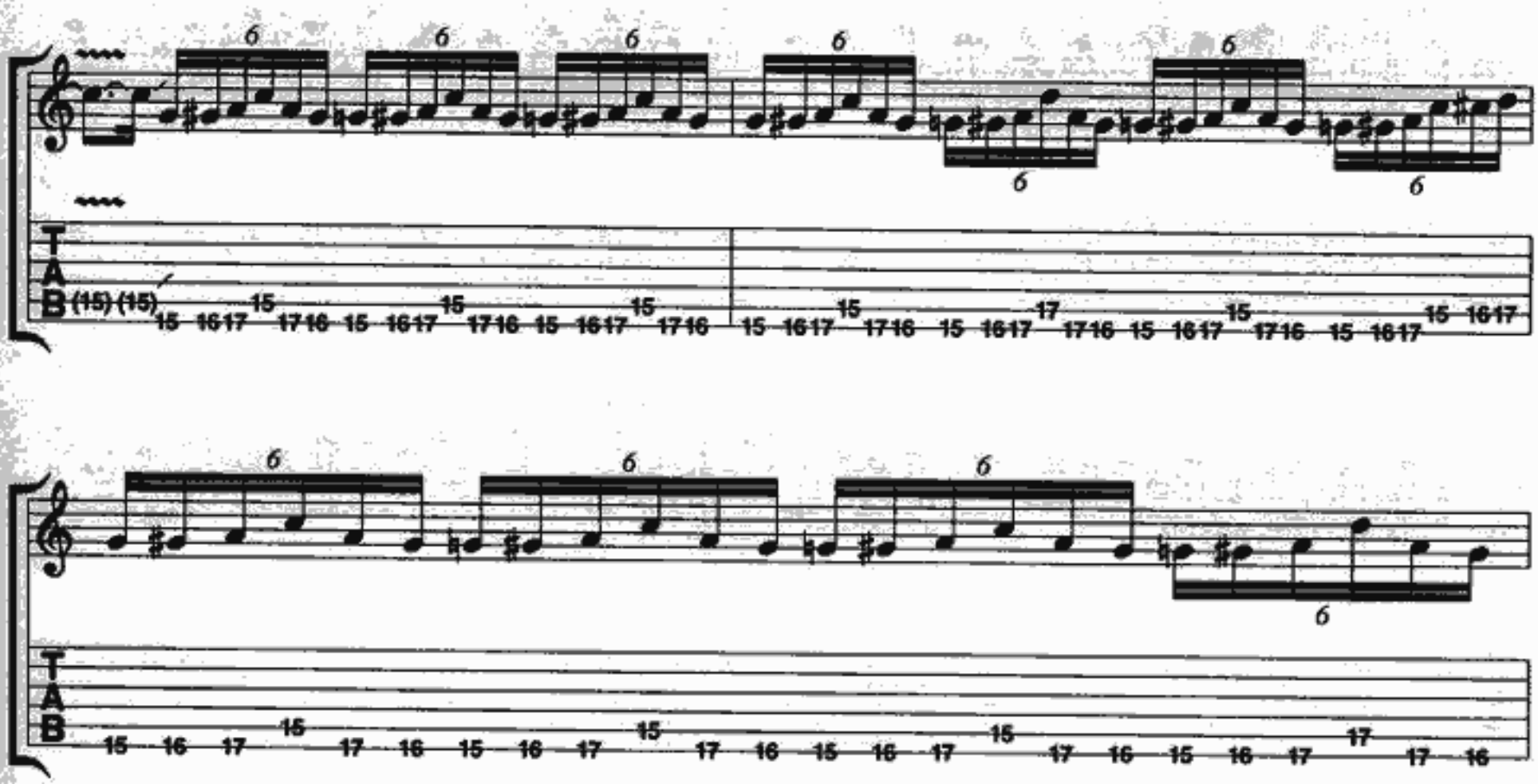


"Hi, my name is John Petrucci. . ."





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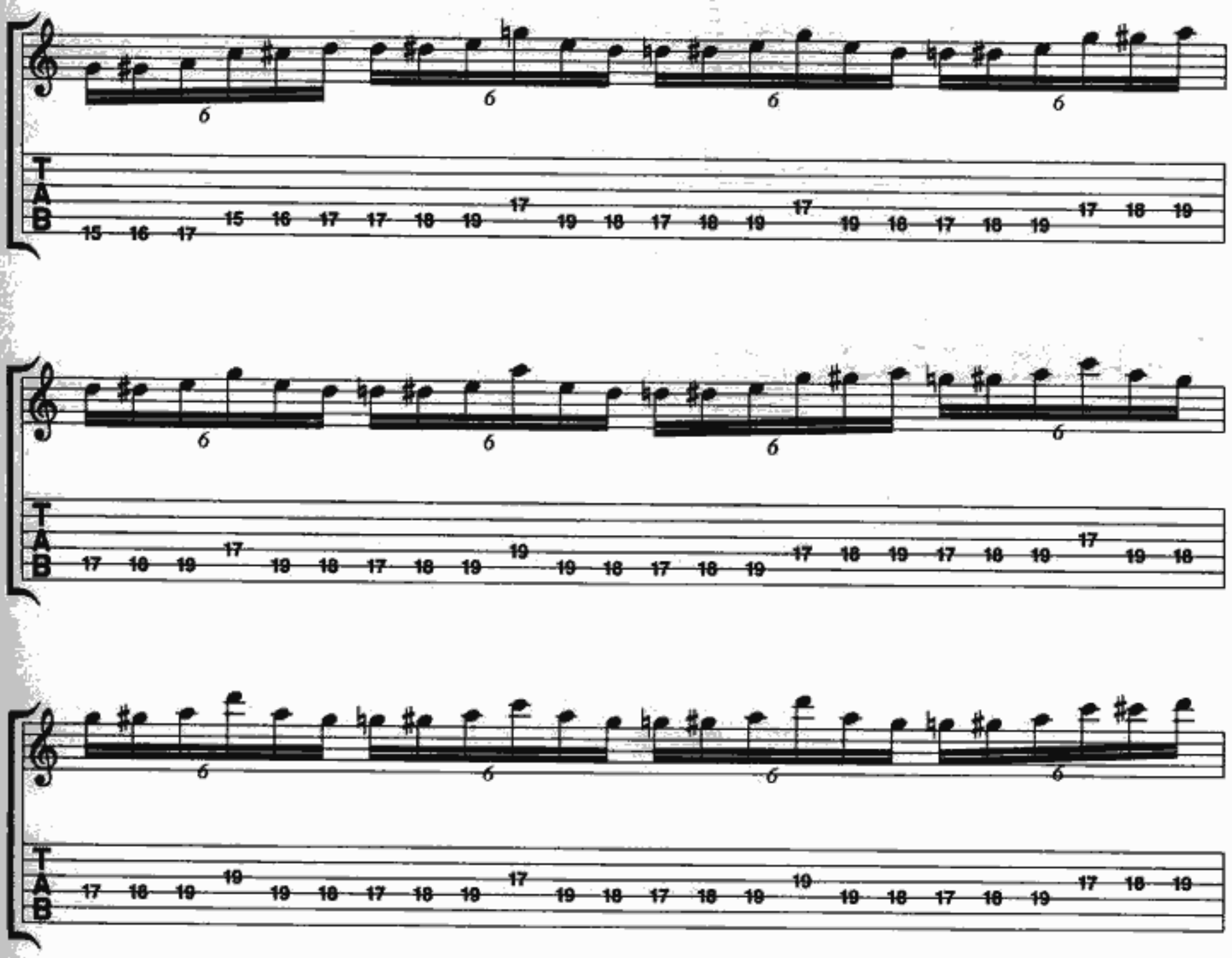
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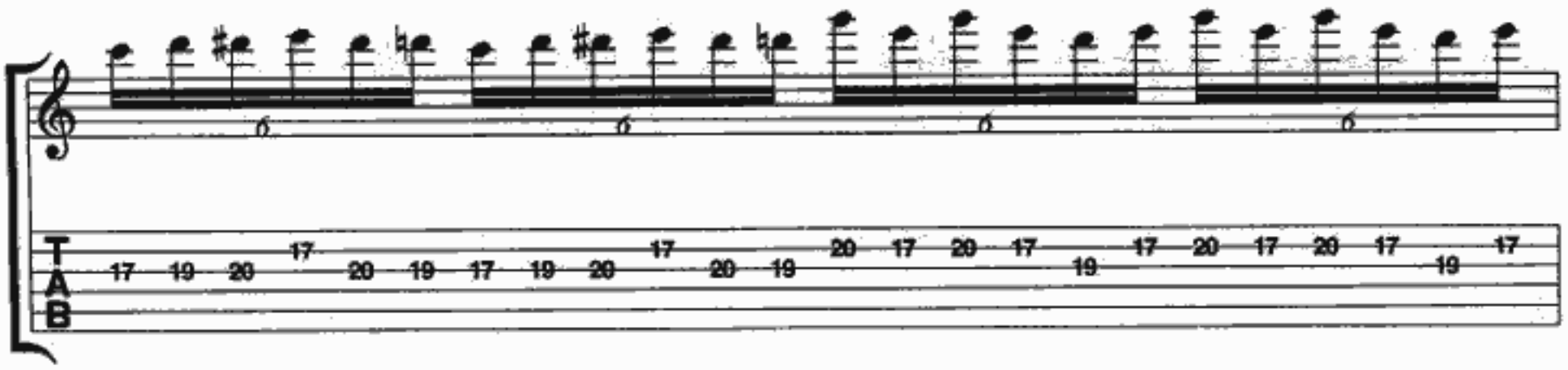

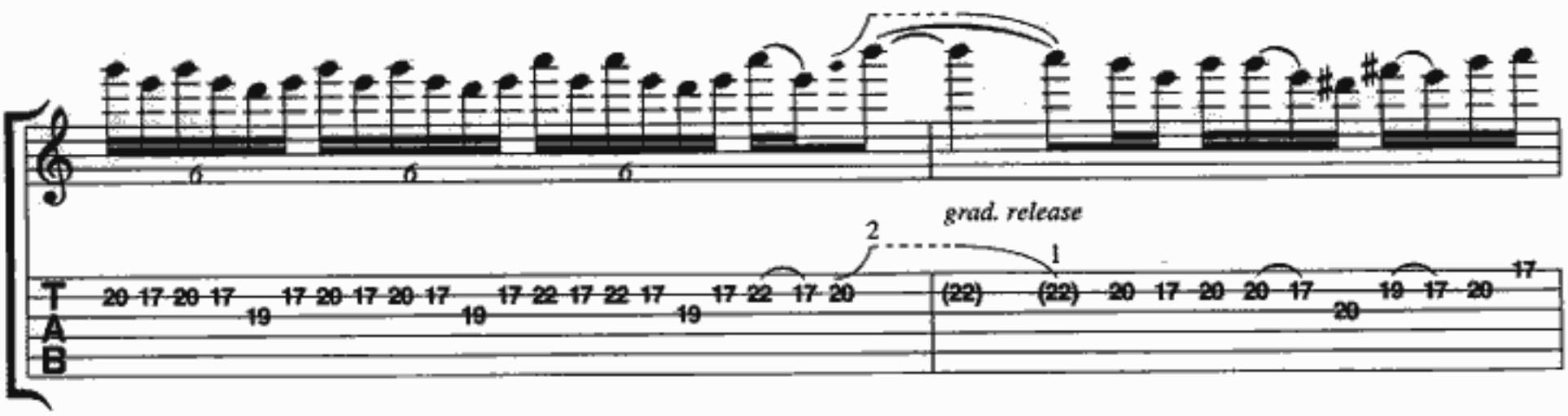
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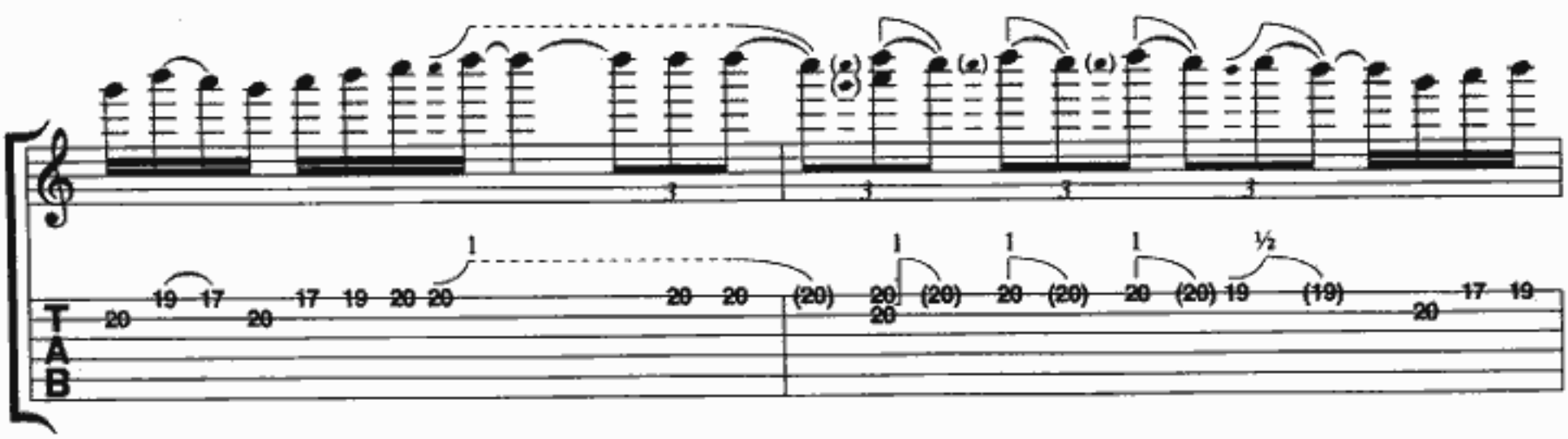

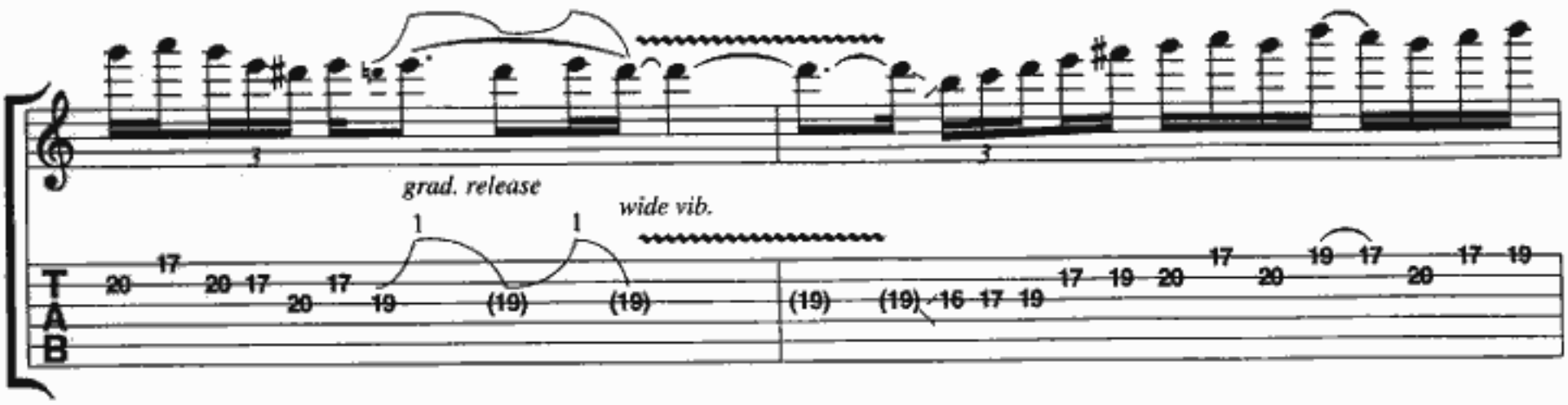
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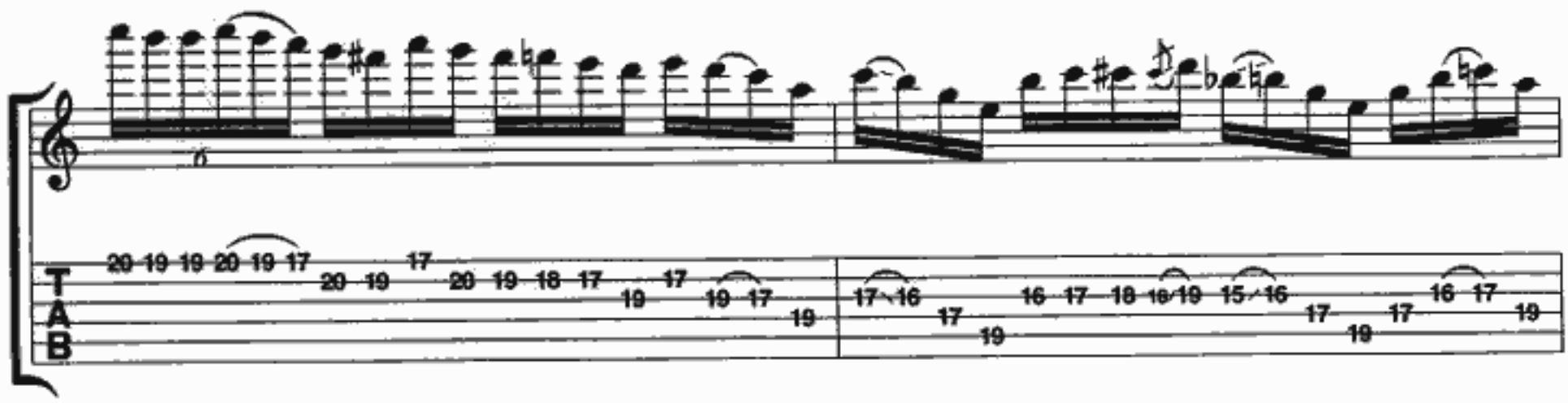

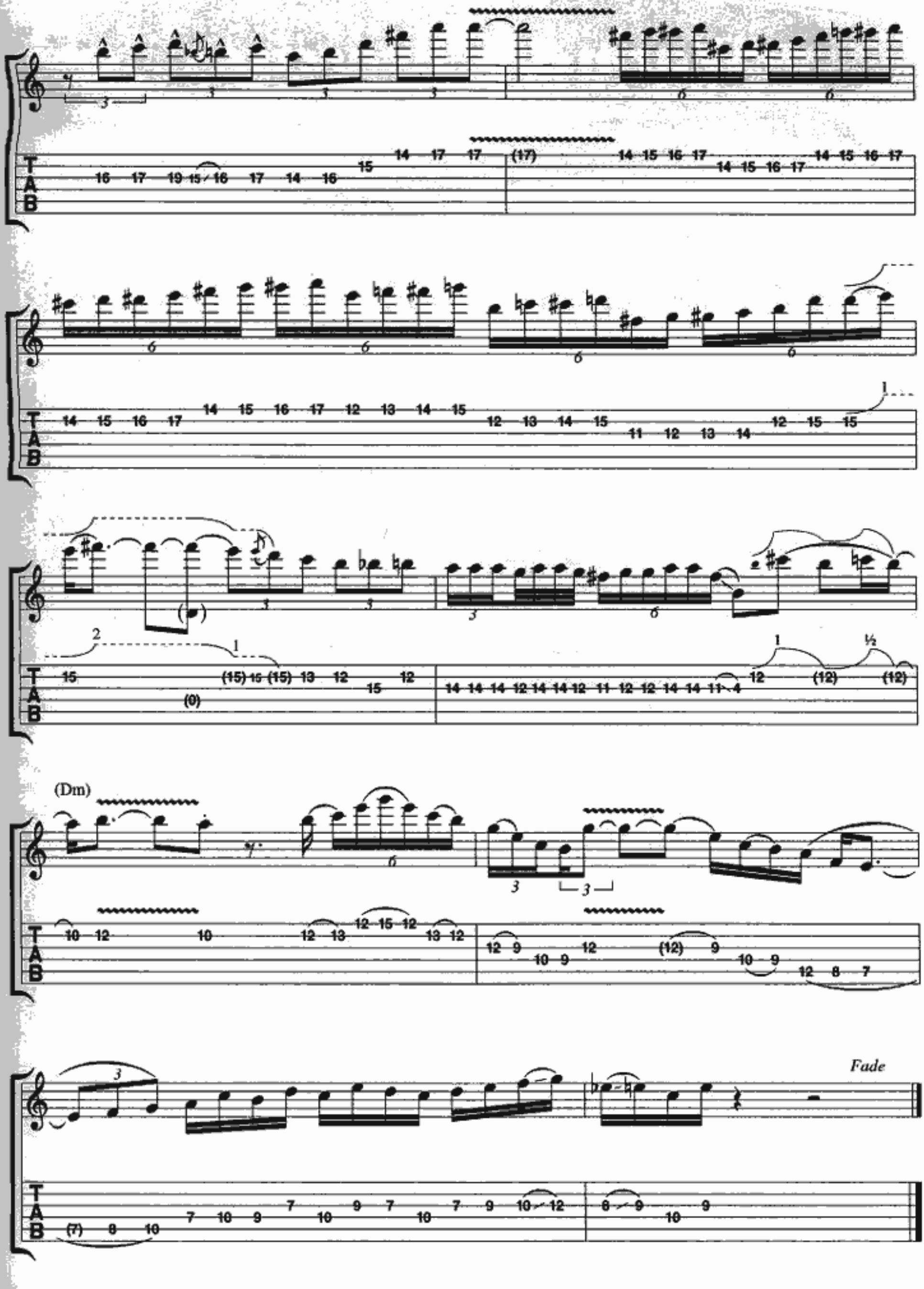
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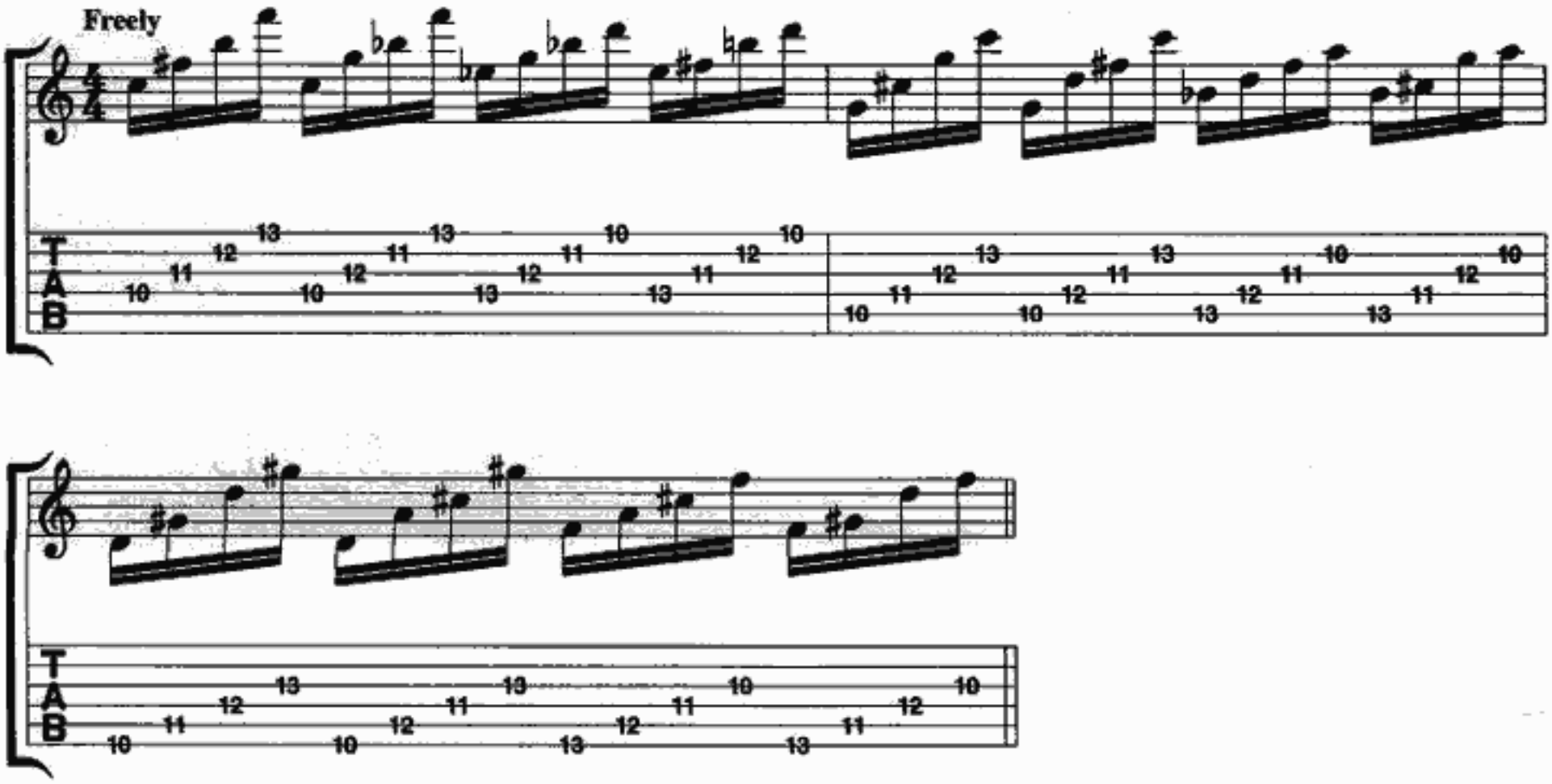
Part 1
Warm-Up Exercises
(Left Hand)

This section is comprised of a series of exercises that focus on the stretching and independence of the left hand. The goal for this type of exercise is not to develop mega-speed, but rather to simply warm up the left hand, making it easier and more comfortable to perform more difficult technical tasks during a practice session, rehearsal or gig.

The first installment from this series of exercises deals with "mirror shapes." These types of fingerboard shapes involve each of the left hand fingers in order to equally develop the strength and coordination of each finger while navigating through a handful of permutations of the exercise's original starting pattern. All four fingers are arranged in a manner that is exactly opposite the original pattern (like a mirror!).

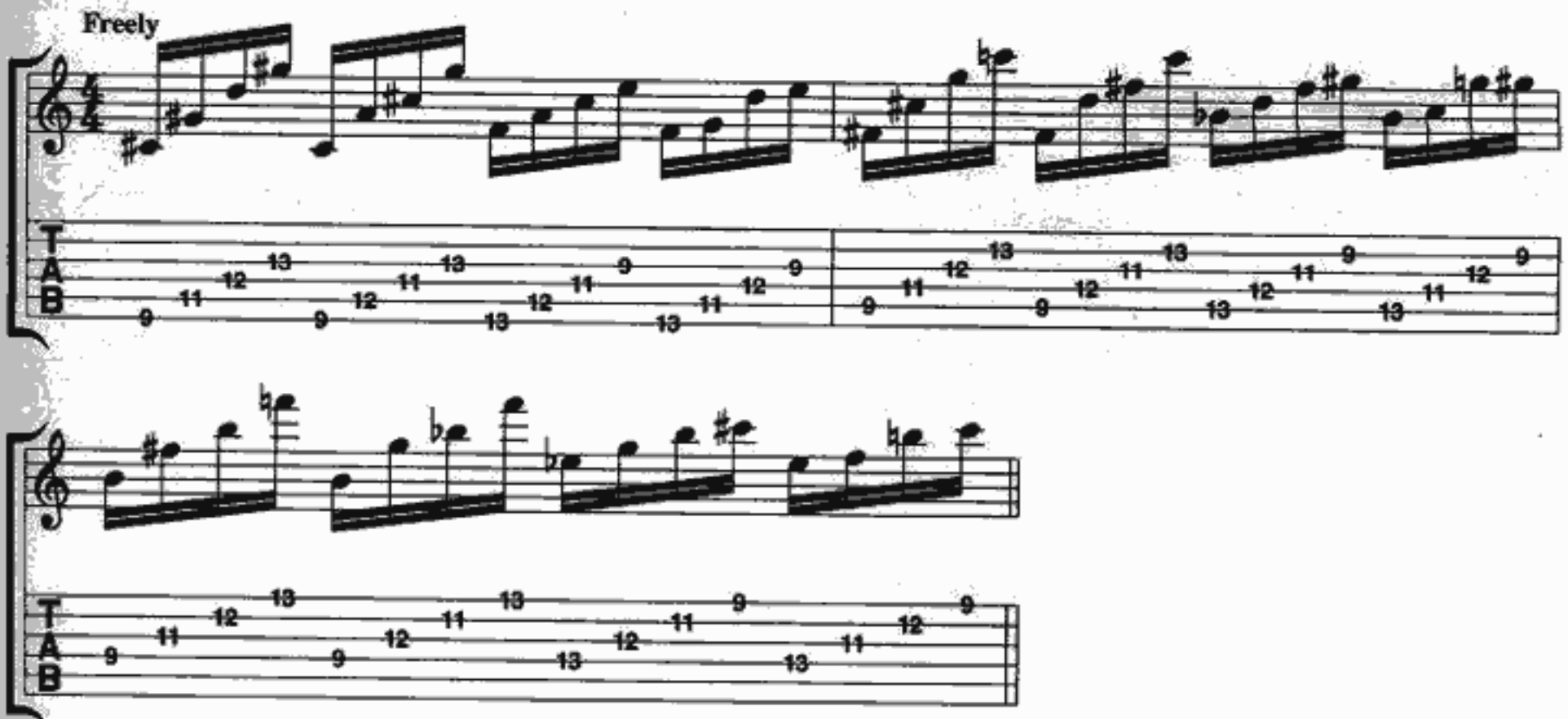
Example 1 *(Part 1)*

Walking through Part 1 of the first exercise, notice how the two outside fingers (1 and 4) remain stationary, while the two inside fingers are reversed (beat 2). Next, the two inside fingers (2 and 3) remain stationary, while the two outside fingers are reversed (beat 3). To achieve a perfect "mirror image" of the original starting pattern, simply reverse the two inside fingers again (beat 4). This exercise is then transferred to the next lower string group and repeated.



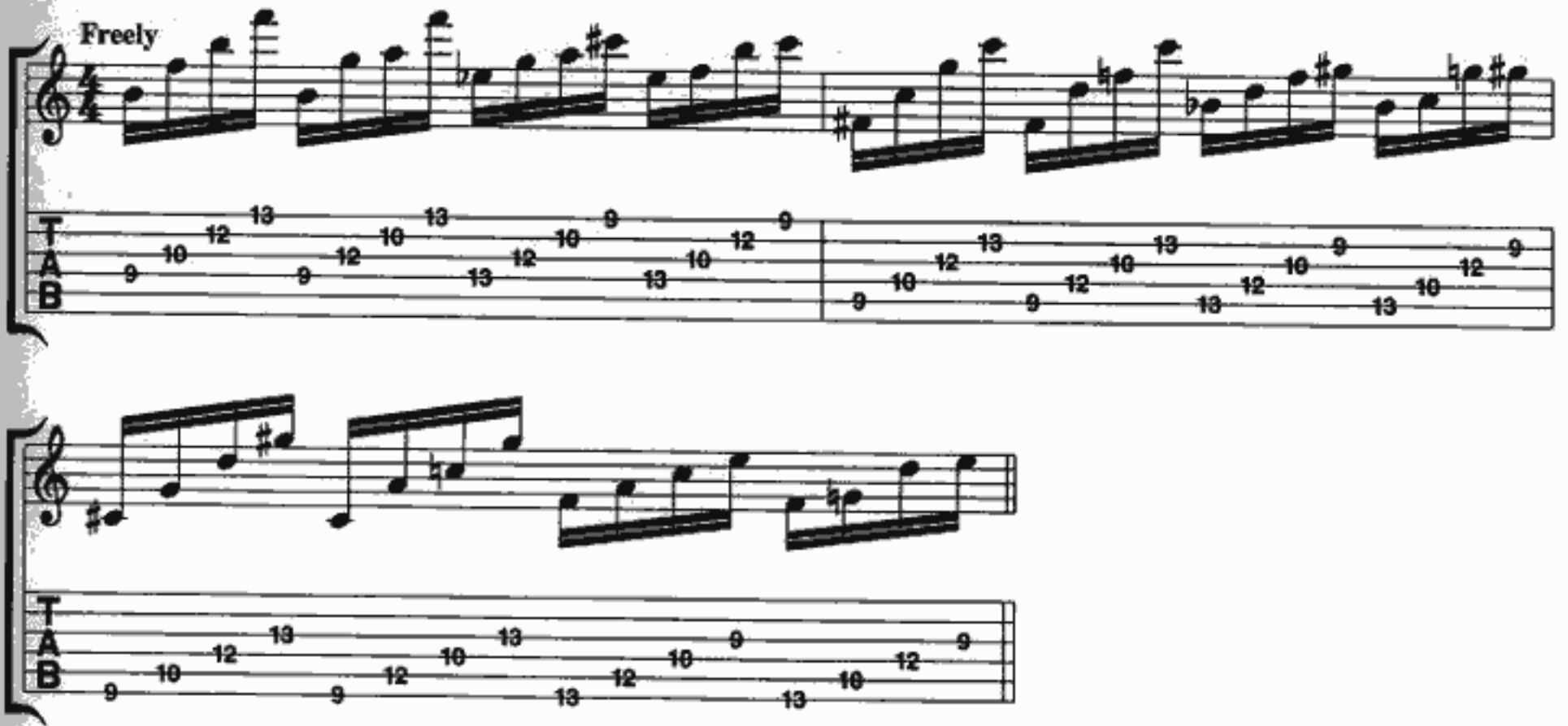
Example 1 *(Part 2)*

The second part of this exercise begins with the left hand in basically the same position as it was at the beginning of the third bar of the previous example. However, this pattern is varied slightly with the incorporation of a stretch between the 1st and 2nd fingers. Here, fingers 2 - 4 remain stationary, while the 1st finger reaches down 1/2 step to the 9th fret. The exercise is then performed in an identical manner to Part 1, this time from the lowest string group to the highest.



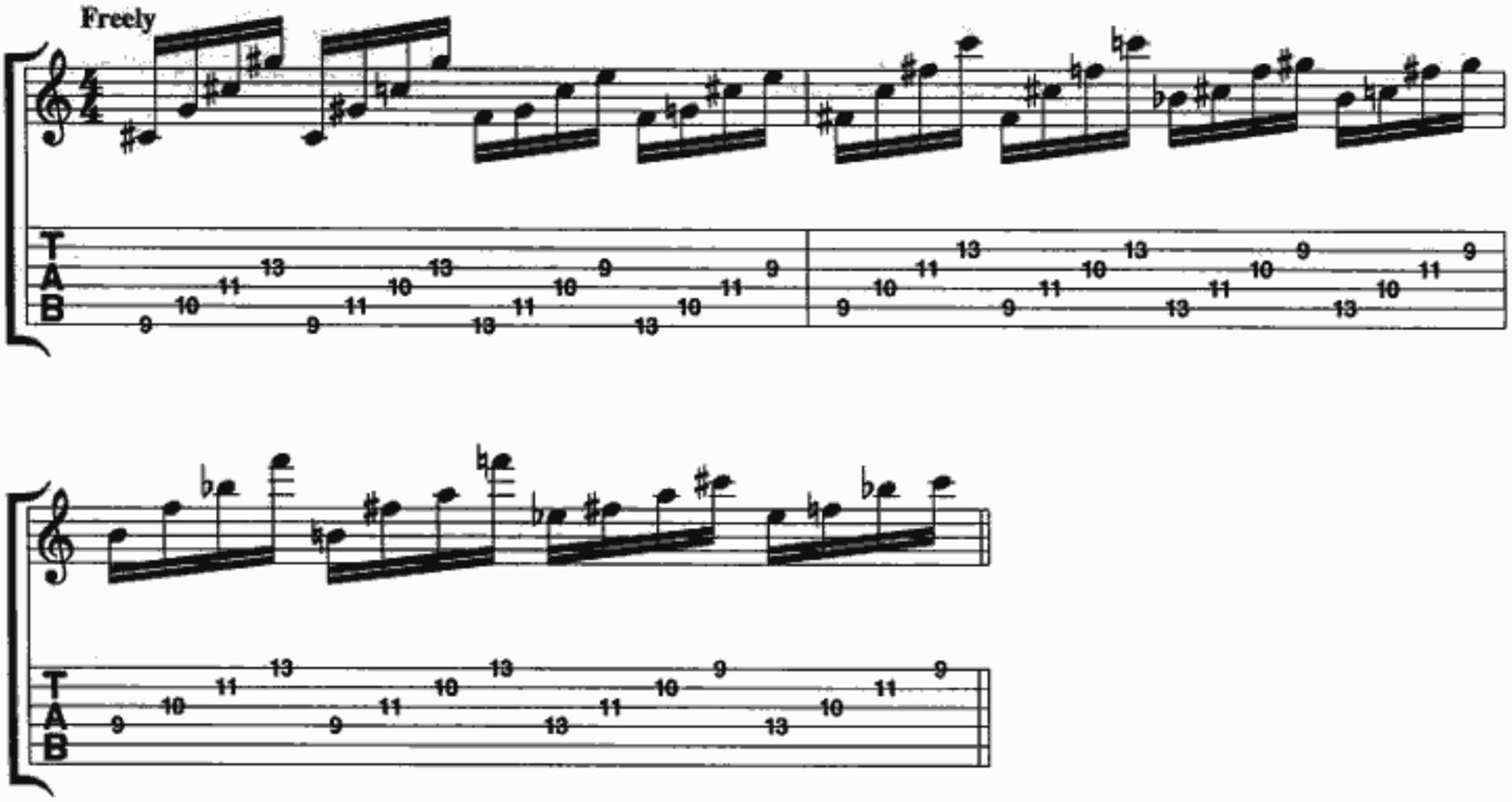
Example 1 *(Part 3)*

In Part 3 of this exercise, the left hand fingers are arranged in a manner similar to the beginning of the third bar in Part 2, the only variation being a stretch between the 2nd and 3rd fingers. Here, fingers 1, 3 and 4 remain stationary, while the 2nd finger reaches down 1/2 step to the 10th fret.



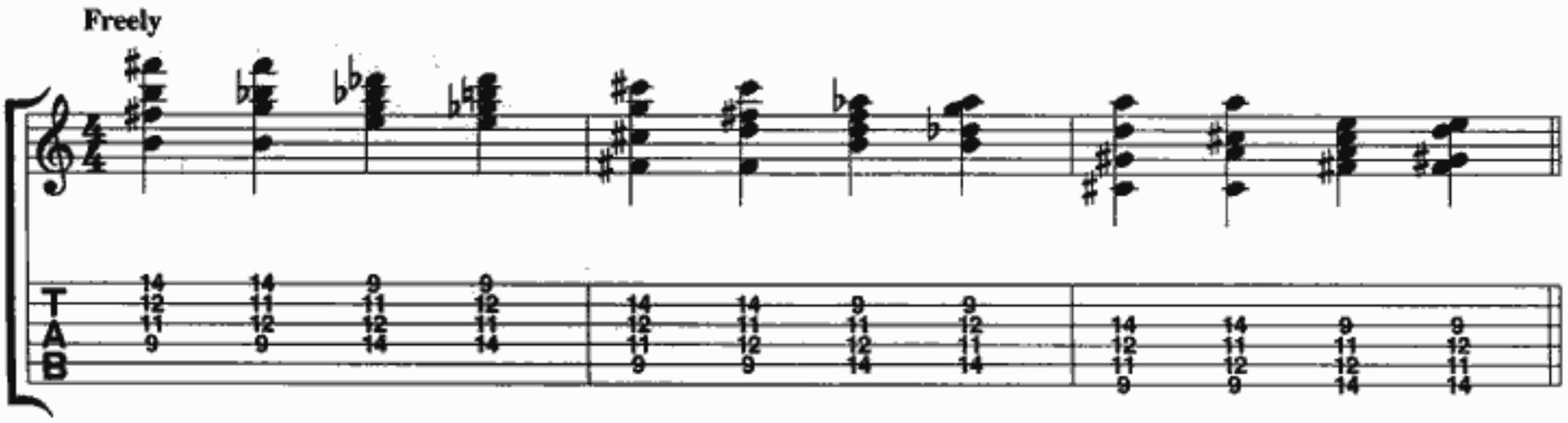
Example 1 *(Part 4)*

The final part of this exercise involves a stretch between fingers 3 and 4. At the conclusion of Part 4, the entire exercise (Parts 1–4) can then be repeated 1/2 step lower from its original starting point by repositioning the left hand in a manner similar to the third bar of Part 4, and then lowering the 4th finger 1/2 step so each finger is again one fret apart as in the first bar of Part 1.



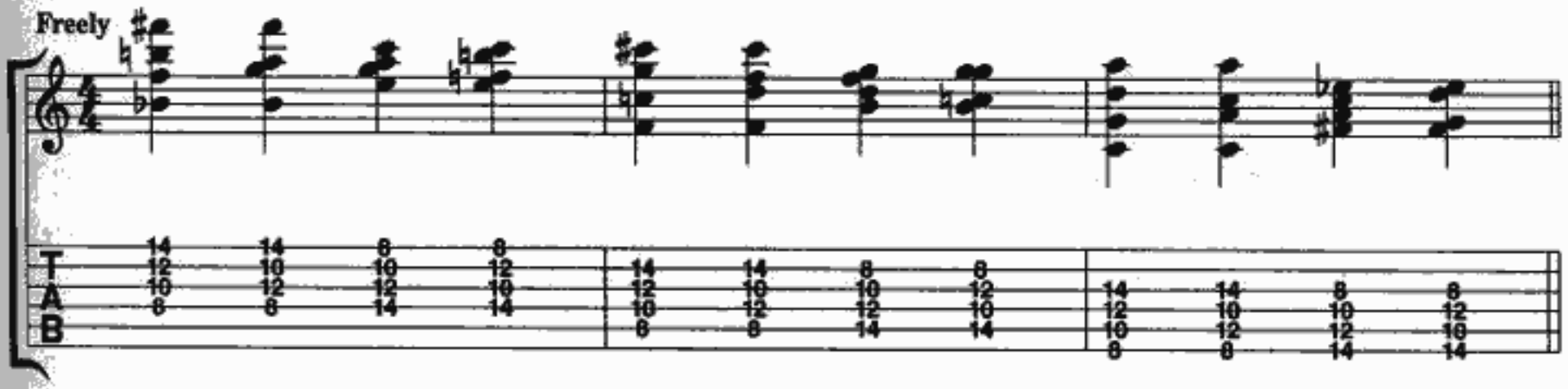
Example 2 *(Part I)*

This second exercise is a variation of the first in that the chord shapes are strummed as opposed to arpeggiated. It also makes use of a "double-stretch." The primary chordal figure is similar to that of the first bar of Example I (Part I), but here the 1st finger is lowered 1/2 step to B (9th fret of 4th string) and the 4th finger is raised 1/2 step to F♯ (14th fret of 1st string), thus the "double-stretch." The left hand fingers are then shifted in exactly the same manner as they were in the previous exercise.



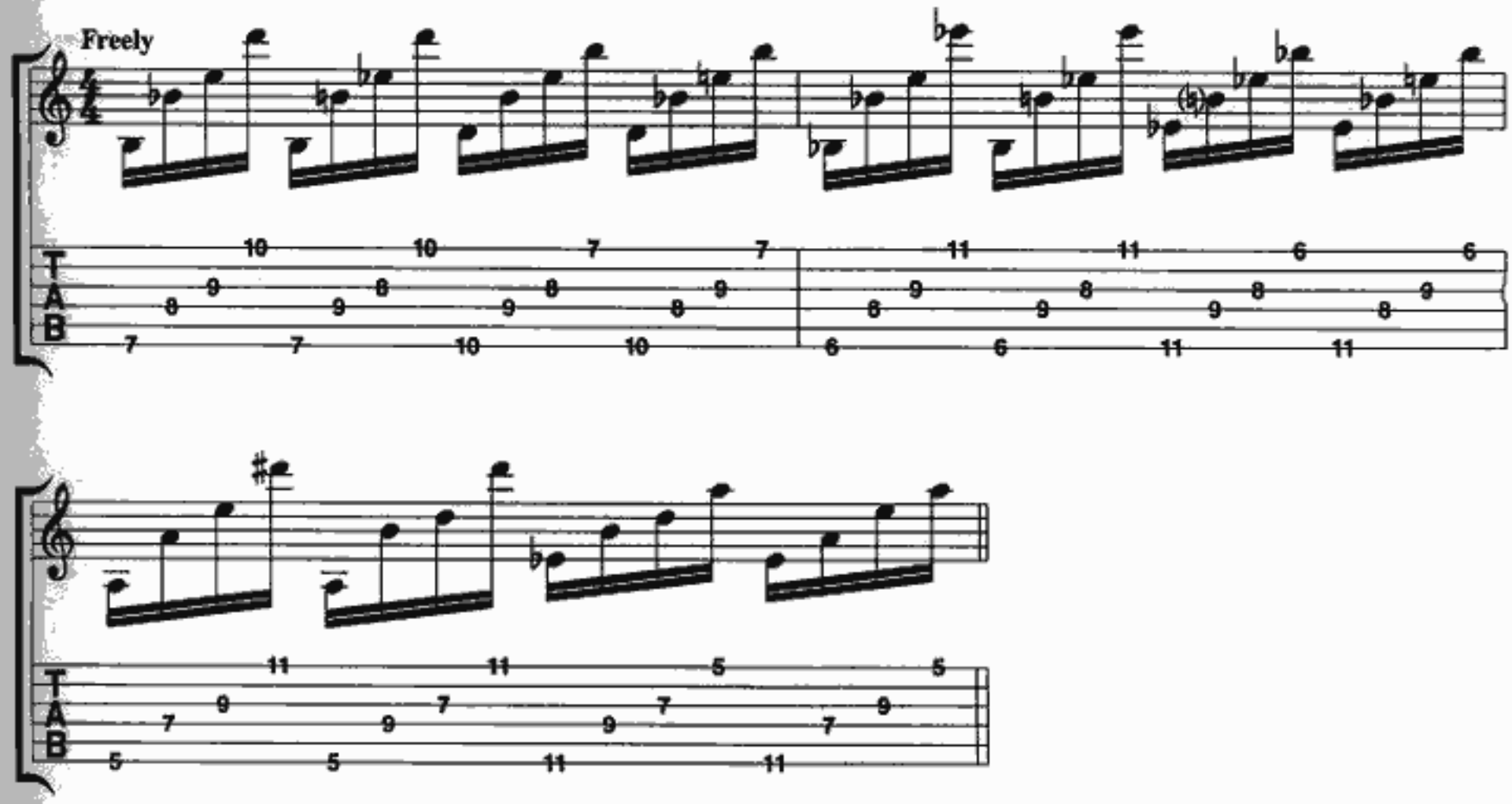
Example 2 (Part 2)

For the final variation of this exercise, a stretch occurs between each of the left hand fingers. If this stretch, or any of the earlier stretches are a little uncomfortable, try moving the entire exercise up to a higher region on the fingerboard where the frets are closer together. After finding an area that is comfortable, begin moving the exercise downward, gradually increasing the amount of stretching your left hand will have to endure.



Example 3

Once comfortable with the earlier examples, Example 3 should be the next challenge. In this exercise, some of the previous chordal shapes are stretched out so that the left hand is forced to cover the entire width of the fingerboard. To accomplish this, the 2nd and 5th strings are skipped, forcing the left hand fingers to grab the familiar chord shape on the 6th, 4th, 3rd and 1st strings. This figure is then played arpeggio style and permutated using the same "mirror image" approach encountered previously. The stretches involved also get increasingly more difficult as the exercise progresses.



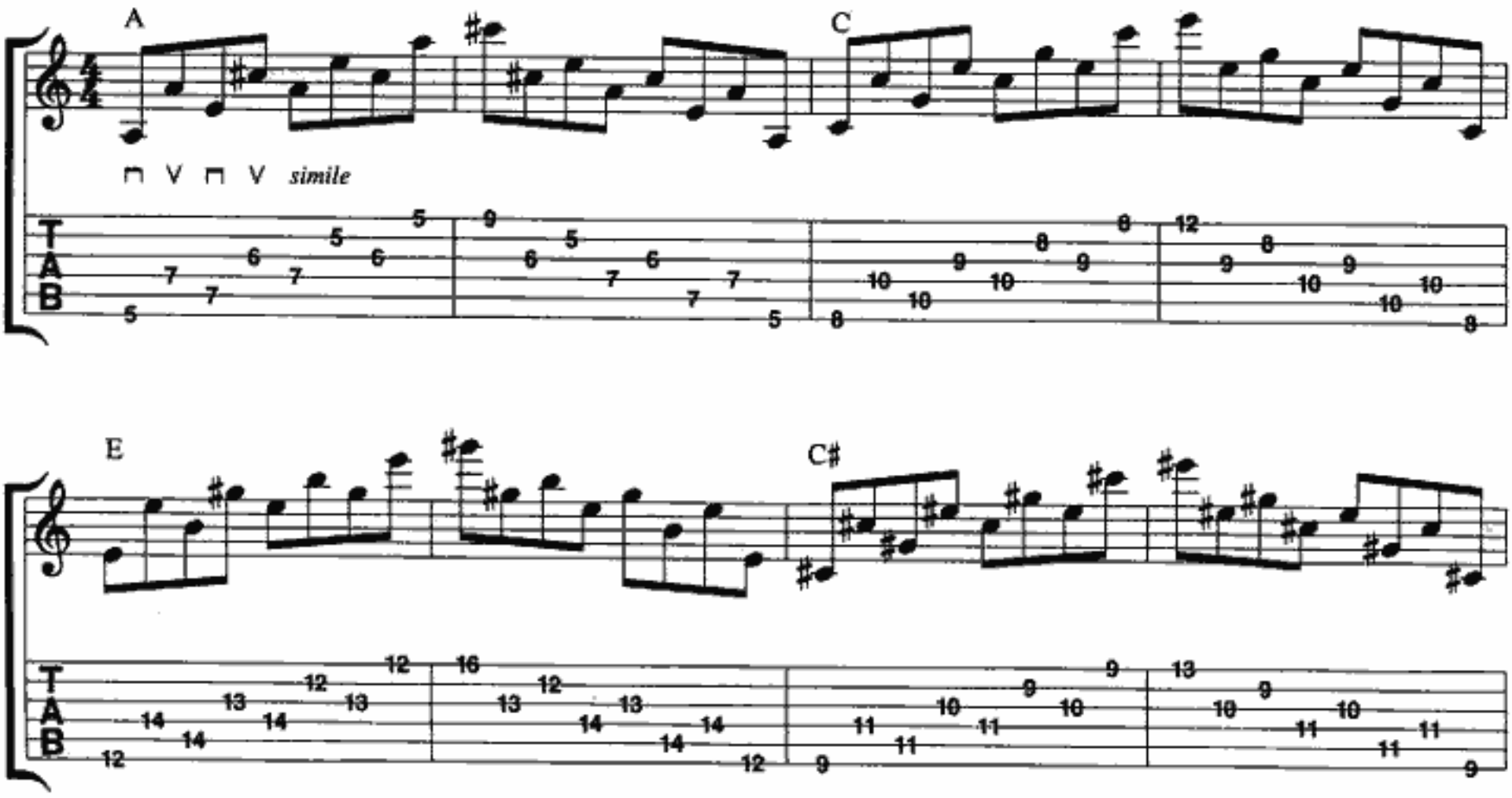
Part II
Warm-Up Exercises
(Right Hand)

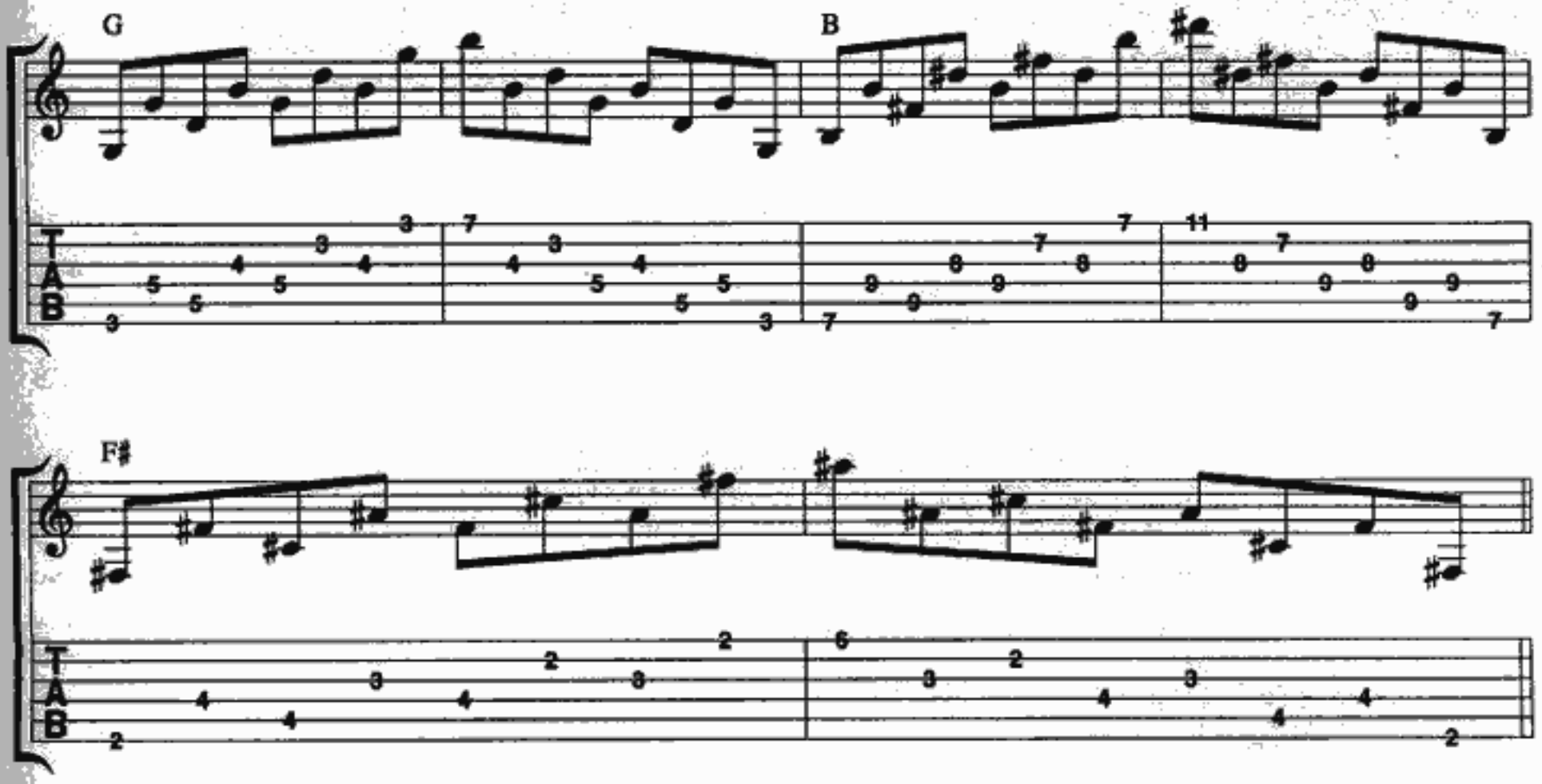
Now that the left hand is warmed up, it's time to give it a rest and focus on the right hand. The exercises that follow are based on the arpeggio figure depicted below which is derived from a familiar moveable major barre chord shape with the root on the 6th string, and an added 3rd on the 1st string. In the case of an A triad (spelled 1 [A] 3 [C#] 5 [E]), the 3rd is C#. The figure itself is two bars in length and is moved along the fingerboard to imply the chords A, C, E, C#, G, B and F#.

The intervallic string skips in this exercise require precise articulation and pickhand efficiency. This becomes particularly difficult when using alternate picking (consistent alternation between down- and up-strokes) beginning with a down-stroke.

In order to be comfortable using alternate picking in any situation that may arise, it is recommended that any exercise practiced to perfection using alternate picking beginning with a down-stroke should also be practiced starting with an upstroke. This forces the right hand to become equally adept at picking any arrangement of notes. Play the primary figure of Example 4 and see how reversing the picking trips up its picking potential.

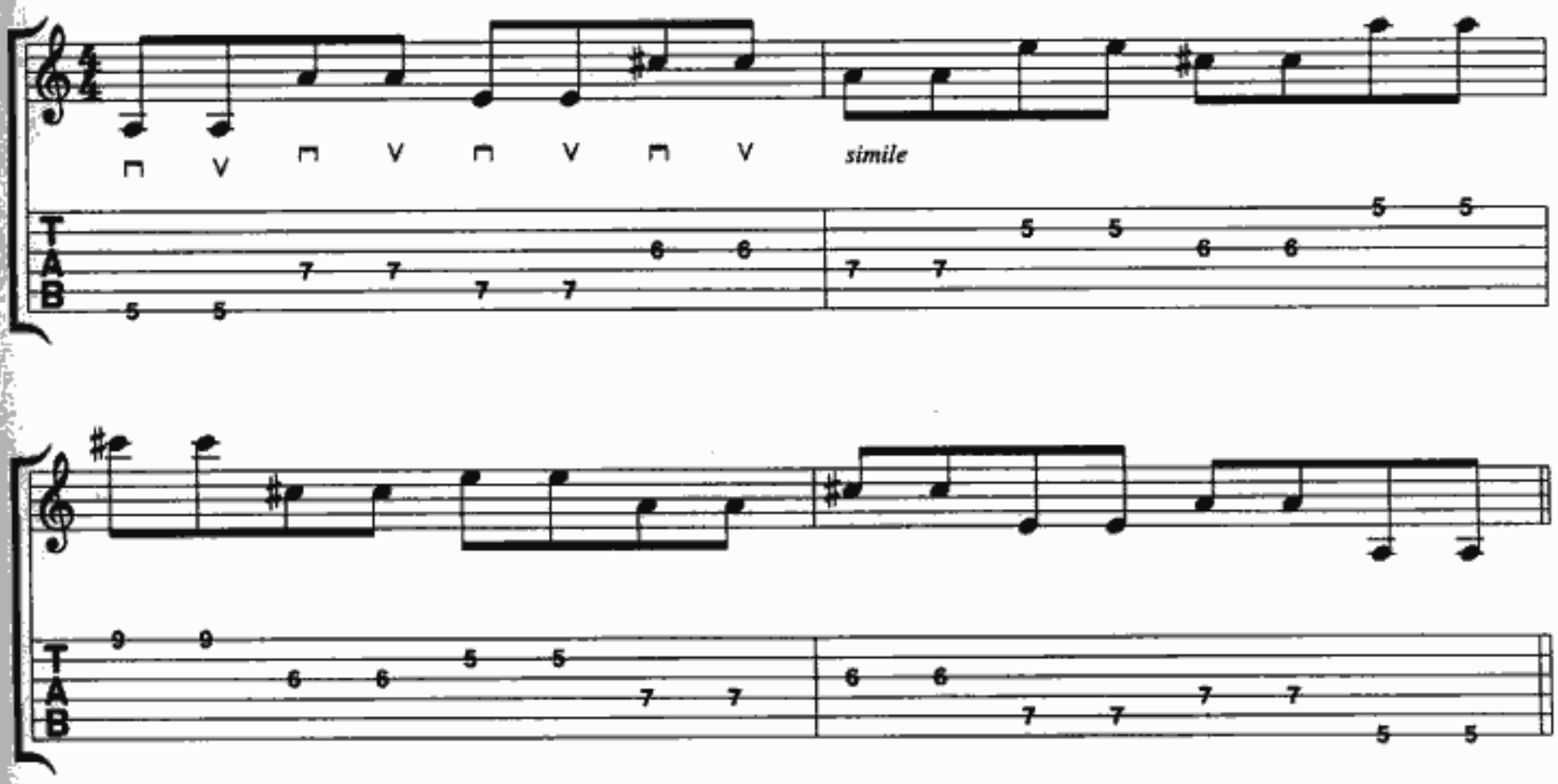
Example 4





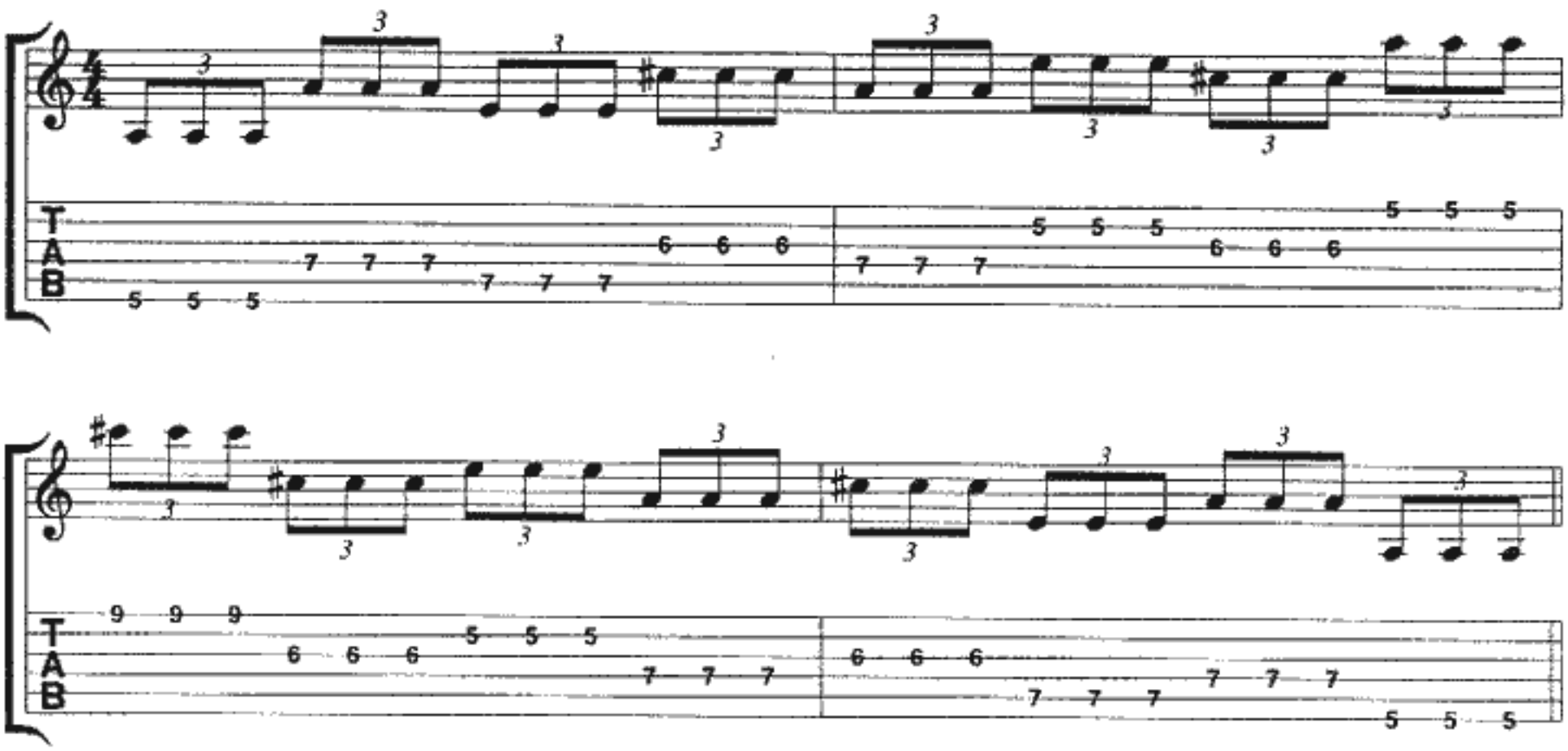
Example 4 *(Variation 1)*

Create variations of this exercise by playing each of the notes from the arpeggio more than one time. In the first variation, each note is played twice in a steady eighth-note rhythm using alternate picking beginning with a down-stroke. As discussed earlier, as a means of making an exercise even more challenging, use alternate picking starting with an up-stroke instead of a down-stroke. To make this exercise as interesting as possible, try playing through the entire chord sequence using this new variation.



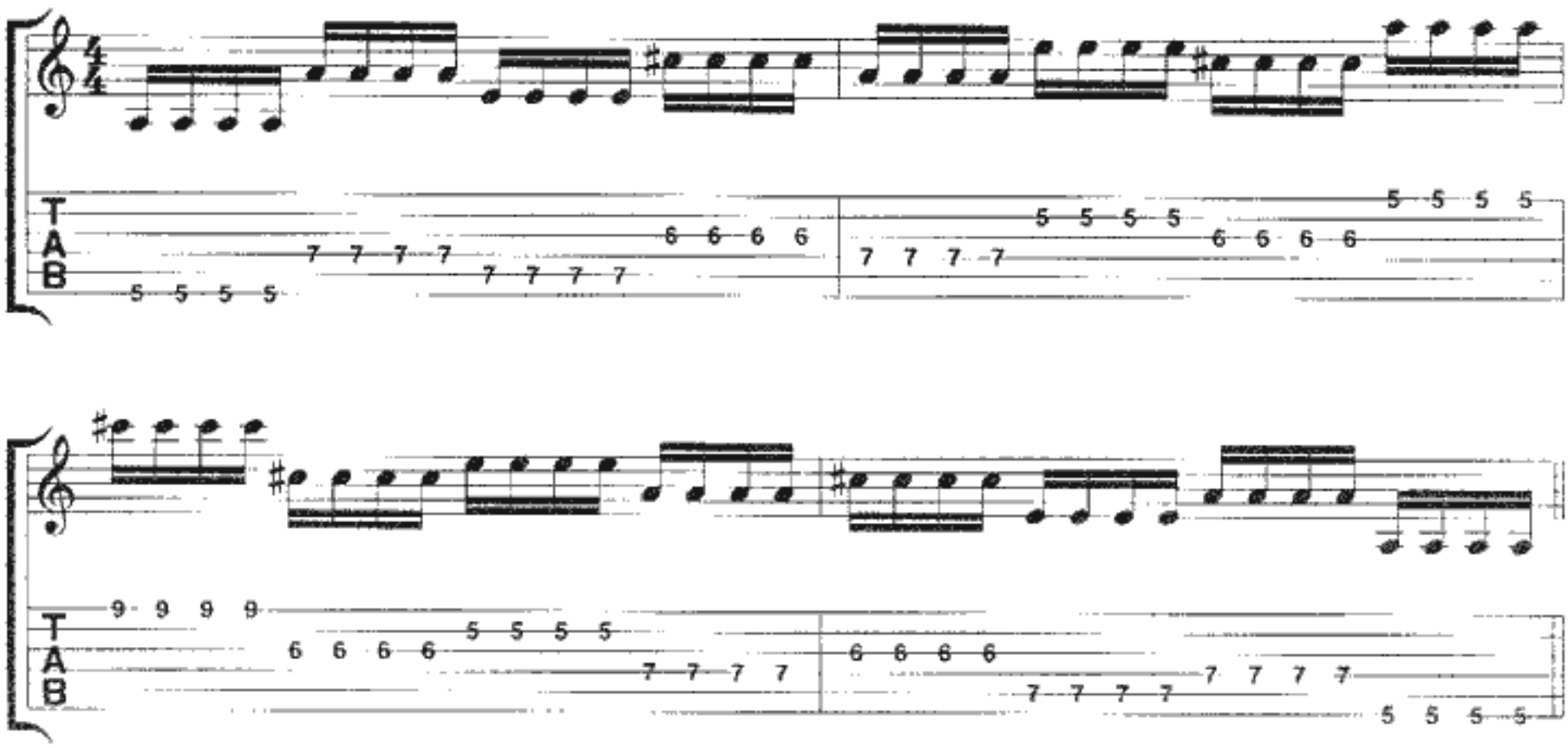
Example 4 *(Variation 2)*

In this next variation, each note from the arpeggio is played three times. This generates a handful of eighth-note triplets, or three notes per beat. Because there are an odd number of notes per beat, this makes it a little tricky when it comes to alternate picking — especially when starting with an up-stroke.



Example 4 *(Variation 3)*

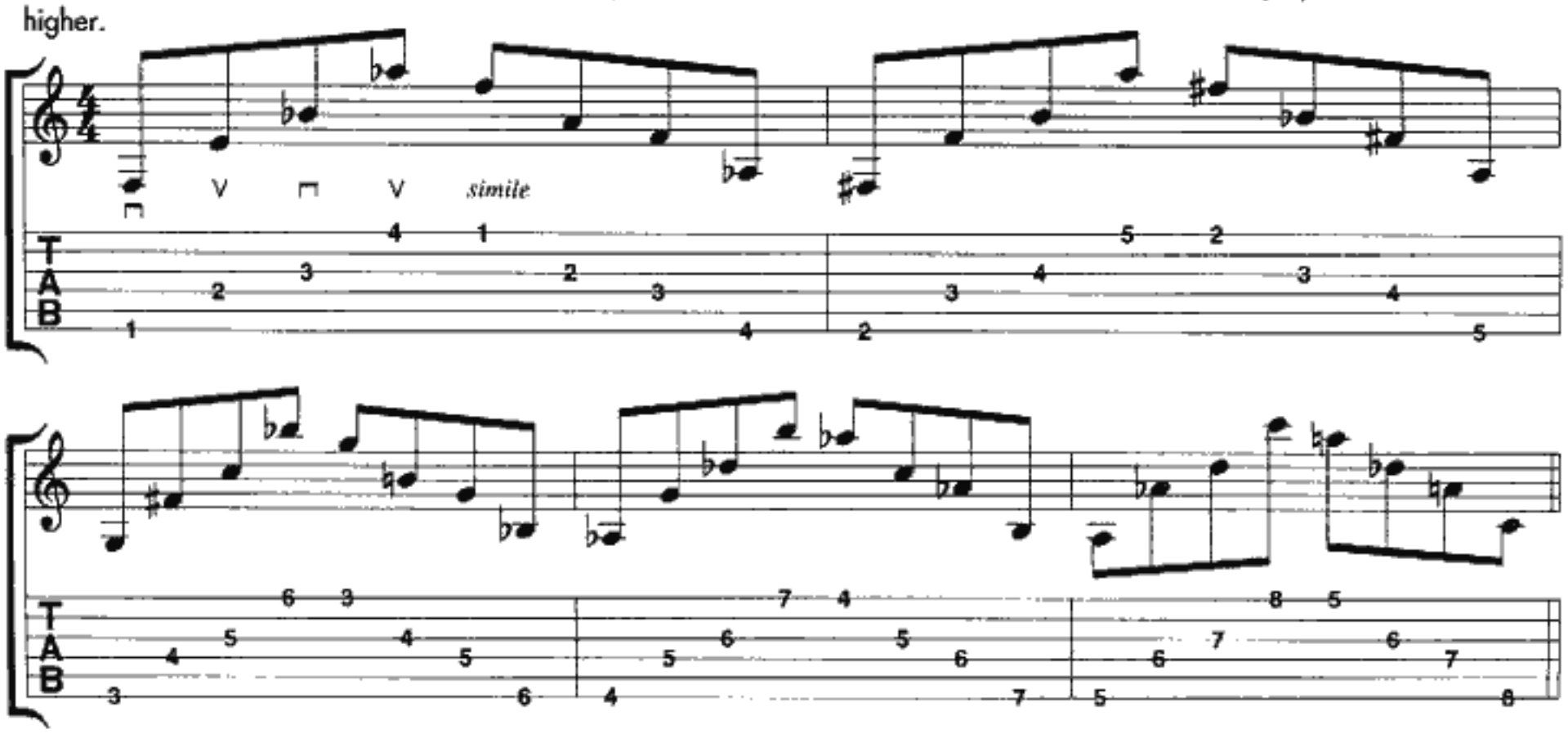
The final variation involves four notes per beat, or 16th notes. Again strive to consistently alternate pick strokes, picking down, up, down, up, etc. Repeat the entire exercise again reversing the picking; up, down, up, down strokes.



Part III
Warm-Up Exercises
(Synchronization of Both Hands)

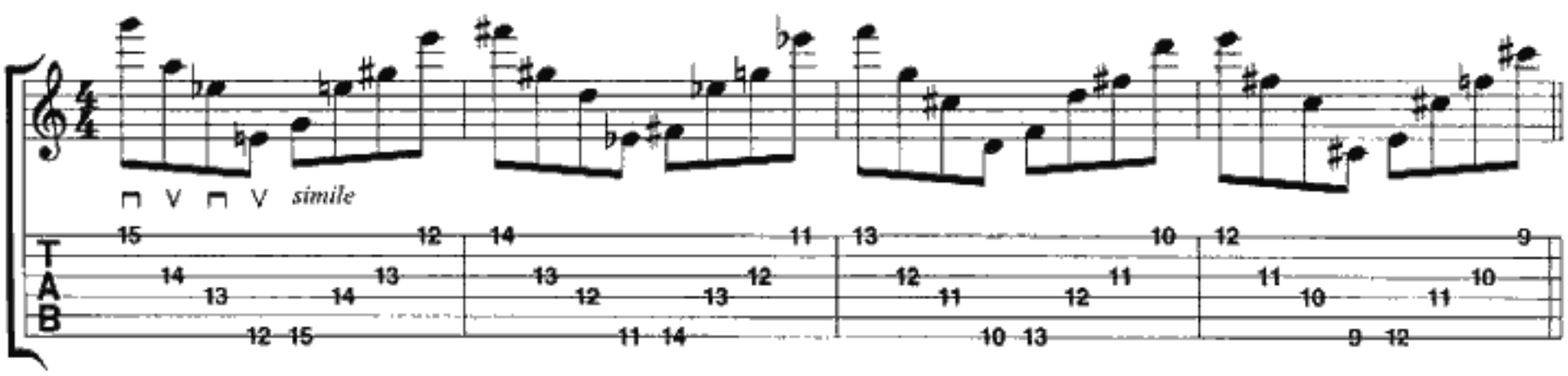
Example 5 (Part 1)

After focusing on the right and left hands individually, the next step is to work on the synchronization of both hands by practicing exercises where each is implemented equally. The first exercise involves some of the "mirror shapes" discussed earlier, and alternate picking through string skips similar to those encountered in Example 3. This challenges both hands because the pick needs to choose the correct string to strike, and the left hand fingers need to be there to fret the note at the exact moment it is struck. This is called "efficiency of motion." This exercise should be taken all the way up to the 12th fret or higher.



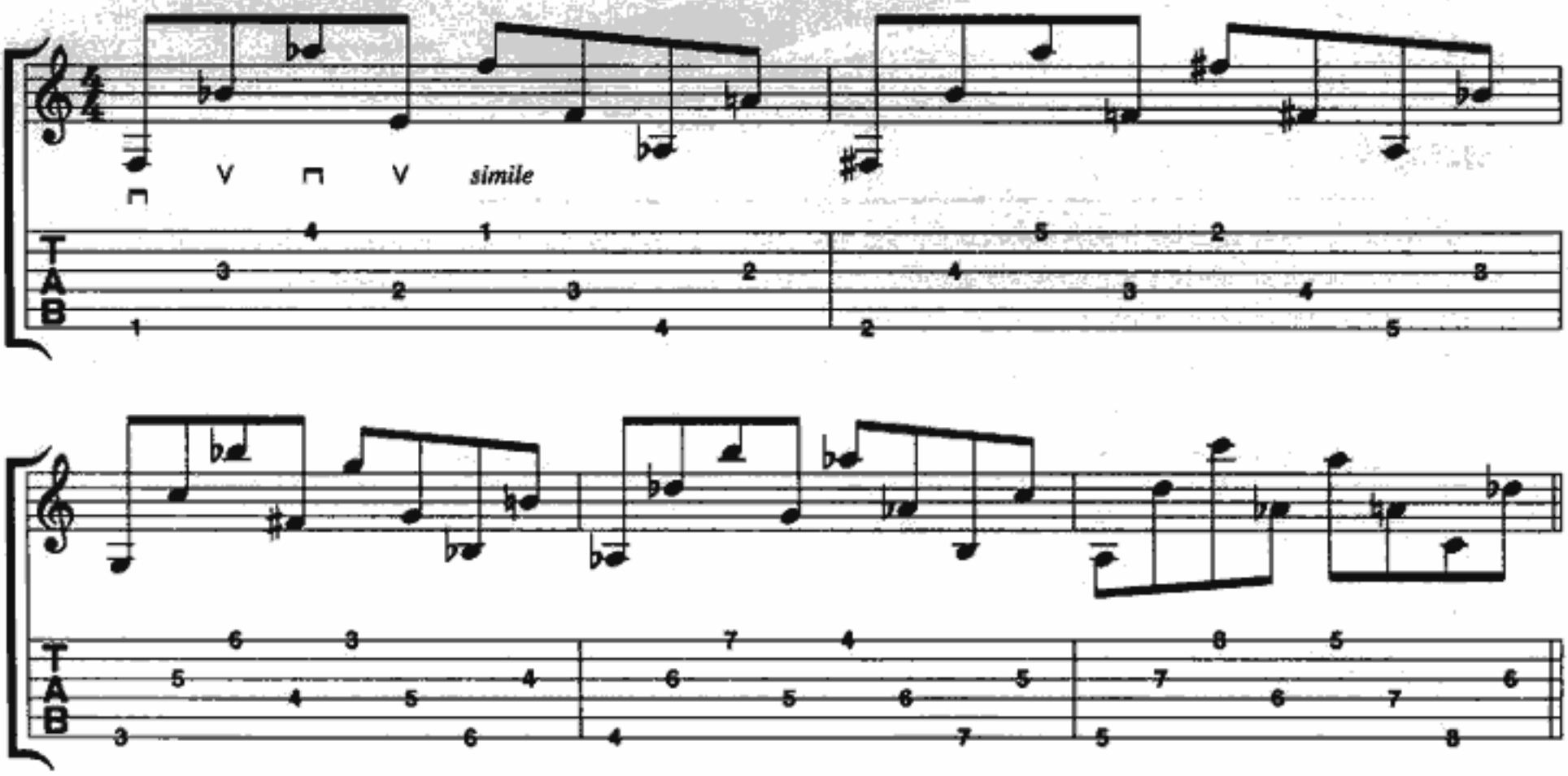
Example 5 (Part 2)

Example 5 (Part 2) is a descending, retrograde of Part 1. Instead of beginning the pattern with the 1st finger on the 6th string, the pattern starts on the 1st string with the 4th finger. Again, a one-bar pattern is used and repeated as it descends chromatically. The higher the starting point for this exercise, the more of the fingerboard both hands will have to traverse, providing a thorough addition to any warm-up routine. To further hone picking chops, try performing both parts of this exercise using alternate picking beginning with an up-stroke as discussed in Example 4.



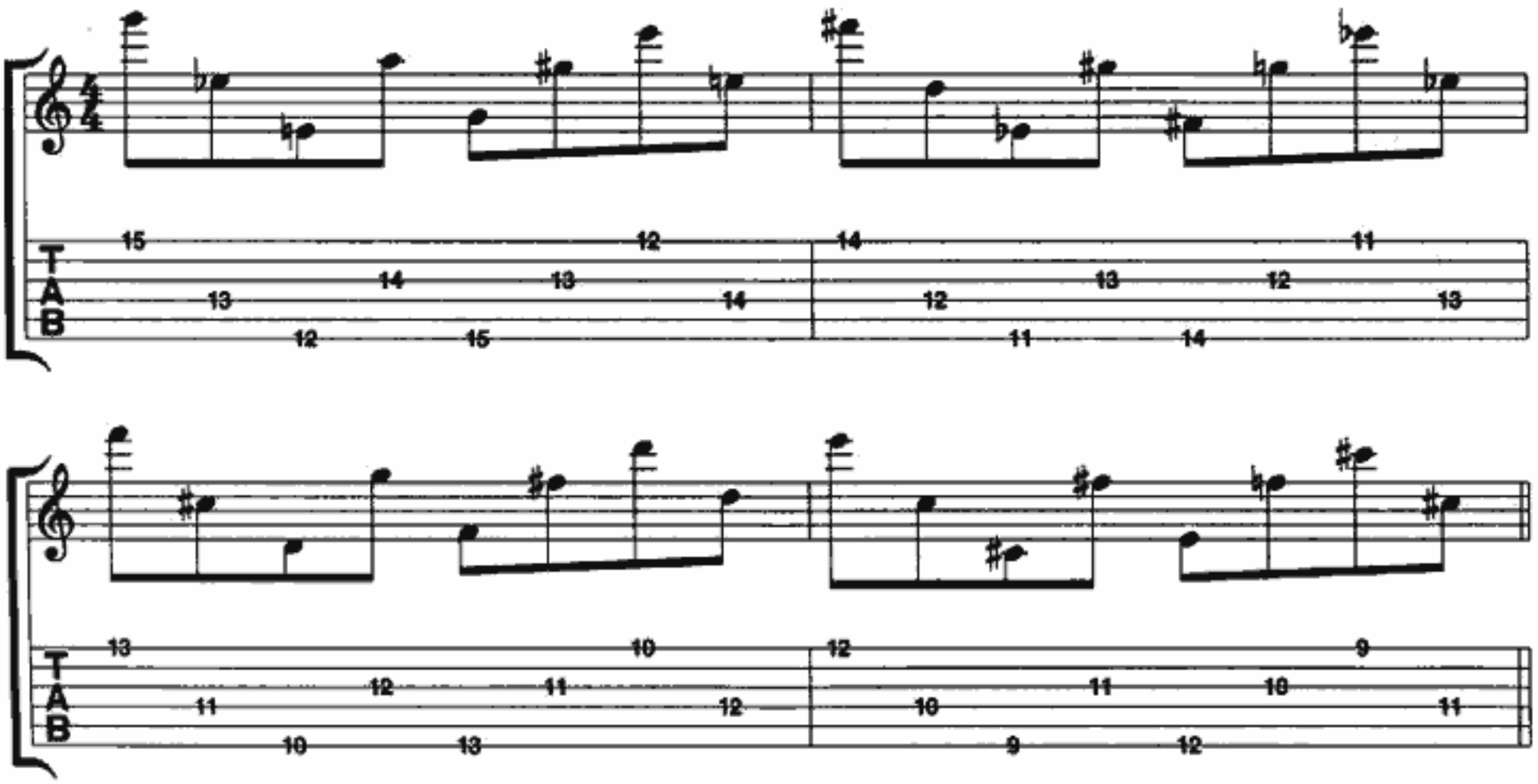
Example 6 *(Part 1)*

This example uses the same four-note shape but re-arranged to provide a much more complex workout for both hands because of the string skips. Once the first bar is under control, start moving it up chromatically to the higher frets. Note that the fingering is consistently 1 - 3 - 4 - 2.



Example 6 *(Part 2)*

Part 2 is a retrograde of Part 1 descending chromatically. Note that the fingering is consistently 4 - 2 - 1 - 3.



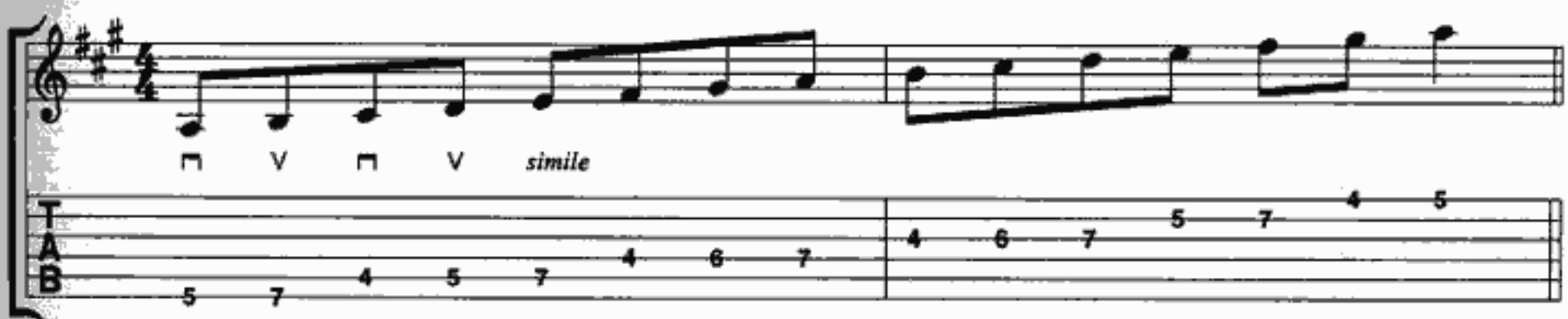
Part IV
Technique
(Speed and Accuracy)

In order for any artist to reach their own creative vision, it is essential that the performer develop technique. This can be cultivated by meticulous study of the rudiments unique to their instrument. Such disciplined learning is a fundamental requirement for any performer that wishes to play with a high degree of competency and control. One area most noticeably affected by technique is the ability or inability to play rapid passages with precision. This section explores technical exercises used to specifically develop this ability.

One way to develop speed is to set and achieve a series of short-term goals. In order to set these goals, measurements of speed must be understood. That's where using a metronome comes into play. A metronome, in addition to being an invaluable aid in developing your sense of time, is also a great tool for monitoring your progress.

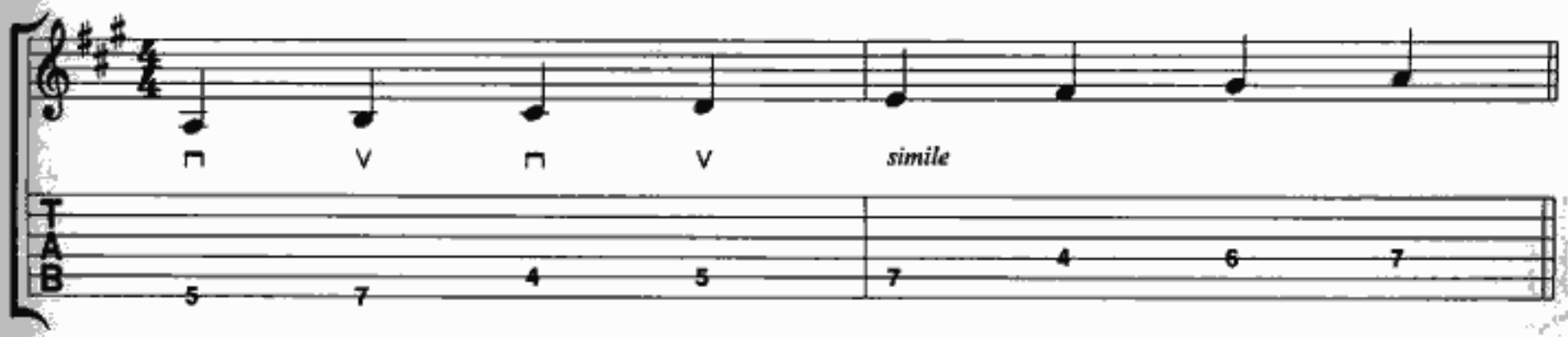
Example 7

Memorize the A major scale in the 4th position. In the forthcoming musical examples, notes from this fingering will be used to demonstrate many ways to incorporate a metronome into a practice session.



Example 8 (Part 1)

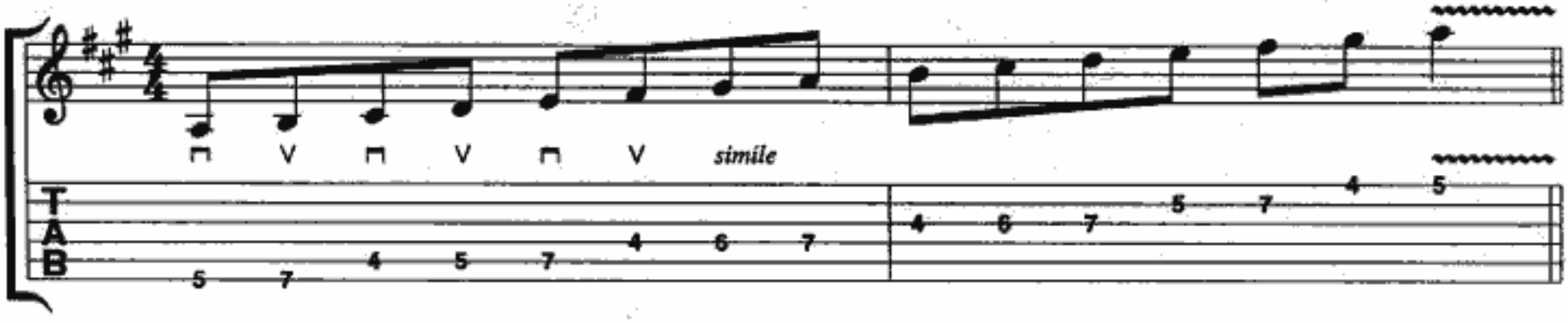
Set the metronome to click at a rate of 66 beats per minute. Play the A major scale in sync with the metronome one note per beat (quarter notes). Although this may seem like a relatively slow tempo, trying to time the delivery of each note precisely with each click may come as a surprising challenge. This exercise will point to some improvements that may need to be made insofar as time feel is concerned. Also, this pulse will have to be maintained when advancing to smaller rhythmic divisions of the beat. In each of these examples, make sure that strict alternate picking is maintained throughout.



Example 8 (Part 2)

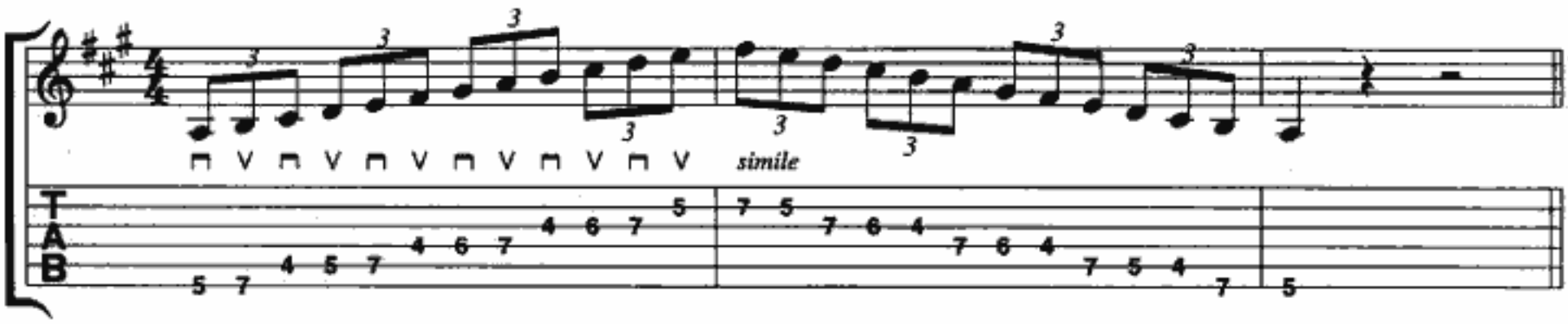
Obviously, you can increase the speed by increasing the tempo, but you can also bring up speed by subdividing each beat into smaller parts. The more you divide the beat the faster you play.

Play the A major scale at double the speed by playing two notes for each beat; one note on the beat (down-beat) and one note in the middle of the beat (up-beat). Rhythmically, you're subdividing the quarter note into two equal parts called eighth notes.



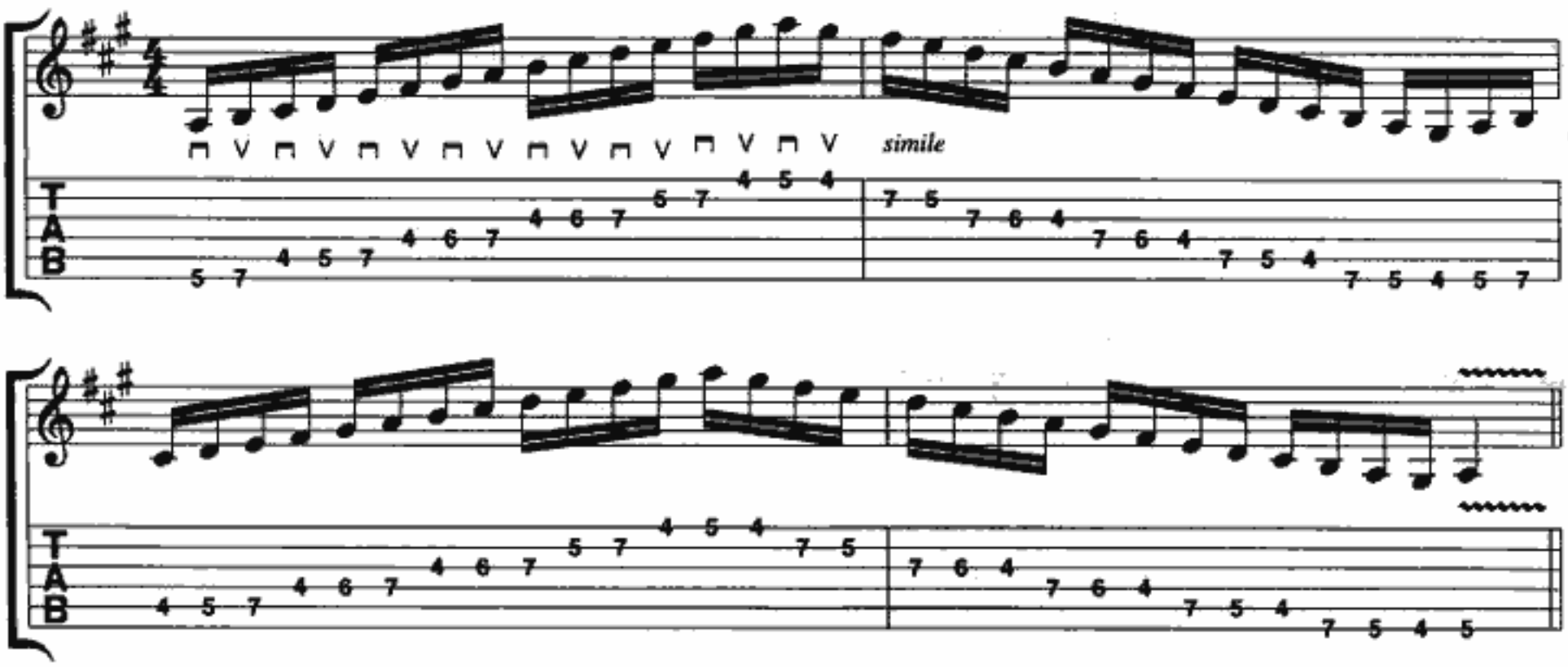
Example 8 (Part 3)

Subdividing the quarter note into three equal parts results in eighth note triplets. One obstacle you will encounter is how the pattern of up-strokes and down-strokes reverses with each beat. If you play the first down-beat with a down-stroke then the next down-beat will be played with an up-stroke.



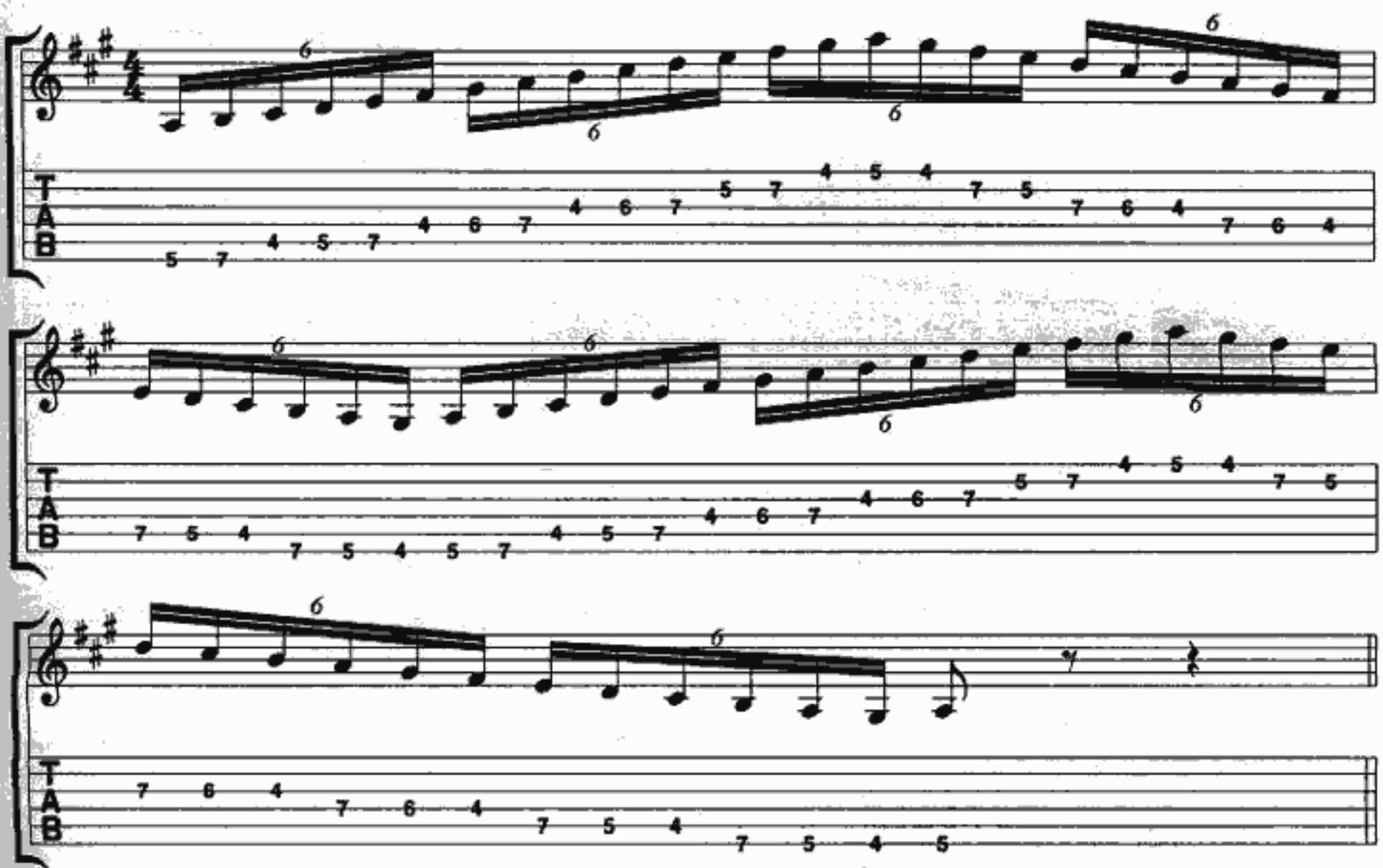
Example 8 (Part 4)

Sixteenth notes subdivide the beat into four equal parts by dividing each eighth note in half.



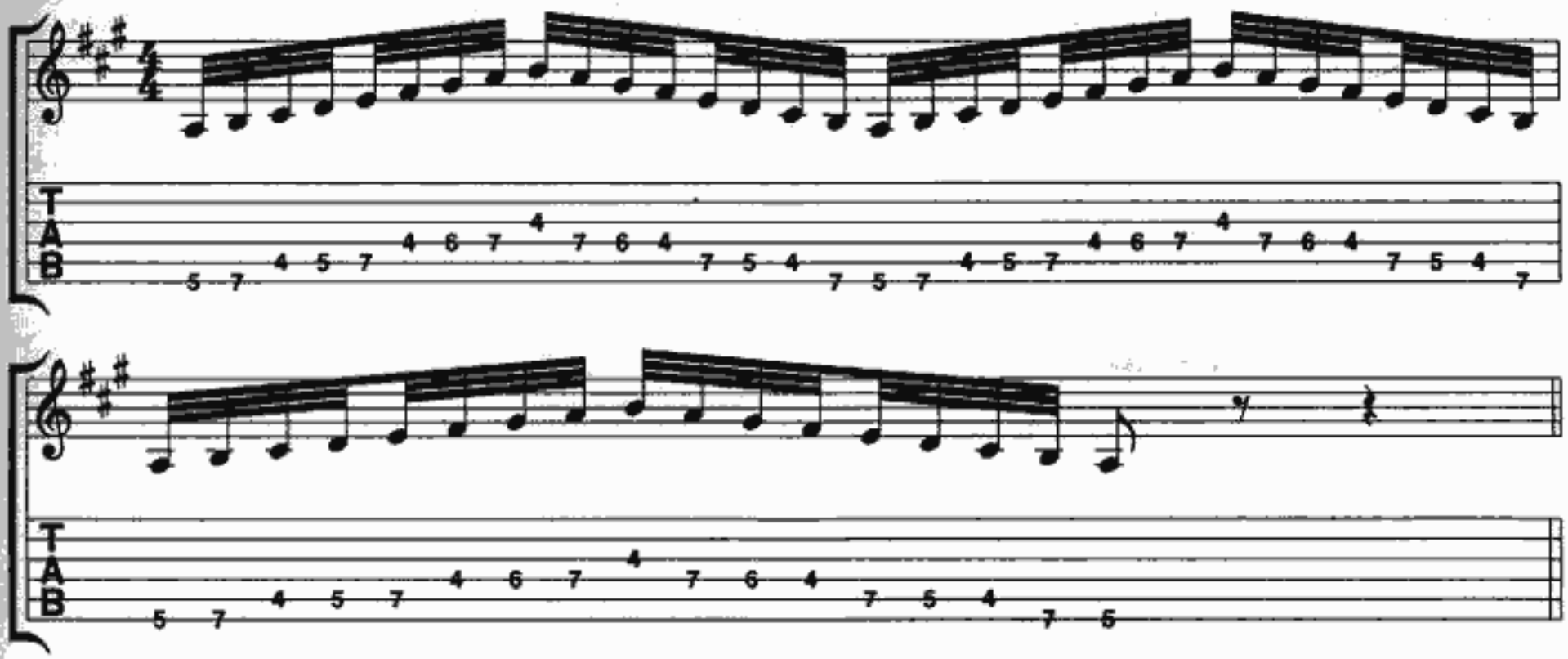
Example 8 *(Part 5)*

Sixteenth-note triplets subdivide the beat into six parts by either dividing eighth notes into three parts or dividing eighth-note triplets in half.



Example 8 *(Part 6)*

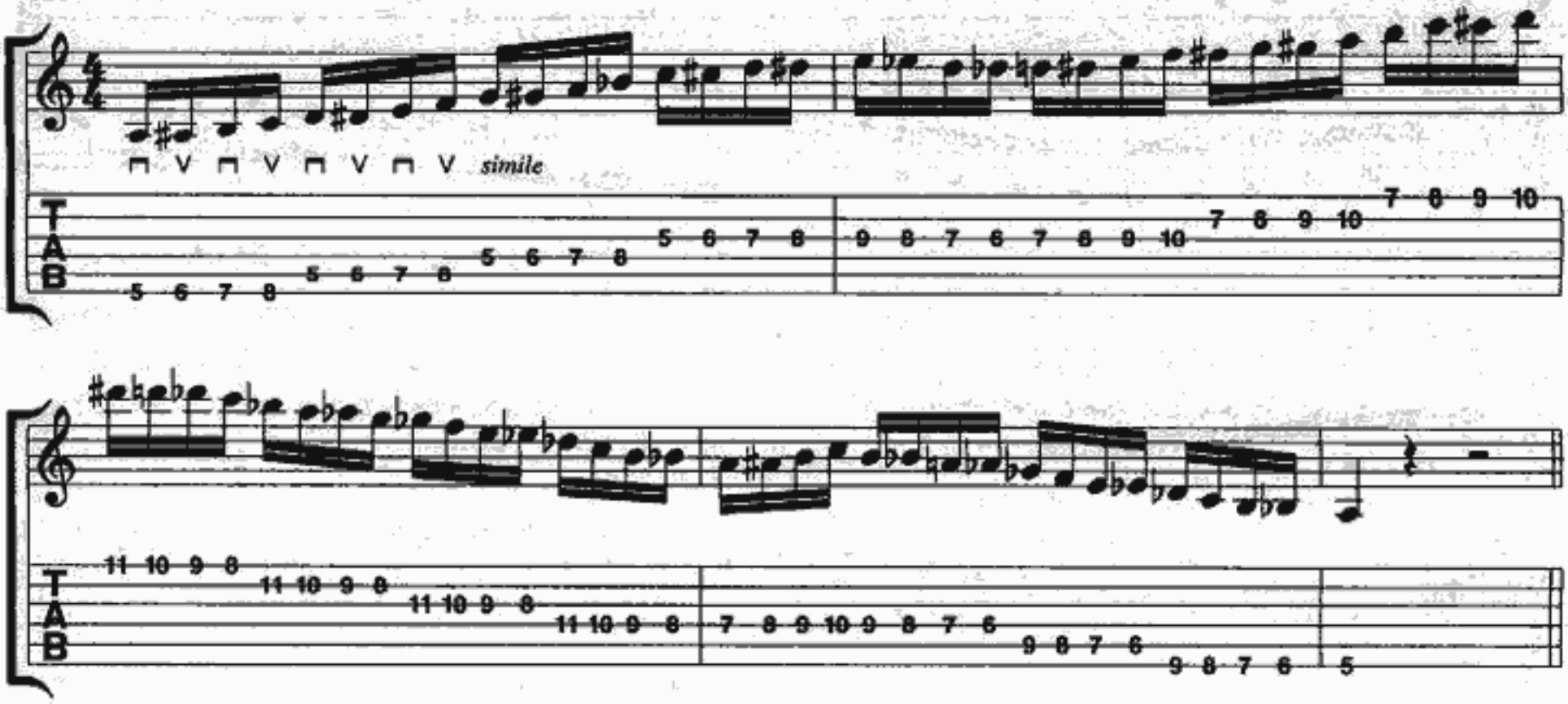
The last subdivision in this series of examples is 32nd notes (eight notes per beat). Remember, even though this is much faster than what was played in Part 1, the actual pulse hasn't changed, only the division of the pulse has.



Example 9

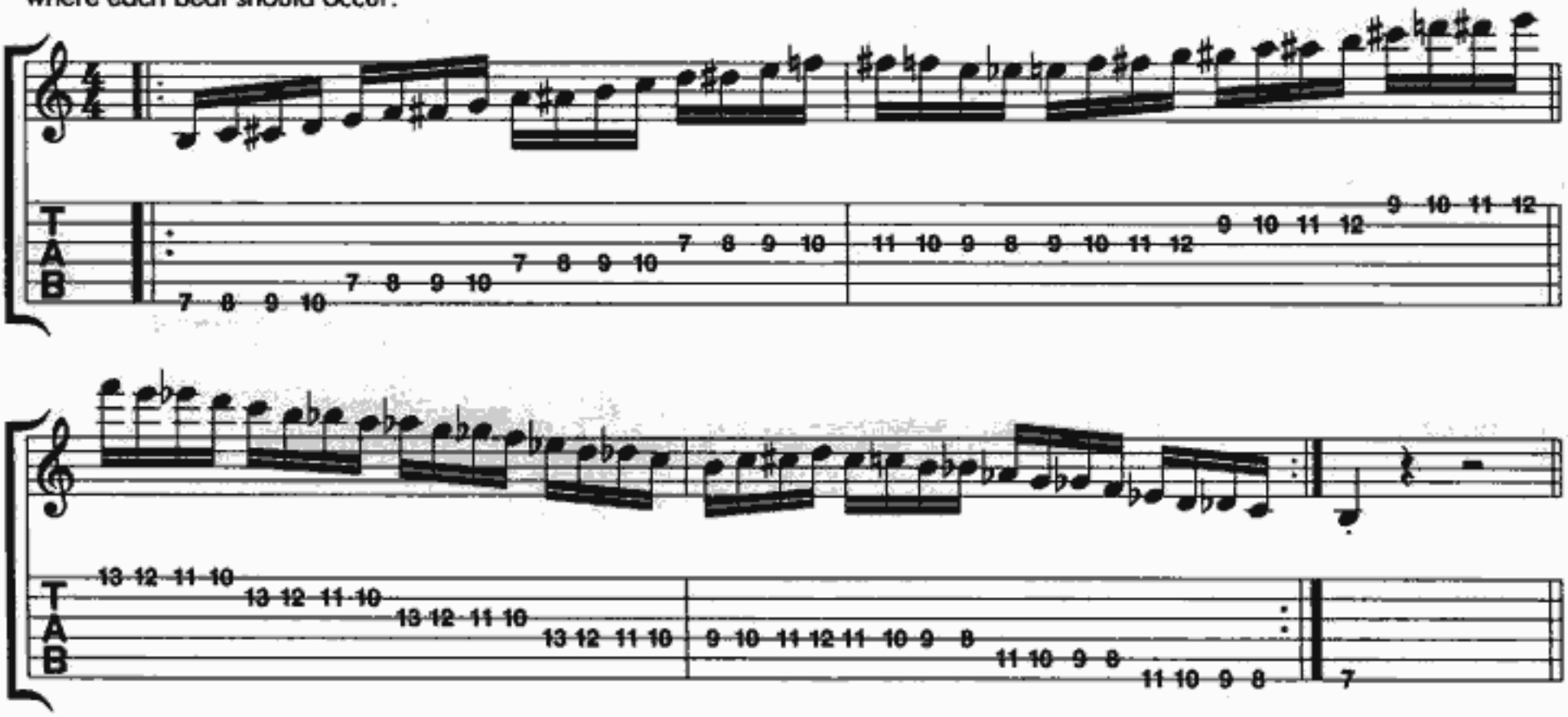
Once you achieve a certain level of confidence playing the different subdivisions to a metronome, it's time to work on developing accuracy at high speeds. The basic procedure is to start with a slow tempo on the metronome, play a given exercise as many times as it takes to master it at that tempo, gradually increase the metronome speed (approximately 8 beats per minute), and repeat the exercise until it is flawless. Continue to increase the speed of the metronome and practice the exercise until you reach the desired tempo.

The exercise that follows incorporates chromatics (successive half steps) into a four-note-per-string pattern played in steady 16th notes (four notes per beat). Developments 1A - D are variations of this exercise demonstrating the use of the metronome to achieve your goal tempo. Although the fingerings are different in many of the developments, they are still the same basic exercise presented in this example transposed up to higher positions.



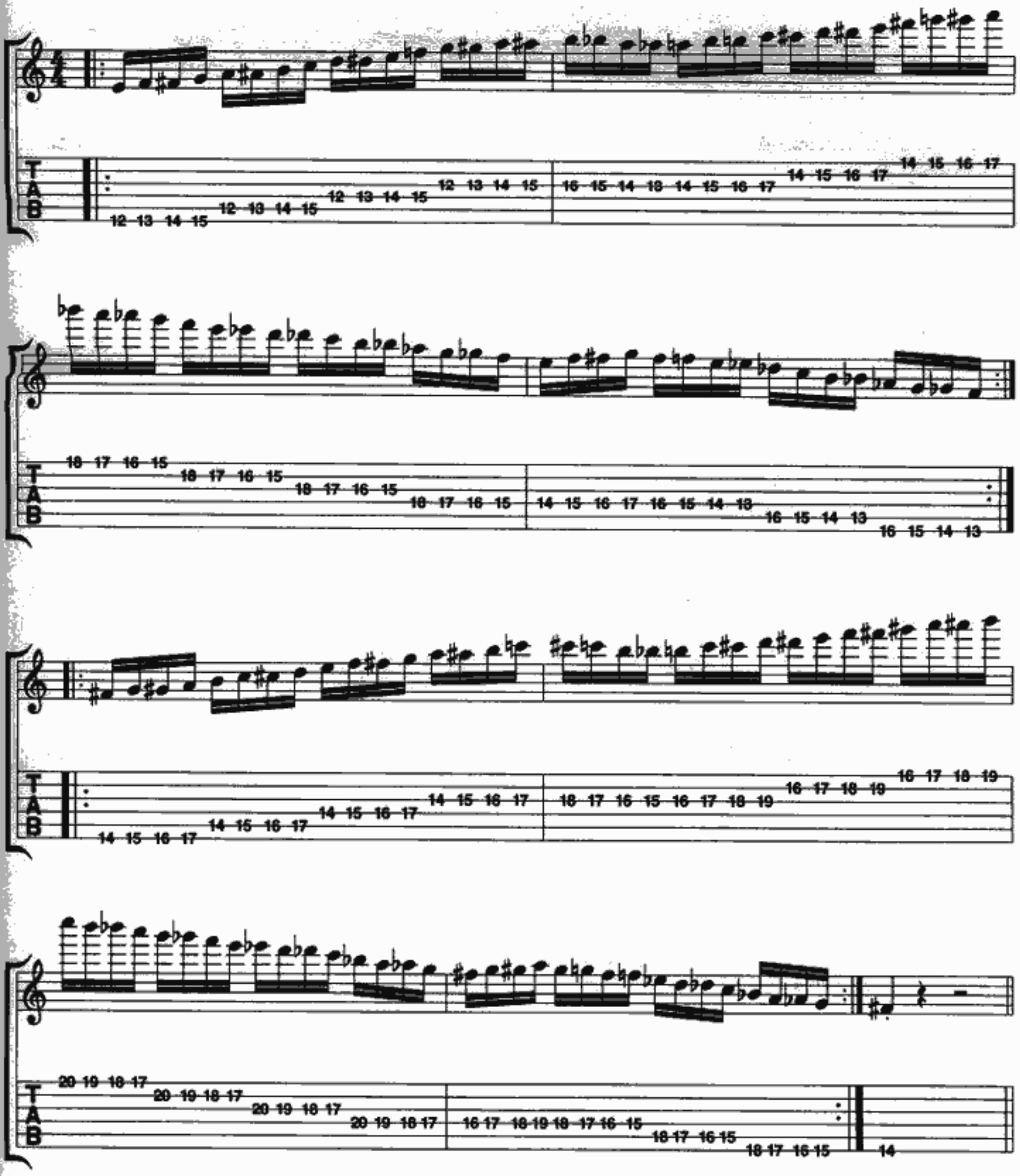
Example 9 (Development 1A)

Accent the down-beat while making sure each group of 16th notes falls evenly between metronome clicks. This will clearly define the subdivision of 16th notes. As things get faster, this accent will help function as a reference point to clearly indicate where each beat should occur.



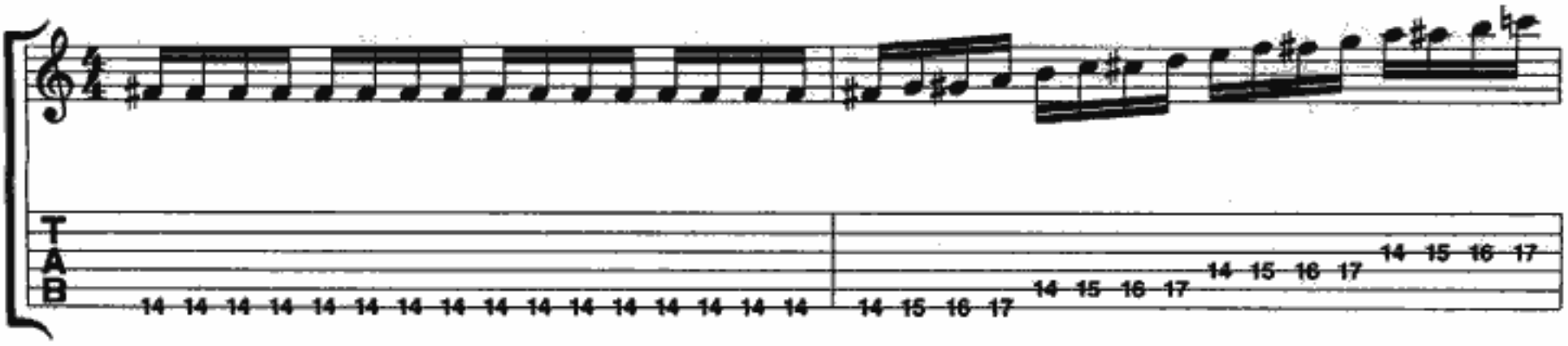
Example 9 *(Developments 1B - D)*

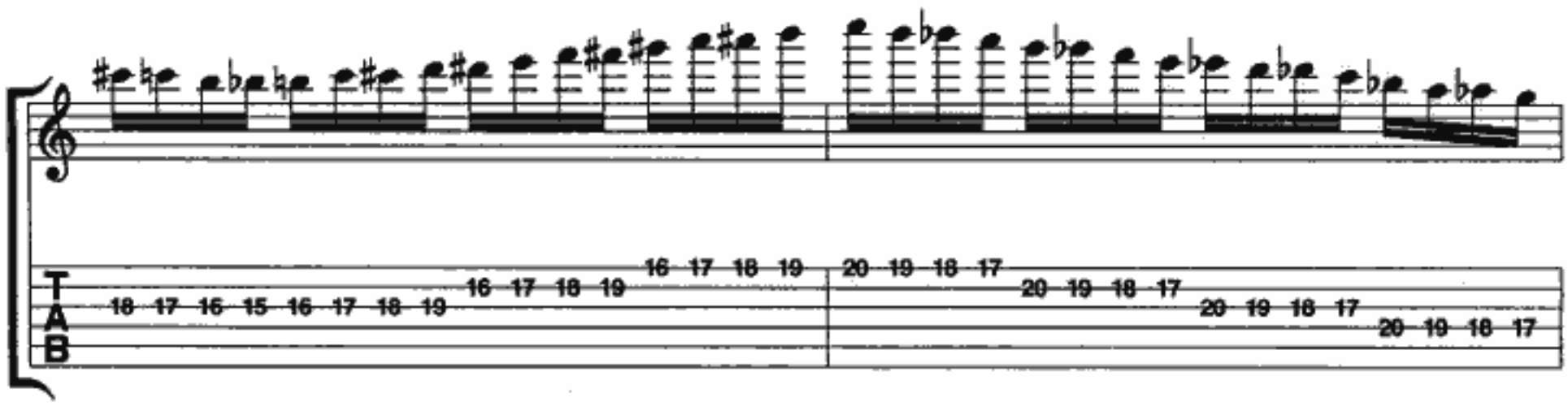
This next series of developments continue to move the original exercise to higher positions. Development 1B is demonstrated on the recording at 176 beats per minute. Development 1C, which immediately follows in the audio, is identical to the last four bars of Development 1B but played at 184 beats per minute. Development 1D demonstrates these exact same four bars with distortion at a tempo of 200 beats per minute.

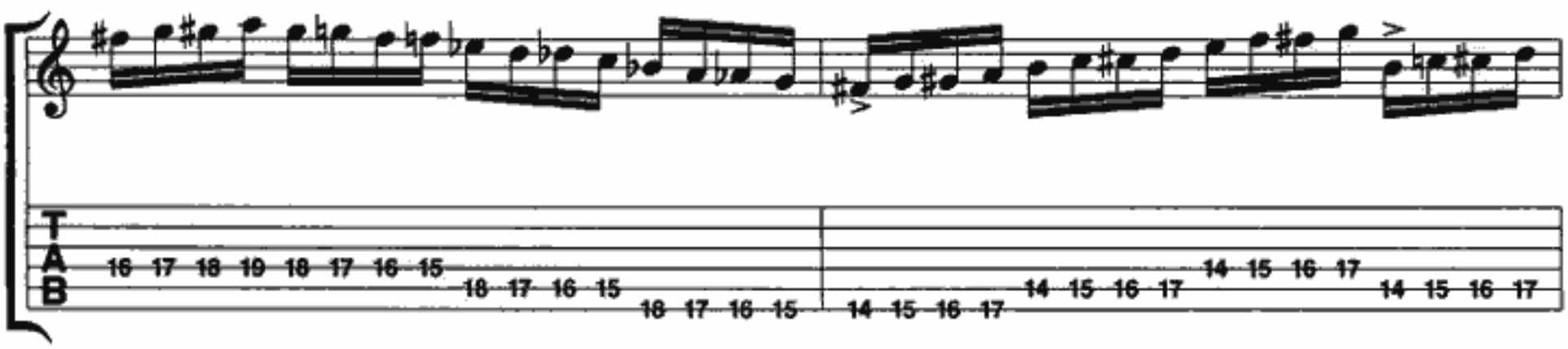


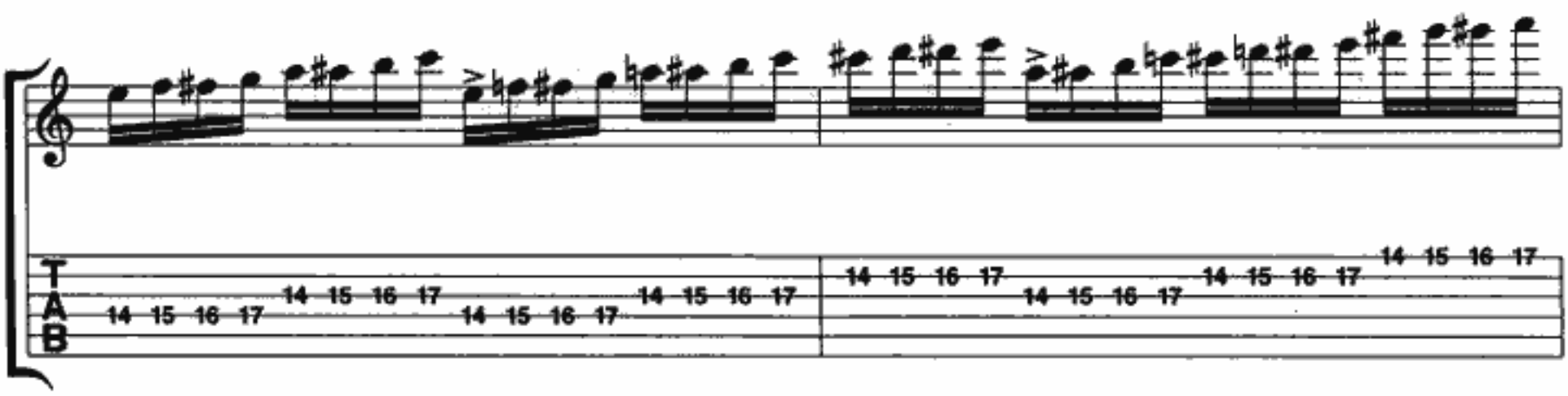
Example 9 *(Development 2)*

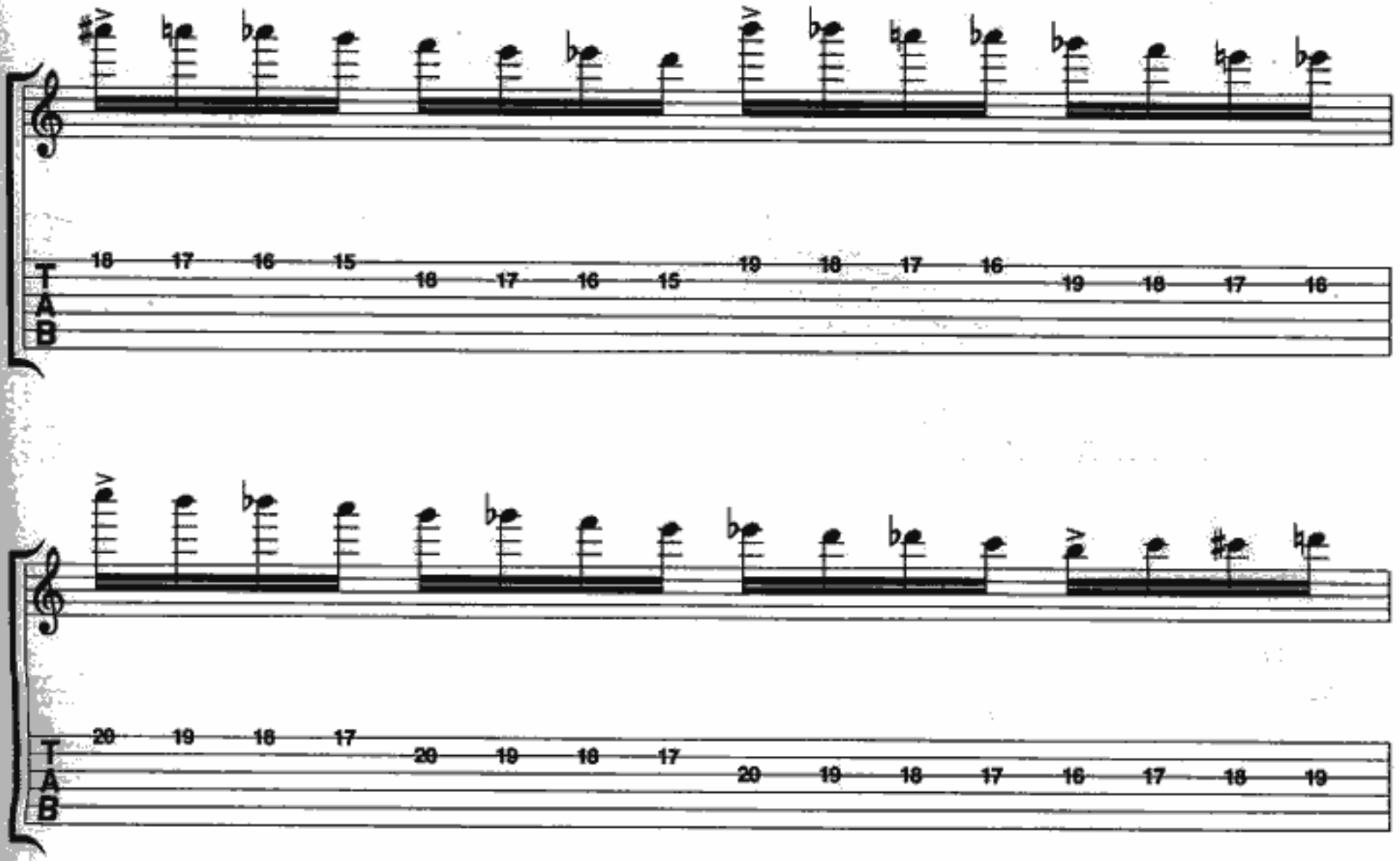
If at any point you feel the execution of an exercise is not as clean and precise as desired, back the metronome down to a slower speed to re-establish comfort. Development 2 adds similar four-note-per-string patterns to Developments 1A - B with different string sets and different positions. The recording is demonstrated at about 170 beats per minute.

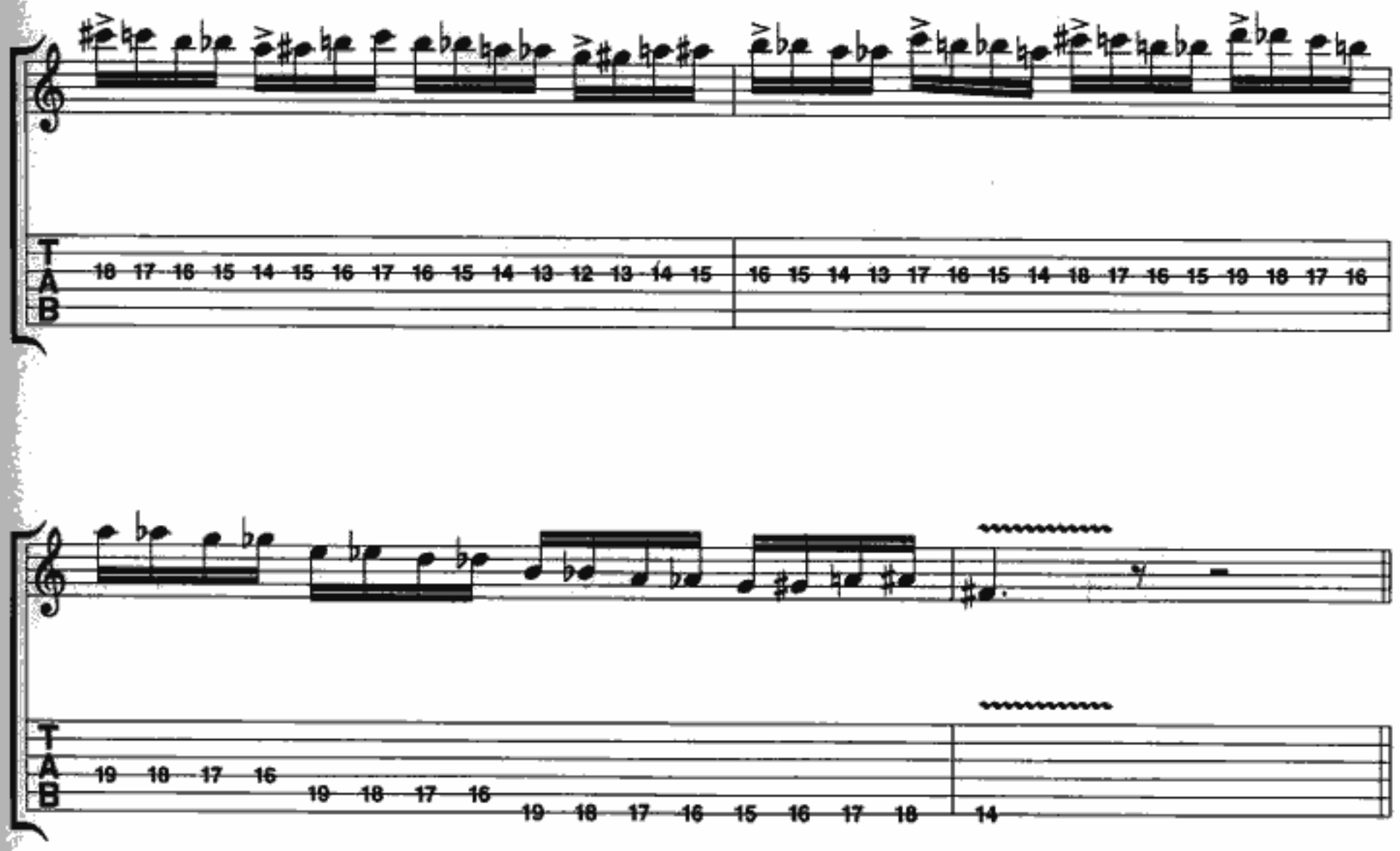









T
A
B
18 17 16 15 18 17 16 15 19 18 17 16 19 18 17 16
20 19 18 17 20 19 18 17 20 19 18 17 16 17 18 19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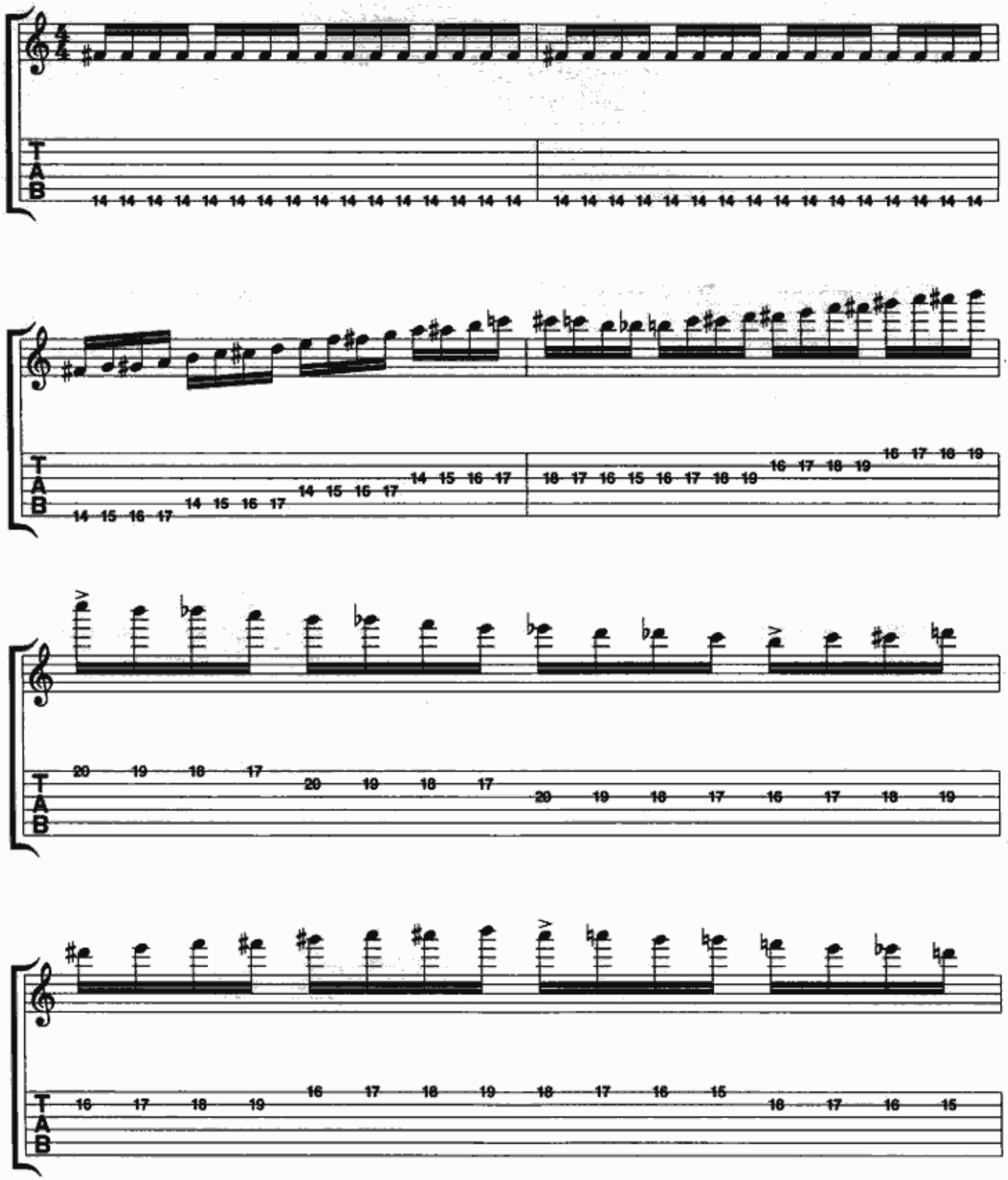
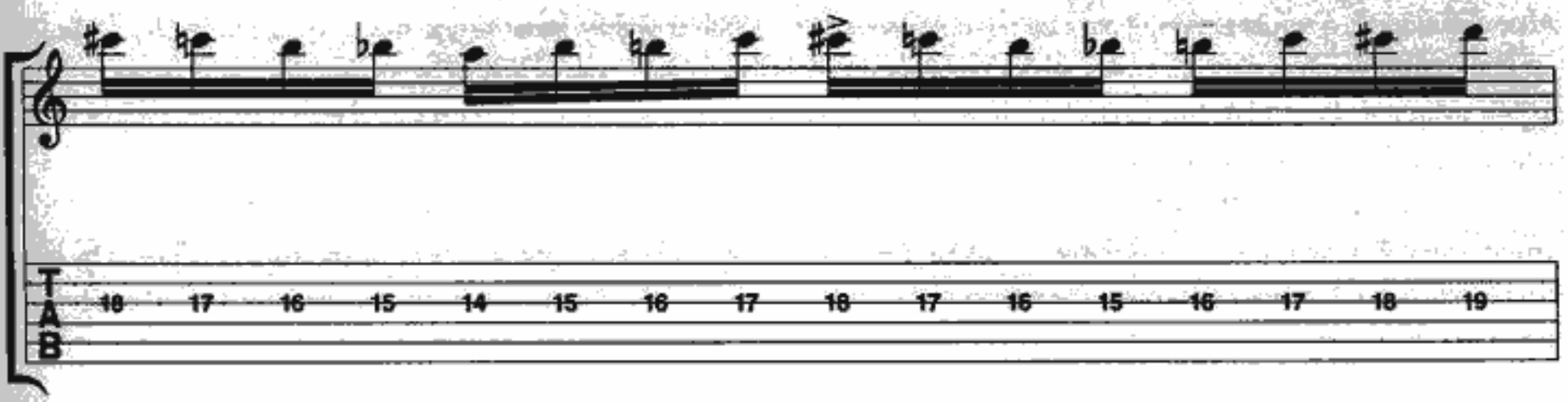
19 18 17 16 19 18 17 16 19 18 17 16 15 16 17 18 14

Example 9 *(Development 3)*

More variations on the original pattern.

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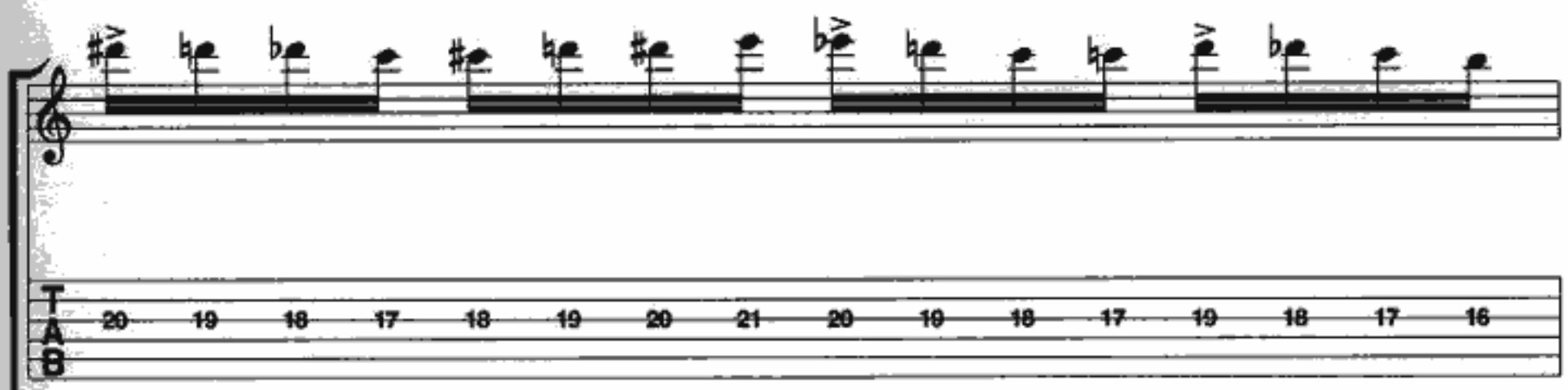
18 17 16 15 14 15 16 17 18 17 16 15 16 17 18 19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B
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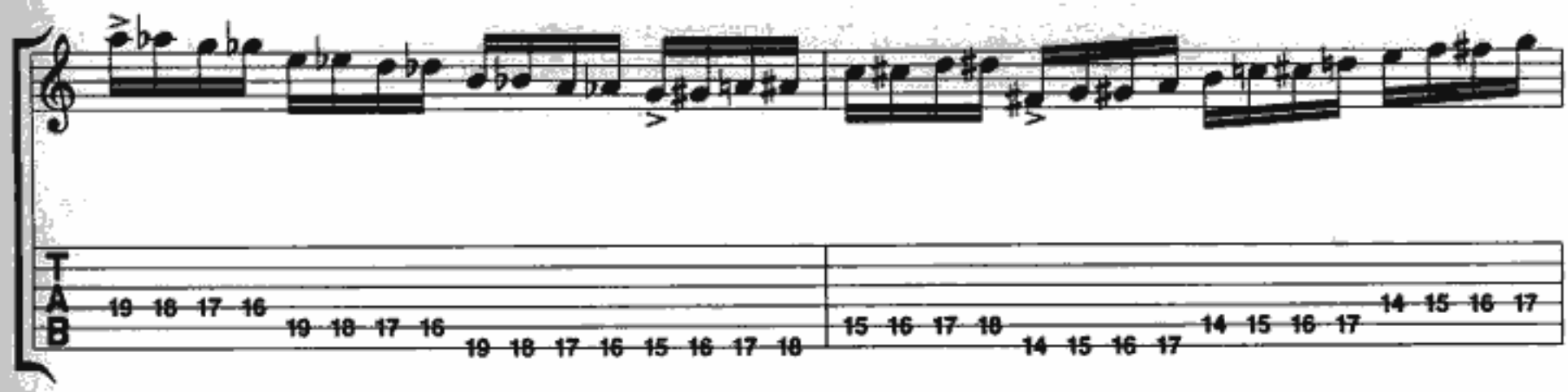
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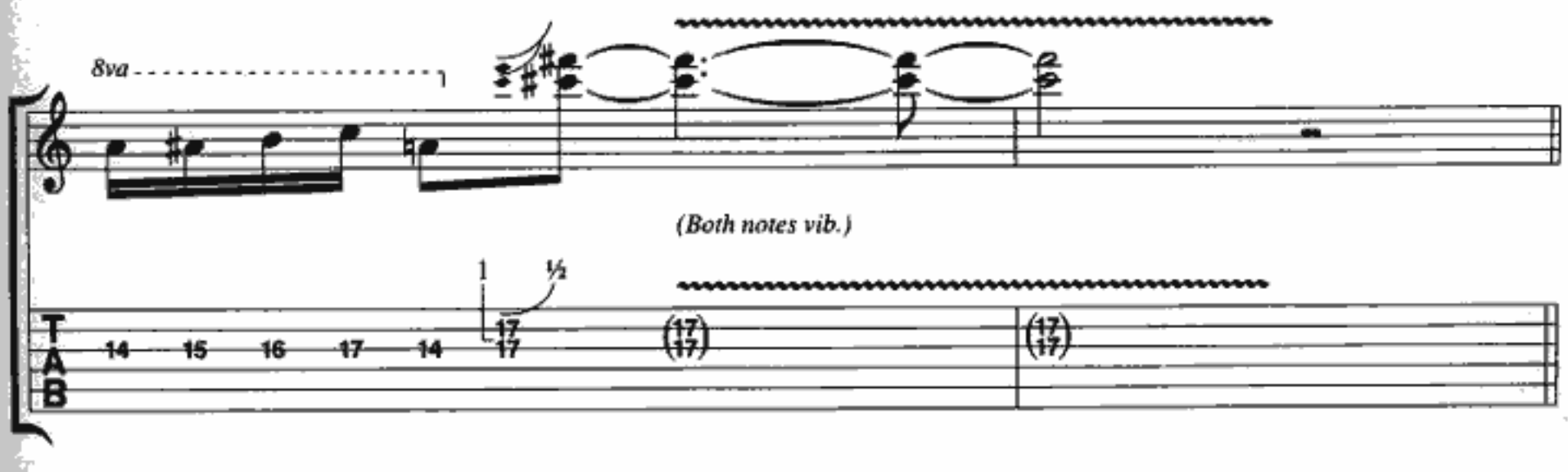
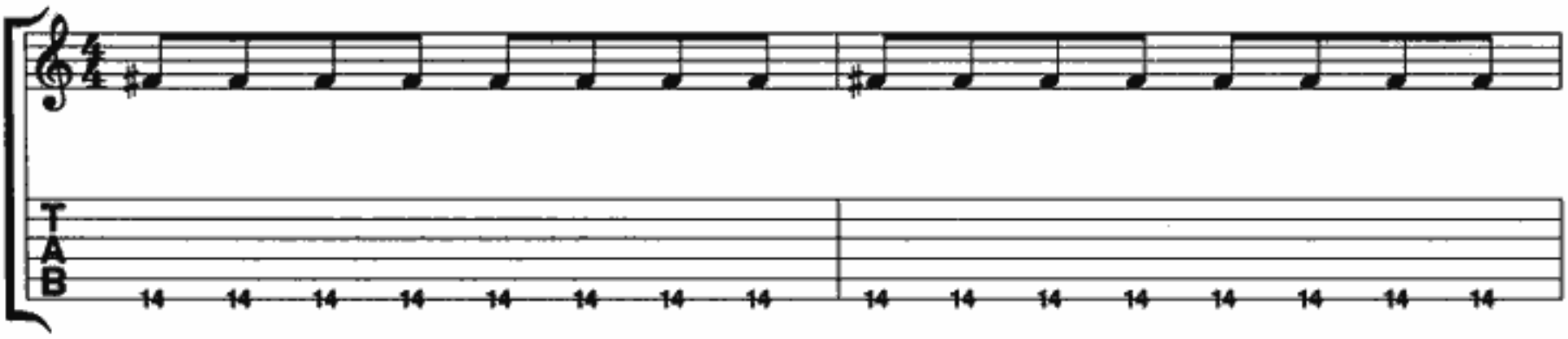
15 16 17 18 14 15 16 17 14 15 16 17 14 15 16 17

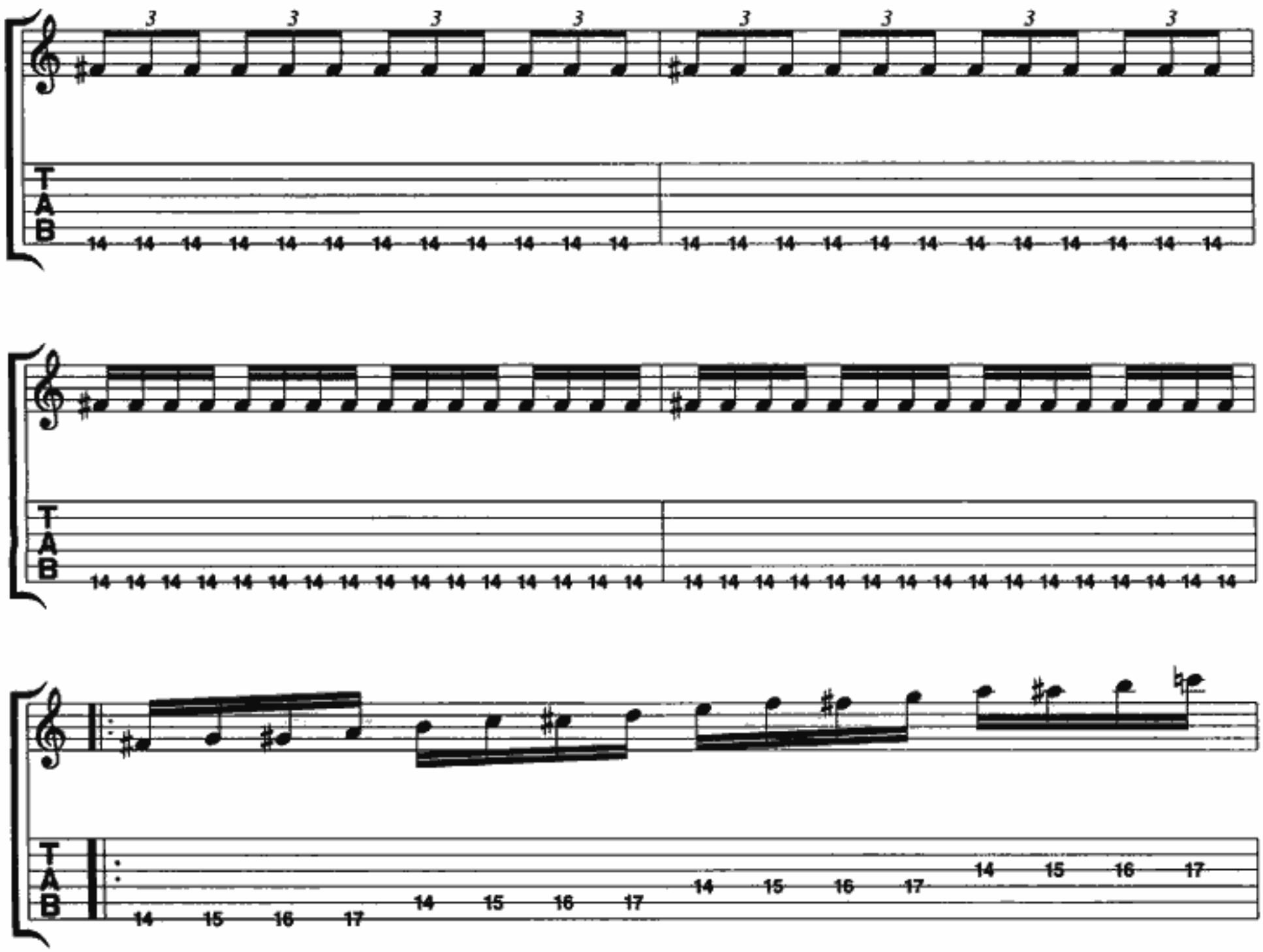

8va
(Both notes vib.)
1
½
T
A
B
14 15 16 17 14 17 17 (17 17) (17 17)

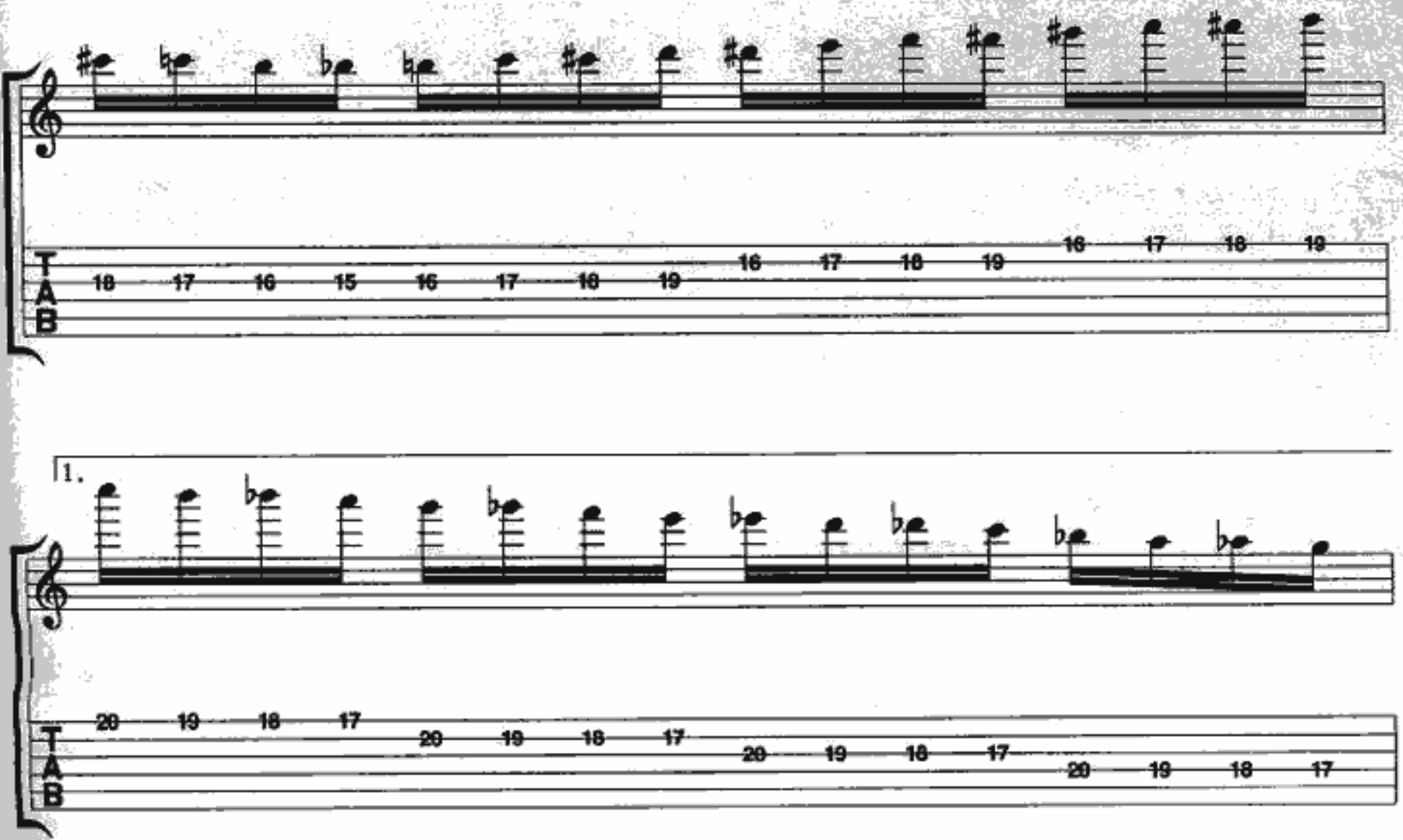
Example 9 *(Development 4)*

After deciding on a target tempo, it may be advantageous to start with a slightly faster tempo marking. For example, if you set 208 beats per minute in your sights, make an attempt to overshoot this new goal tempo by turning the metronome to a higher setting of about 216. This forces both hands to work harder than ever before. Then back off the metronome again to 208 and see if things fall into place.

Development 4 is the same four measures as before preceded by six measures of single-note subdivisions and followed by a lick based on the A minor pentatonic. The tempo of the recording is ♩ = 208. Notice the A minor pentatonic (A C D E G) bonus lick at the end.



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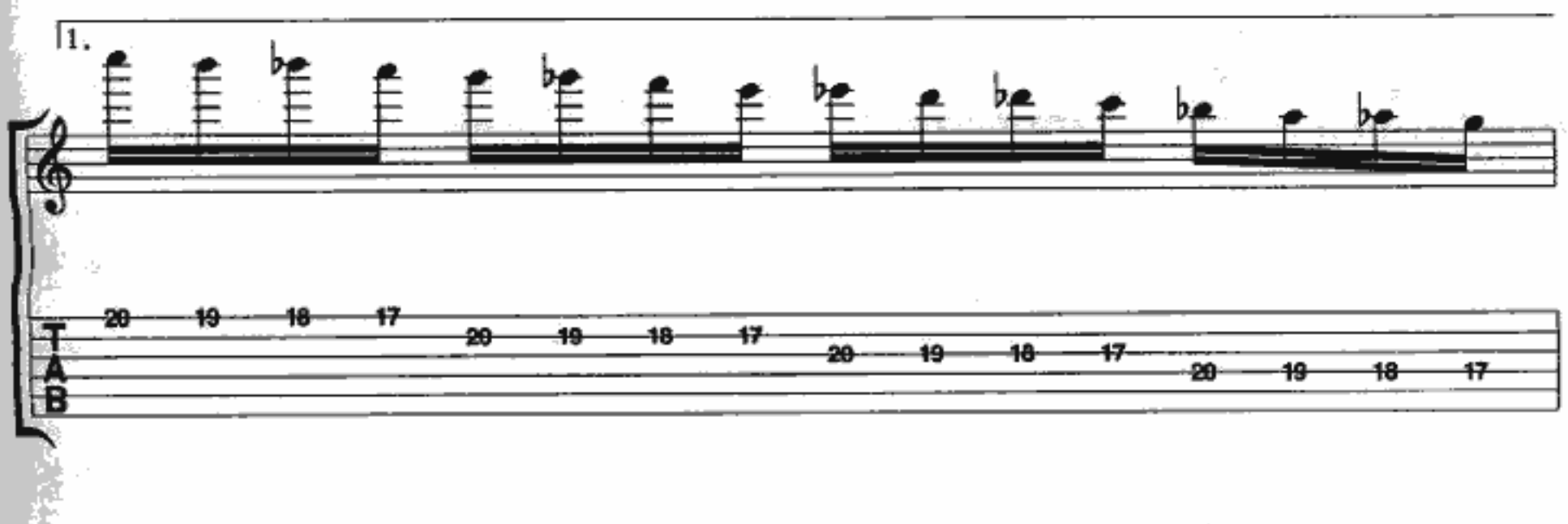
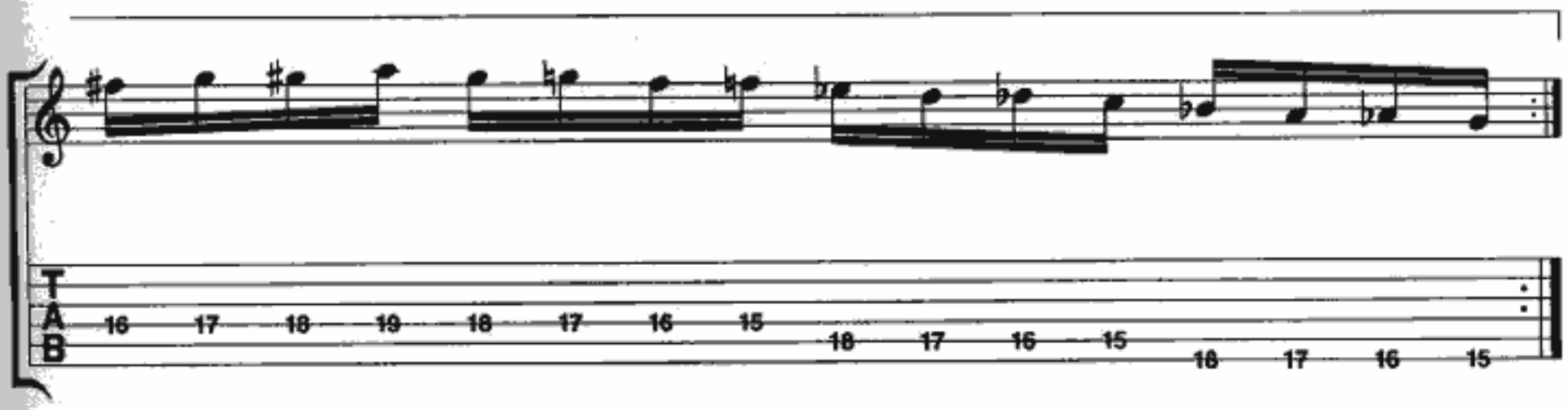
18 17 16 15 16 17 18 19 16 17 18 19 16 17 18 19


1.
T
A
B
20 19 18 17 20 19 18 17 20 19 18 17 20 19 18 17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A
B
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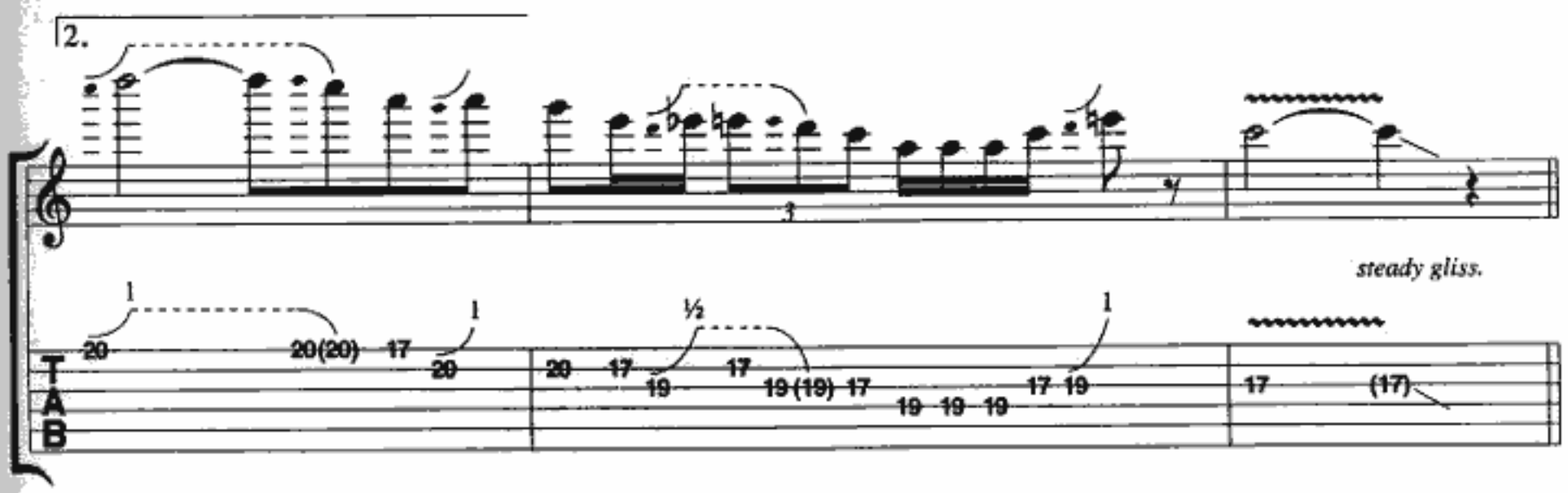
2.
3
steady gliss.
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A
B
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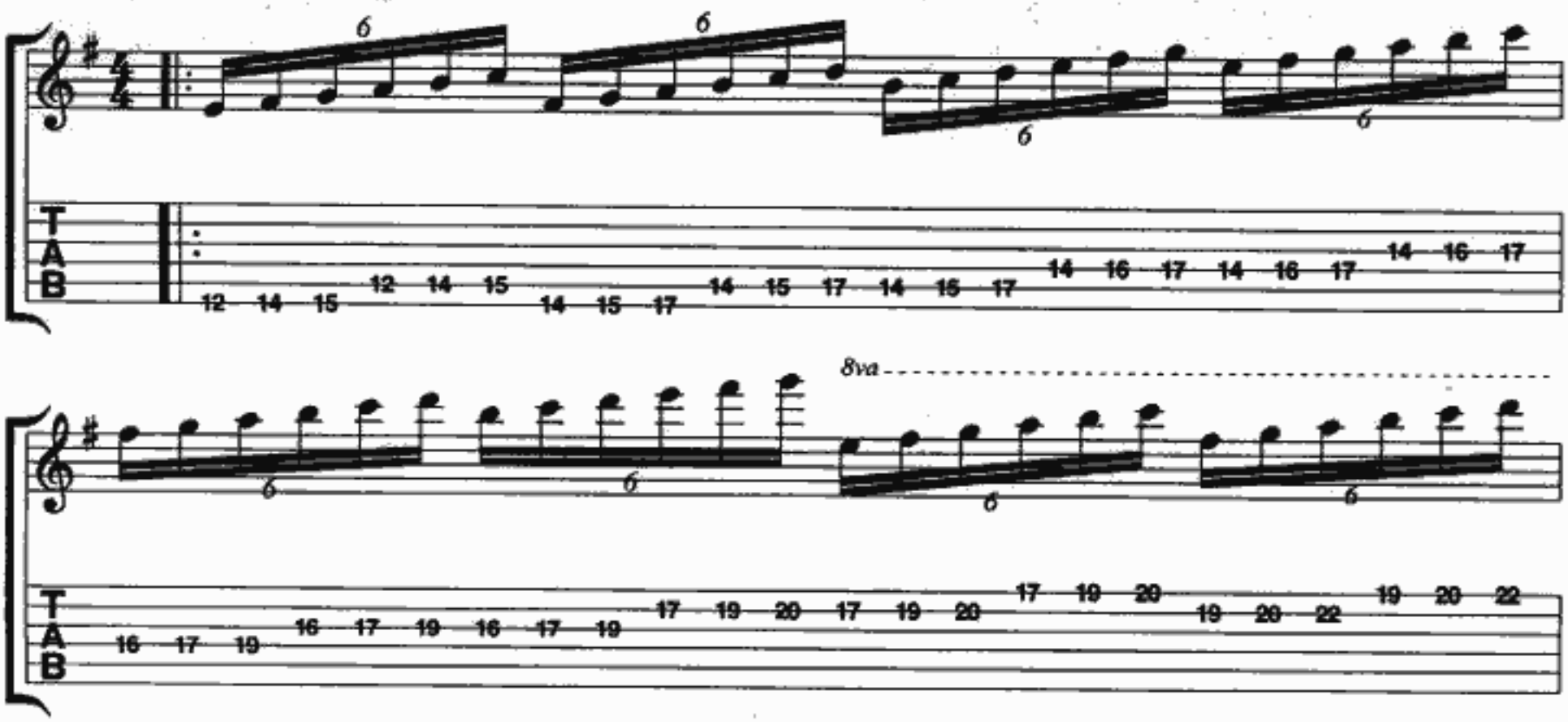
1
20 17 19 ½ 17 19(19) 17 19 19 19 17 19 1
17 (17)

Example 10

Use this next exercise to demonstrate how speed and accuracy can be developed by using a metronome to monitor progress. This time 16th-note triplets (six notes per beat) derived from the E minor scale (E F♯ G A B C D) are arranged in a three-note-per-string pattern.

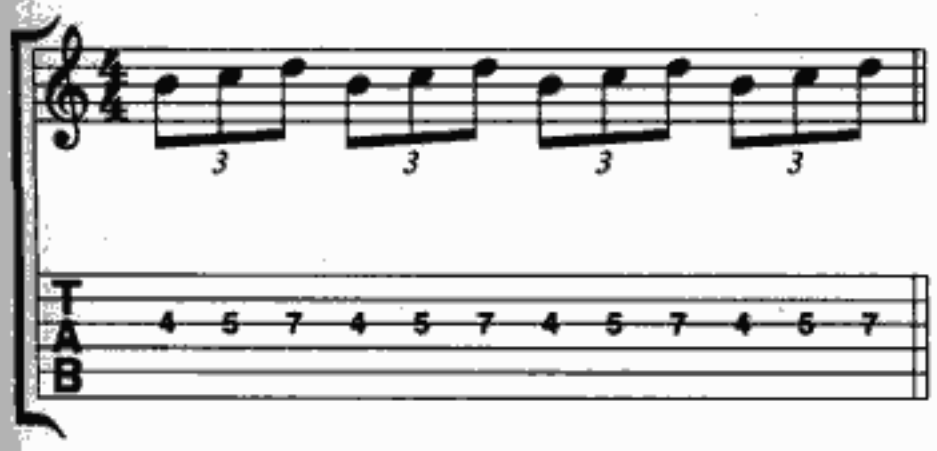


Part V
Technique
(Scale Fragments and Sequences)

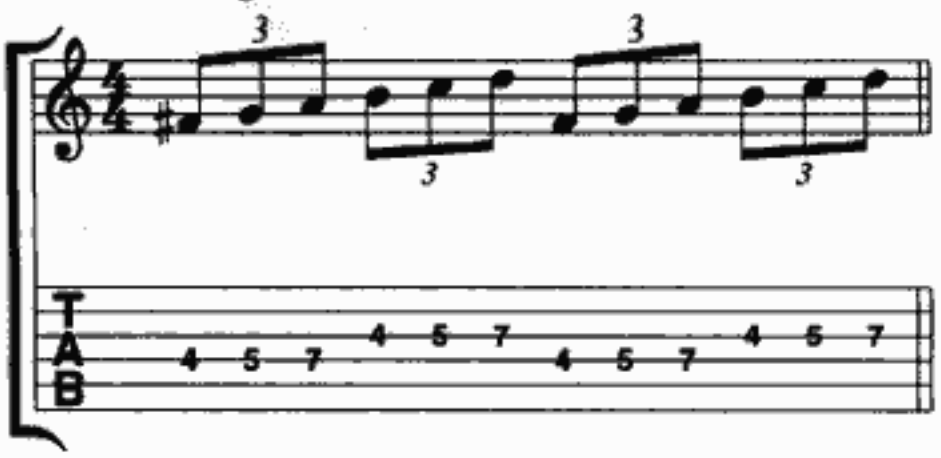
Another good way to develop speed is to work on small, isolated scale fragments or segments which can be practiced and perfected before they are combined into longer, technically challenging runs. In a sense, this approach is like taking small bites at a time out of a complex lick instead of attempting to start right off swallowing it whole. The fragments that follow, offer a handful of melodic patterns that can be practiced over and over with the eventual goal of incorporating them into longer, flowing licks to be used in improvising.

Example 11

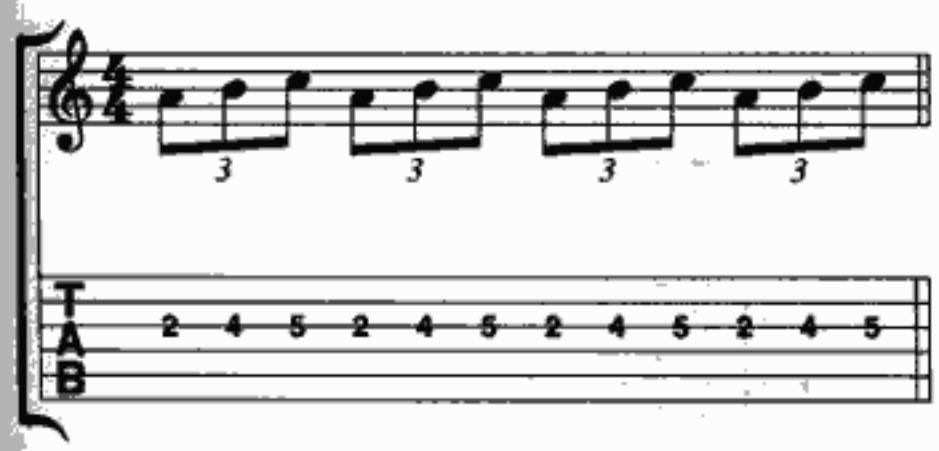
Fragment 1



Fragment 2



Fragment 3



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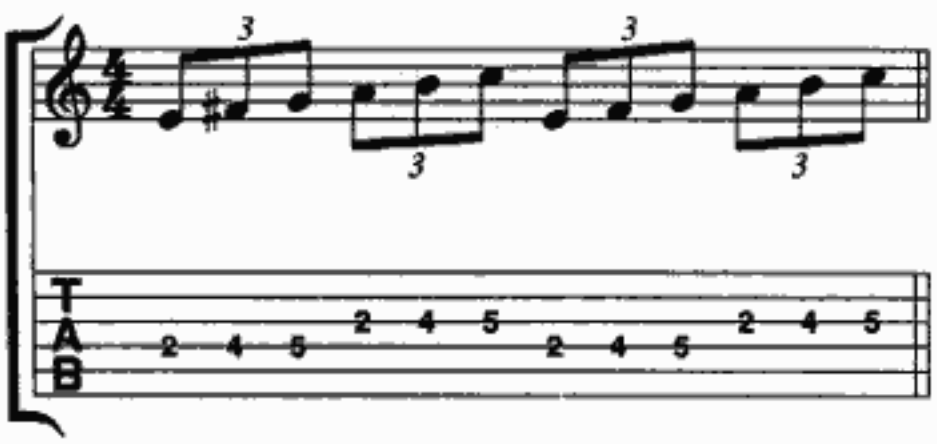
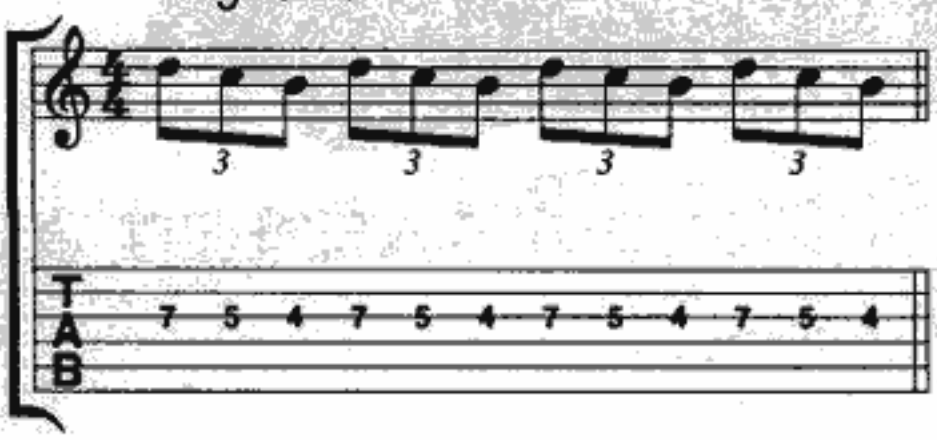
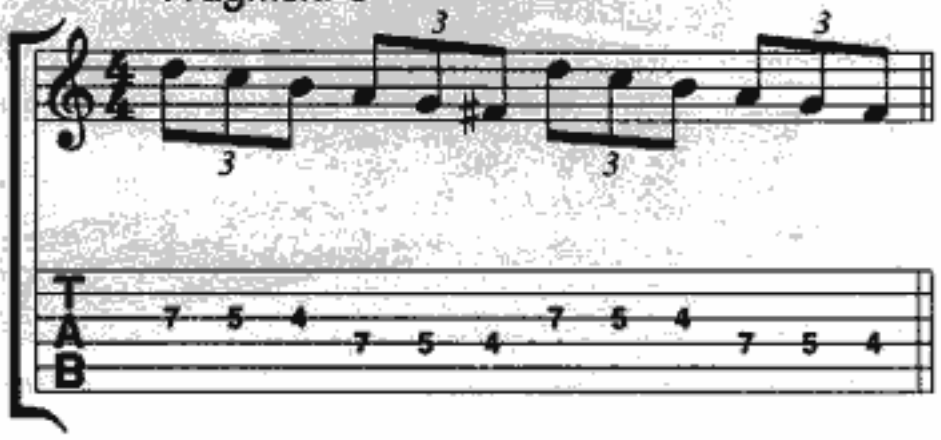


Fragment 5



Fragment 6



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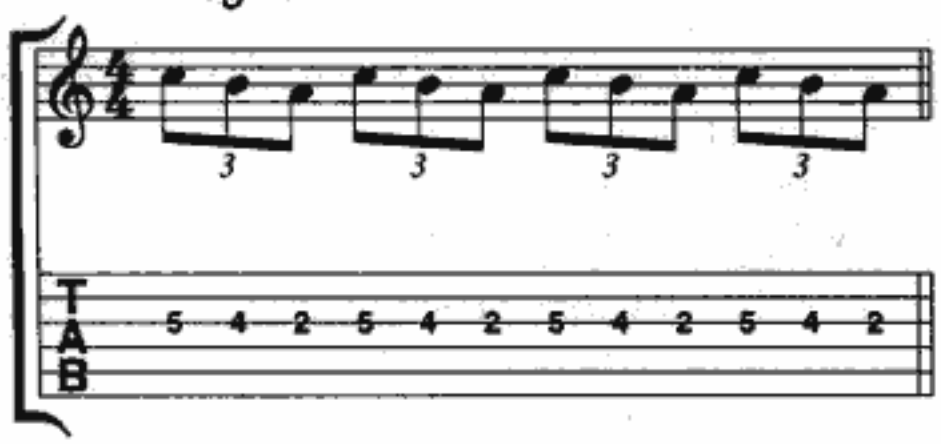

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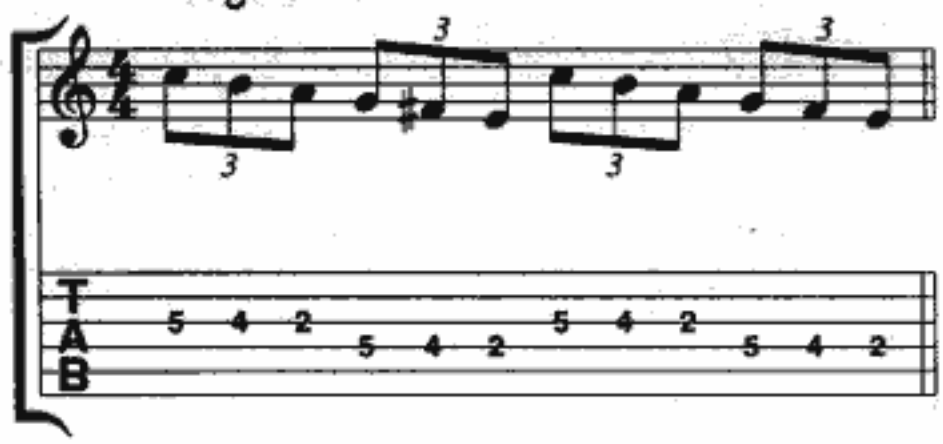

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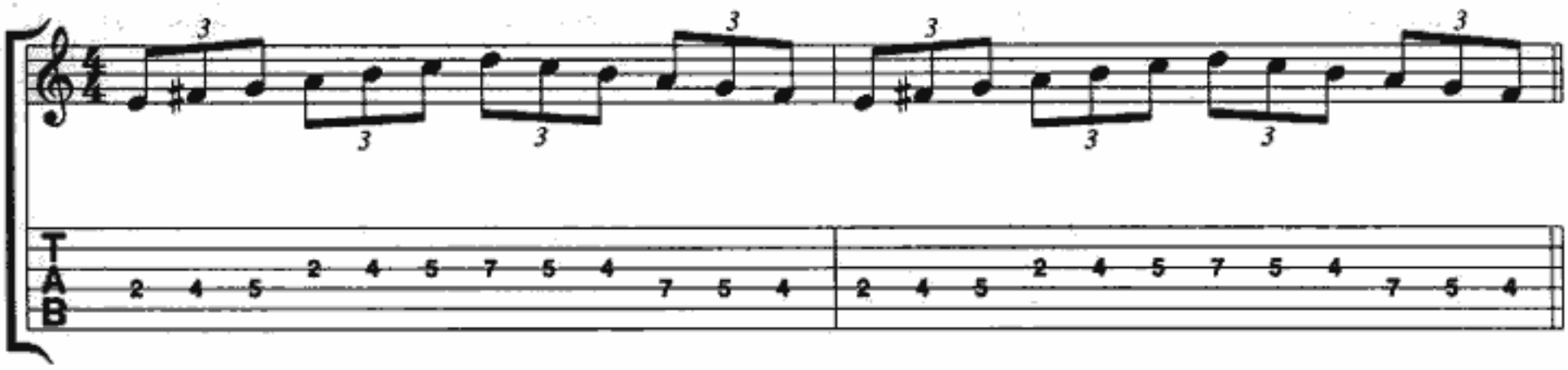
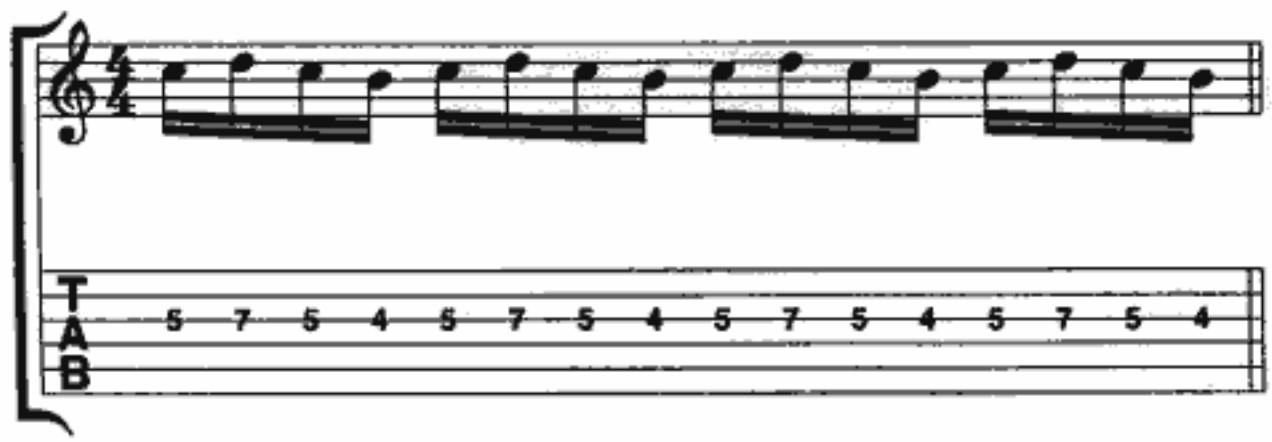
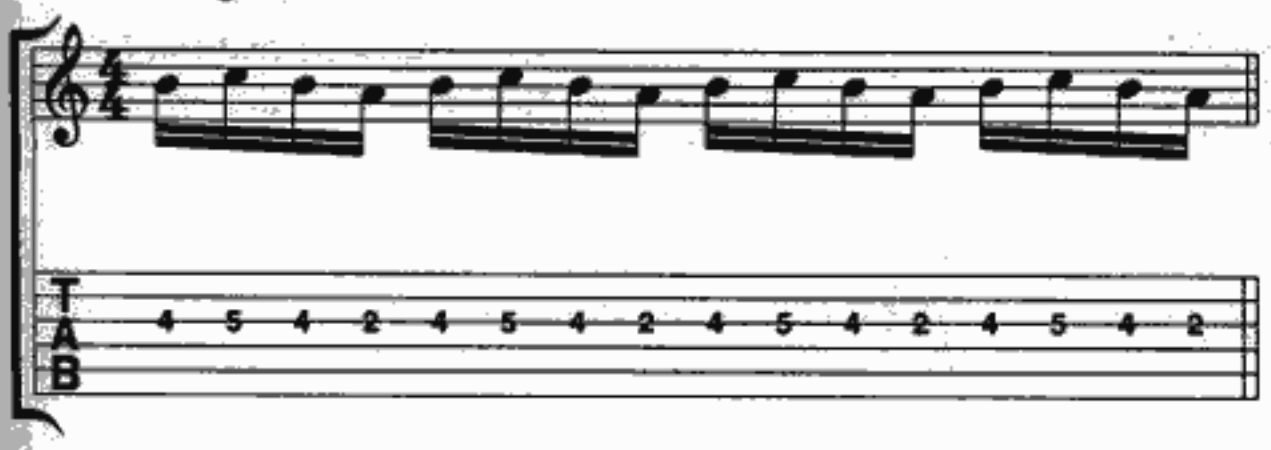


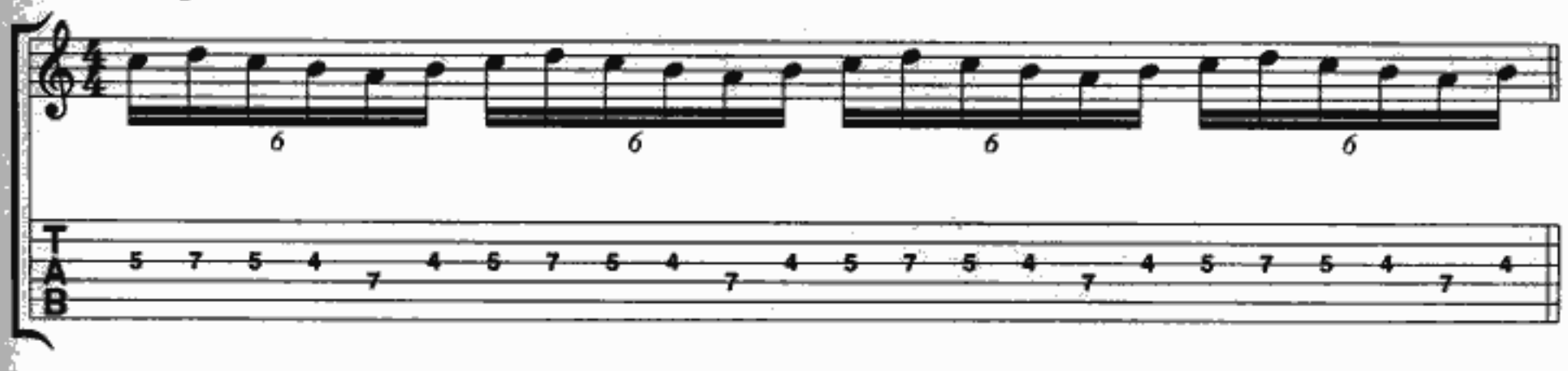
Fragment 10



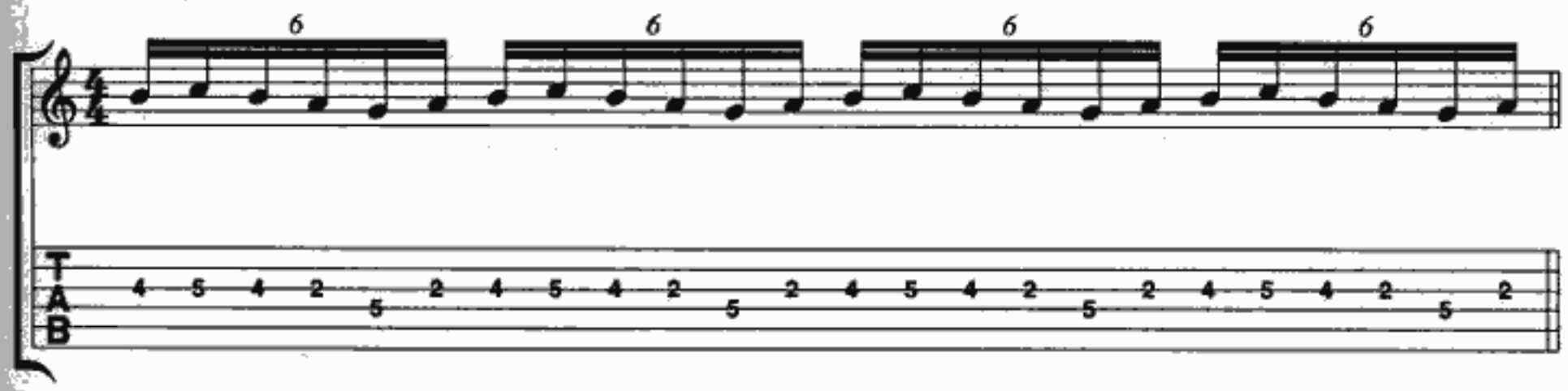
Fragment 11



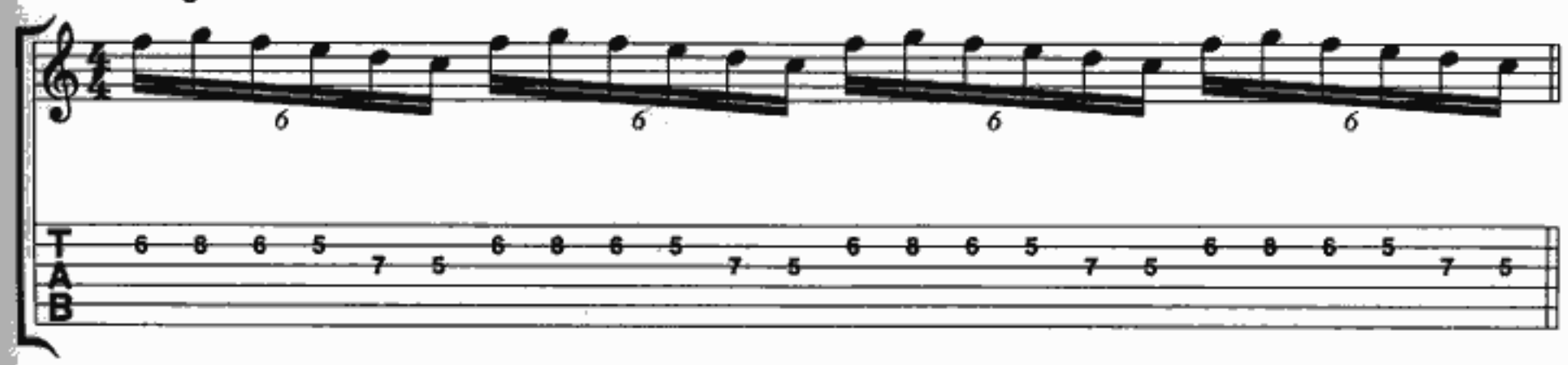
Fragment 12



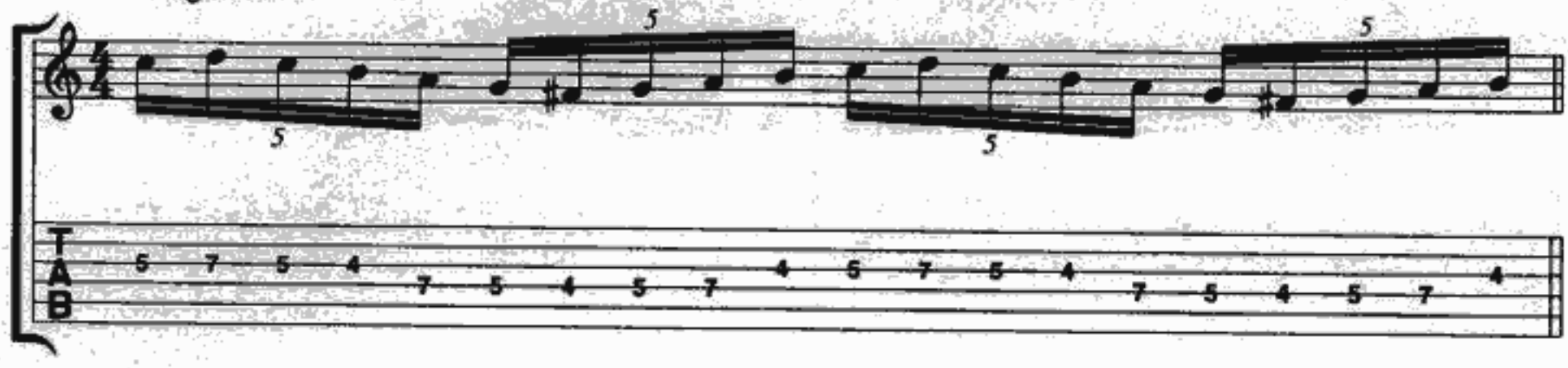
Fragment 13



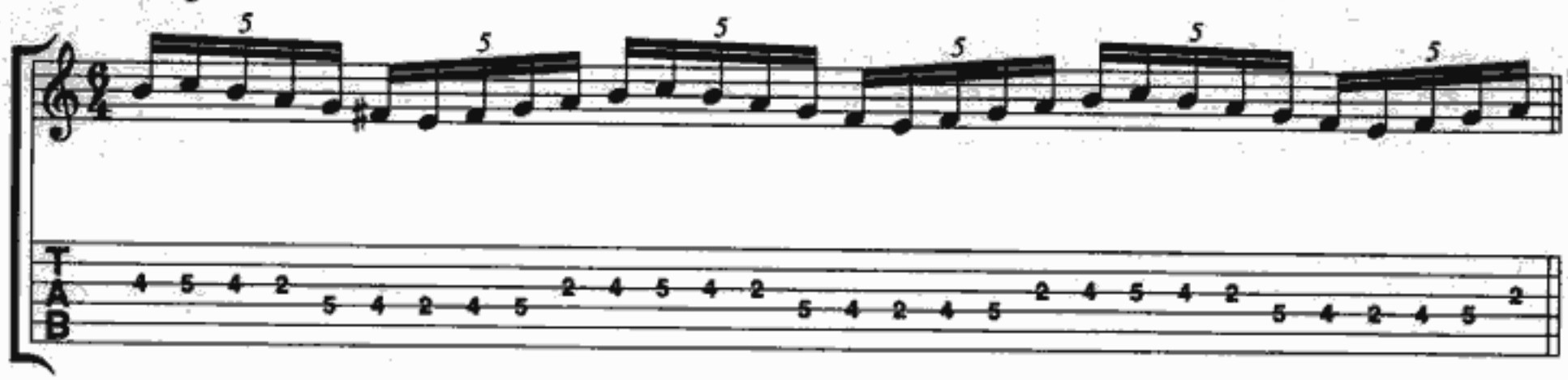
Fragment 14



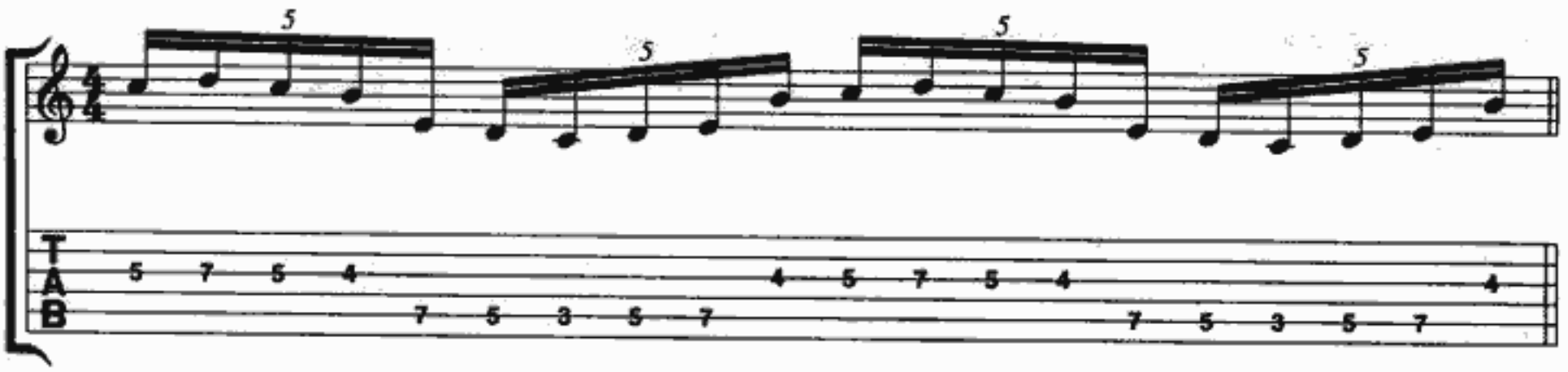
Fragment 15



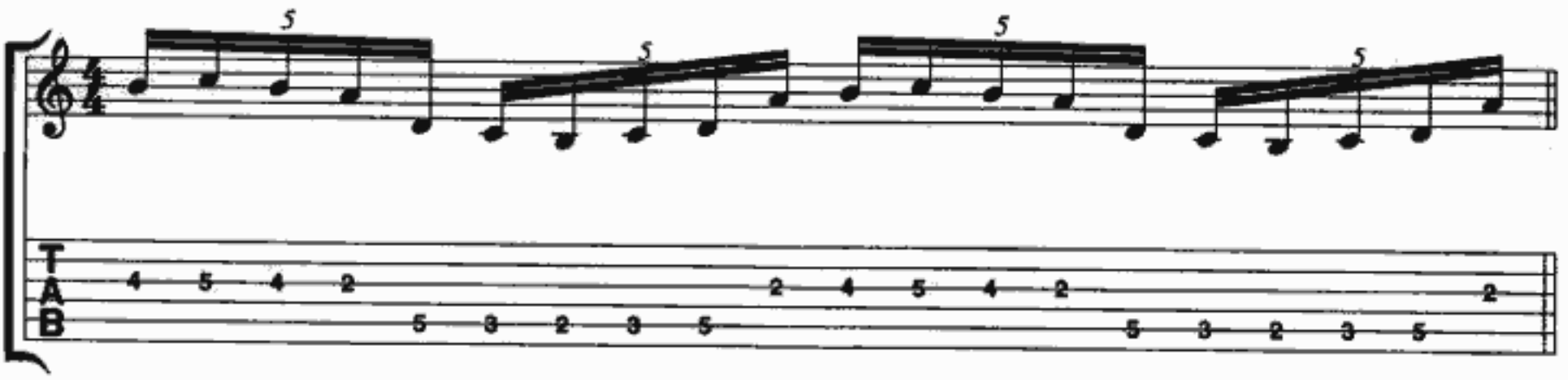
Fragment 16



Fragment 17

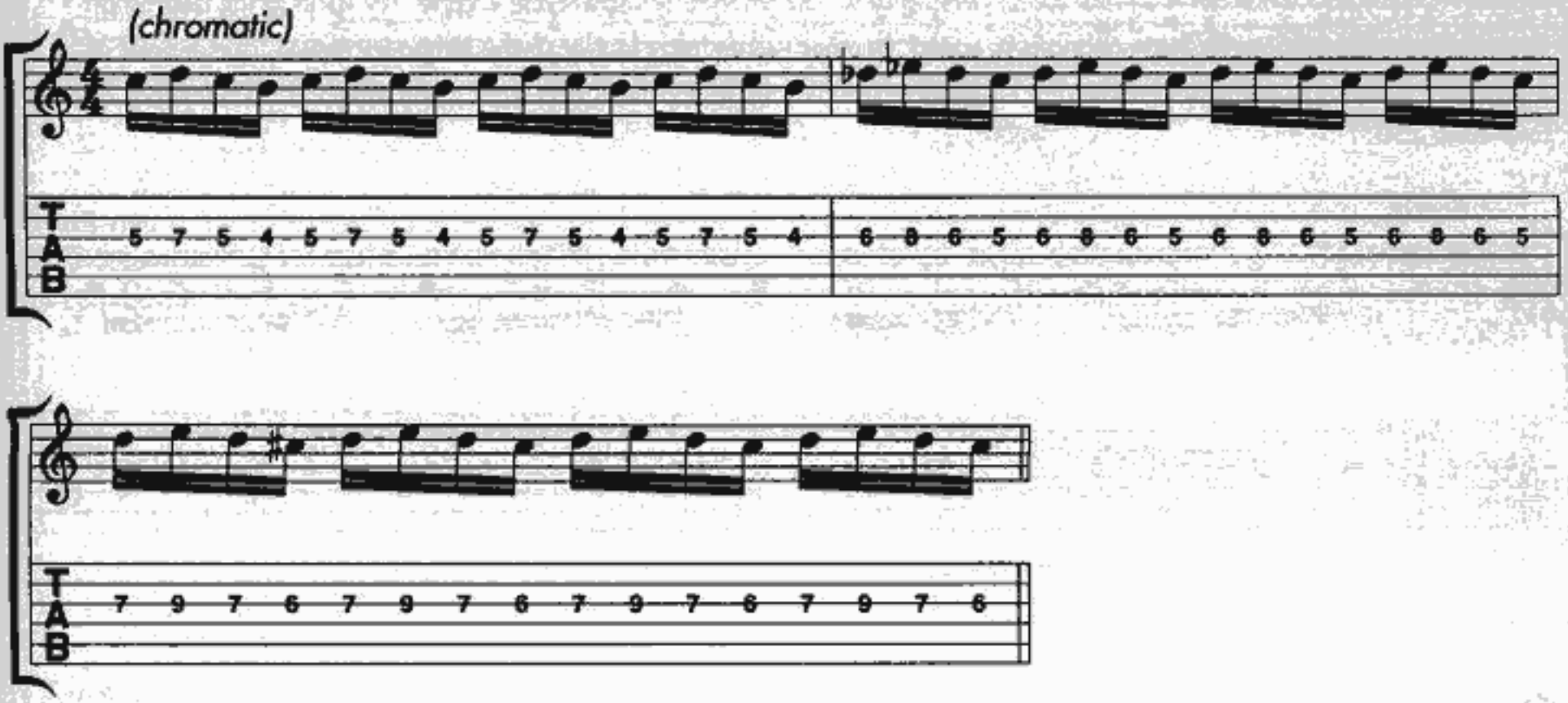


Fragment 18



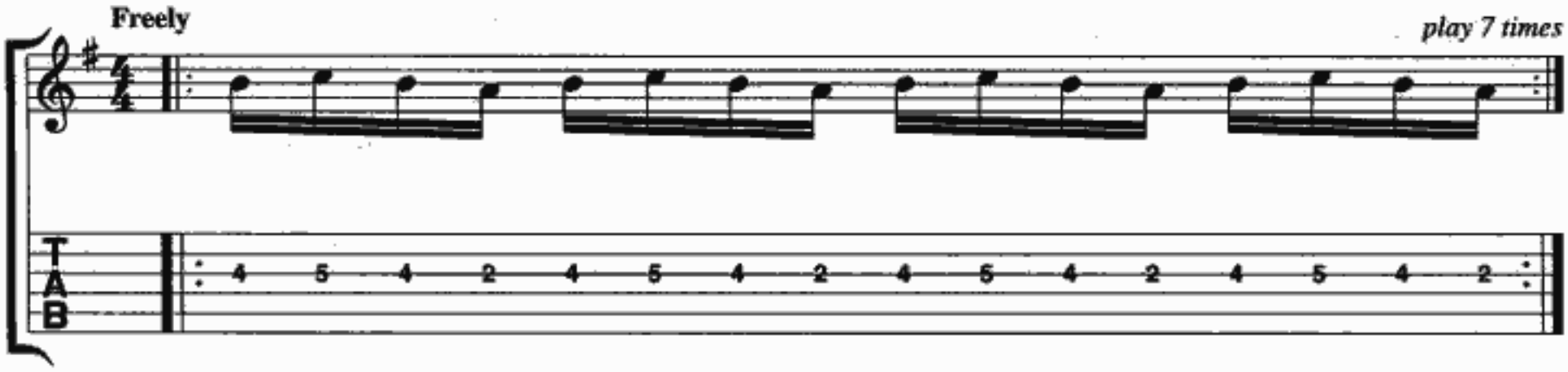
Example 11 *(Development 1)*

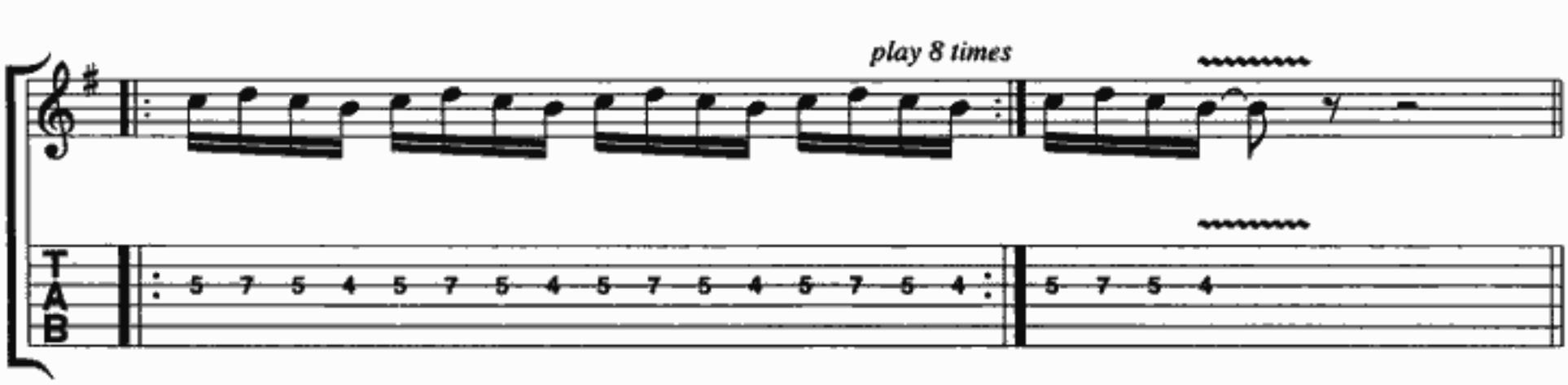
Each of the previous scale fragments were in the key of G major (G A B C D E F#). These patterns can be played anywhere on the neck, between any two strings. They can also be moved up or down a string in a chromatic (up/down in half-steps) or diatonic (within the parameters of a chosen scale) fashion.



Example 11 *(Development 2)*

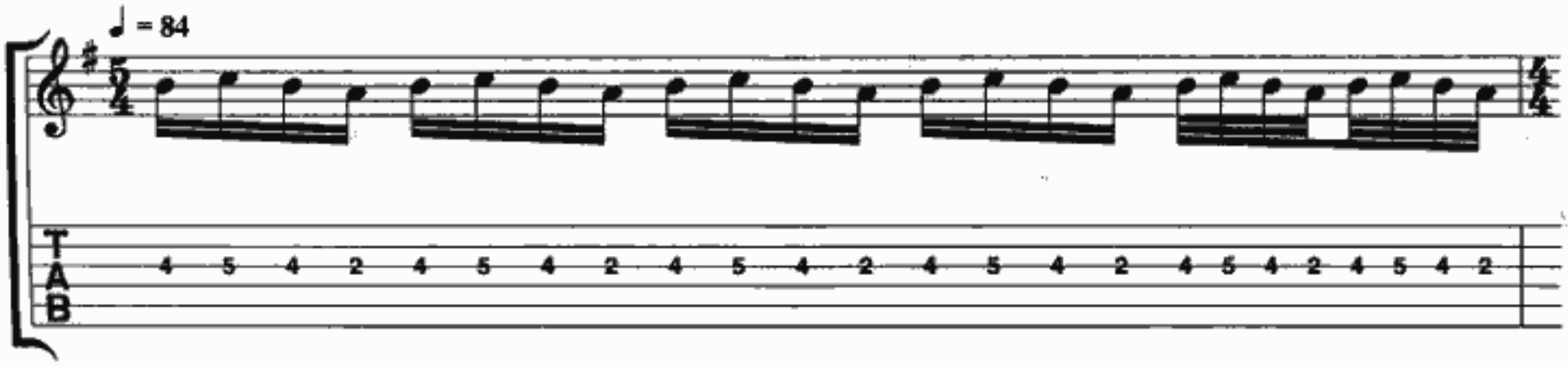
Scale fragments can be practiced with a metronome as discussed earlier, or by playing the exercises over and over in free time beginning with a slow tempo, gradually increasing the speed, then backing off to a slower tempo again. In a way, this acceleration and deceleration is similar to the revving of an automobile or motorcycle engine. Try varying the degree of dynamics in conjunction with these changes in speed. In other words, play louder as the tempo increases, and quieter as things slow down. On the recording for the following example, the tempo fluctuates from approximately 58 beats per minute, to around 200.

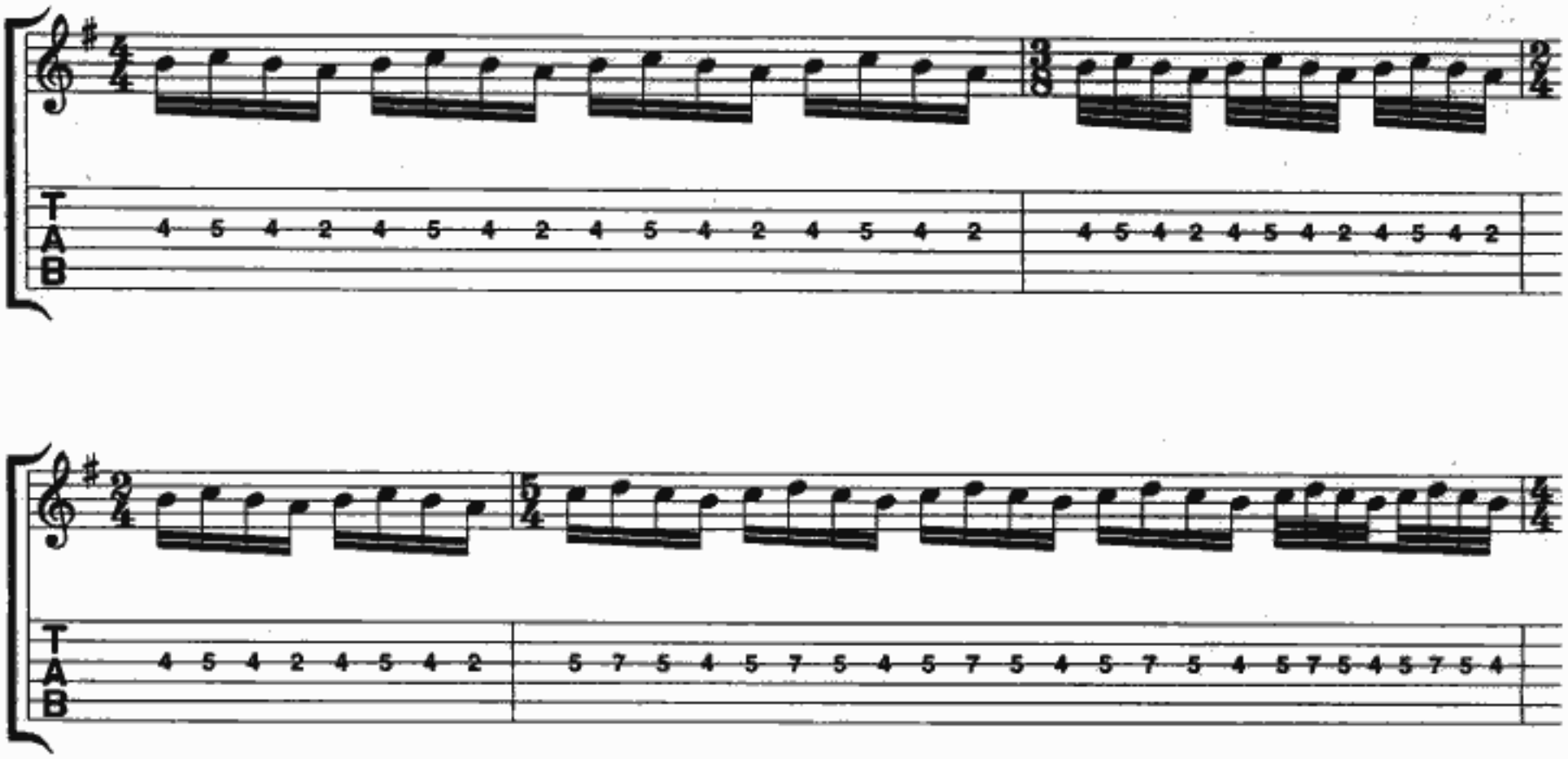


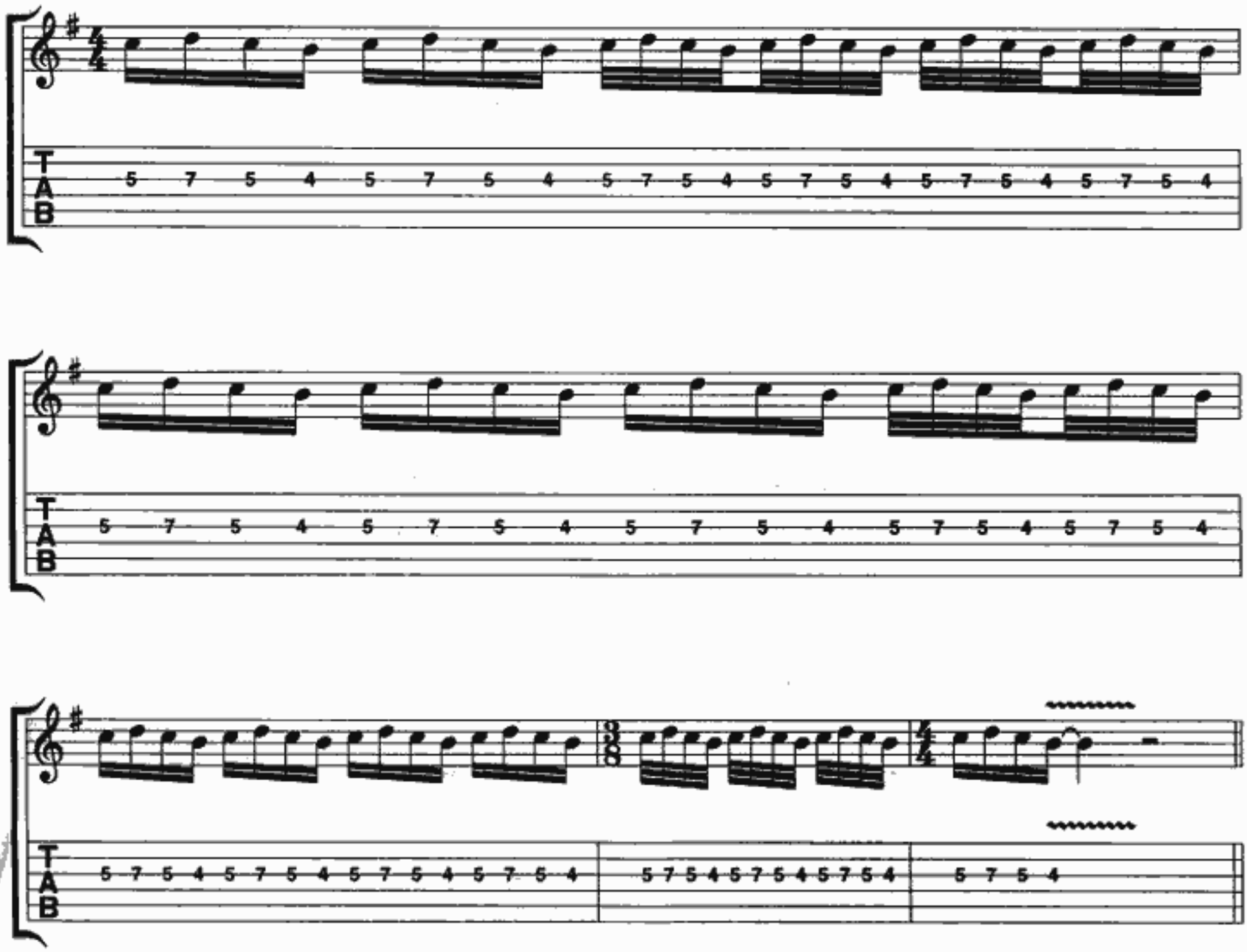


Example 11 *(Development 3)*

Another way to develop speed is to play the exercise over and over, maintaining a slow to moderate tempo, and then periodically blasting out a quick flurry of notes. In other words, jog for a bit, then sprint, then go back to jogging. This is a way to build stamina, as well as speed.

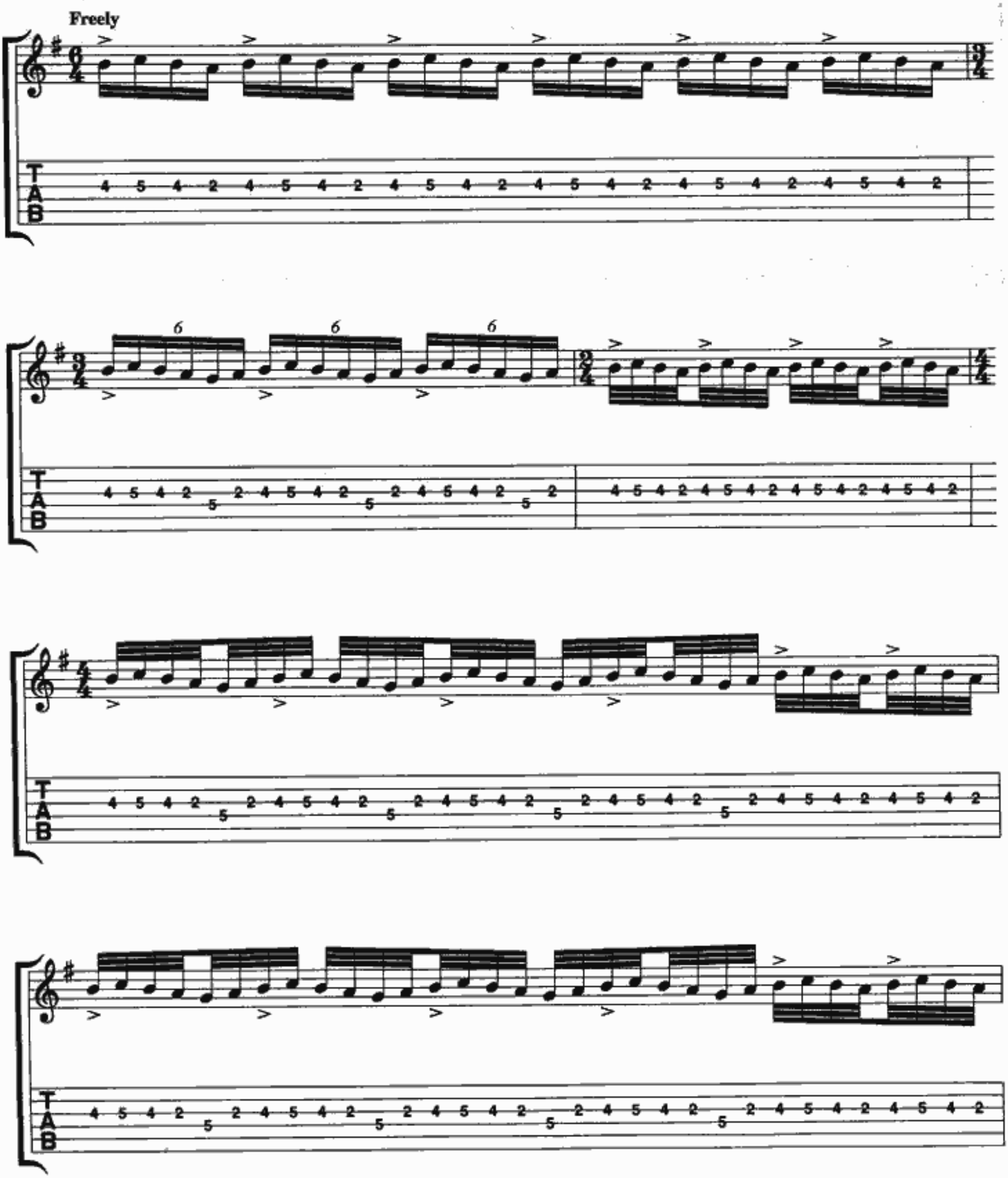


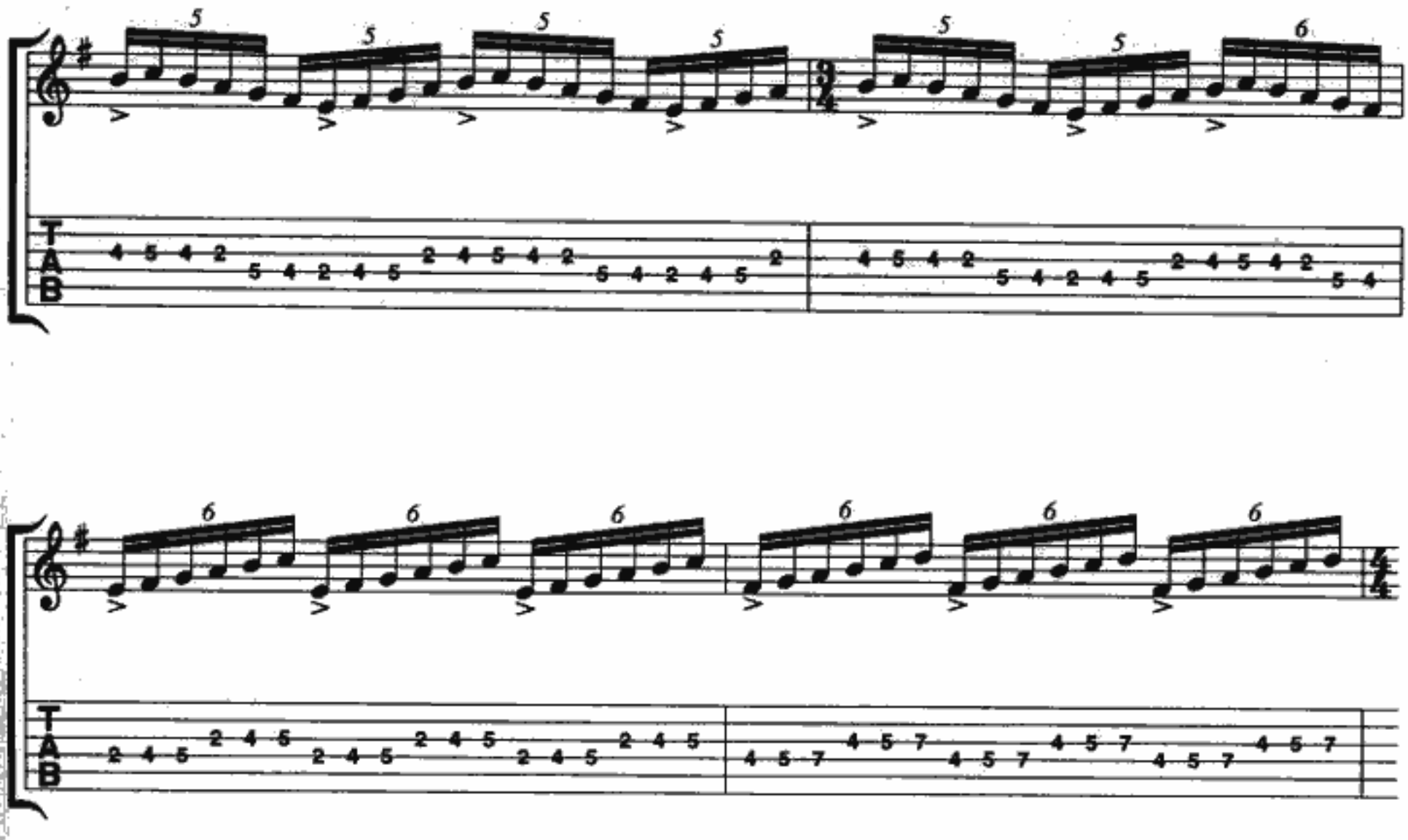

4 5 4 2 4 5 4 2 4 5 4 2 4 5 4 2
4 5 4 2 4 5 4 2 4 5 4 2
4 5 4 2 4 5 4 2
5 7 5 4 5 7 5 4 5 7 5 4 5 7 5 4 5 7 5 4 5 7 5 4 5 7 5 4

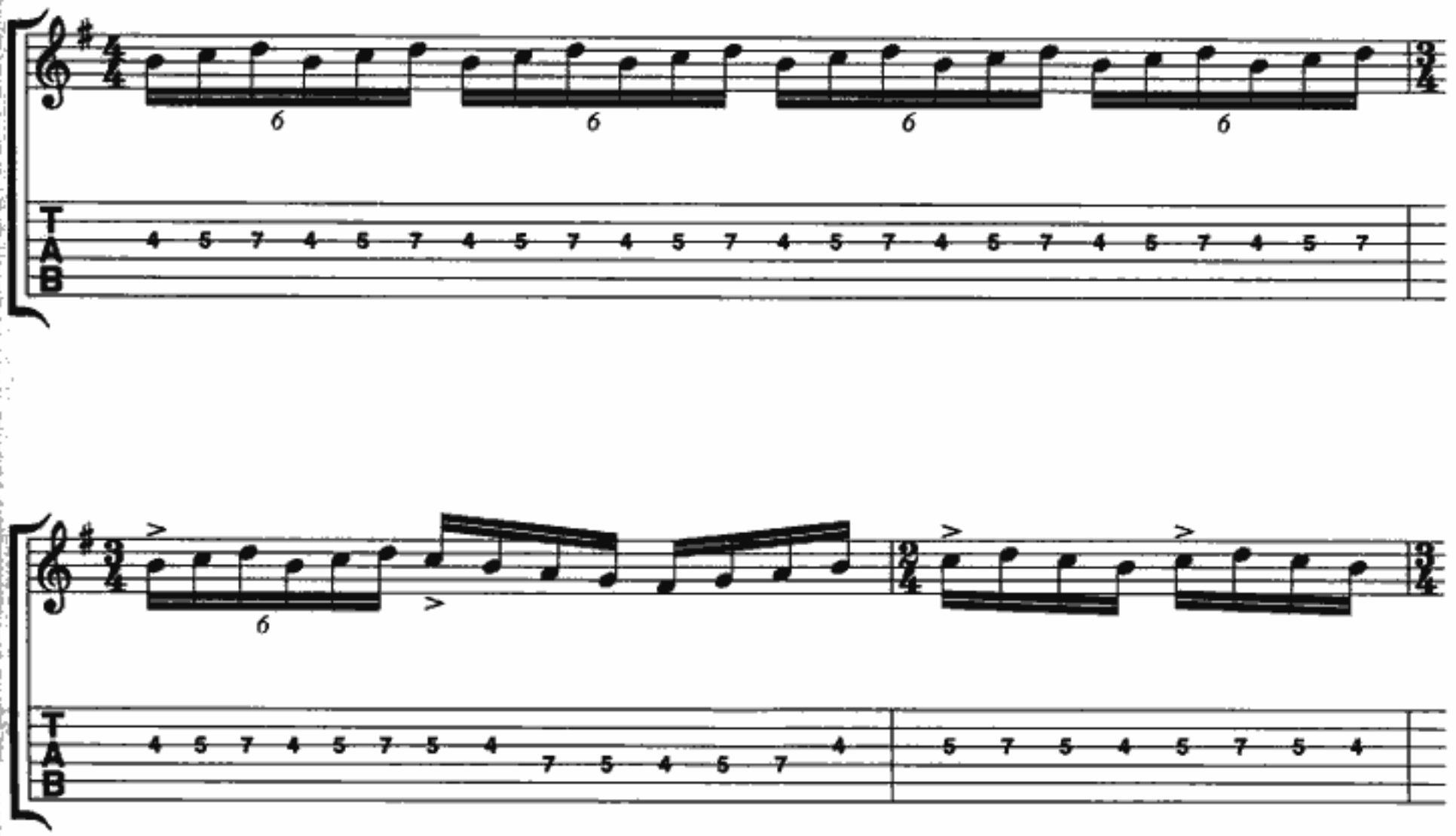

5 7 5 4 5 7 5 4 5 7 5 4 5 7 5 4 5 7 5 4 5 7 5 4 5 7 5 4
5 7 5 4 5 7 5 4 5 7 5 4 5 7 5 4 5 7 5 4 5 7 5 4
5 7 5 4 5 7 5 4 5 7 5 4 5 7 5 4
5 7 5 4 5 7 5 4 5 7 5 4 5 7 5 4
5 7 5 4 5 7 5 4 5 7 5 4
5 7 5 4

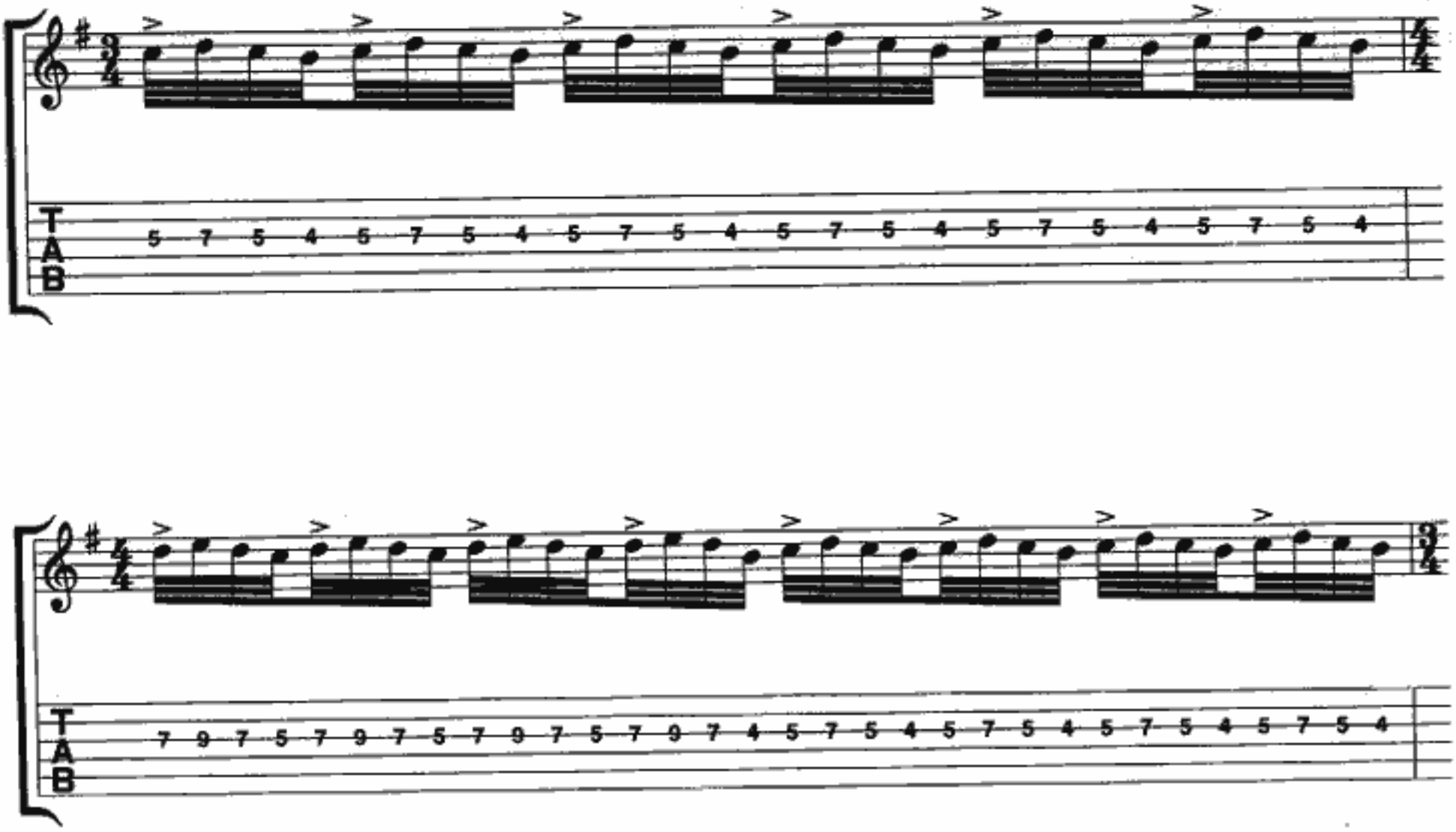
Example 11 *(Development 4)*

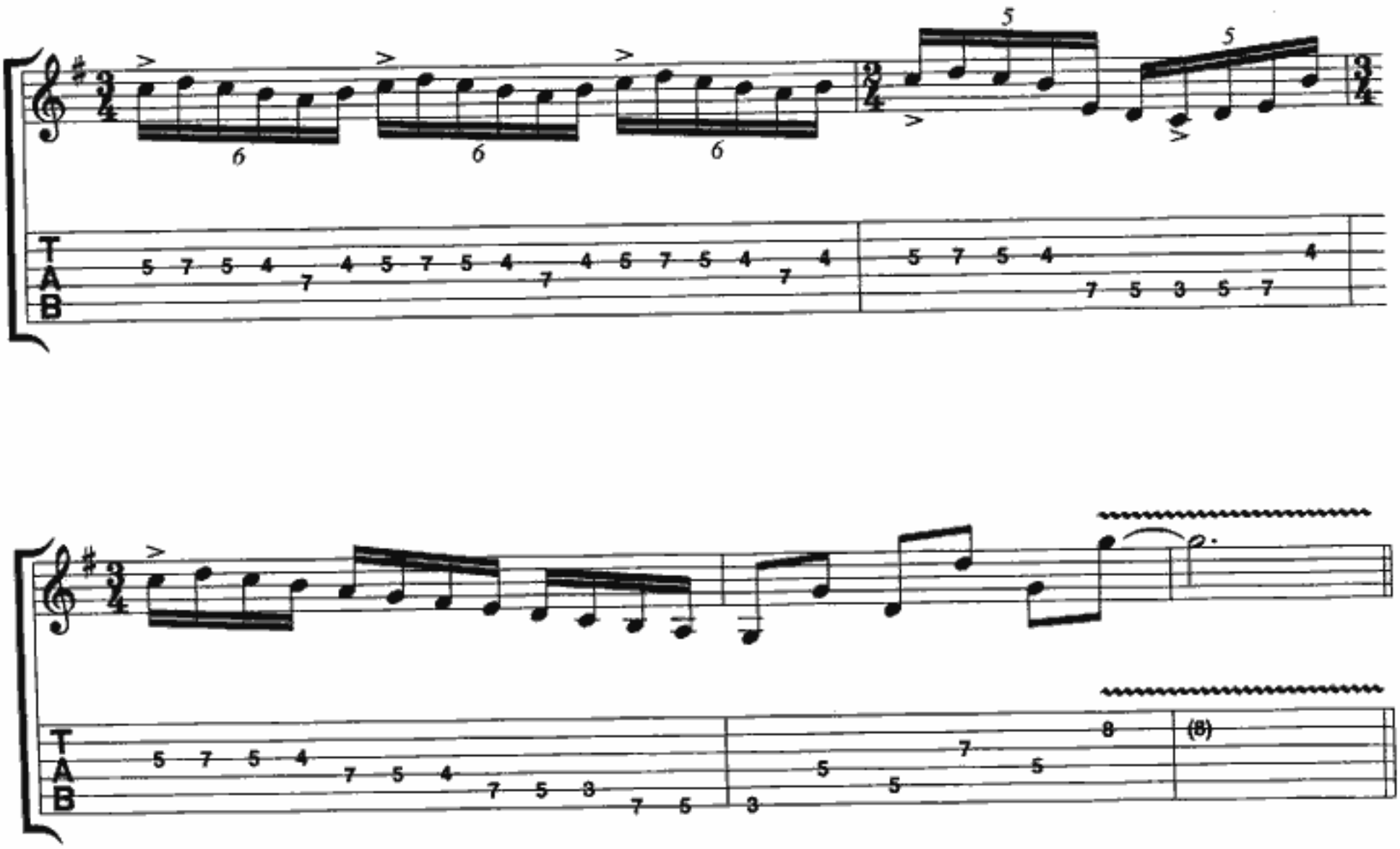
Another fun thing to do with all of these exercises, since they're arranged in similar 16th-note or 16th-note triplet patterns, is to try spontaneously combining a few of them. Try to be as imaginative as possible. The following example is performed in free time.




5 5 5 5 5 5 6
T A B
4 5 4 2 5 4 2 4 5 2 4 5 4 2 5 4 2 4 5 2
4 5 4 2 5 4 2 4 5 2 4 5 4 2 5 4
6 6 6 6 6 6 6
T A B
2 4 5 2 4 5 2 4 5 2 4 5 2 4 5 2 4 5
4 5 7 4 5 7 4 5 7 4 5 7 4 5 7


6 6 6 6
T A B
4 5 7 4 5 7 4 5 7 4 5 7 4 5 7 4 5 7 4 5 7 4 5 7
6
T A B
4 5 7 4 5 7 5 4 7 5 4 5 7 4
5 7 5 4 5 7 5 4


T
A
B
5 7 5 4 5 7 5 4 5 7 5 4 5 7 5 4 5 7 5 4 5 7 5 4
7 9 7 5 7 9 7 5 7 9 7 5 7 9 7 4 5 7 5 4 5 7 5 4 5 7 5 4 5 7 5 4

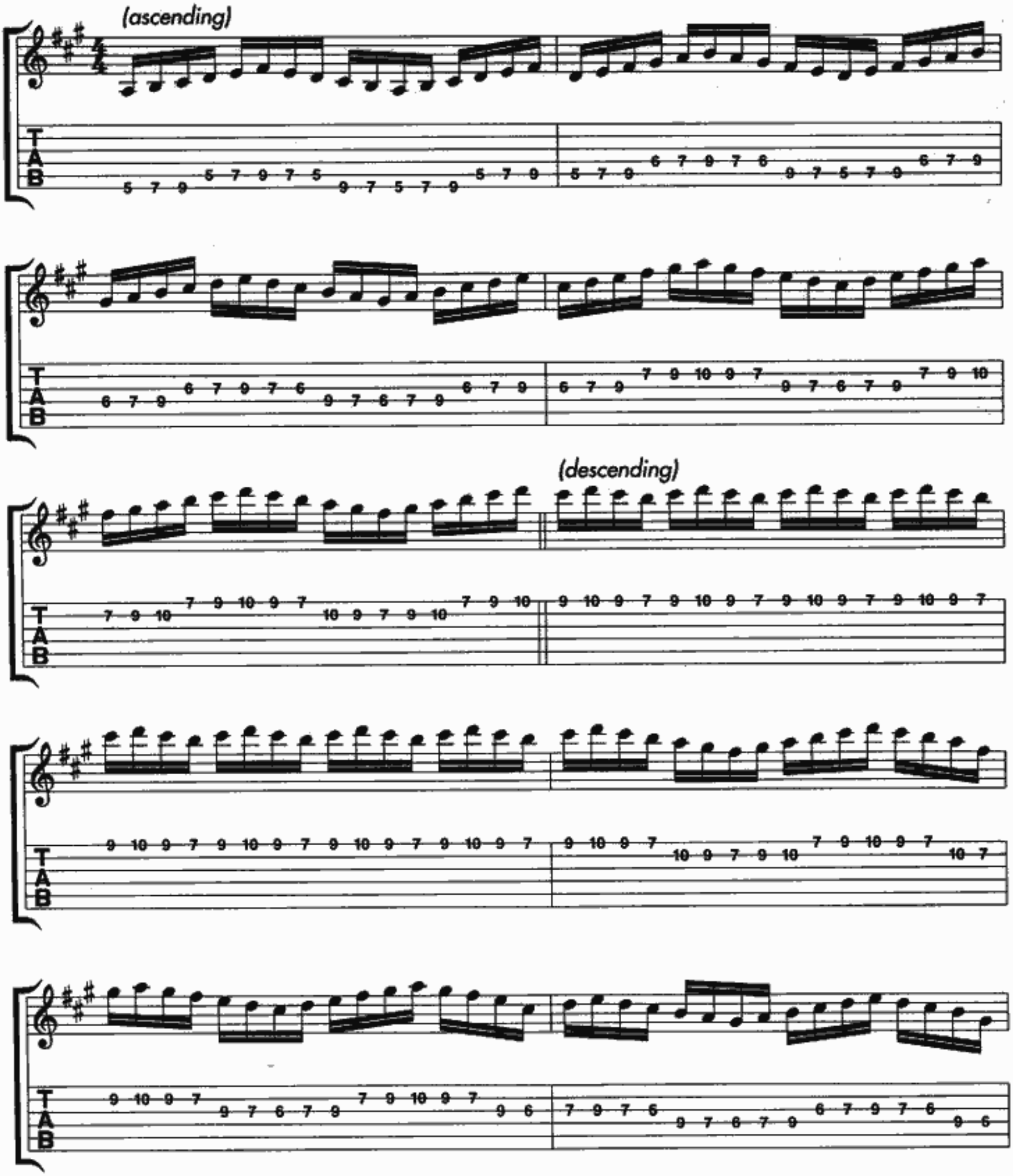

6
6
6
5
5
T
A
B
5 7 5 4 7 4 5 7 5 4 7 4 5 7 5 4 7 4
5 7 5 4 4
7 5 3 5 7
5 7 5 4 7 5 4 7 5 3 7 5
3 5 5 7 5 8
(8)

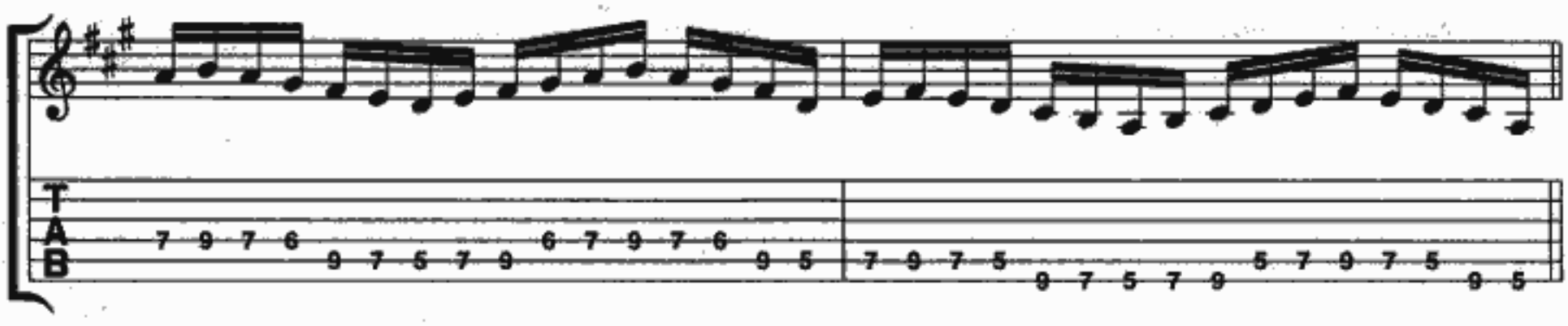
Example 12

As mentioned before, each one of these fragments can be used in the context of an extended run. The example that follows takes the patterns used in Fragments 4 and 6 from Example 11, transposes them to the key of A major (A B C# D E F# G#), and incorporates them into a longer sequence of notes, playing them on different pairs of strings.

Example 13

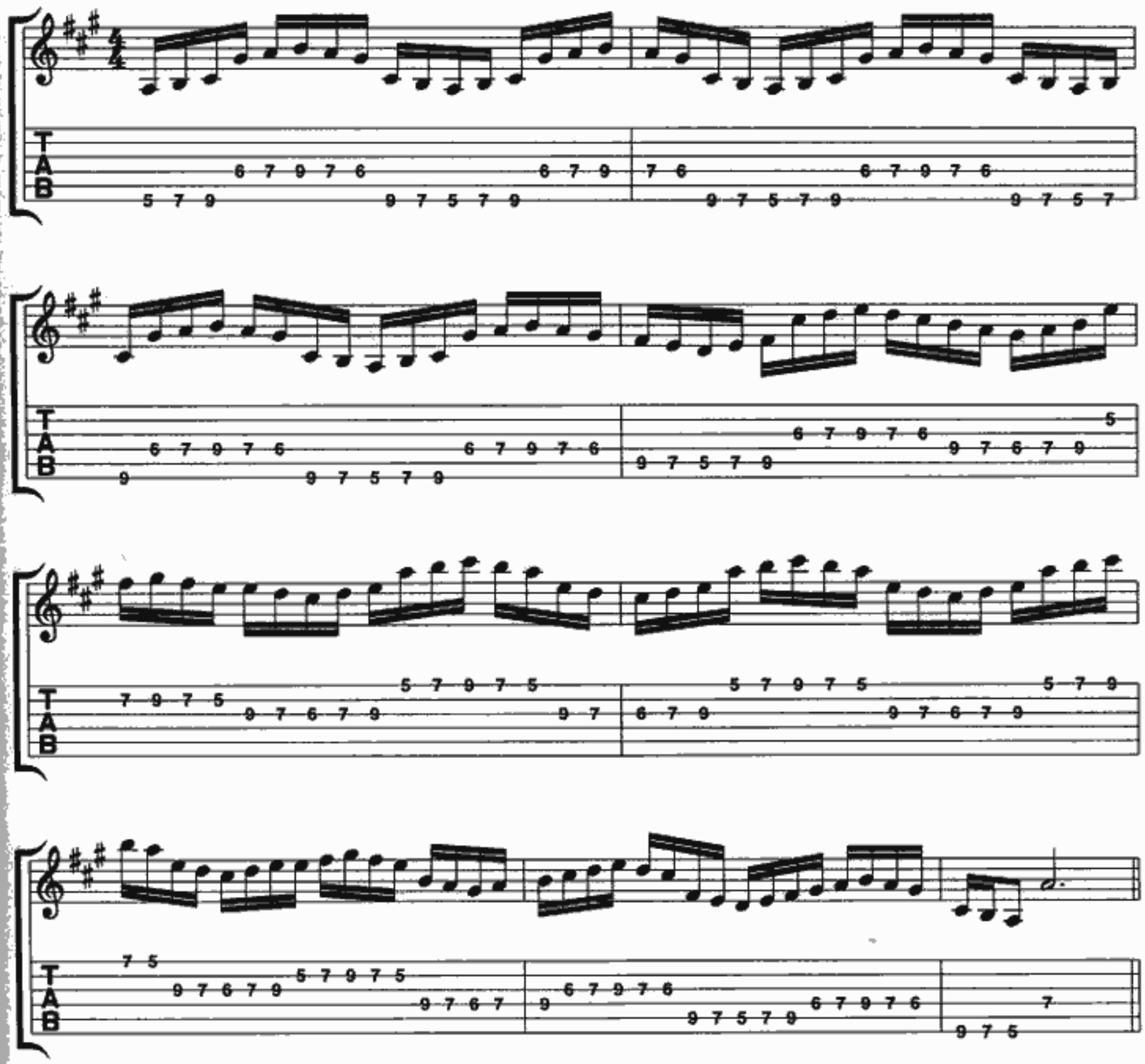
This next sequence of notes is derived from combinations of both Fragments 10 and 11, as well as Fragments 15 and 16. The difference here is that the subdivision used to perform this passage is consistently 16th notes (four notes per beat) and the fragments are once again transposed to the key of A.





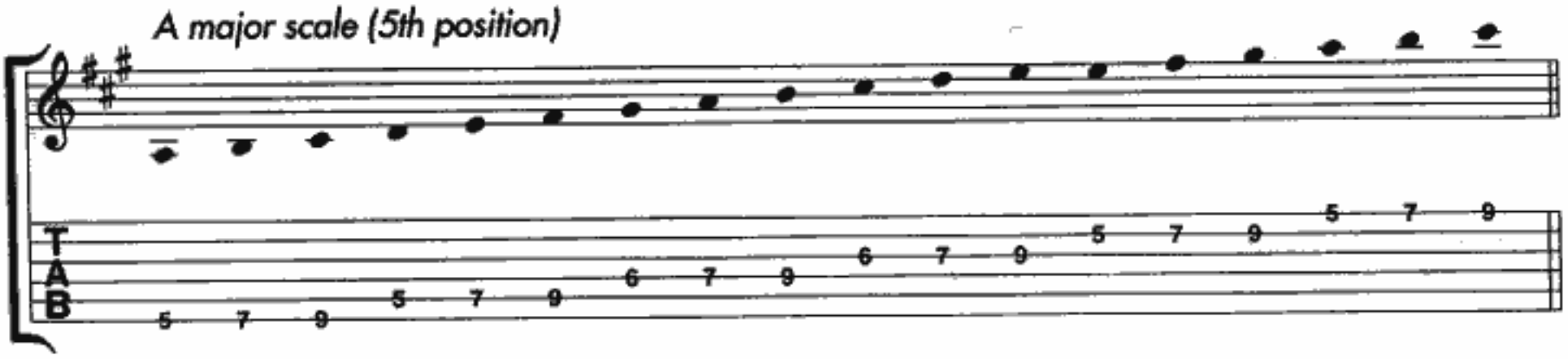
Example 14

Here's another example using versions of Fragments 17 and 18 in a 16th-note string-skipping passage transposed to the key of A major.



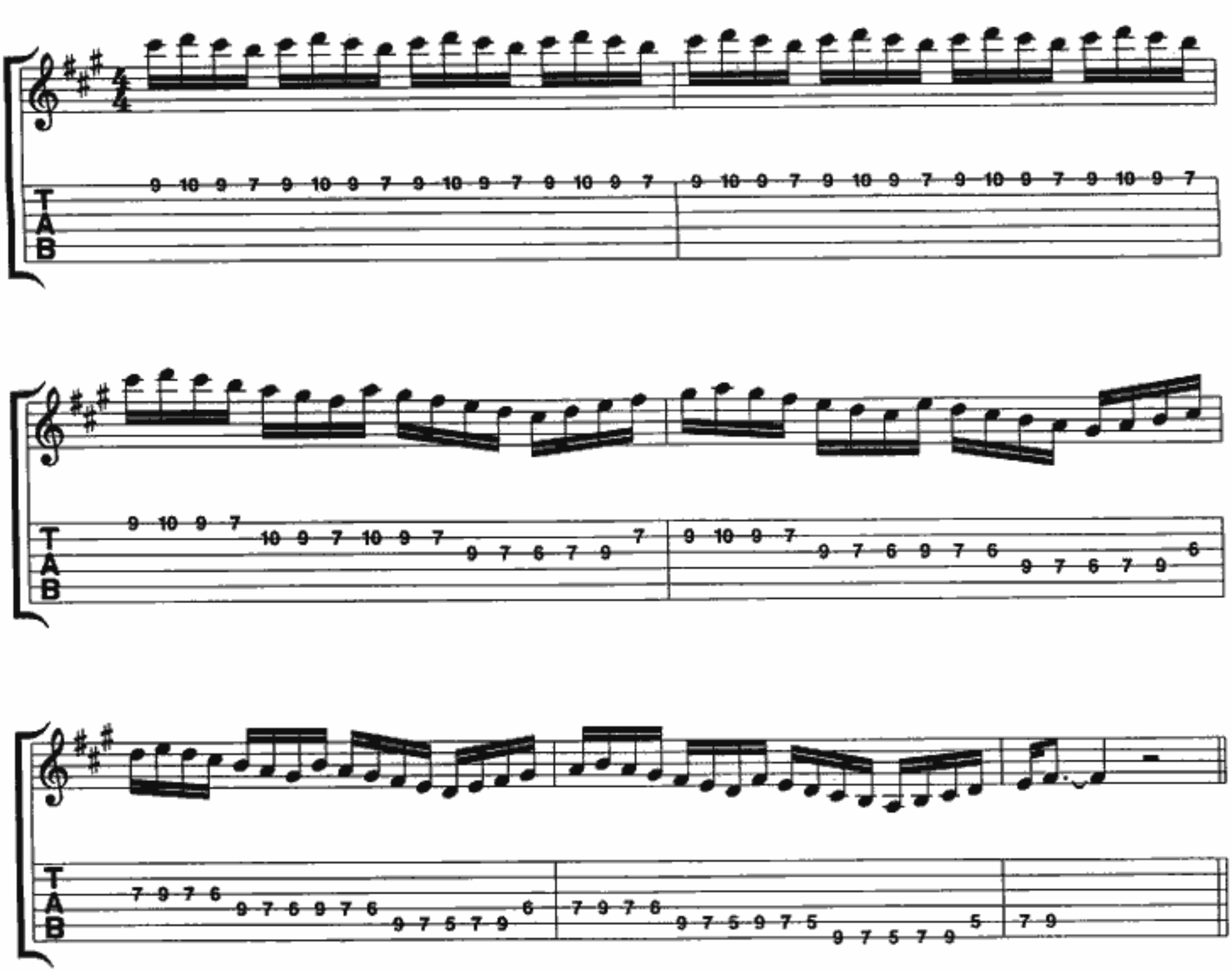
This is not the typical three-note-per-string scale fingering, this sequence stays in the same position in order to facilitate string skipping without awkward position shifts but note that the E on the 3rd string 9th fret is repeated by the E on the 2nd string 5th fret. However, the two E notes are never played back to back in this lick since string skipping is involved.

A major scale (5th position)



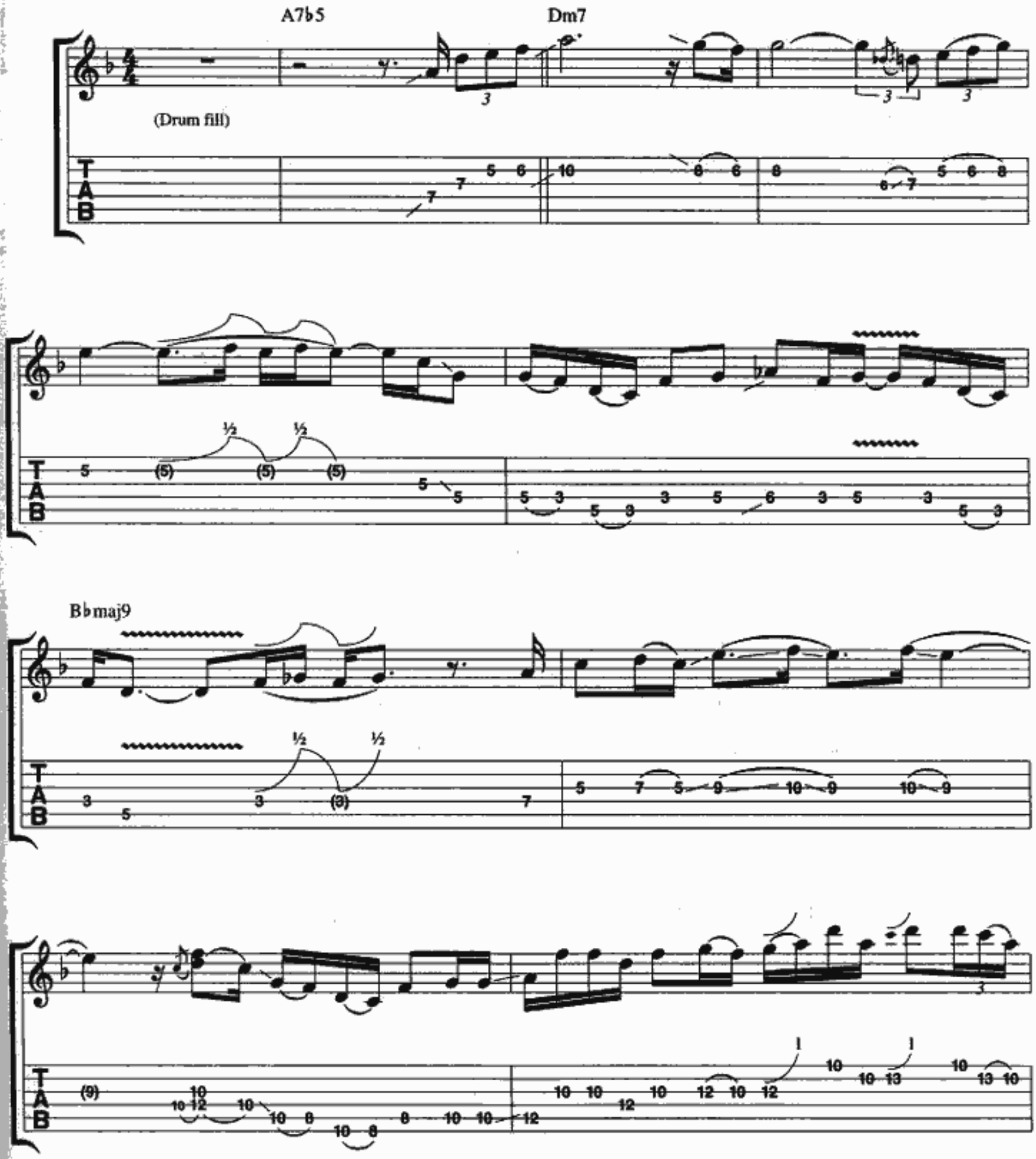
Example 15

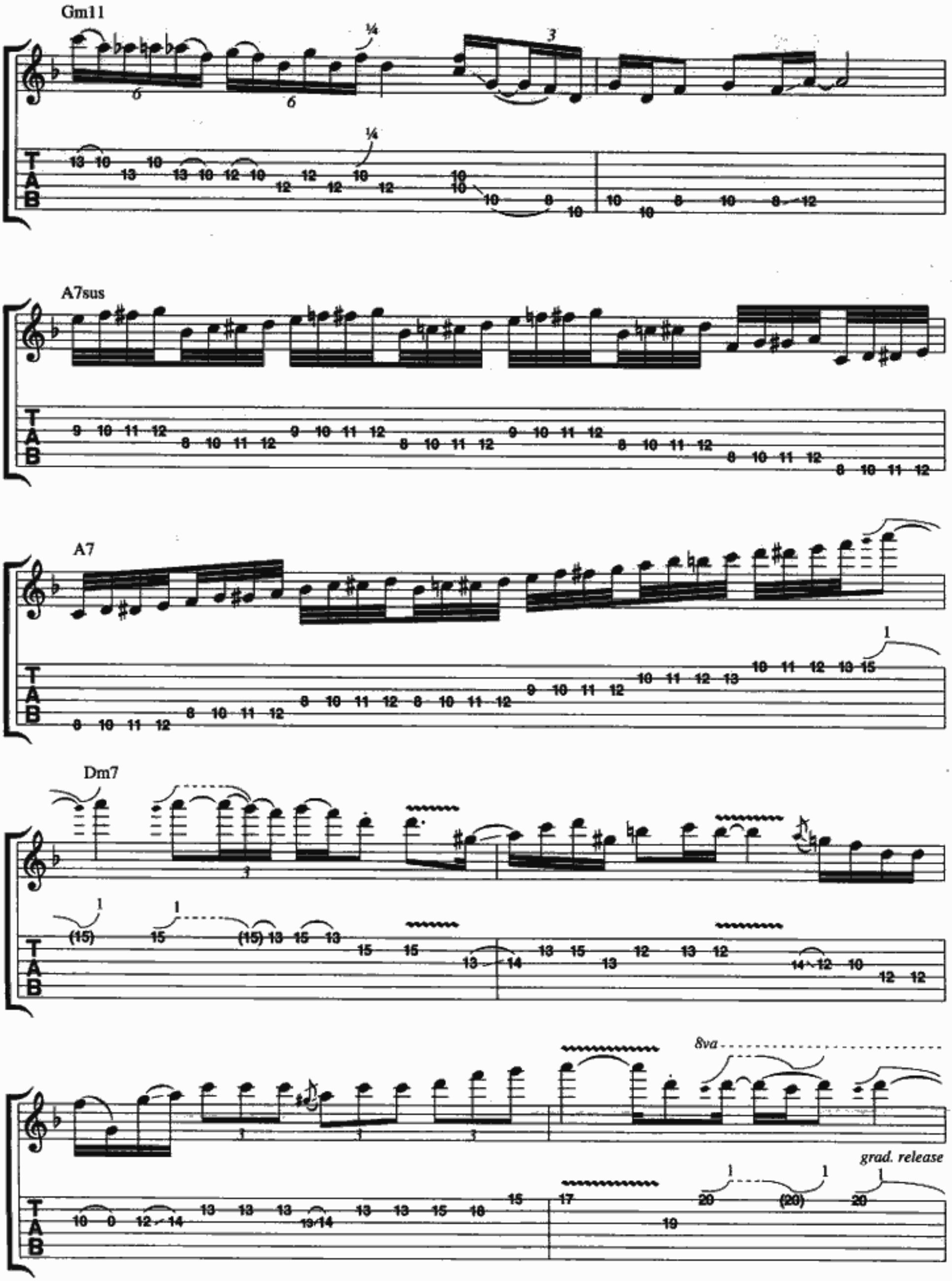
Here's another sequence based on one of the fragments used earlier.

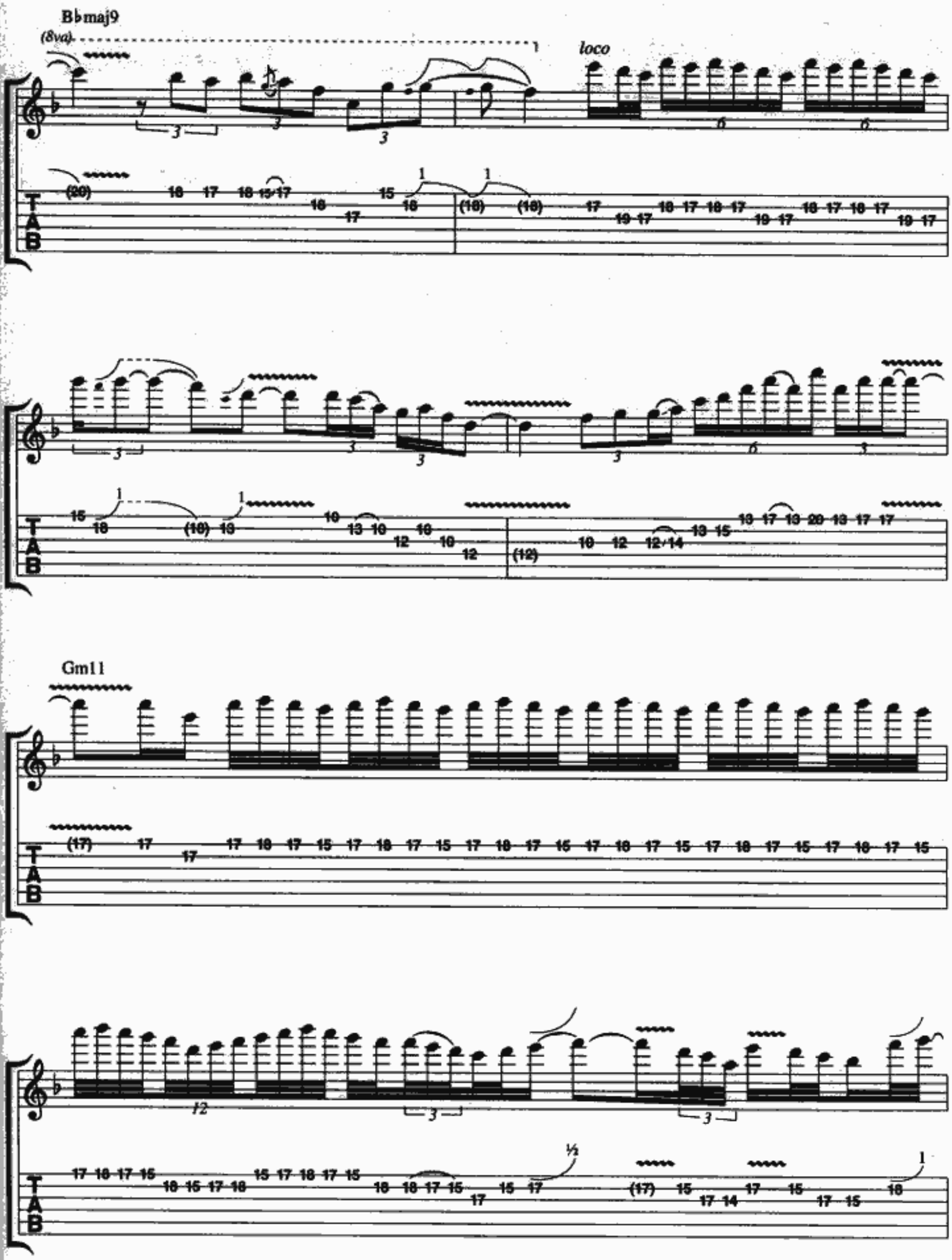


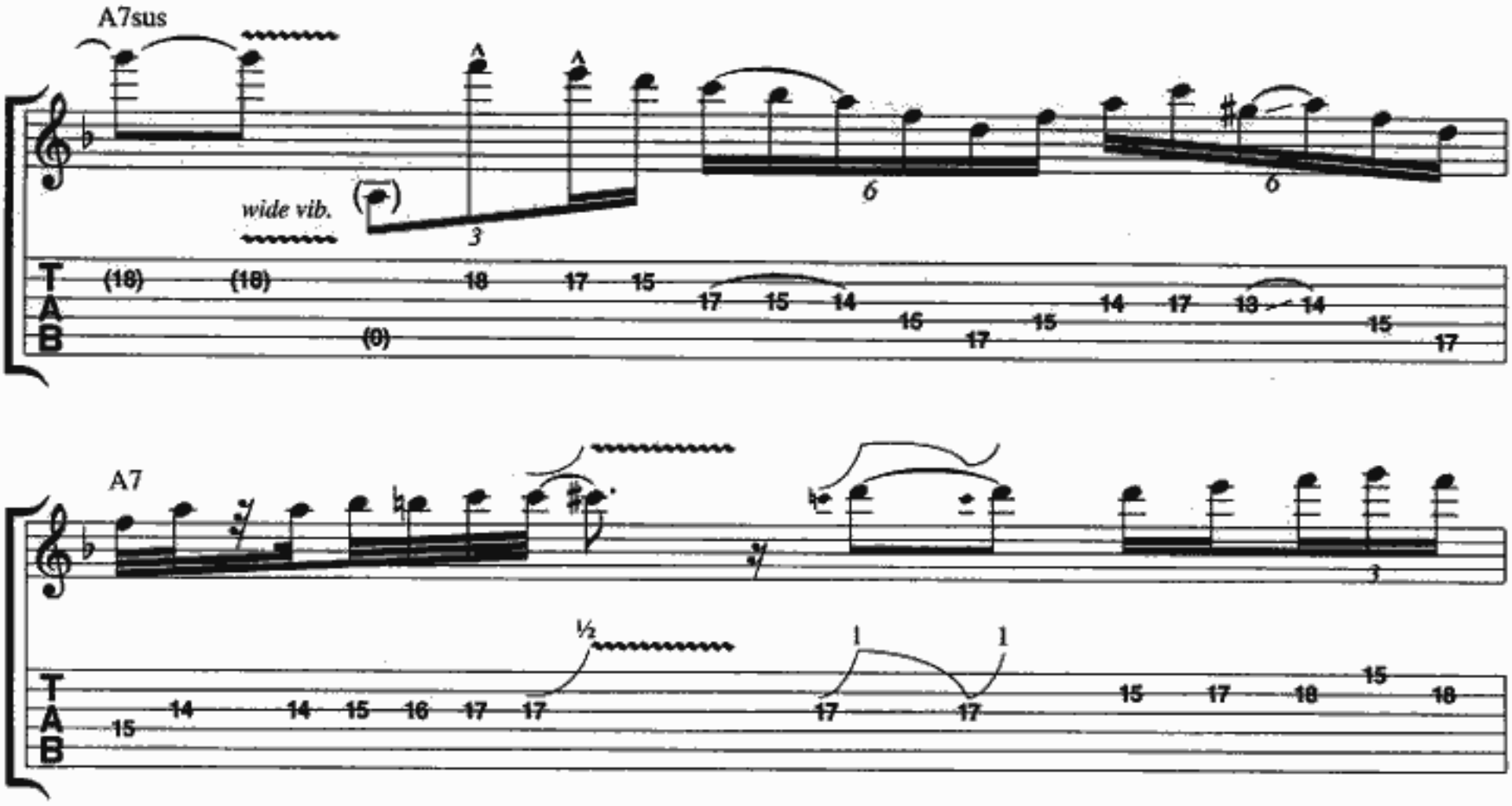
Example 16

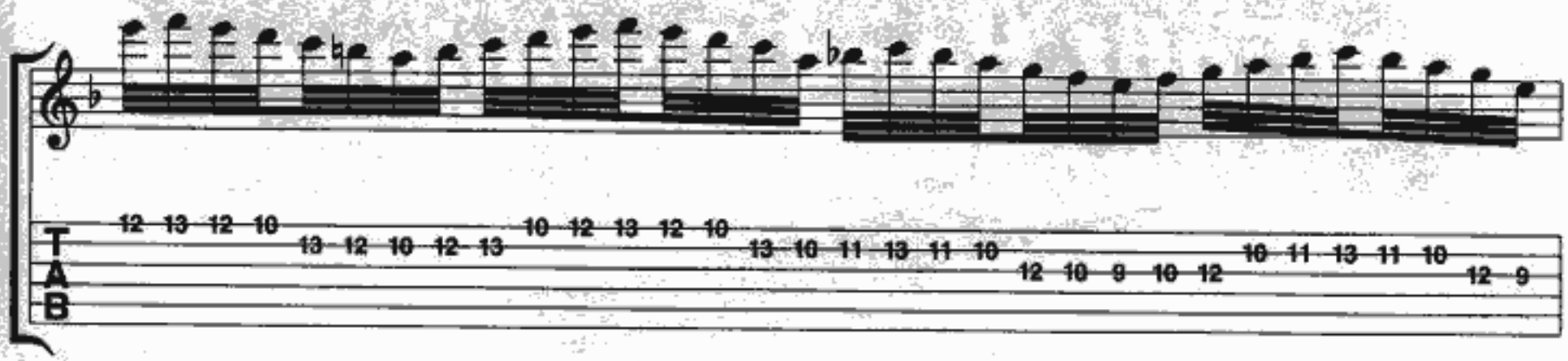
The next example demonstrates how all the previously learned scalar techniques can be applied to improvising using primarily D dorian (D E F G A B C) and D aeolian minor (D E F G A B♭ C) scales. These types of runs are most effective when used as fills leading into or out of primary melodic ideas as a means of building dramatic tension. Listen to the recording first, then go back and try to implement some of these same types of ideas into your own playing.

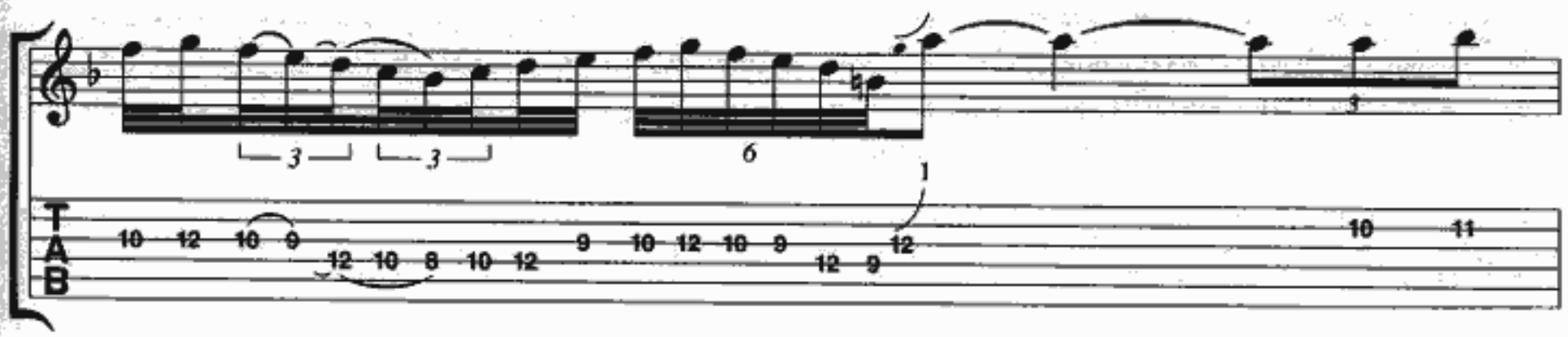


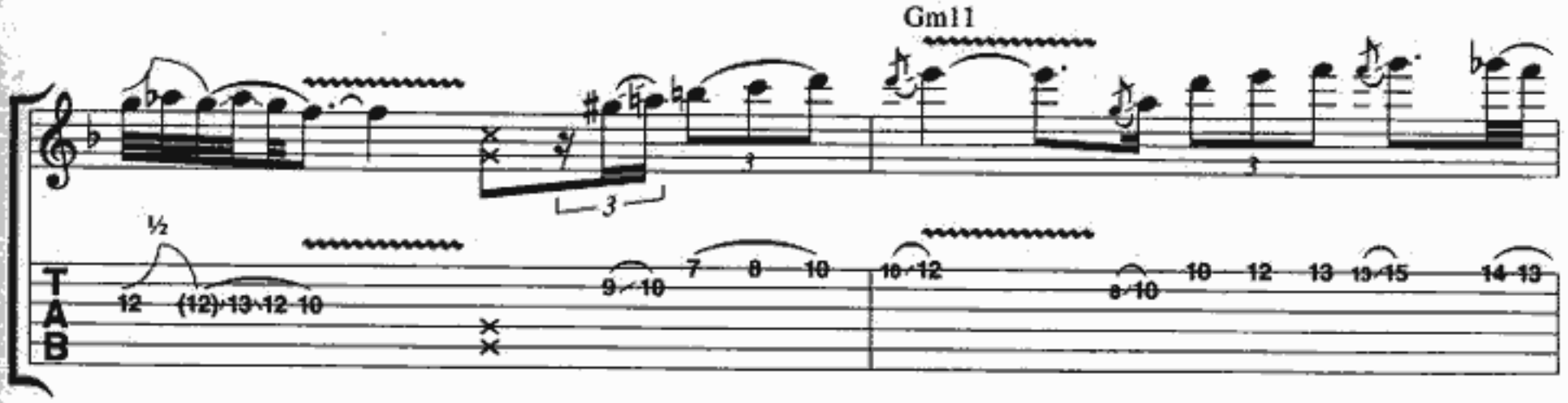

Gm11
A7sus
A7
Dm7
8va
grad. release

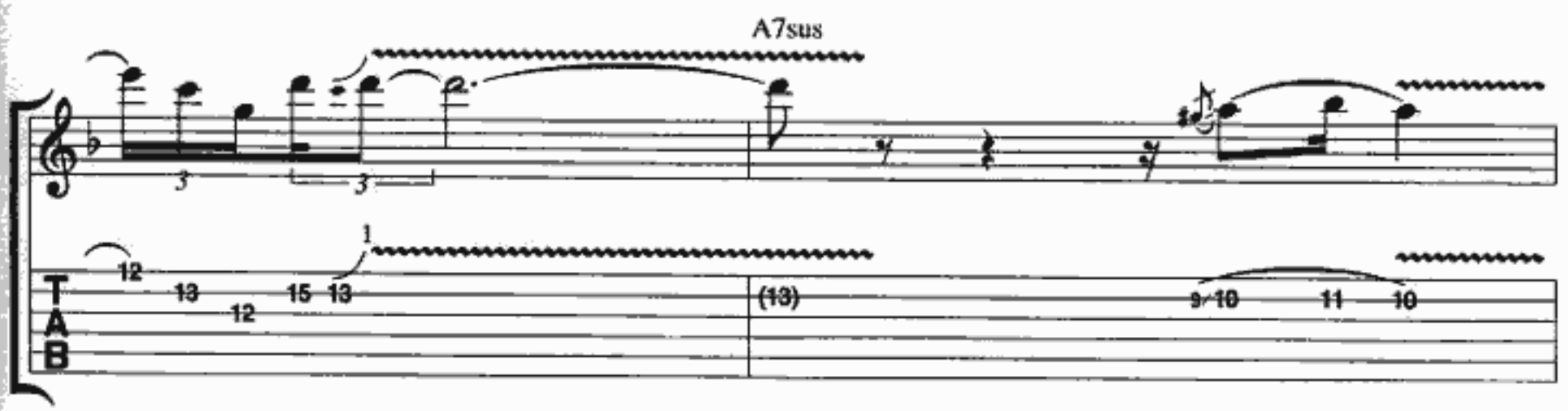

B♭maj9
(8va)
loco
Gm11

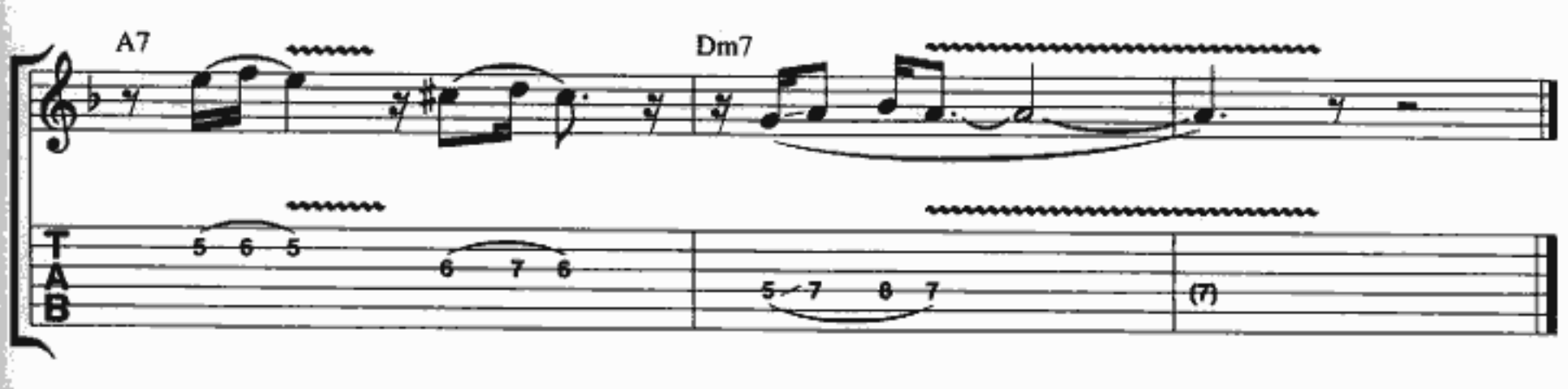

A7sus
wide vib.
A7
Dm7
8va
(8va)
loco
Bbmaj9


T
A
B
12 13 12 10 13 12 10 12 13 10 12 13 12 10 13 10 11 13 11 10 12 10 9 10 12 10 11 13 11 10 12 9


3
3
6
1
T
A
B
10 12 10 9 12 10 8 10 12 9 10 12 10 9 12 9 12 10 11


Gm11
3
3
½
T
A
B
12 (12) 13 12 10 9 10 7 8 10 10 12 8 10 10 12 13 13 15 14 13


A7sus
3
3
1
T
A
B
12 13 12 15 13 (13) 9 10 11 10

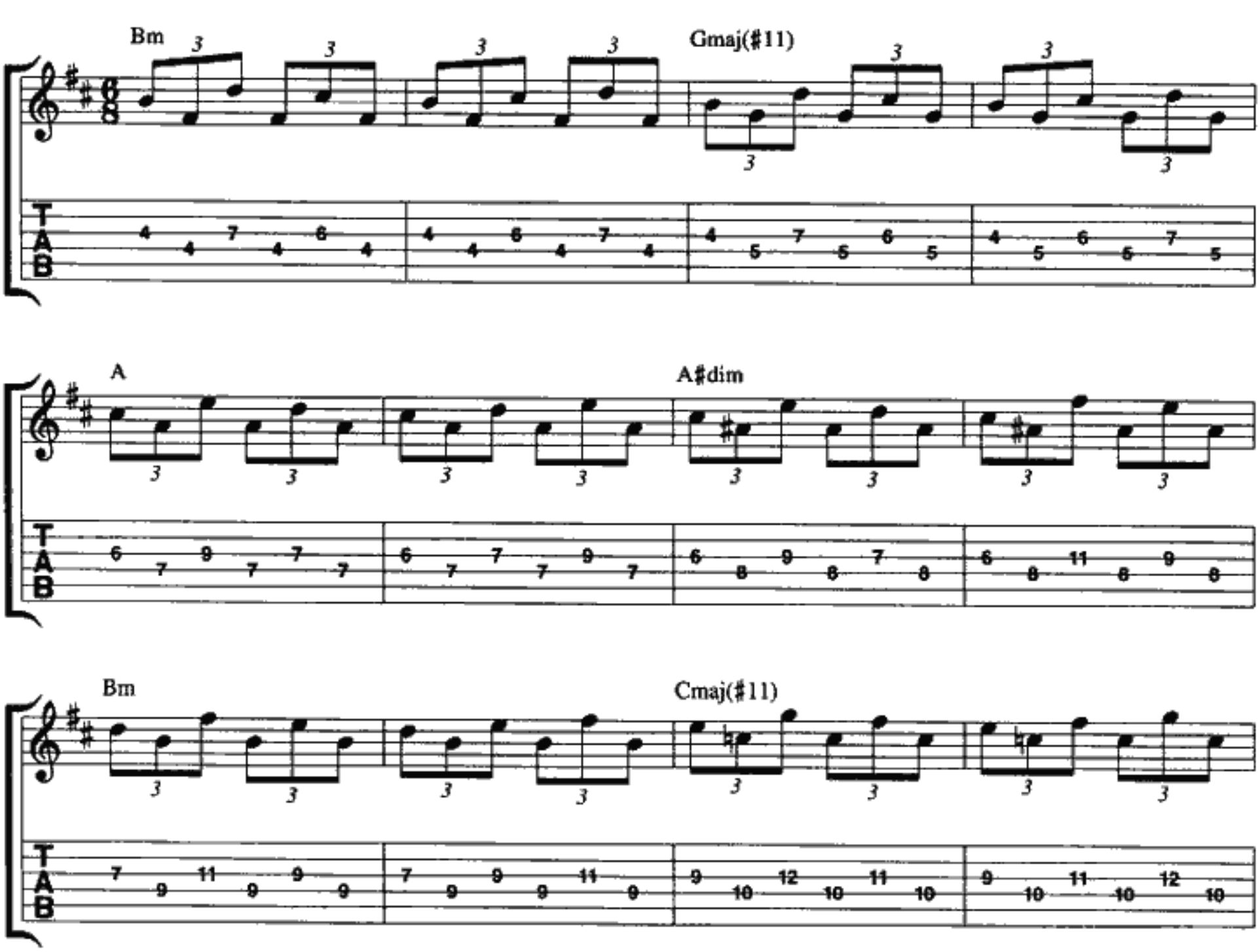

A7
Dm7
T
A
B
5 6 5 6 7 6 5 7 8 7 (7)

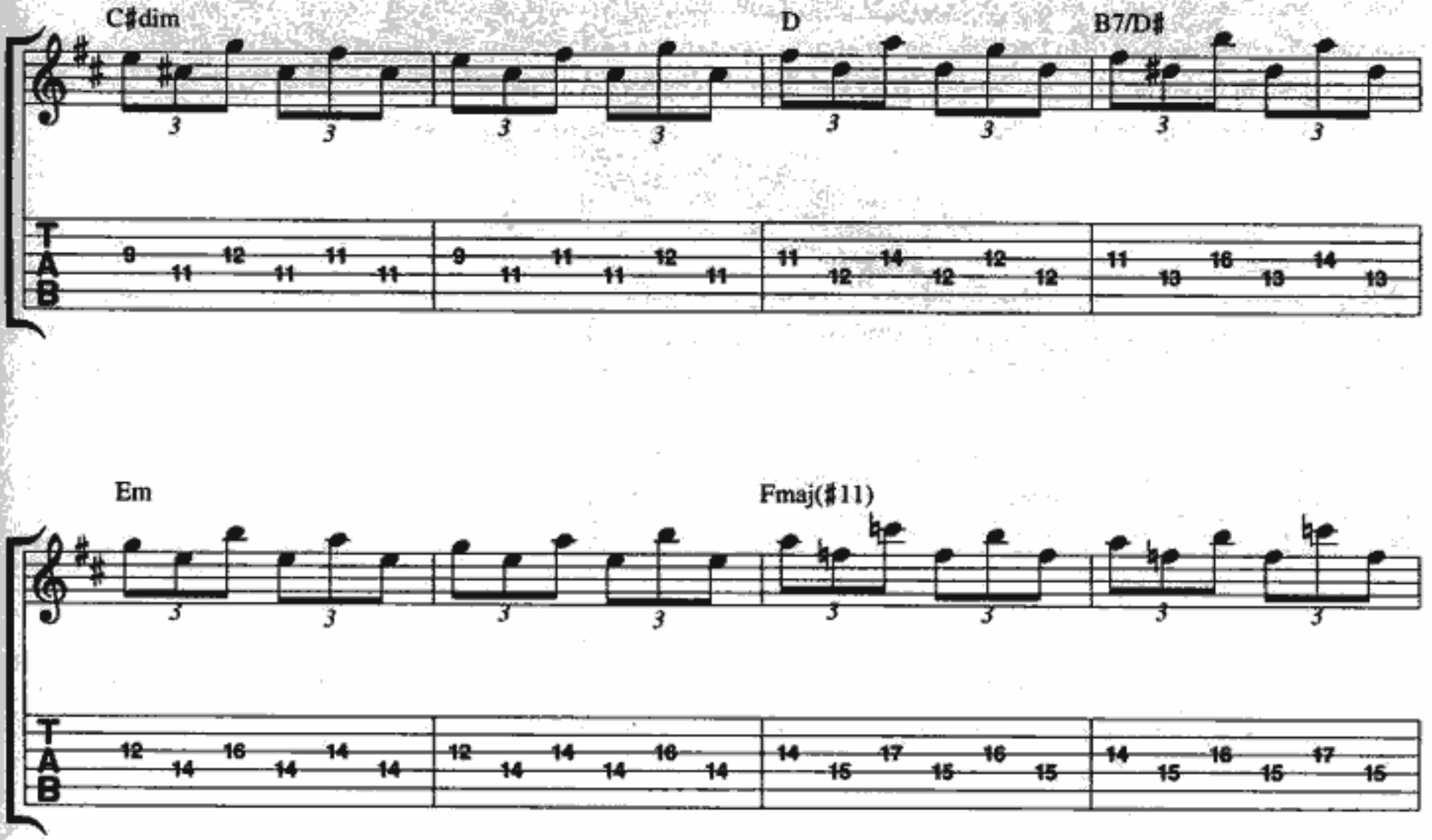
Part VI
Right Hand Technique
(Alternate Picking Arpeggios)

One of the more difficult techniques for most guitarists is using alternate picking through arpeggios since most of the notes within common arpeggio shapes are arranged in a one-note-per-string manner. When using alternate picking, there will be a few instances that require the pick to exectute an up-stroke on a lower string after a down-stroke on a higher string. This "inside the string" picking technique is the most difficult pickstroke to master.

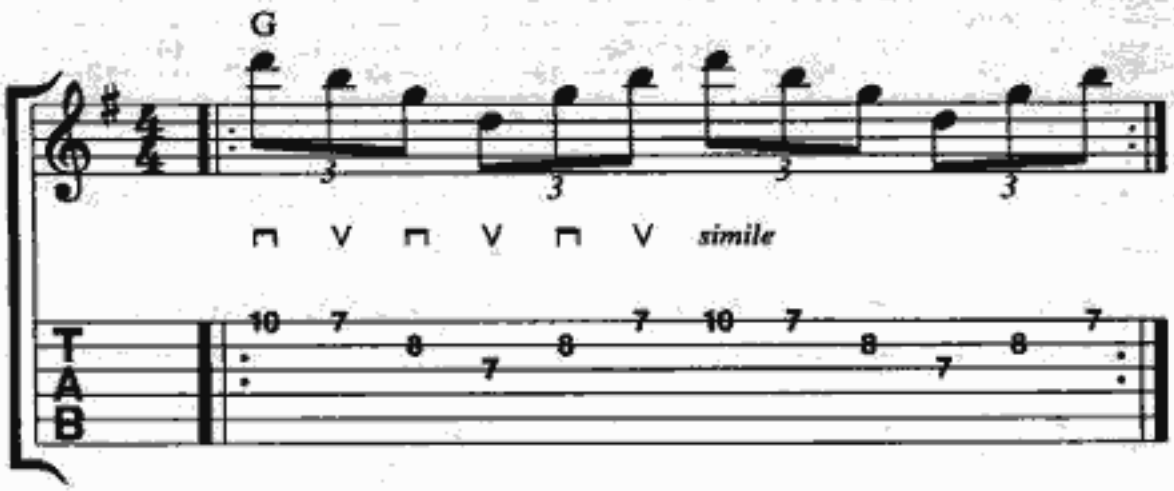
Example 17

The following etude focuses on this awkward technique. In general, whenever presented with an area of technique that needs to be refined, creating an etude (musical exercise) can make the process much more enjoyable.



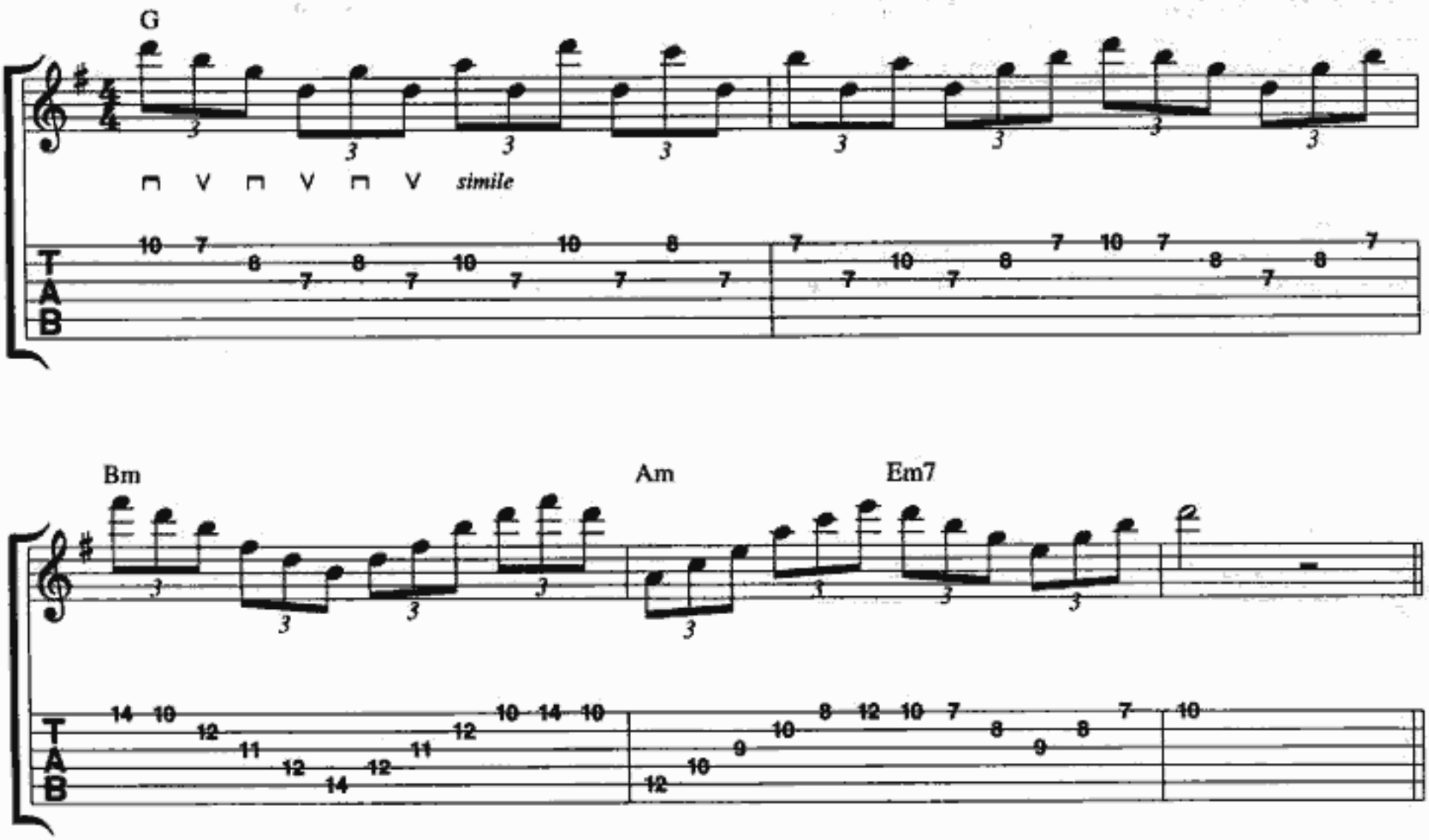

C♯dim
D
B7/D♯
Em
Fmaj(♯11)
F♯dim
G
E7
Am

While the previous exercise focused on one type of picking situation that typically arises when alternate picking through arpeggios, the exercise itself didn't actually use arpeggio shapes as the means of developing this technique. Now apply the picking pattern in Example 17 to an arpeggio passage. The difficulty becomes immediately apparent in the arpeggiation of a G major triad (G B D) in the 7th position.



Example 18

Instead of practicing this same arpeggio over and over, the following etude adds some variety by incorporating major and minor arpeggio shapes into the chord progression: G, Bm, Am, Em7. There are also some tricky string skips.

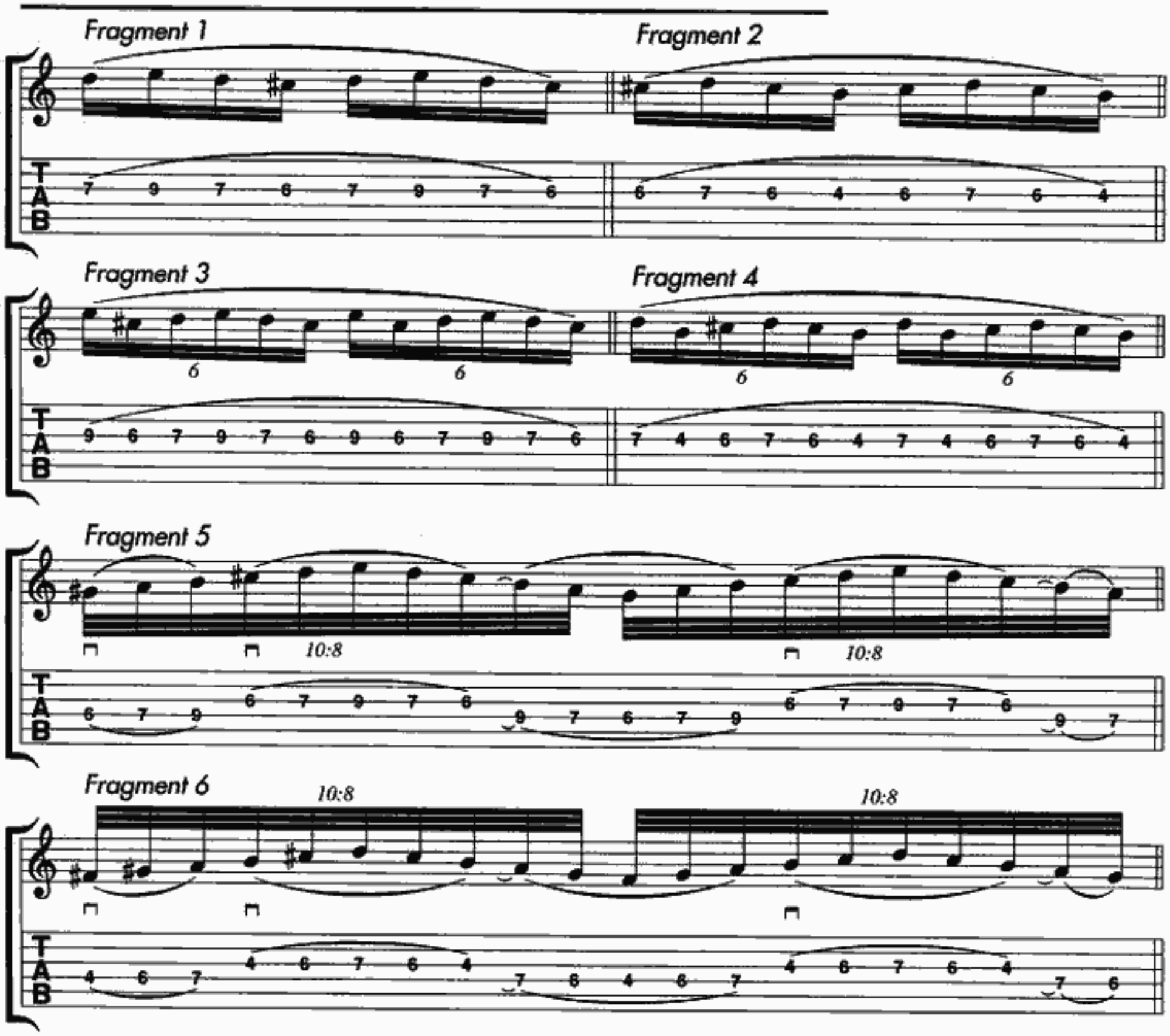


Part VII
Left Hand Technique
(Legato Playing)

Legato means "to be performed smoothly, without any break between notes." This is typically indicated in the notation staff by a slur which appears as a curved line over or under a series of notes of different pitches. This type of technique is extremely demanding on the left hand, as it is required to articulate each note by a series of hammer-ons and pull-offs, with minimal picking activity.

Practice the following scale fragments independently, and then apply them to longer legato runs. Ideally, each of these fragments should be practiced for one minute each, without stopping, connecting each fragment into the next.

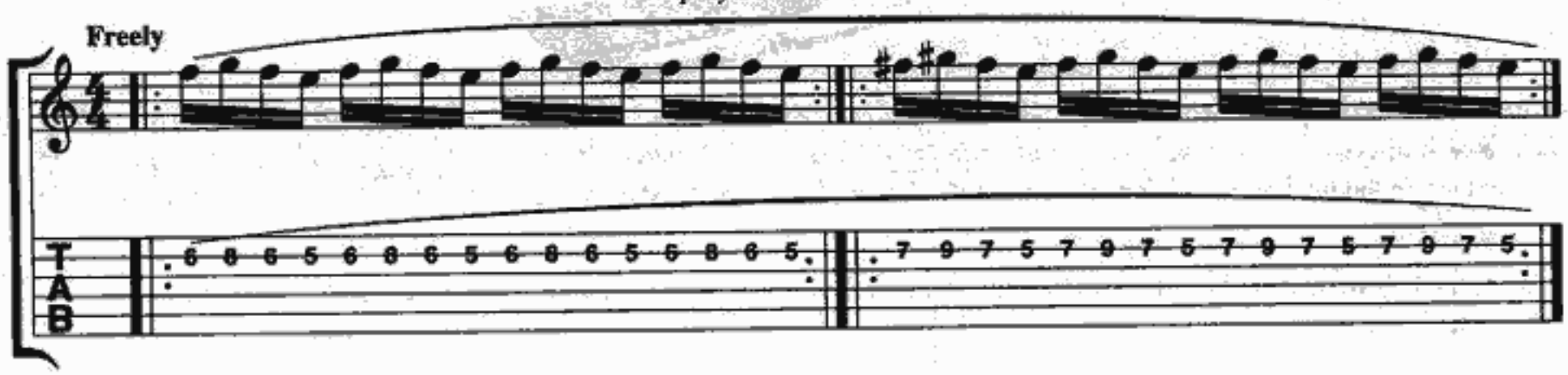
Example 19



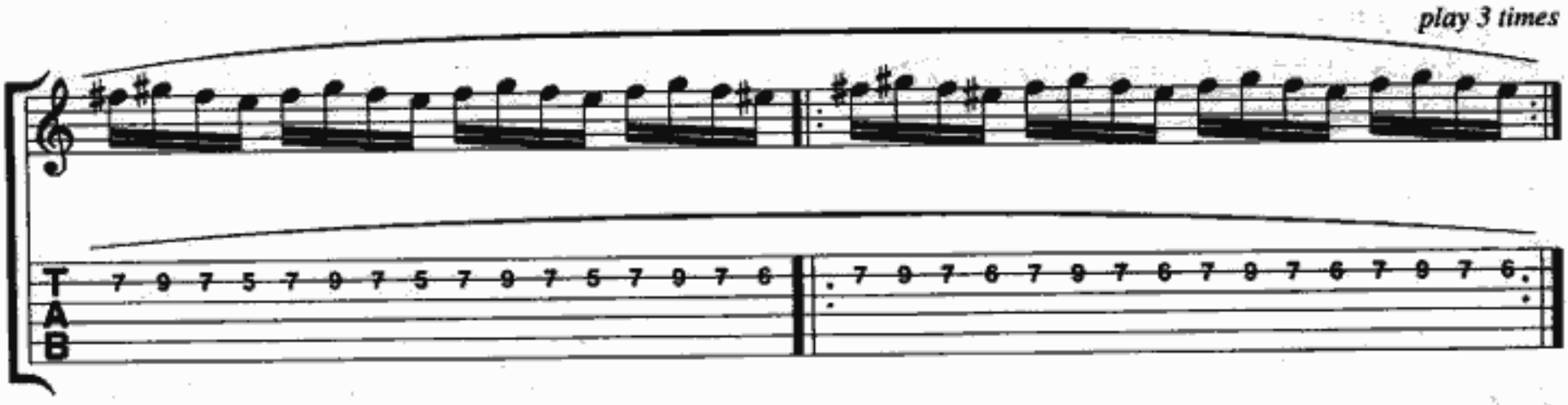
Example 20

These fragments can also be played on any string, using a wider stretch between notes if desired. They can also be played in any position and any key — diatonically or chromatically.

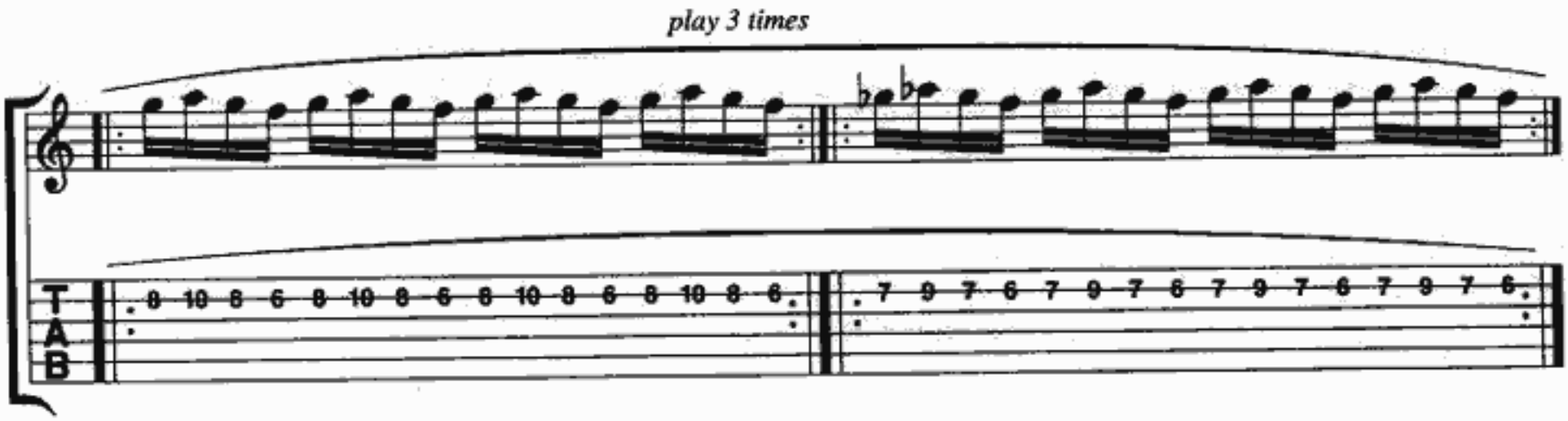
play 5 times



play 3 times

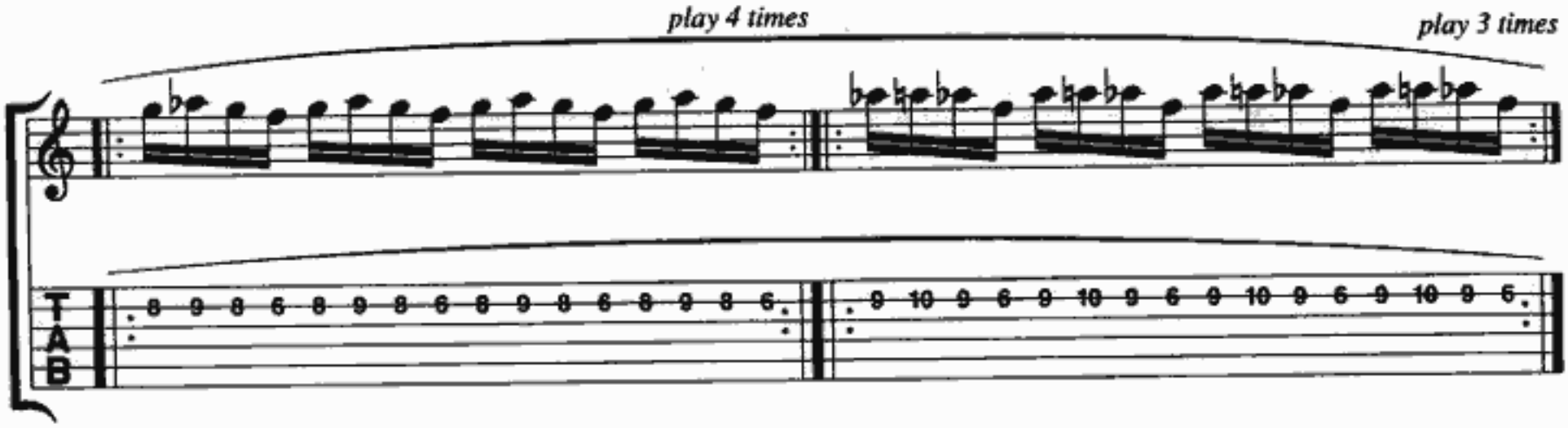


play 3 times

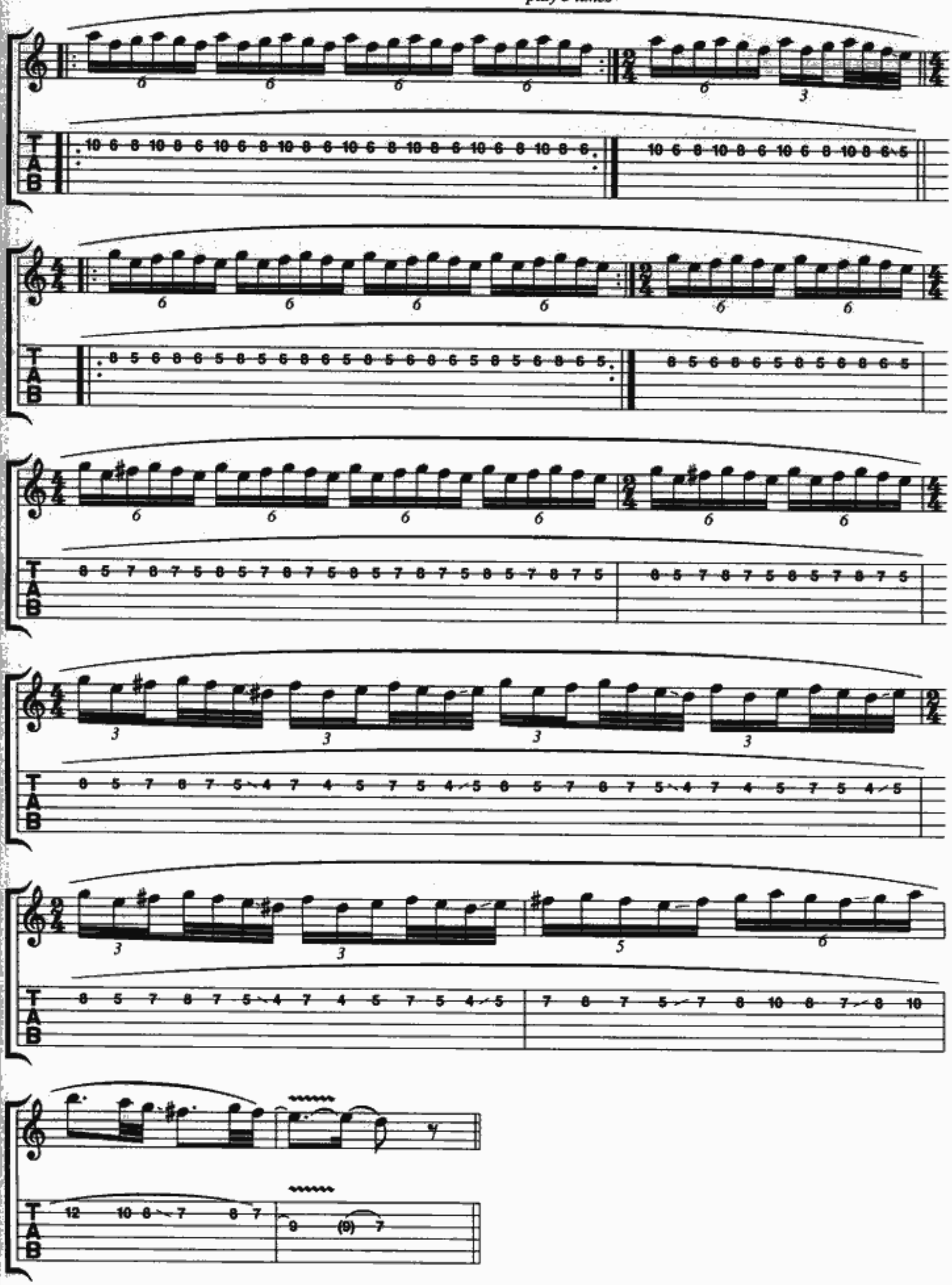


play 4 times

play 3 times

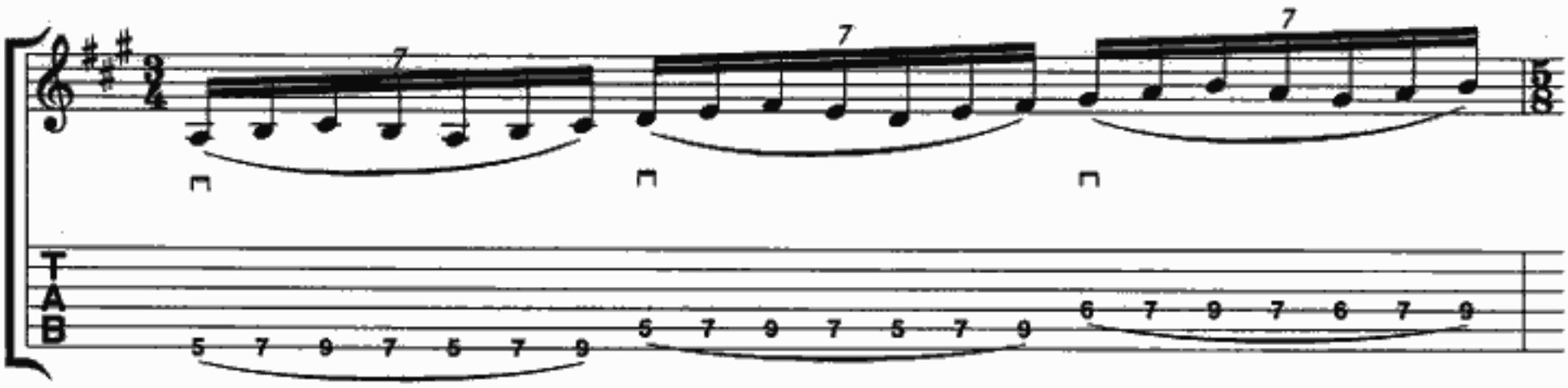


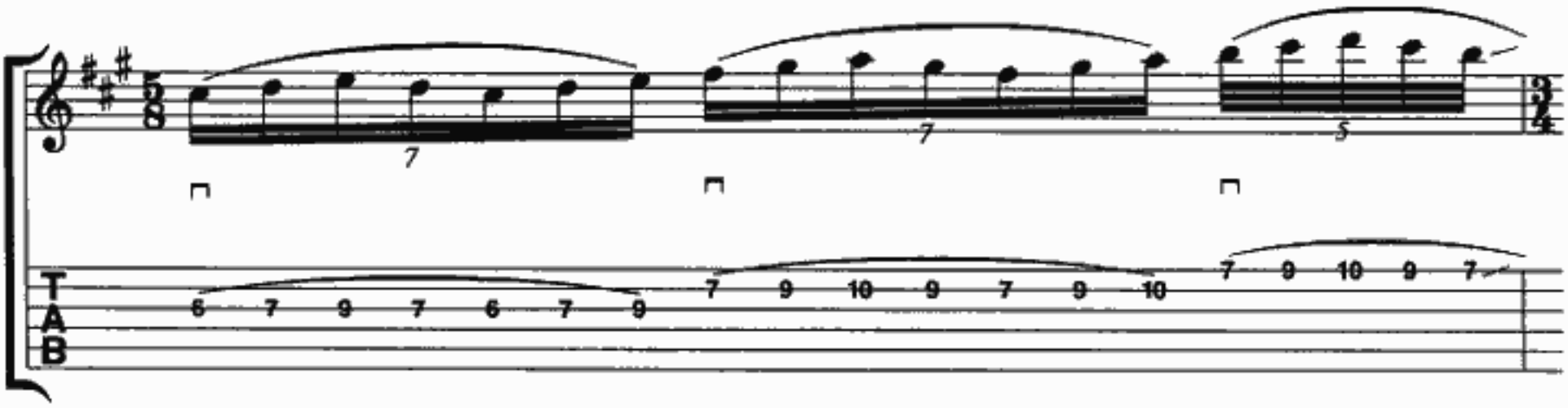
play 3 times

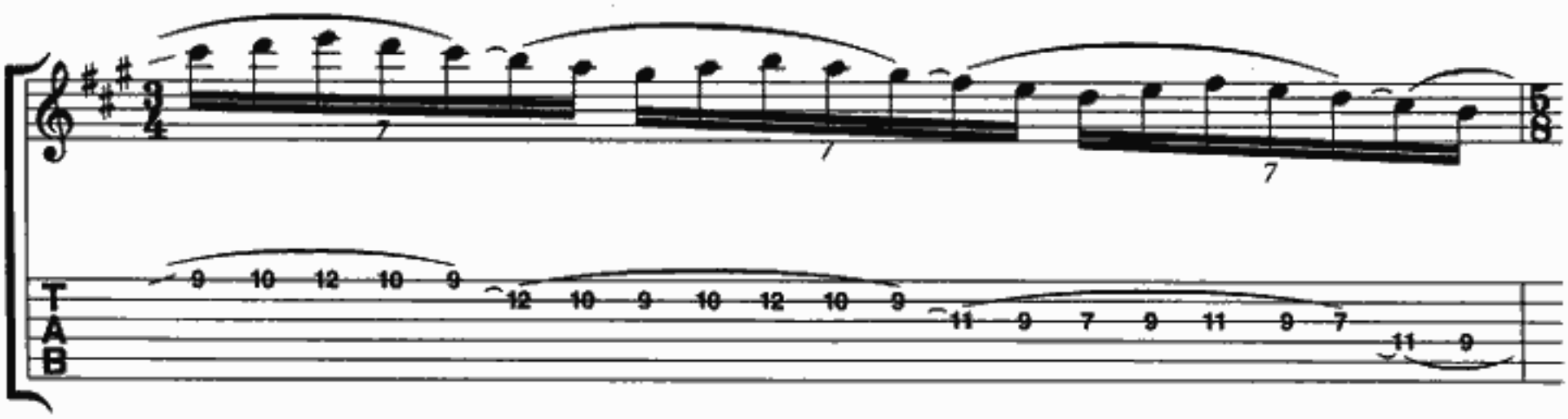

6 6 6 6 6 3
10 6 8 10 8 6 10 6 8 10 8 6 10 6 8 10 8 6 10 6 8 10 8 6
10 6 8 10 8 6 10 6 8 10 8 6 5
6 6 6 6 6 6
8 5 6 8 6 5 8 5 6 8 6 5 8 5 6 8 6 5 8 5 6 8 6 5
8 5 6 8 6 5 8 5 6 8 6 5
6 6 6 6 6 6
8 5 7 8 7 5 8 5 7 8 7 5 8 5 7 8 7 5 8 5 7 8 7 5
8 5 7 8 7 5 8 5 7 8 7 5
3 3 3 3
8 5 7 8 7 5 4 7 4 5 7 5 4 5 8 5 7 8 7 5 4 7 4 5 7 5 4 5
3 3 5 6
8 5 7 8 7 5 4 7 4 5 7 5 4 5 7 8 7 5 7 8 10 8 7 8 10
12 10 8 7 8 7
9 (9) 7
T A B

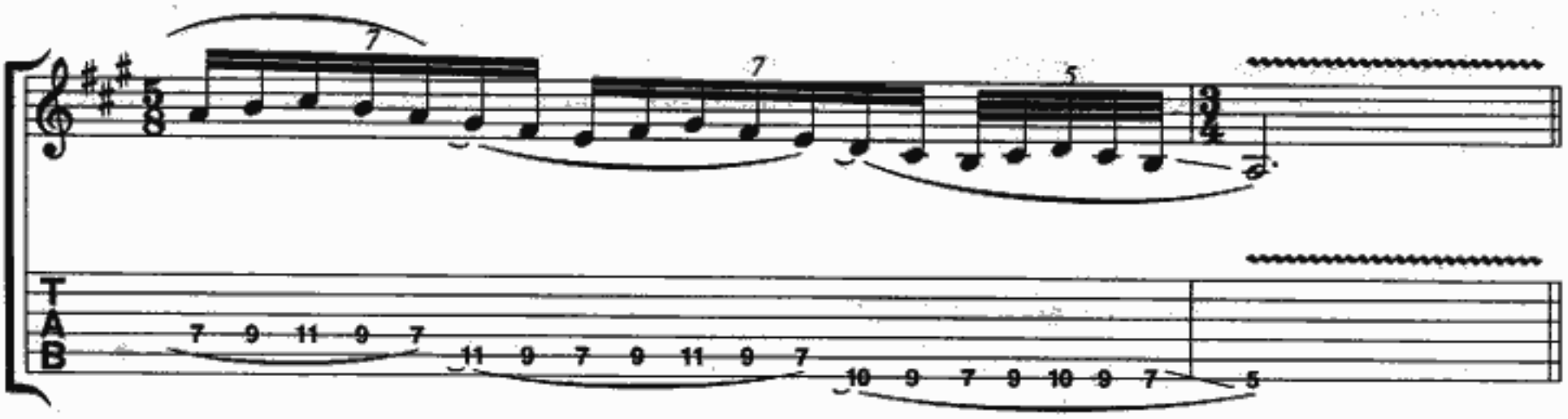
Example 21

Now it's time to take the fragments studied in Example 19 and put them into expanded sequences through scales using very little picking.



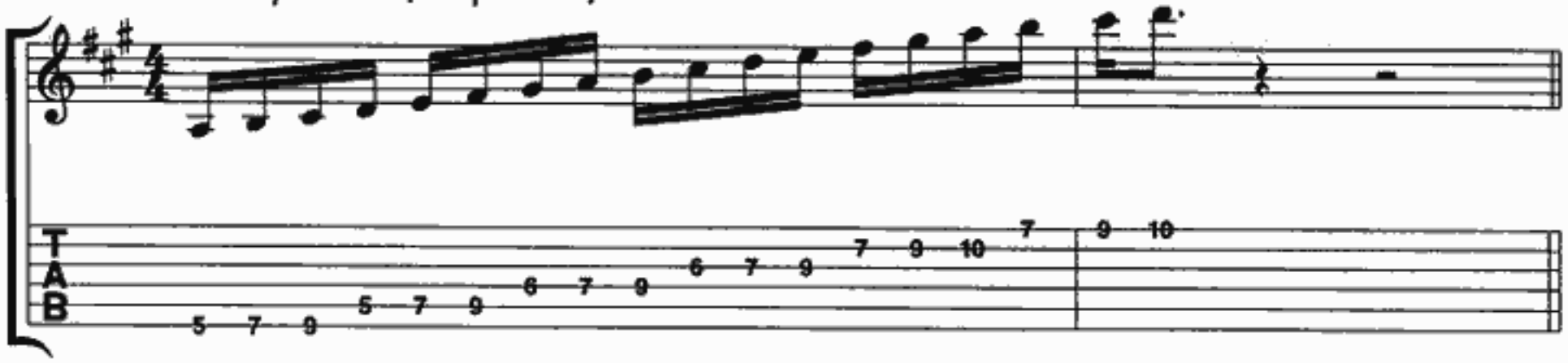




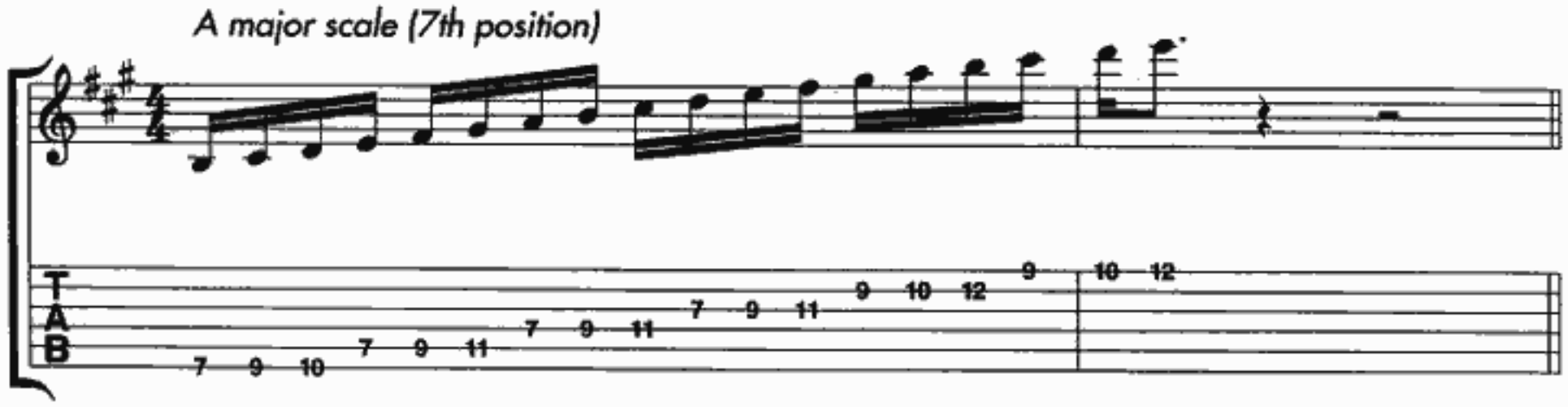


This exercise uses two different three-note-per-string fingerings for the A major scale (A B C♯ D E F♯ G♯). The ascending pattern is based on the fingering in the 5th position, while the descending pattern uses the 7th position fingering. These are both depicted in the example below.

A major scale (5th position)

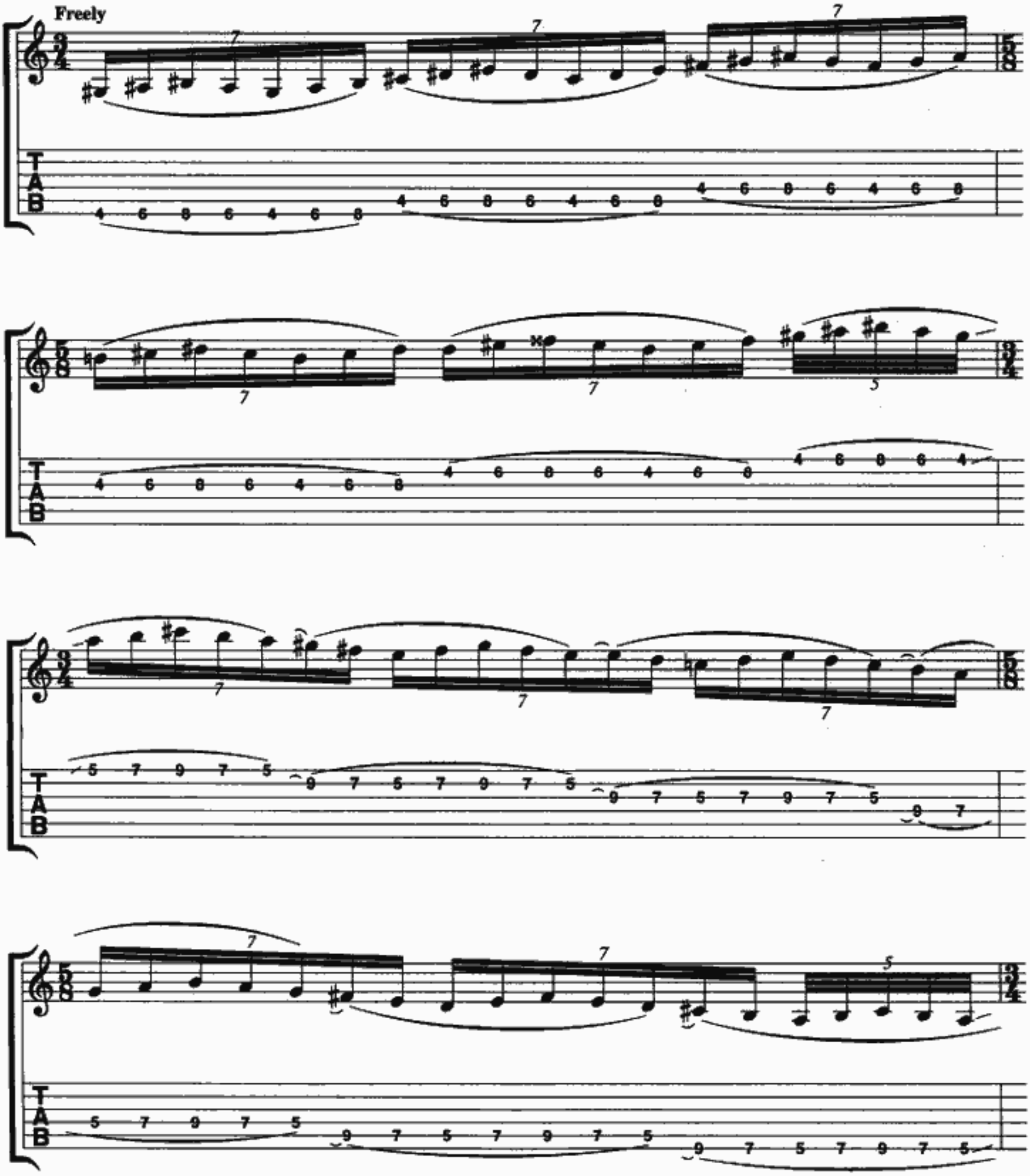


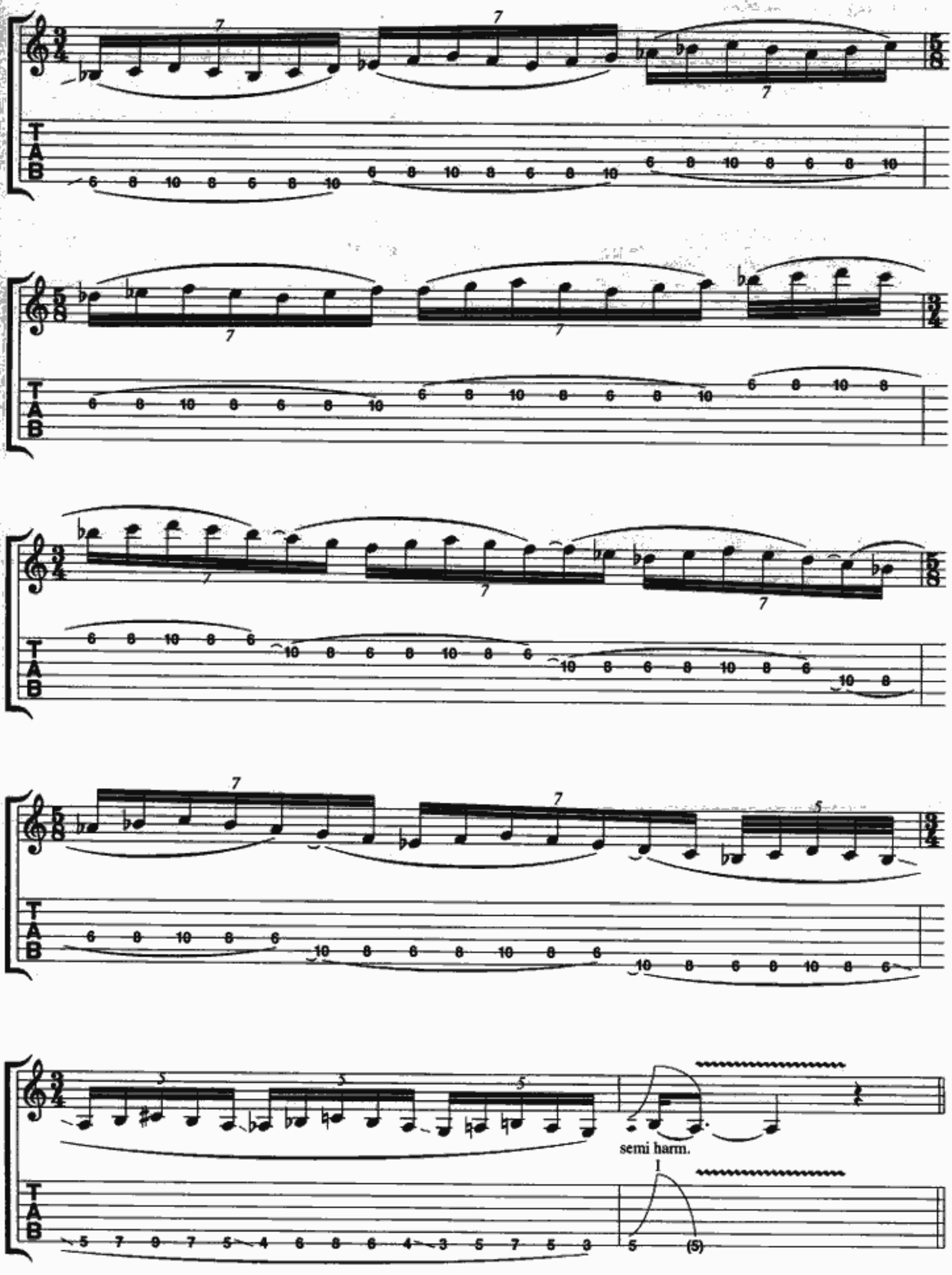
A major scale (7th position)



Example 22

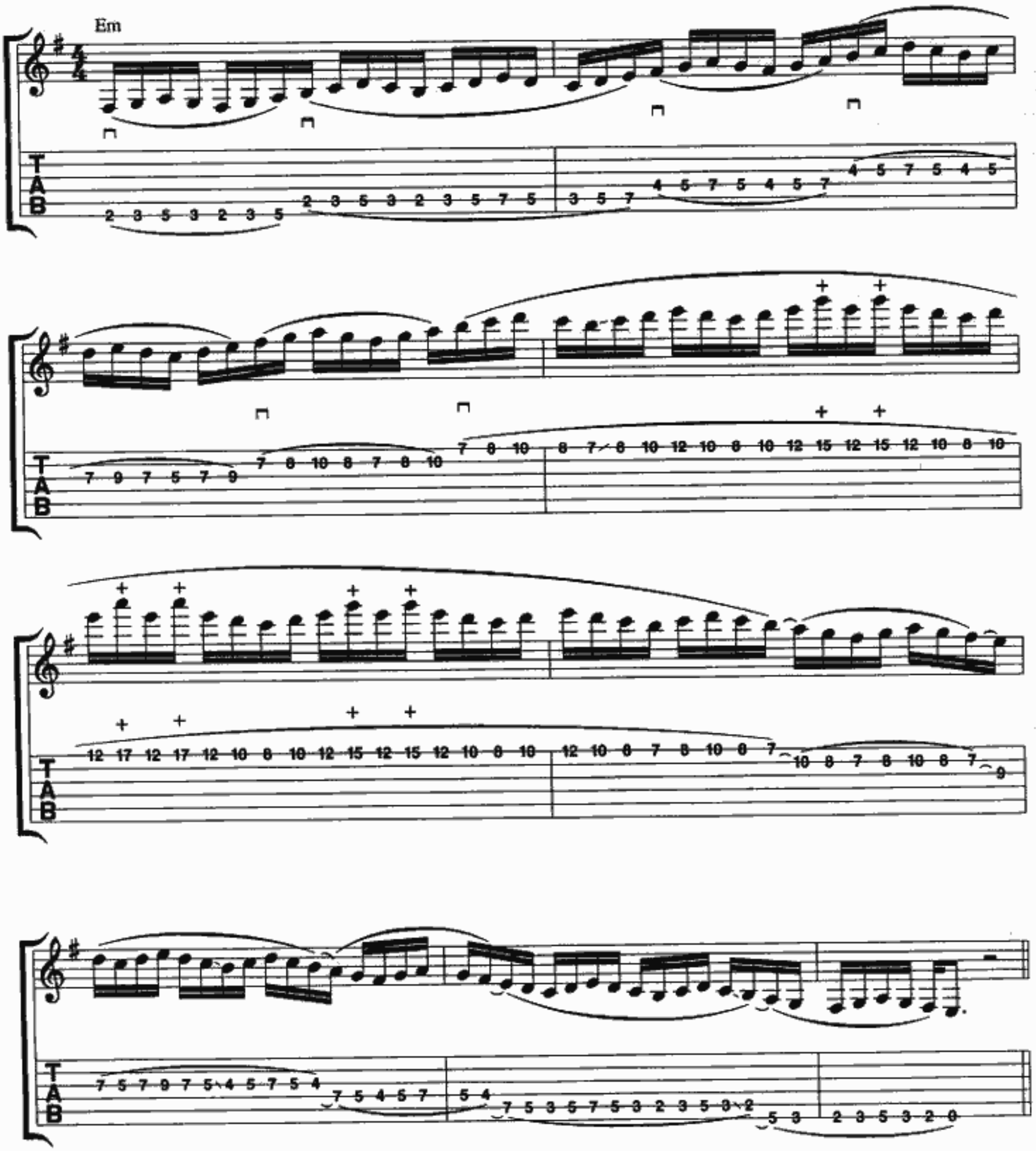
The sequence learned in Example 21 can be performed between any two positions using three-note-per-string scale fingerings, or even using random patterns that shift up or down in half-steps without making any reference to a specific tonal area. The latter is demonstrated in the example that follows.




semi harm.

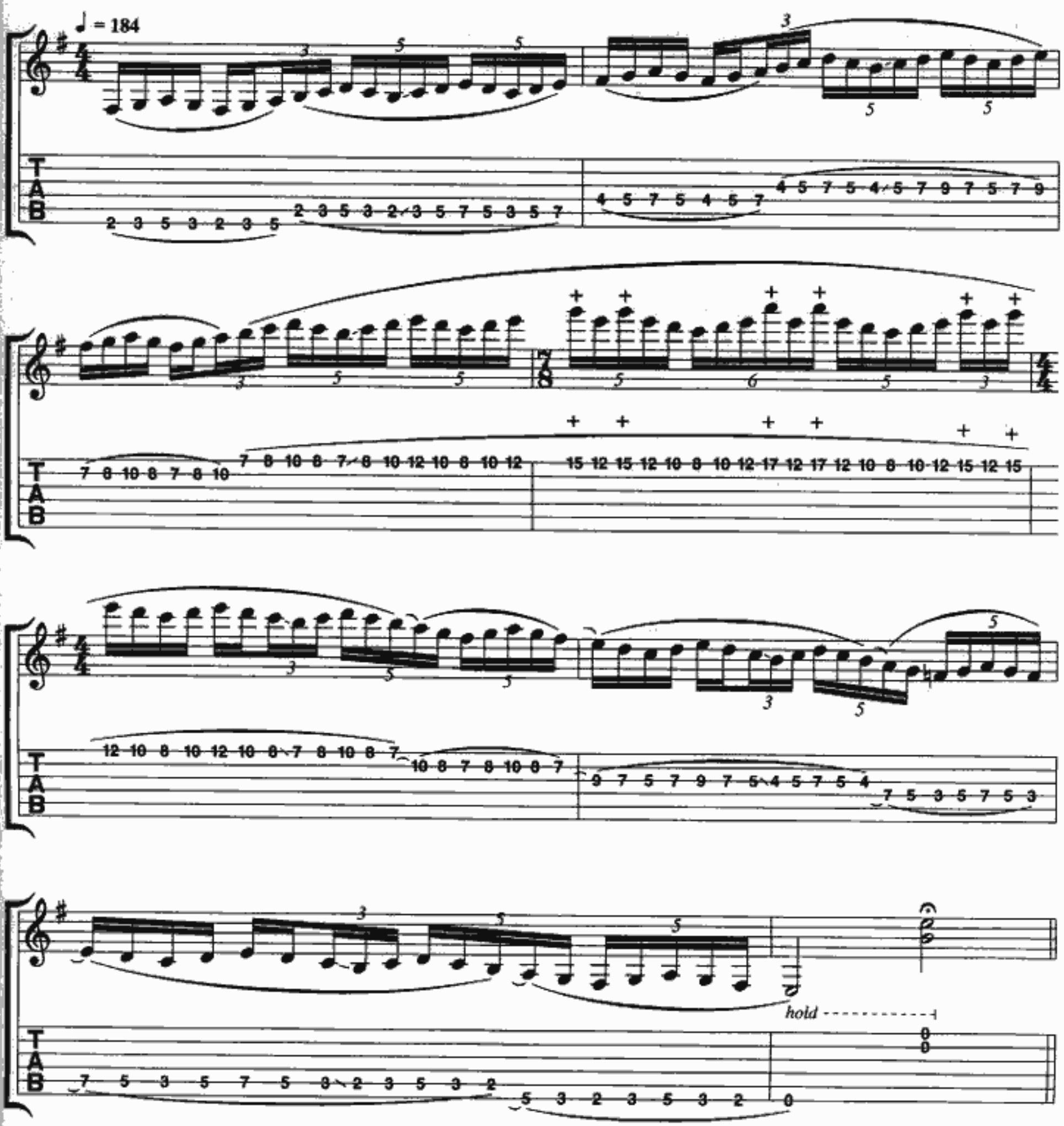
Example 23A

This legato pattern is in the key of E aeolian minor (E F♯ G A B C D) and requires a variety of shifts from the left hand. Example 23A is written out in steady sixteenth notes (four notes per beat) in an effort to make the passage more accessible. This exercise also employs fretboard tapping, which is indicated by a "+" above the notation and TAB staves. Here's the example as it is performed slow, out of time.



Example 23B

When this exercise is performed to a steady pulse, it yields an array of unusual rhythmic subdivisions (note the groupings of 5). When written out in this manner, it becomes apparent that the ascending figure is based on a singular one-octave legato sequence that is then transposed up into the guitar's higher register. In analysis of the first measure, notice how the notes confined to this measure are repeated verbatim in the second measure, only one octave higher, then in the next higher octave in the third measure. Each octave is demonstrated independently in the audio. This is followed by the tapping section which is confined to the fourth bar. The remaining bars involve a descending version of the original one-bar lick transposed to each lower octave.

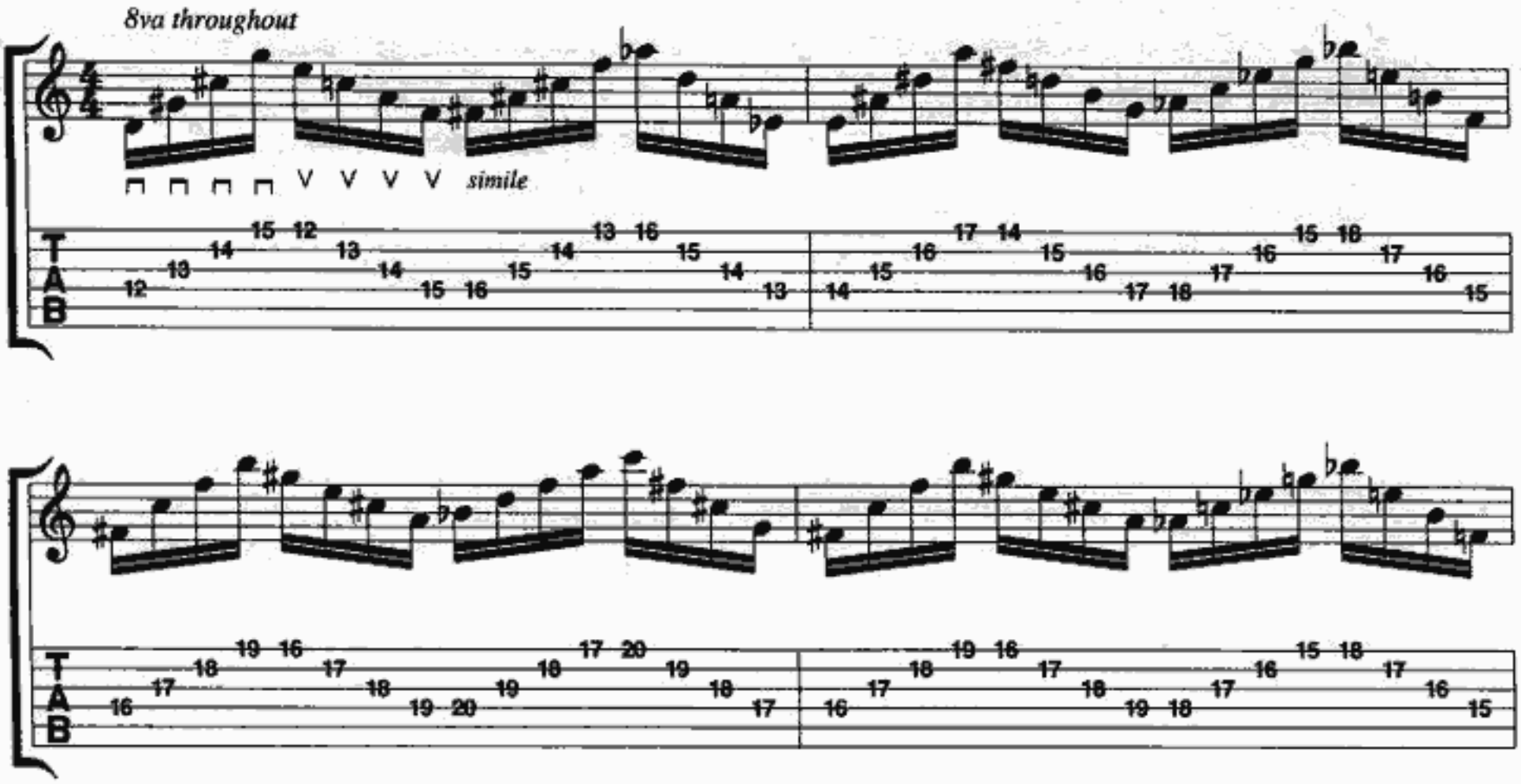


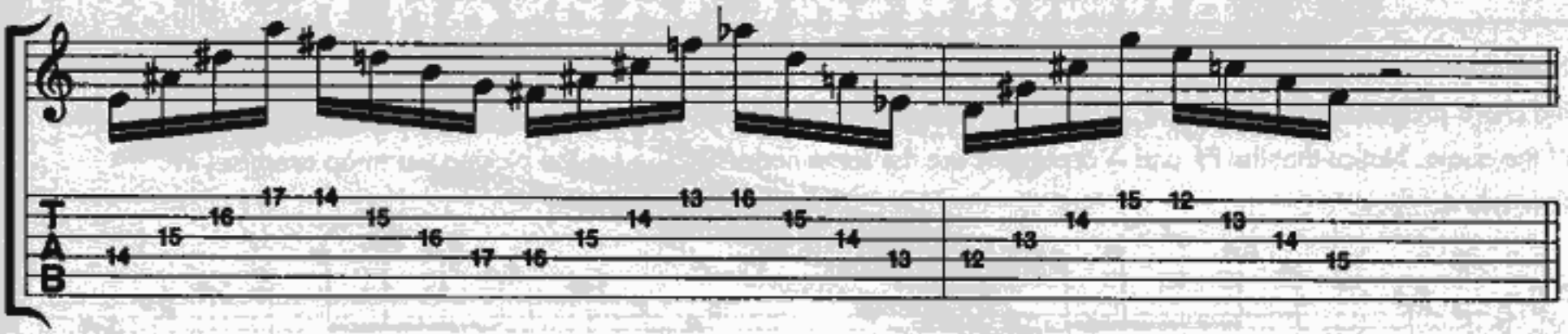
Part VIII
Right Hand Technique
(Sweep-Picking)

Another type of left hand technique is often referred to as "sweep-picking." In some circles this technique is sometimes called "economy-picking." Typically, this technique is applied to arpeggiated shapes, as opposed to scalar examples, to achieve a fast flurry of notes.

In the exercises that follow, each arpeggiated shape involves primarily one note on each string. When played simultaneously, some of these shapes may even be reminiscent of some familiar moveable barre chord shapes. However, when using them in conjunction with sweep-picking, it is important to separate each of the notes played by the left hand by pressing them to the fretboard one note at a time. Don't let each note ring into the next so as to avoid creating a chordal sound. The "sweeping" aspect is the central component of this technique. When attempting to execute any sweep-picking passage, it is important that the pick articulate each string separately, in sync with the left hand, instead of using a strumming motion. To accomplish this, after picking the first note with a down-stroke, allow the pick to fall into the next string so that it rests up against it. Next, push the pick right on through this higher string and continue this motion until the pick has passed through each of the strings indicated, using one smooth "sweeping" motion. For the descending version of an arpeggio shape, use this same type of motion, beginning with an up-stroke on the higher string, pushing through to each lower adjacent string.

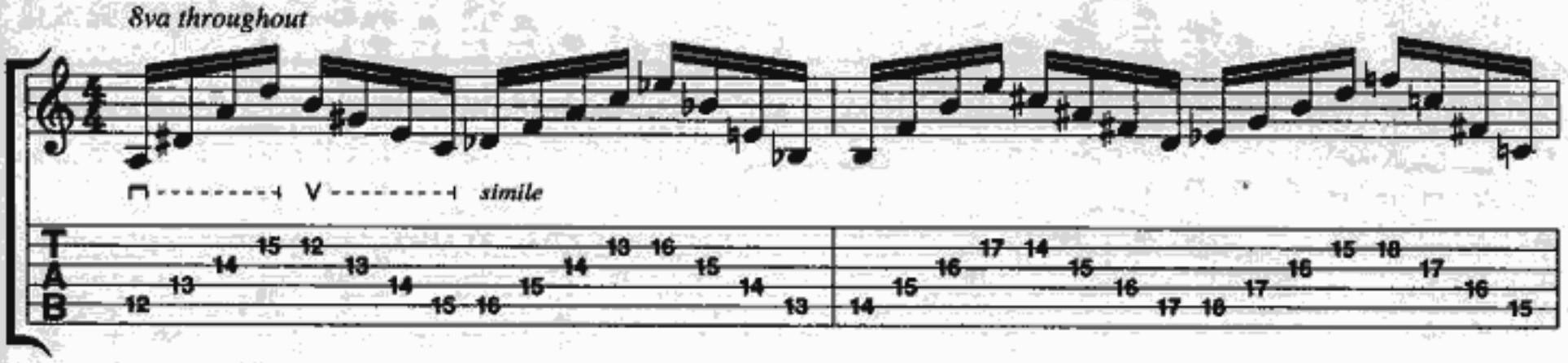
Example 24

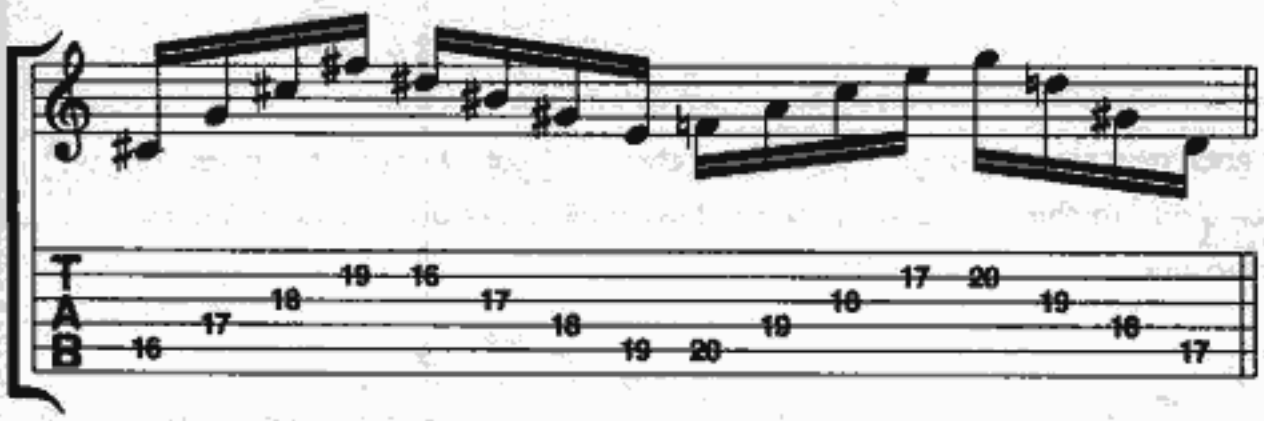




Example 25

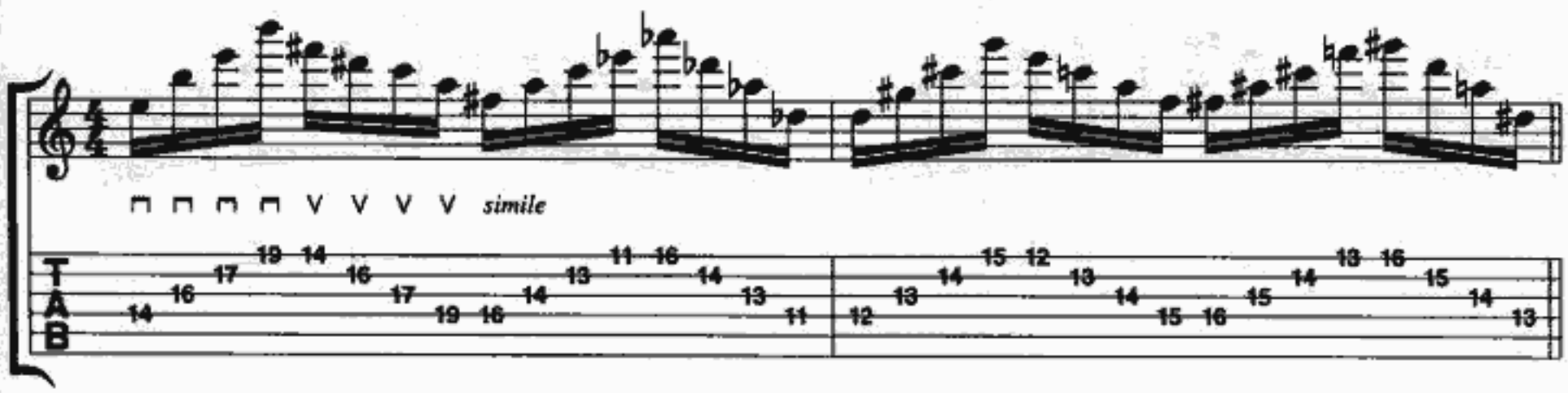
These types of shapes are not unlike some of the finger patterns encountered in the earlier warm-up exercises where "mirror shapes" were used. Here's the same exercise transferred to the next lower set of strings.





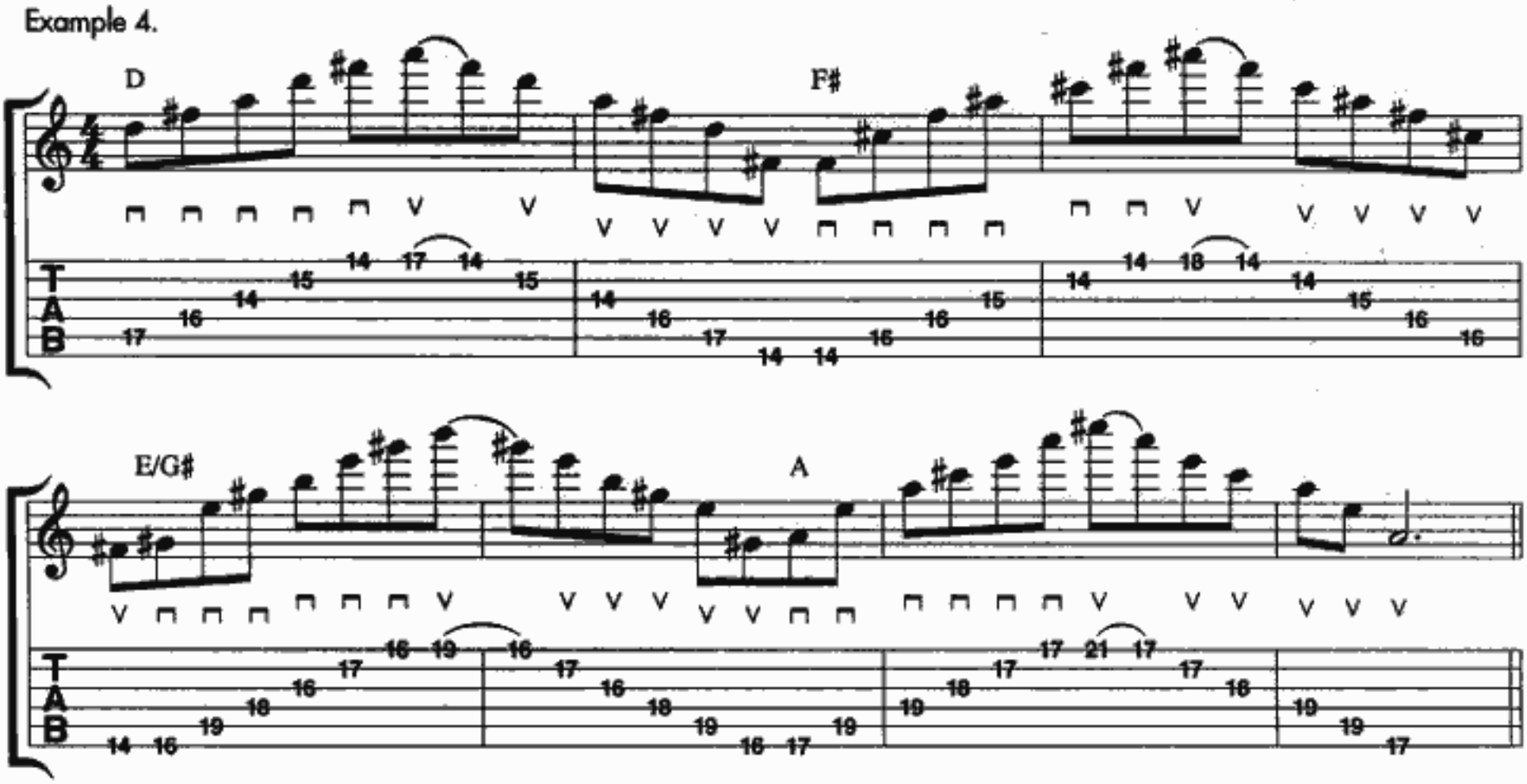
Example 26

This next exercise involves the same types of shapes encountered in the previous examples, only each left hand finger is stretched to access a different arrangement of notes. In the accompanying audio, this exercise is played up to speed at 176 beats per minute.



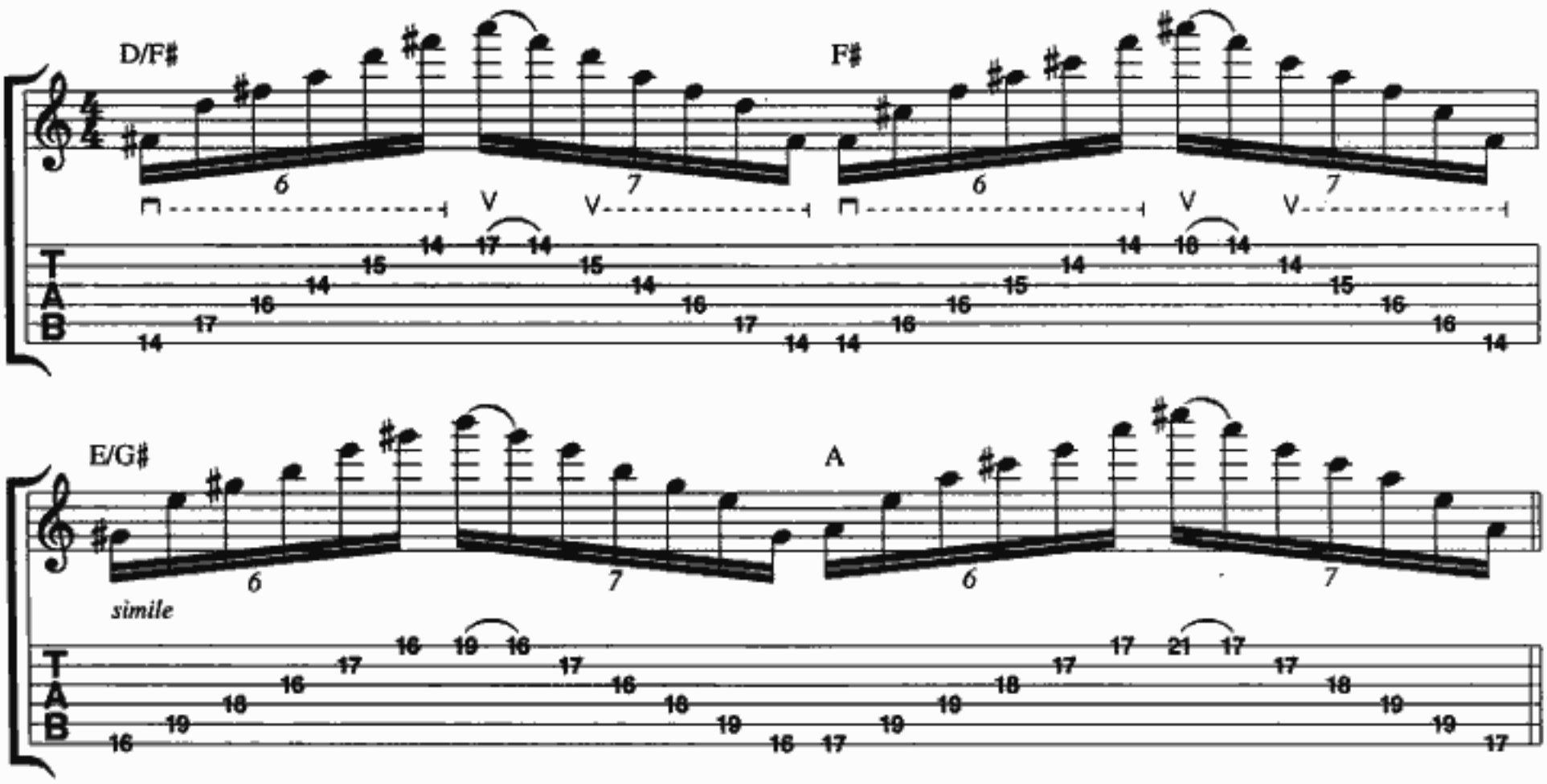
Example 27A

Here's one more sweep-picking exercise. This one is applied to triadic arpeggios. The note sequence of this exercise implies the chord progression D, F♯, E/G♯, A. Example 27A depicts this exercise in steady eighth notes and is an exact transcription of the audio. Notice that the F♯ and A arpeggios are the same fingerings used in the picking warm-up exercises in Example 4.



Example 27B

When played to a steady tempo, in order for each new chord change to land squarely on a beat, the descending versions of these arpeggios involve the performance of some odd rhythmic groupings. Notice how seven notes are crammed into the space of one beat on beats 2 and 4 of each measure.

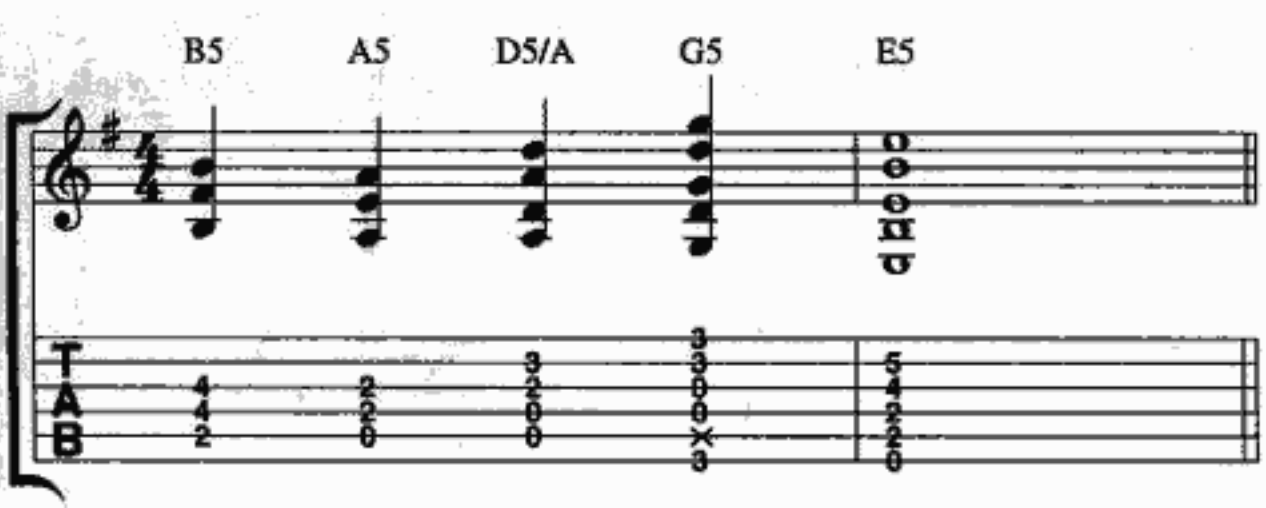


Part IX
Chordal Technique
(Building Chords)

Up to this point, much of the material has focused on technique and developing chops. Now it's time to switch gears and concentrate on building an effective chord vocabulary.

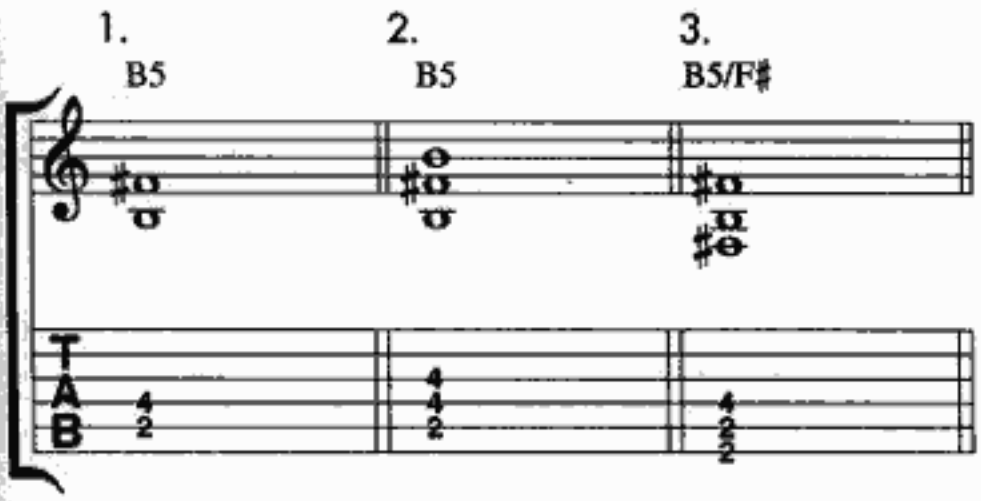
Example 28A

The examples that follow provide an armful of ever-faithful "power chords" (root and fifth), and mutated by including certain notes for added color and drama to the basic chord progression. Below is a common sequence of "power chords".



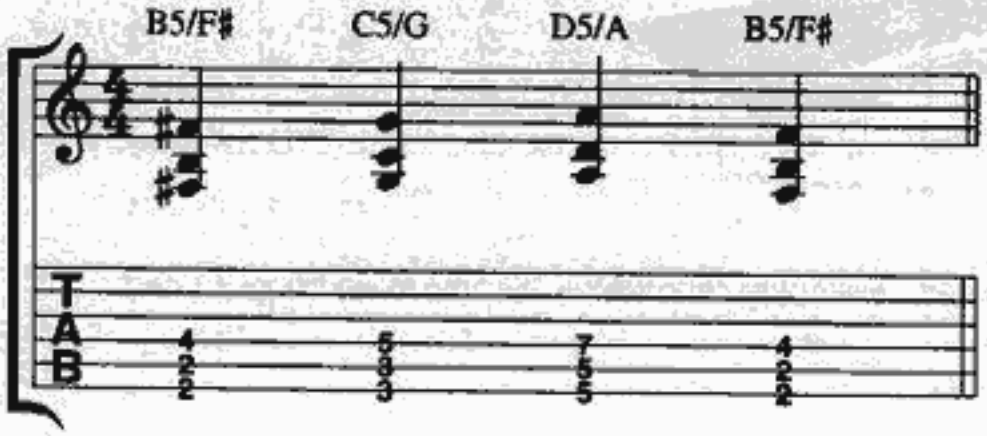
Example 28B

"Power chords" can be voiced in a few different ways. Since there are only two different notes in a chord (root and fifth), that automatically limits the number of variations the chord can have. Chord 1 below is a basic B "power chord" which consists of the root (B) and its fifth (F♯). The B can be doubled one octave higher (Chord 2) as one variation. The fifth can also be played on the lowest sounding string, yielding the chord B5/F♯ (Chord 3).



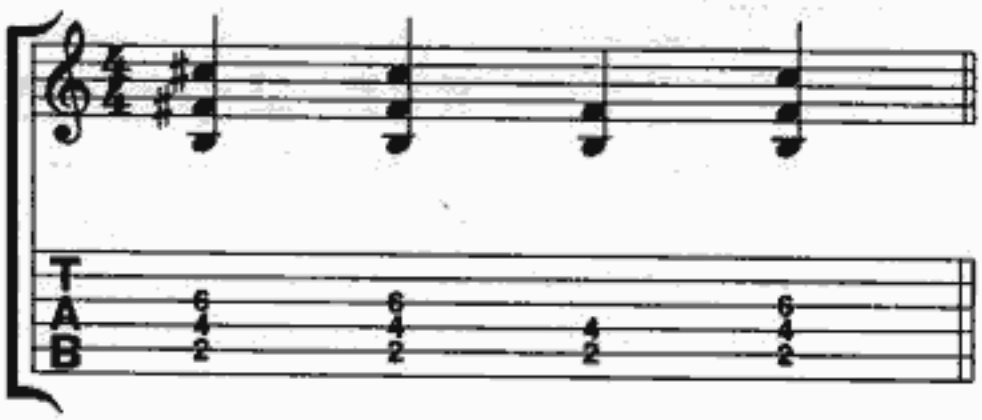
Example 28C

Putting the fifth in the bass of a power chord is also an extremely effective compositional device that adds some meat to the texture of a song, especially if the bass player is playing the chord's root note below it.

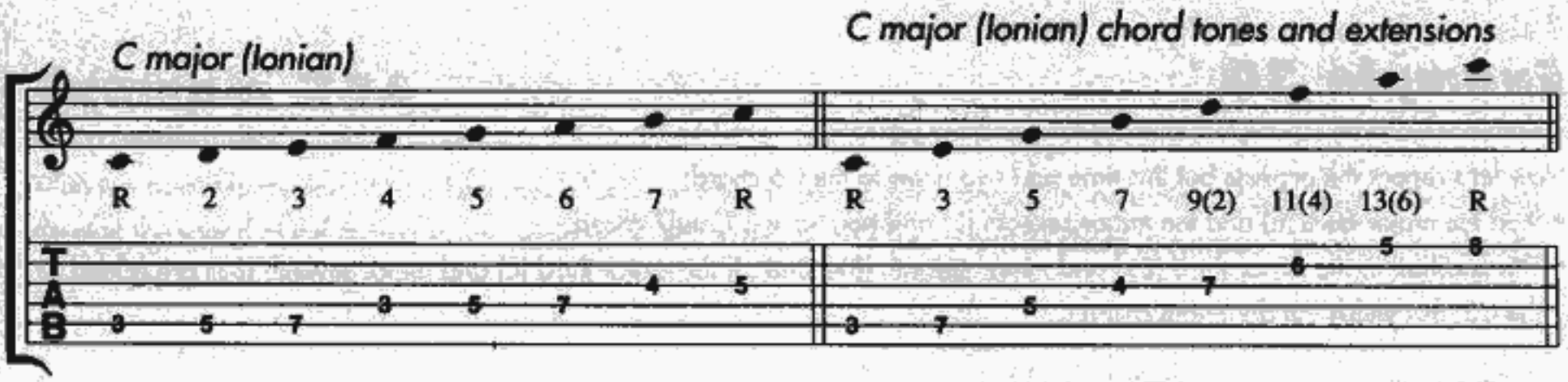


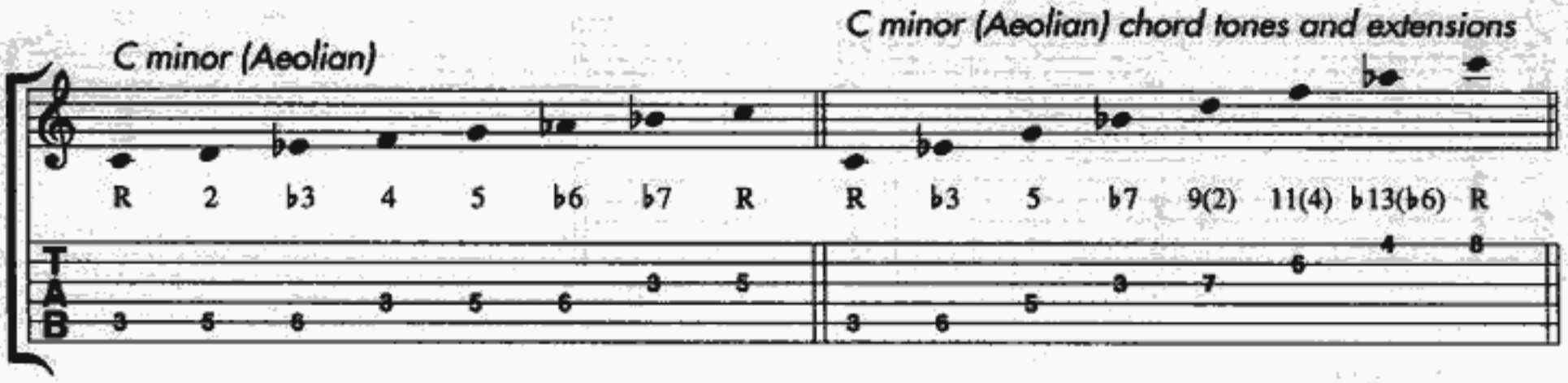
Example 28D

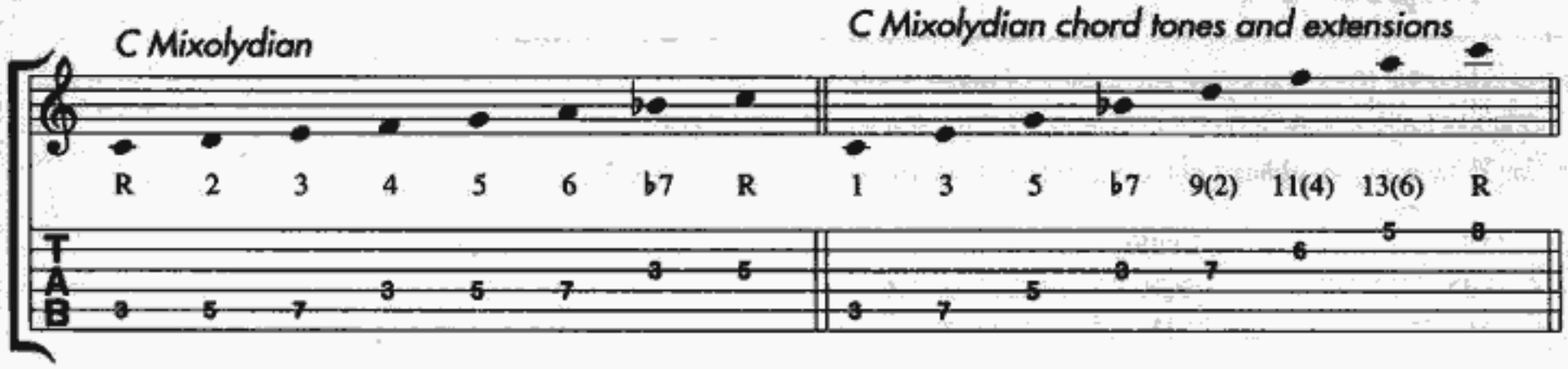
One other type of power chord involves the addition of the chord's 9th (over a B5 chord the ninth is C♯) to the basic root and fifth chord structure. On the fingerboard, this actually takes on the physical appearance of two power chords stacked on top of one another.



In order to thoroughly understand where chord tones and chord extensions originate, it is necessary to become familiar with the scales from which these notes are derived. Below are some common one-octave fingerings for the C major (Ionian), C minor (Aeolian) and C Mixolydian scales (R = root, 2 = 2nd note of the scale, etc.). Immediately to the right of each of these scales is an arpeggio beginning with the note C. These arpeggios access every other note of the scale. In the case of the C major scale -- the scale's root (C), third (E), fifth (G), seventh (B), etc. It is this pattern that can be used to form a variety of different sounding chords, each with C as their root note. When the notes C, E, G and B (R - 3 - 5 - 7) are sounded simultaneously, the sonority that is generated is called a major seventh chord. That's because the chord consists of a major triad, spelled: R (C) 3 (E) 5 (G), and the next successive chord tone, the seventh (B). In chord construction, after the seventh note of a scale ("B" in this case), the notes that follow go beyond one octave and begin to access what are called "extensions." The ninth (D) is one octave and a whole step above the root note (C), but it is still really as if the second note of the scale were to be played in a stepwise manner from its point of origin (that's why the "2 " is in parentheses next to the "9"). However, if a chord that's being played already consists of the four notes from the scale's arpeggio all the way up to the seventh, any additional note functions as an extension. That's where chord symbols like Cmaj9, Cmaj11 and Cmaj13 come from.



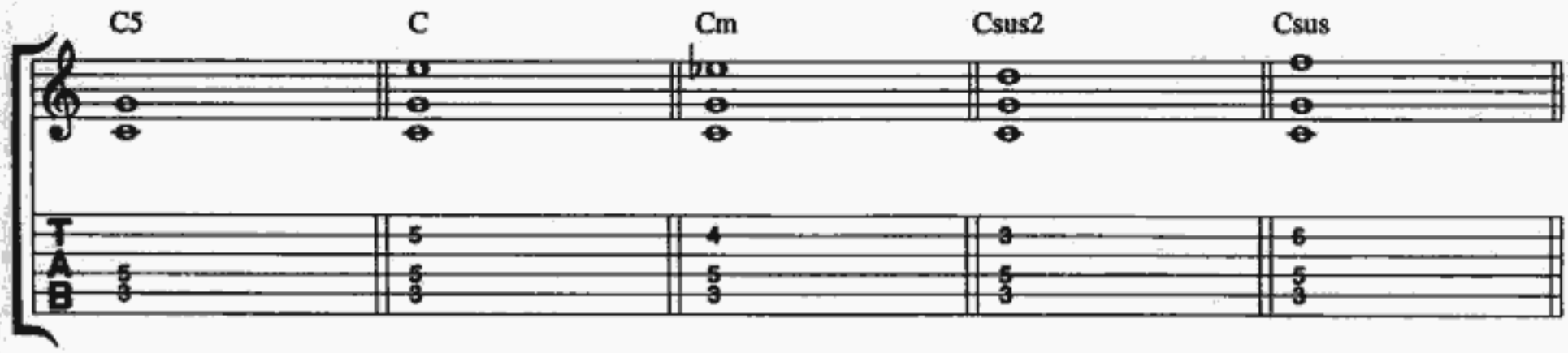




Example 29

Below are variations of a simple power chord altered with the addition of just one note:

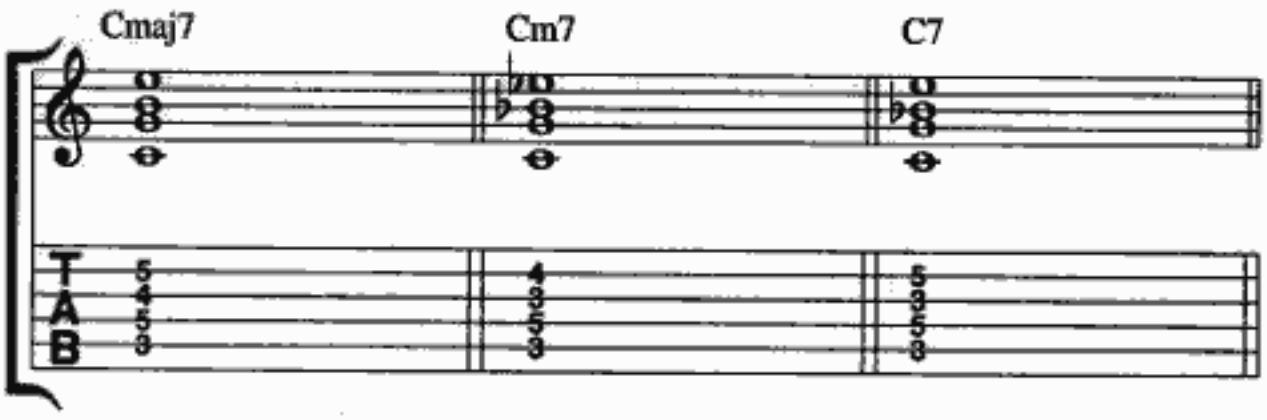
- C5 is the basic power chord.
- Add the 3rd note from the C major scale (E) to create a C major chord (C).
- Add the minor 3rd (Eb), borrowed from the C minor (Aeolian) scale, for a C minor chord (Cm).
- Csus2 is the result of adding the 2nd note from the major scale (D). Remember, since this chord does not contain the 3rd, the D functions as a 2nd instead of a 9th.
- Introduce the fourth note of the major scale (F) to the basic power chord to form Csus. Since there isn't a 3rd present, the 4th is seen as suspending the 3rd to a 4th instead of functioning as an added 11th.



Example 30

Now let's repeat the process but this time add two notes to the C5 chord:

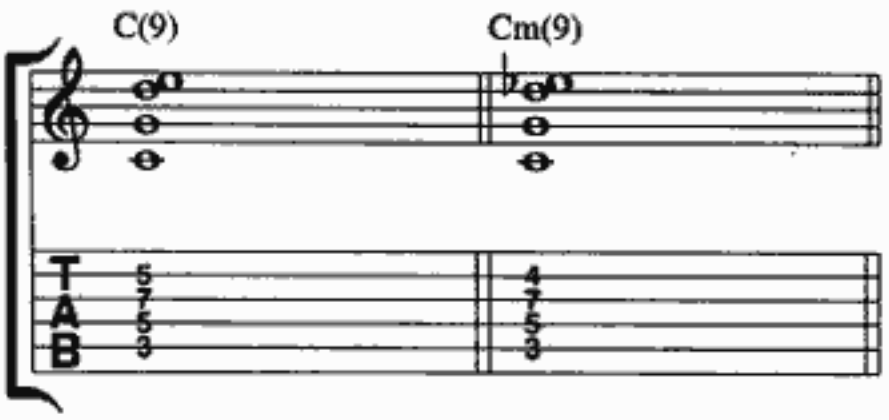
- Add the major third (E) and the major seventh (B) and you have a Cmaj7 chord.
- The addition of the minor third (E♭) and minor seventh (B♭) Cm7. If the major third (E) and minor seventh (B♭) are added to the C5, this yields the dominant chord C7.



Example 31

Now add a 9th (D) to the top of the major and minor triads.

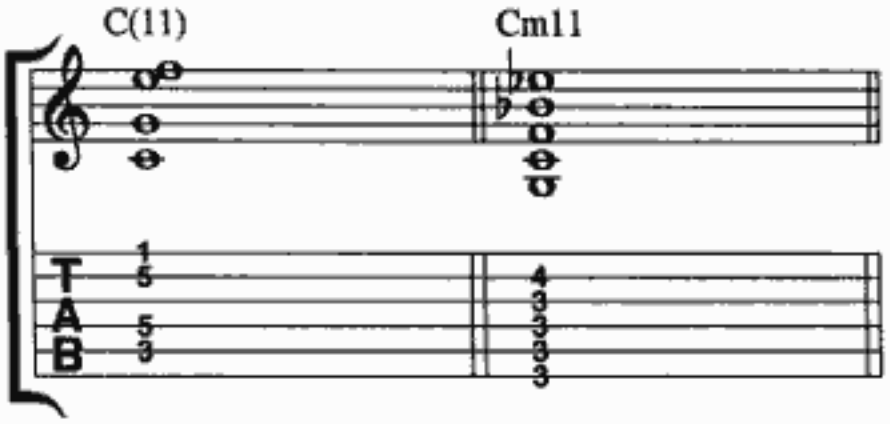
- C(9) can be described as a C5 with major 3rd (E) and the 9th (D) added.
- Cm(9) involves the addition of the minor third (E♭) and the ninth (D) to the C5.



Example 32

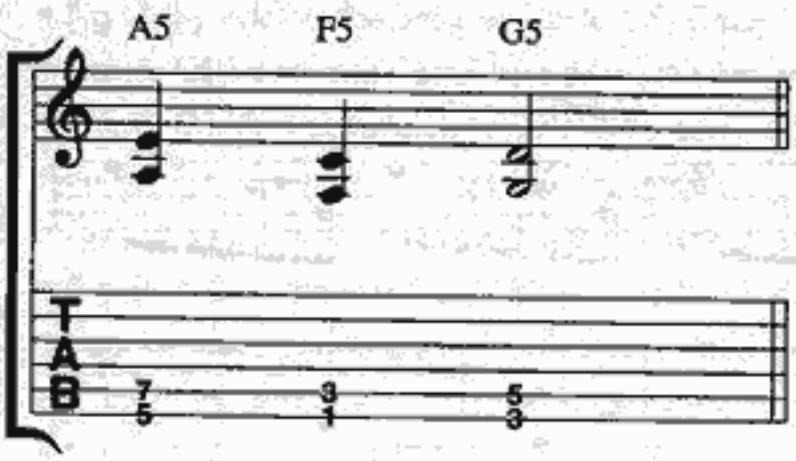
Now let's include the 11th:

- When added to the power chord, the addition of the major third (E) and the eleventh (F) creates a C(11).
- Add the minor third (E♭), minor seventh (B♭) and the eleventh (F) and you have a Cm11 chord. This chord voicing is arranged in a manner that allows for the 5th (G) to be played in the bass.



Example 33A

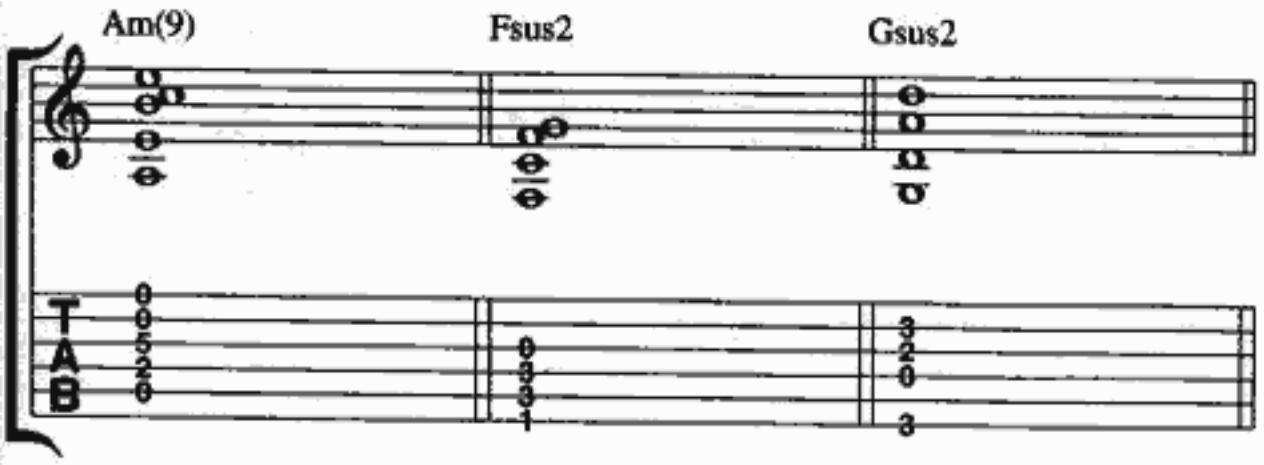
With this new information, it now becomes possible to take a basic chord progression, consisting of only power chords, and develop the sound of the chords to add some spice. For example, let's take a typical chord progression involving the chords A5, F5 and G5.



Example 33B

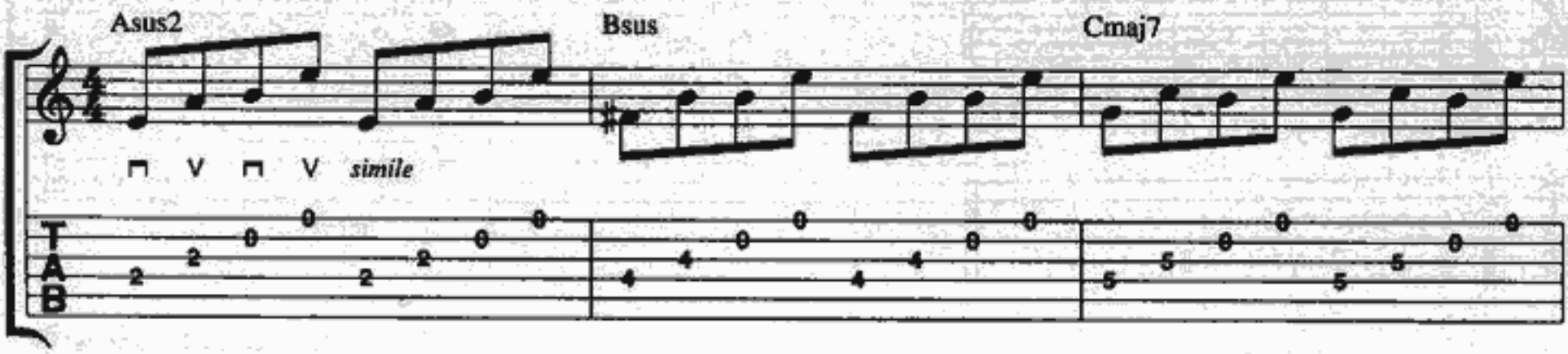
You can make these simple chords sound much more interesting by:

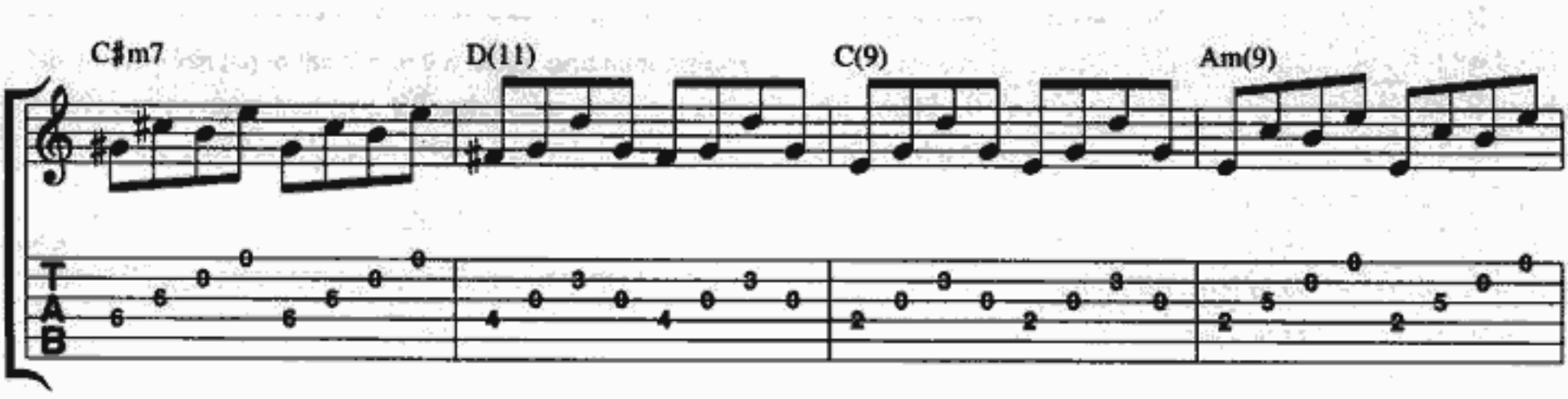
- Taking the A5 and adding the minor 3rd (C) and 9th (B), creating an Am(9th).
- The F5 chord is transformed into Fsus2 with the addition of the 2nd (G).
- The G5 chord is mutated into Gsus2 as the chord's 2nd (A) is incorporated.

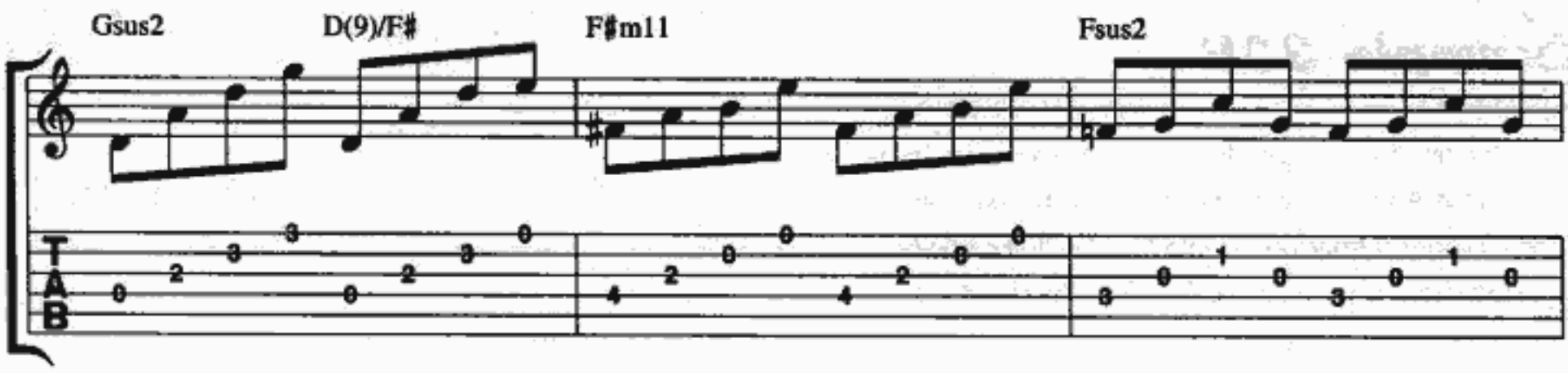


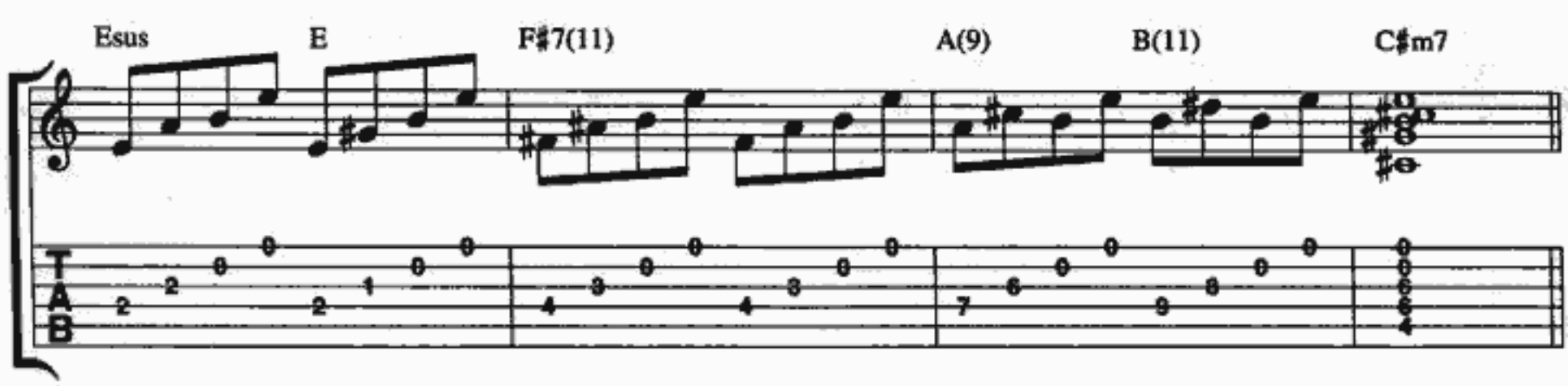
Example 34A

This next example points to the importance of *"orchestration."* Orchestration is the act of assigning specific parts in a piece of music to specific instruments. When done well, this can add a new dimension to an ensemble. The example that follows demonstrates one way in which a band comprised of two guitars could take advantage of their instrumentation by creating two distinctly different parts. In an effort to maximize the effect of the chords studied previously, these types of extended sounds were played arpeggio style on a guitar using a clean tone so each of their dramatic colors can be distinguished. An additional guitar, with a distorted tone, adds the power chords from which these extended sounds were originally derived. Example 34A is the clean guitar part.









Example 34B

Before you tackle the forthcoming audio example, make sure you understand the following analysis. A side by side comparison of the original "5" chord to the full voicing makes it easier to see exactly how each of the basic chords were transformed. Notice how often the additional notes are the result of allowing open strings to ring that are otherwise muted or avoided when playing just the "power chord."

- Fig. 1: An A5 becomes Asus2 by adding the 2nd.
- Fig. 2: Depicts a B5 which, with the addition of its 4th, becomes Bsus.
- Fig. 3: By adding the 3rd and 7th to C5, Cmaj7 is created.
- Fig. 4: C#5 becomes C#m7 by adding the minor 3rd and minor 7th.
- Fig. 5: D5/A is completely reworked by eliminating the 5th (A), and adding the major 3rd and the 11th to get D(11).
- Fig. 6: Transform the C5 into C(9) by adding the major 3rd and 9th.
- Fig. 7: A5 becomes Am(9) with the incorporation of the minor 3rd and the 9th.
- Fig. 8: A G5 becomes Gsus2 by adding the 2nd.
- Fig. 9: Add a 2nd to D5 to create Dsus2. Add the 3rd in the bass and the 2nd becomes a 9th resulting in a D(9)/F#.
- Fig. 10: F#5 becomes F#m11 with the addition of the minor 3rd, minor 7th and the 11th.
- Fig. 11: F5 chord is transformed to Fsus2 when the 2nd is included.
- Fig. 12: E5 is expanded into Esus with the addition of that chord's 4th.
- Fig. 13: By replacing the 4th of the previous chord with a 3rd you have an open-position E.
- Fig. 14: F#5 with the addition of the 3rd, the minor 7th and 11th, results in F#7(11).
- Fig. 15: A5 becomes A(9) by adding the 3rd and 9th.
- Fig. 16: B5 becomes B(11) by adding the 3rd and 11th.
- Fig. 17: C#5 becomes C#m7 like Fig. 4.

In the accompanying audio, the "power chords" are played live, with a distorted guitar tone, against a programmed sequencer playing the arpeggiated part.

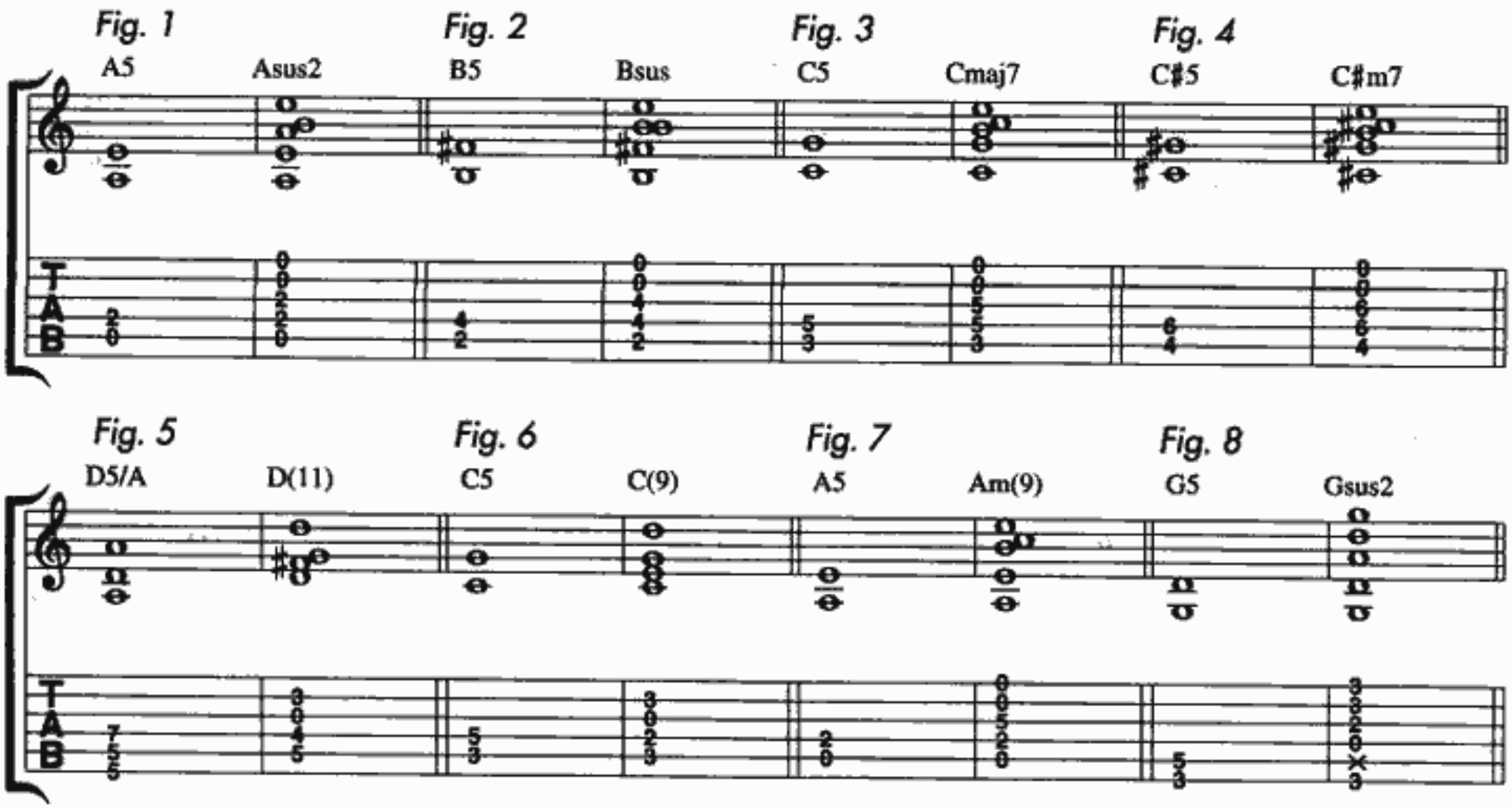


Fig. 9

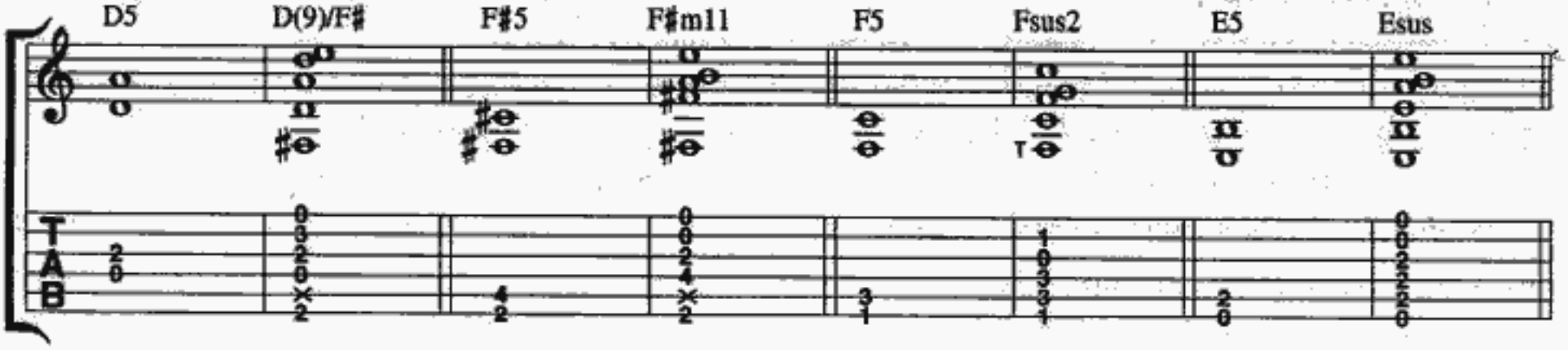


Fig. 10

Fig. 11

Fig. 12

Fig. 13

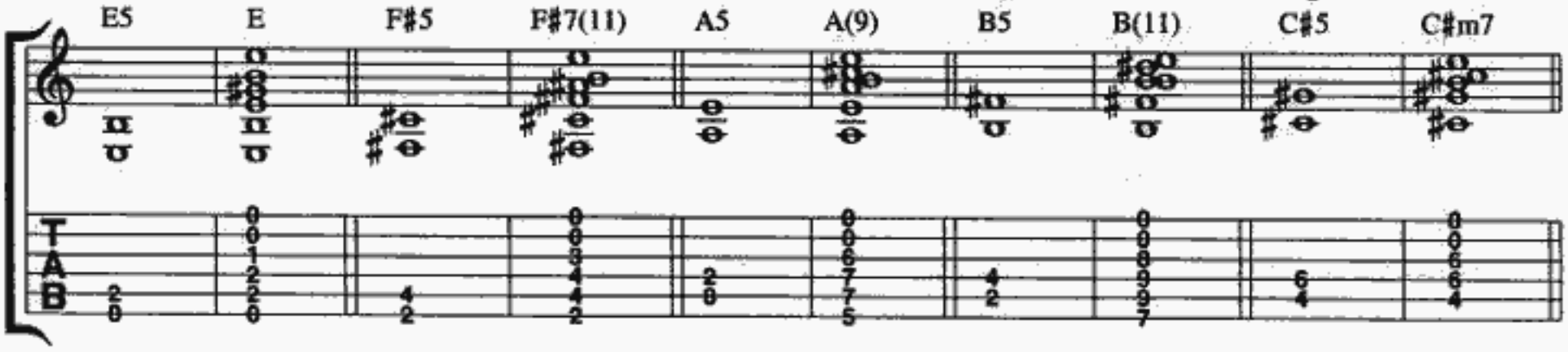


Fig. 14

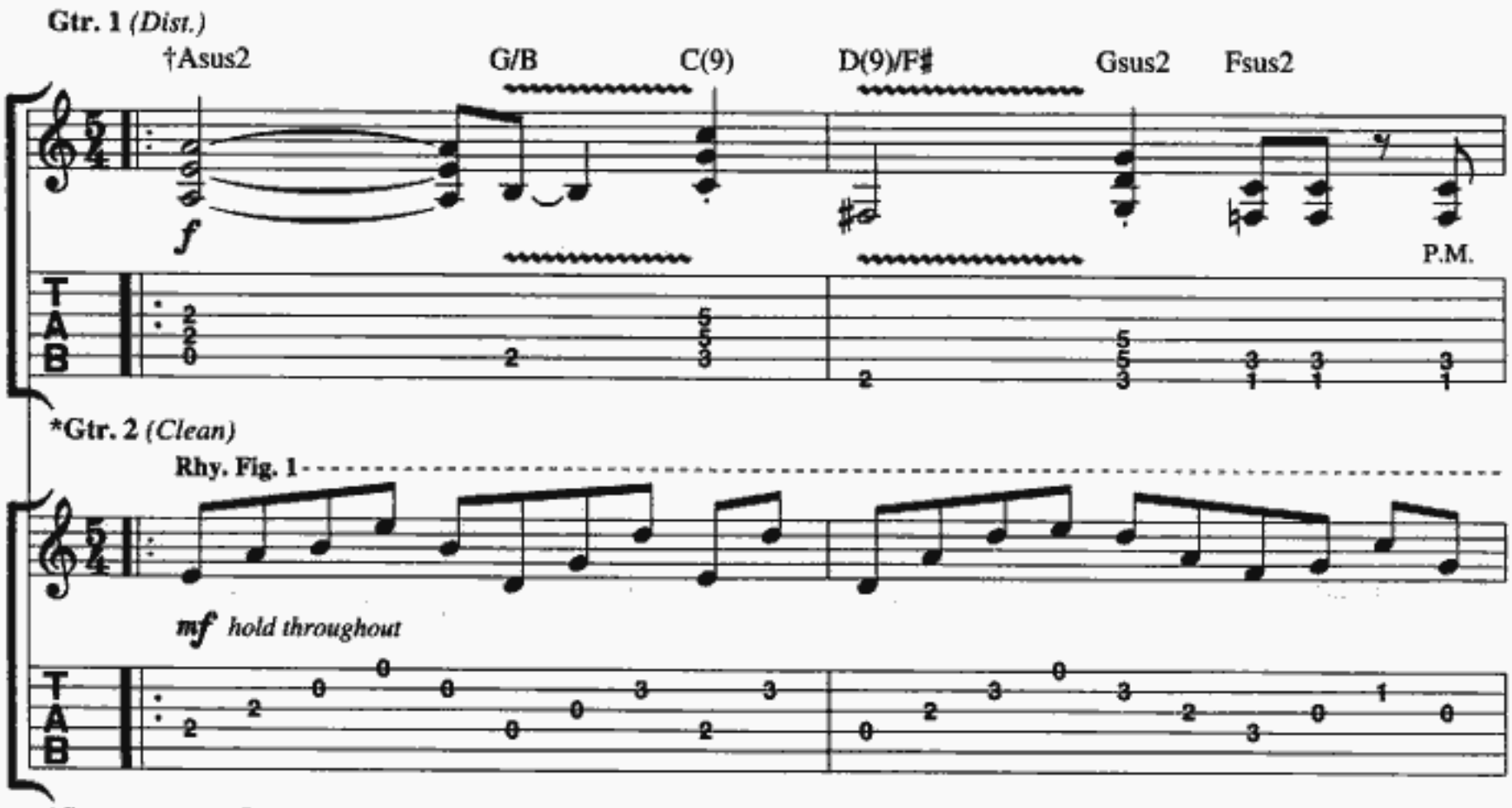
Fig. 15

Fig. 16

Fig. 17

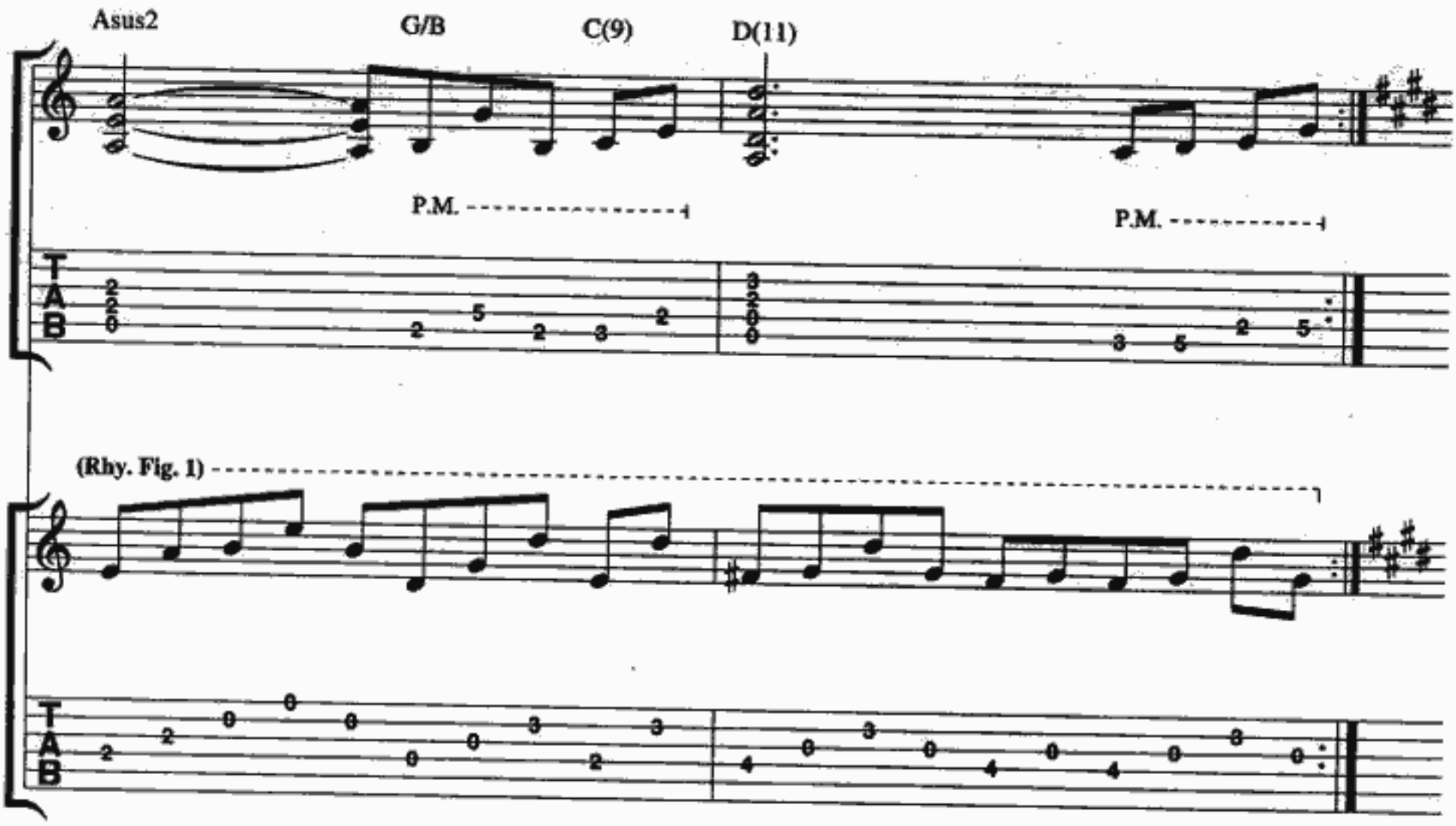
Example 35

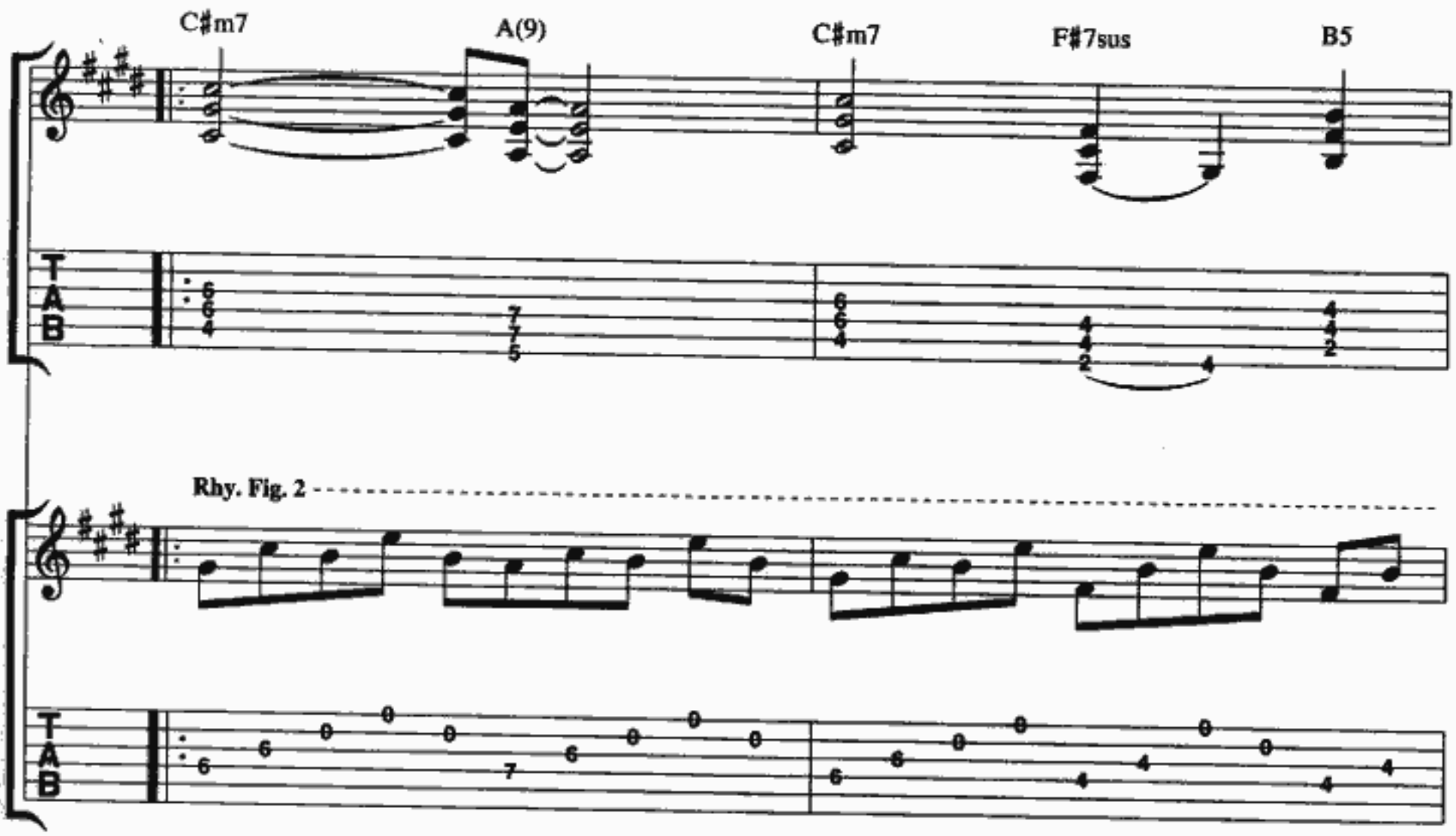
The previous example involved a handful of chords that provide an interesting point of departure from typical "power chord" sounds. However, the progression in which these chords were played functioned more as a vehicle for learning, as opposed to a song-oriented chord cycle. The example that follows incorporates many of the same chords, but more like a real piece of music that could be used as a background to a vocal part, or to accompany a solo. Once again, the power chords were added with distortion while the sequencer plays the second guitar part.

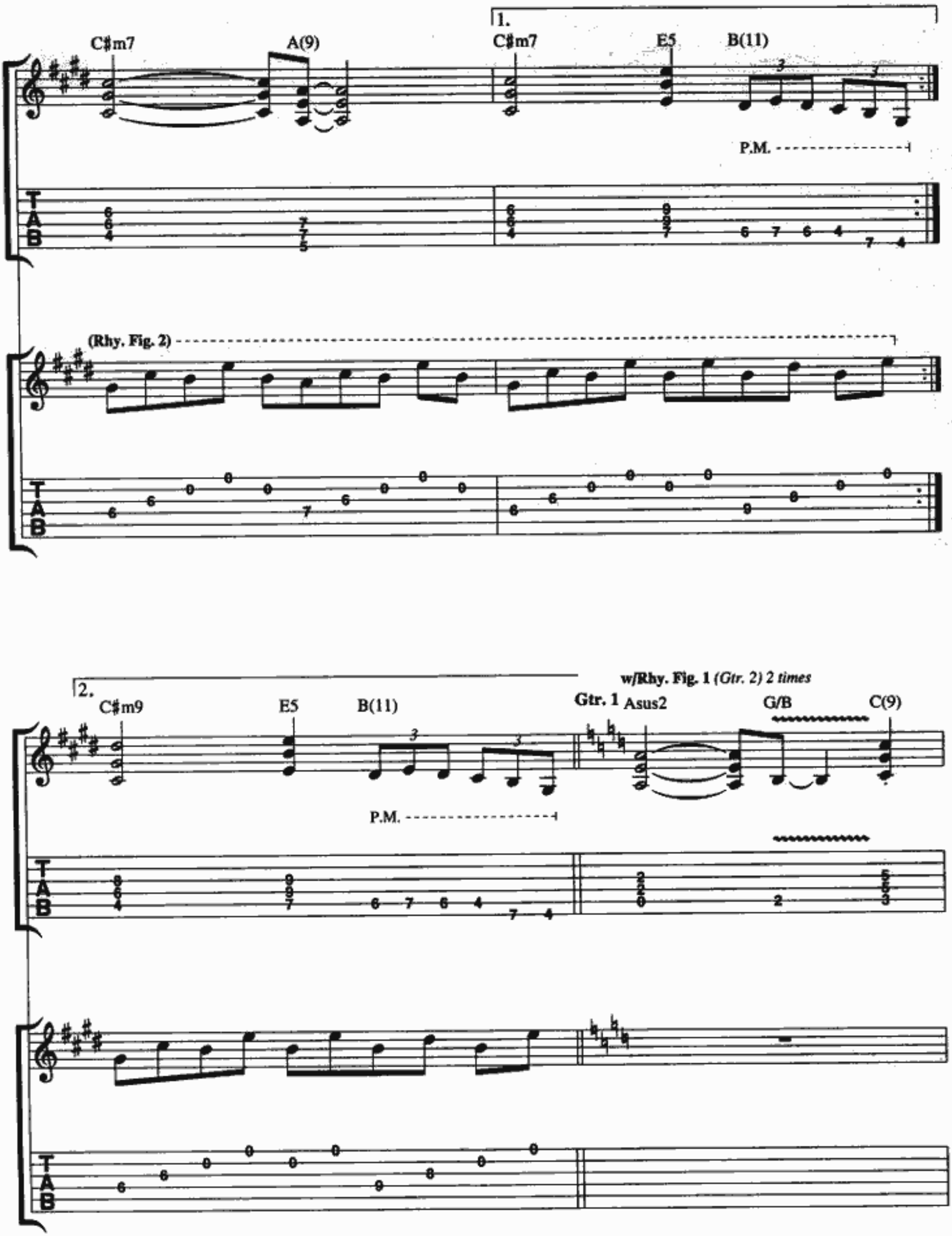


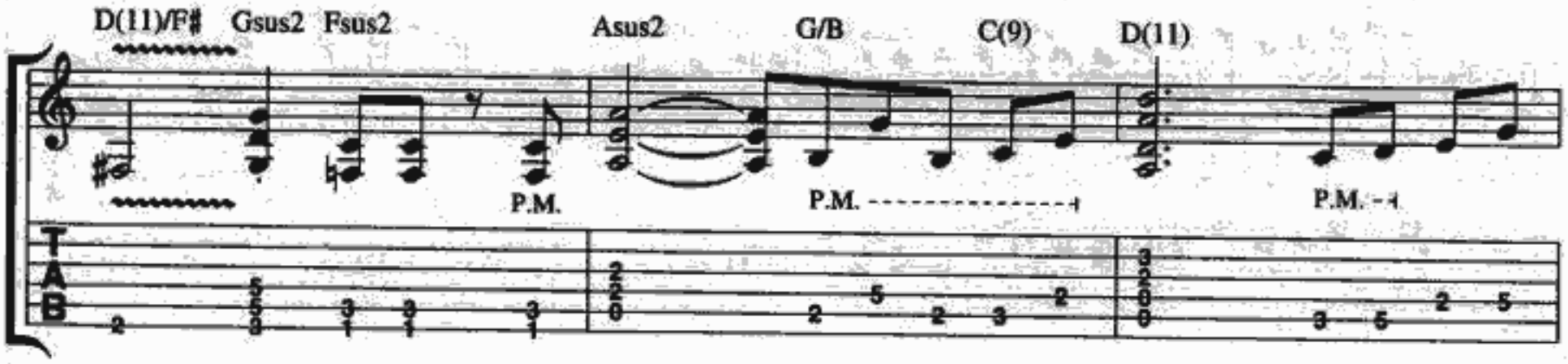
*Sequencer arr. for gtr.

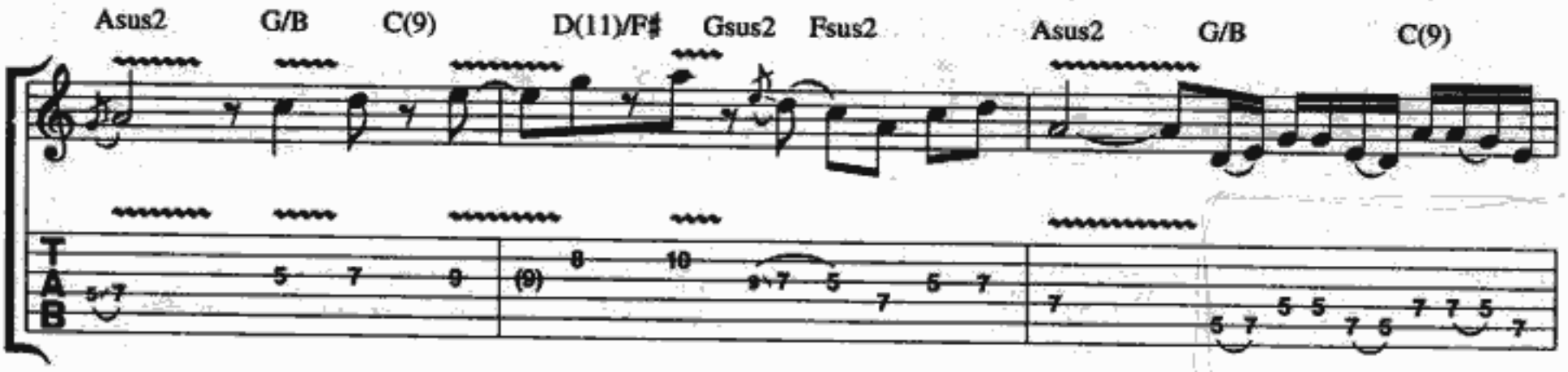
†Harmony derived from both gtr. parts combined (throughout)

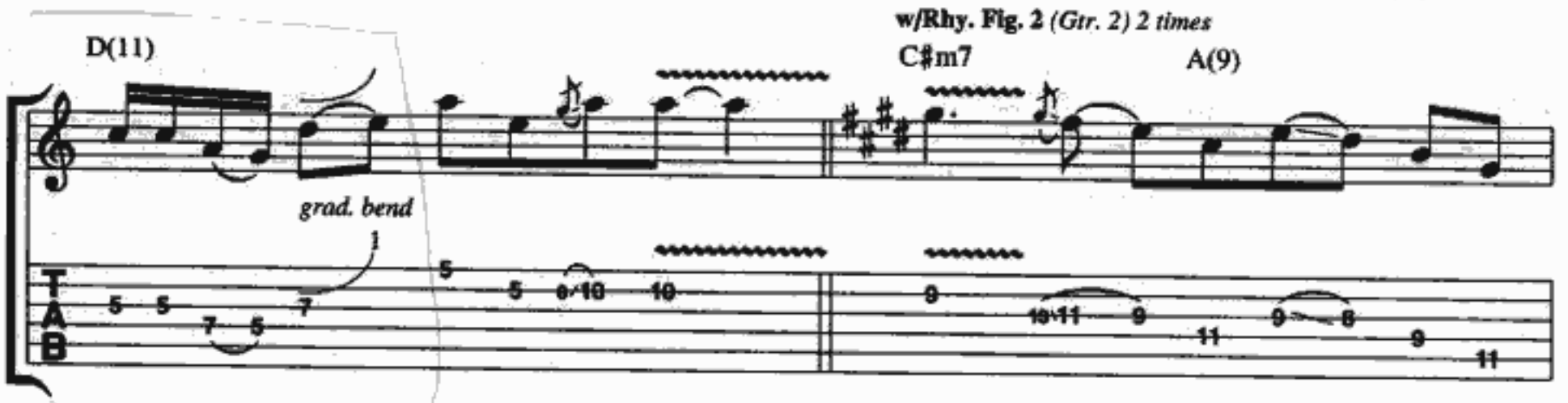

Asus2
G/B
C(9)
D(11)
P.M.
P.M.
(Rhy. Fig. 1)
T
A
B

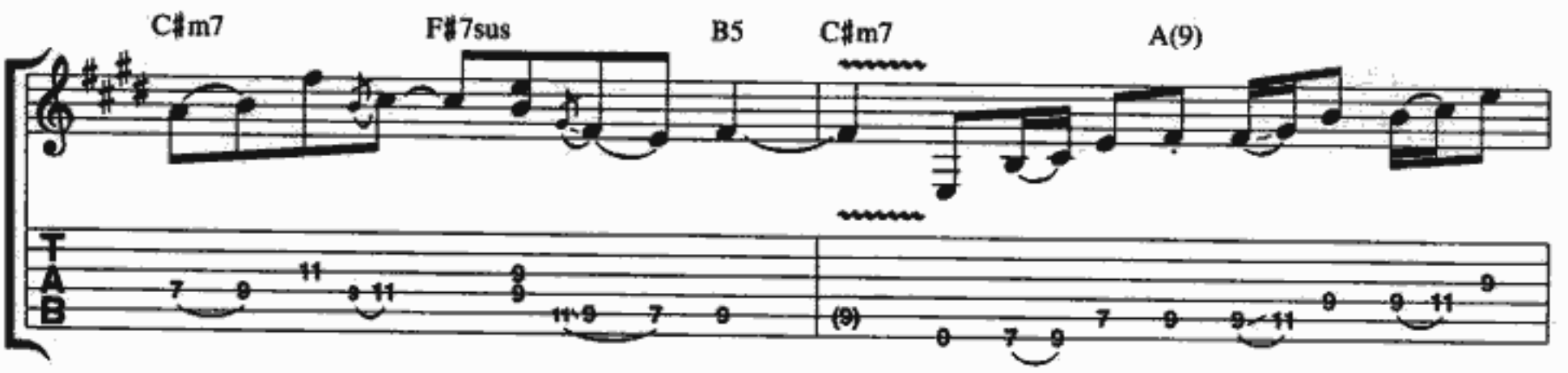

C♯m7
A(9)
C♯m7
F♯7sus
B5
Rhy. Fig. 2
T
A
B

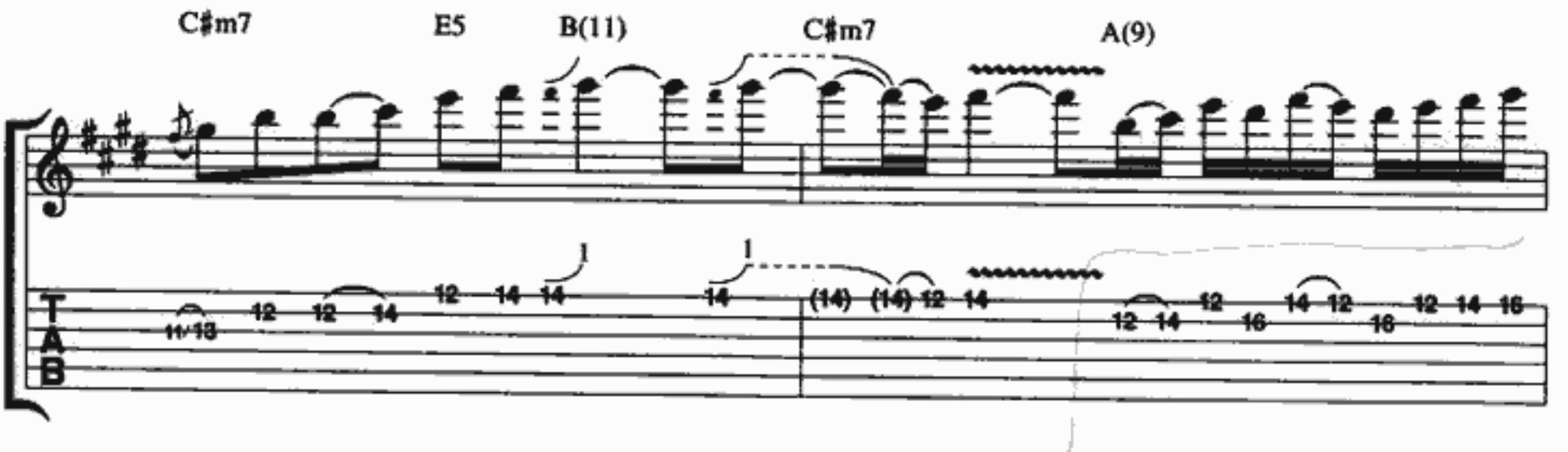

1.
C♯m7
A(9)
C♯m7
E5
B(11)
P.M.
(Rhy. Fig. 2)
2.
C♯m9
E5
B(11)
w/Rhy. Fig. 1 (Gtr. 2) 2 times
Gtr. 1
Asus2
G/B
C(9)
P.M.

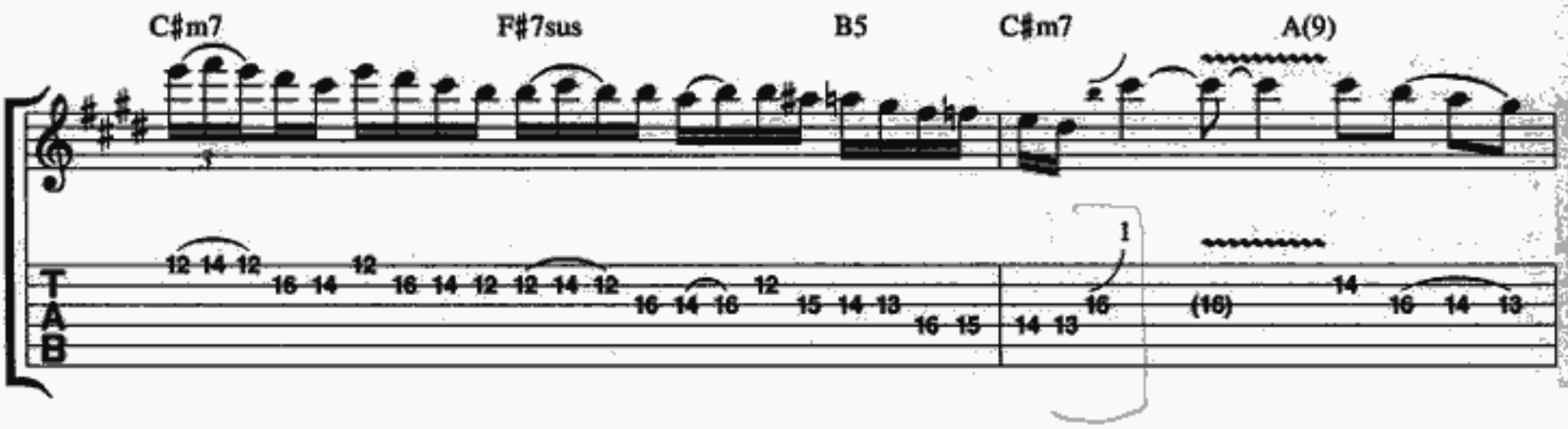

D(11)/F♯
Gsus2
Fsus2
Asus2
G/B
C(9)
D(11)
P.M.
P.M.
P.M.
T
A
B


Asus2
G/B
C(9)
D(11)/F♯
Gsus2
Fsus2
Asus2
G/B
C(9)
T
A
B

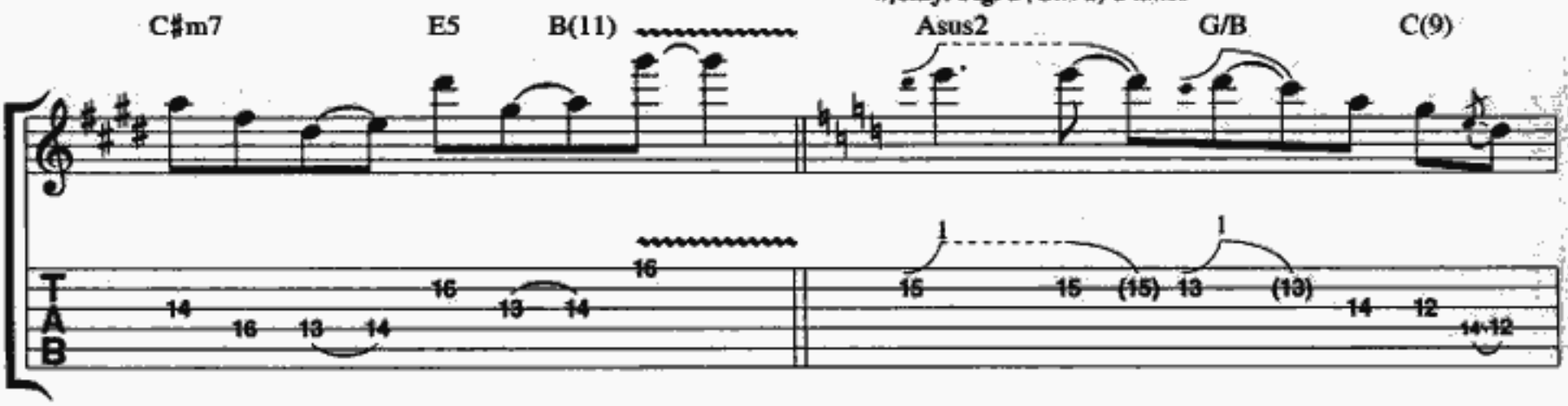

D(11)
w/Rhy. Fig. 2 (Gtr. 2) 2 times
C♯m7
A(9)
grad. bend
T
A
B

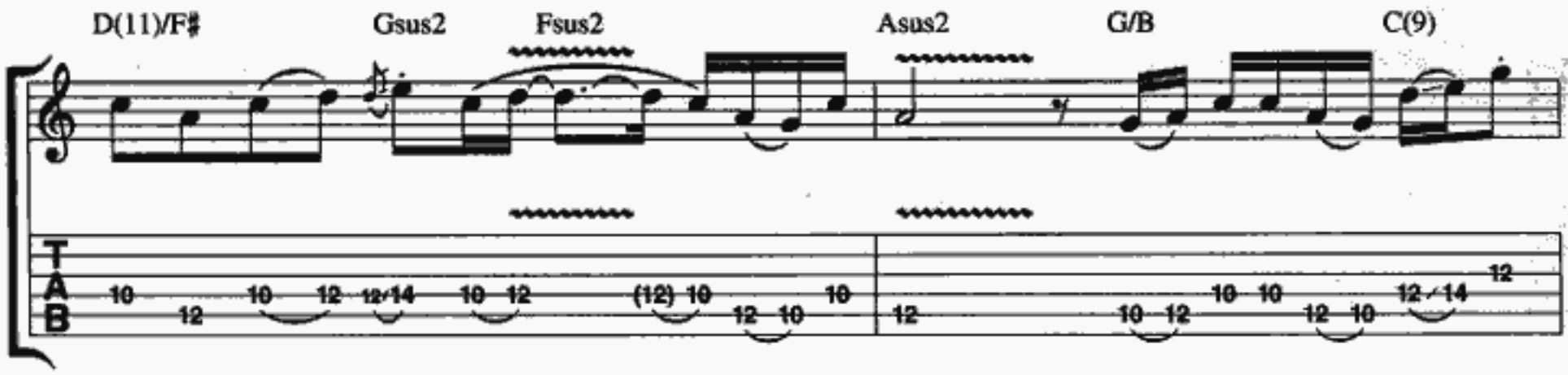

C♯m7
F♯7sus
B5
C♯m7
A(9)
T
A
B

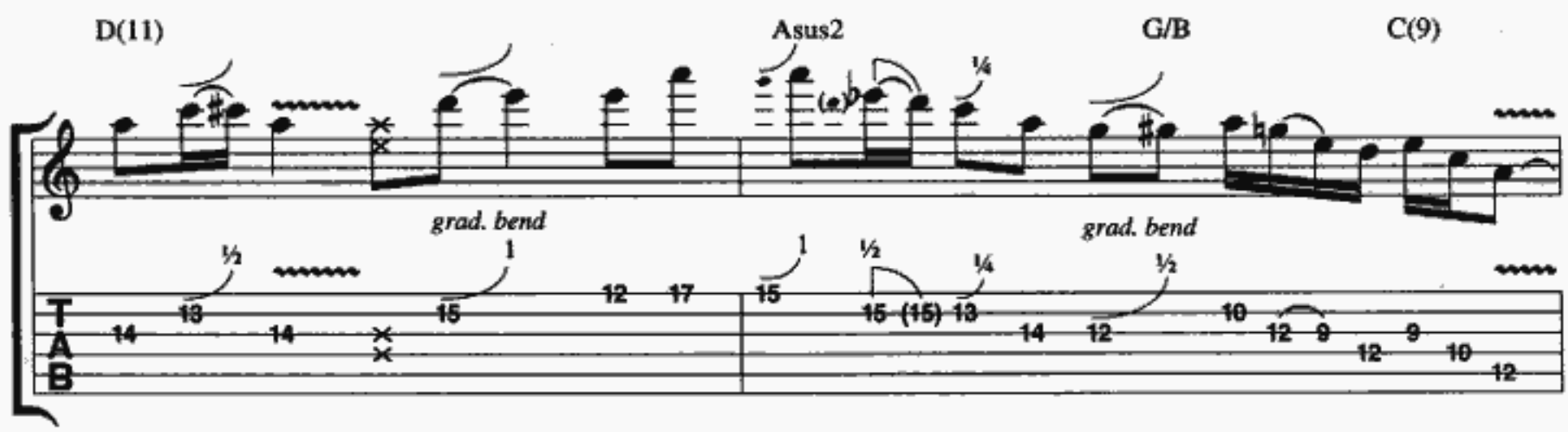

C♯m7
E5
B(11)
C♯m7
A(9)
T
A
B

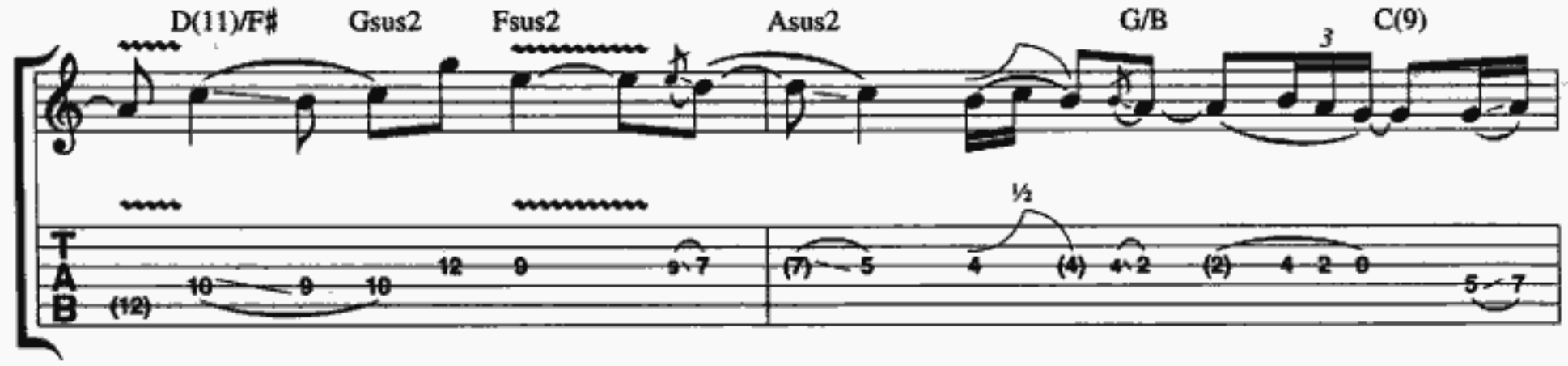


w/Rhy. Fig. 1 *(Gtr. 2) 2 times*

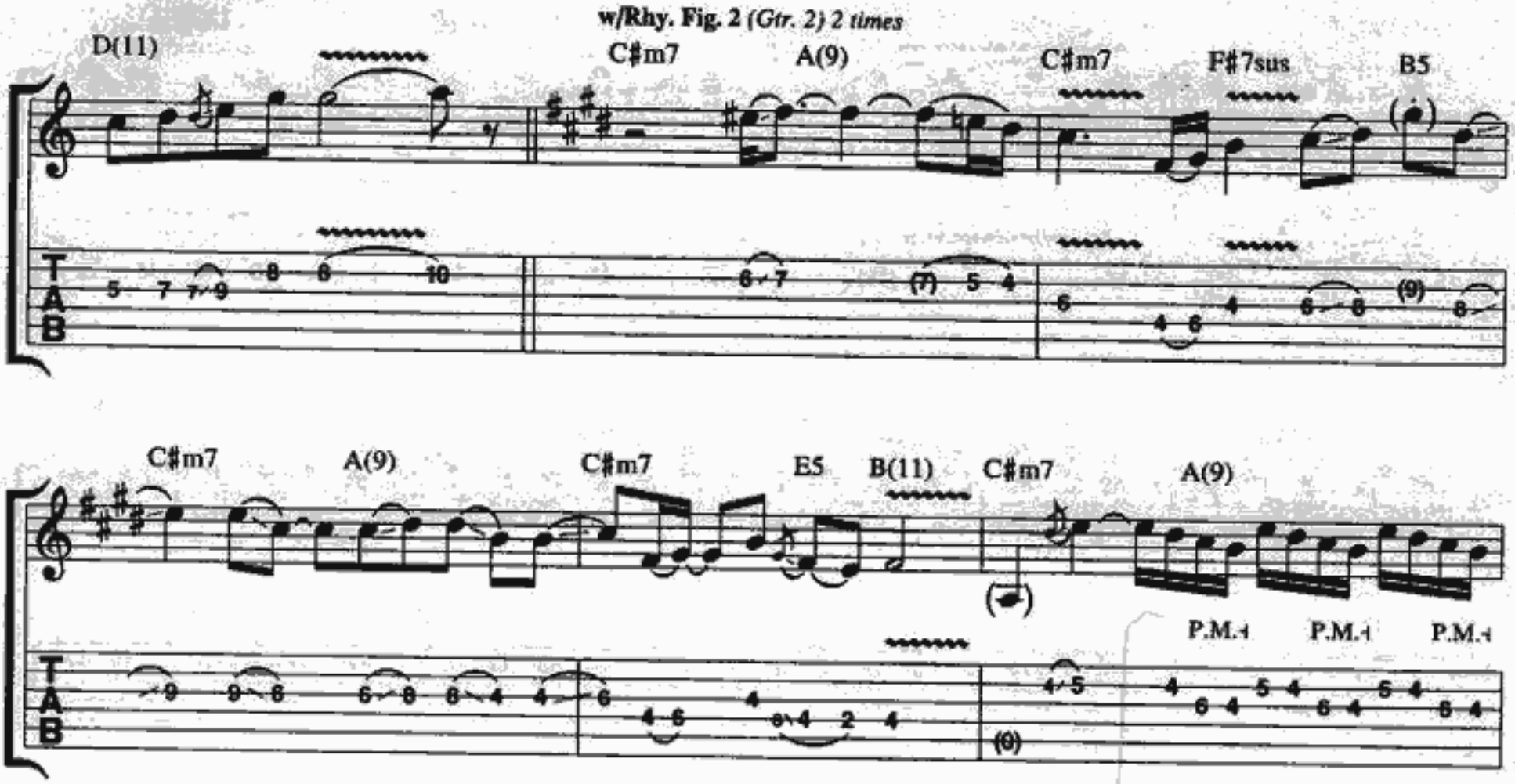




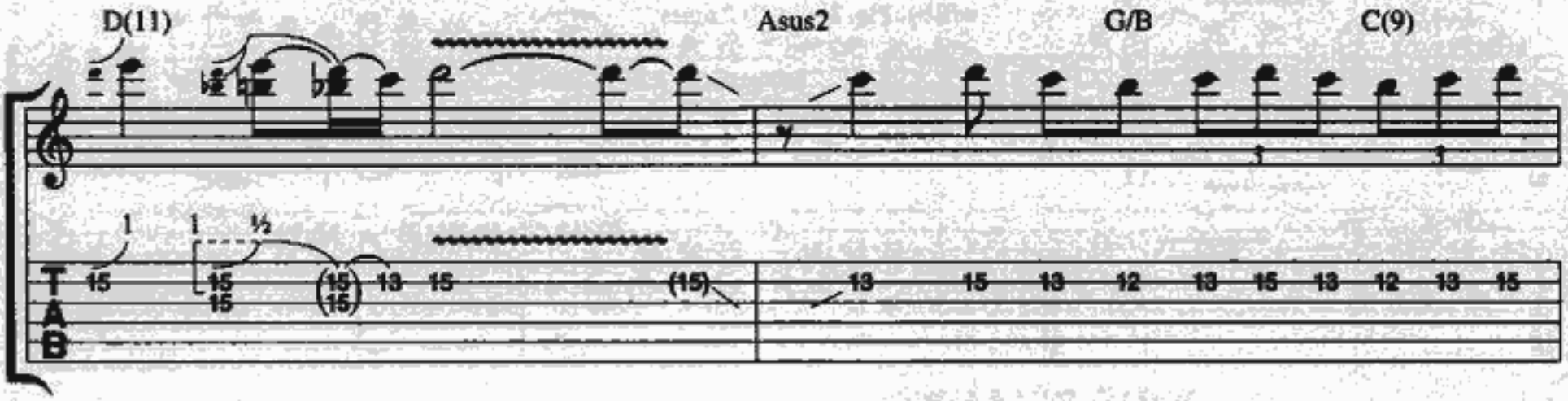


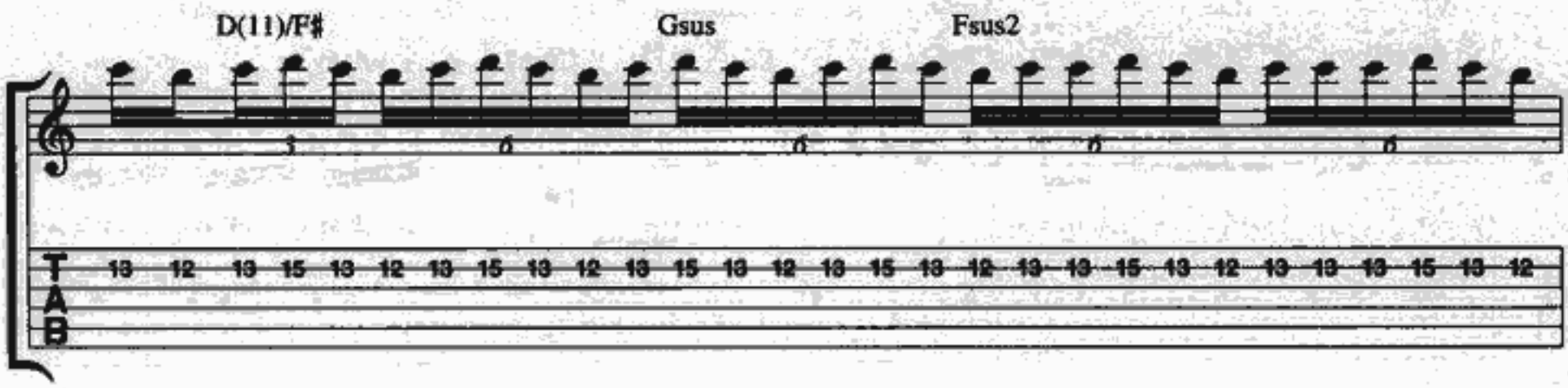


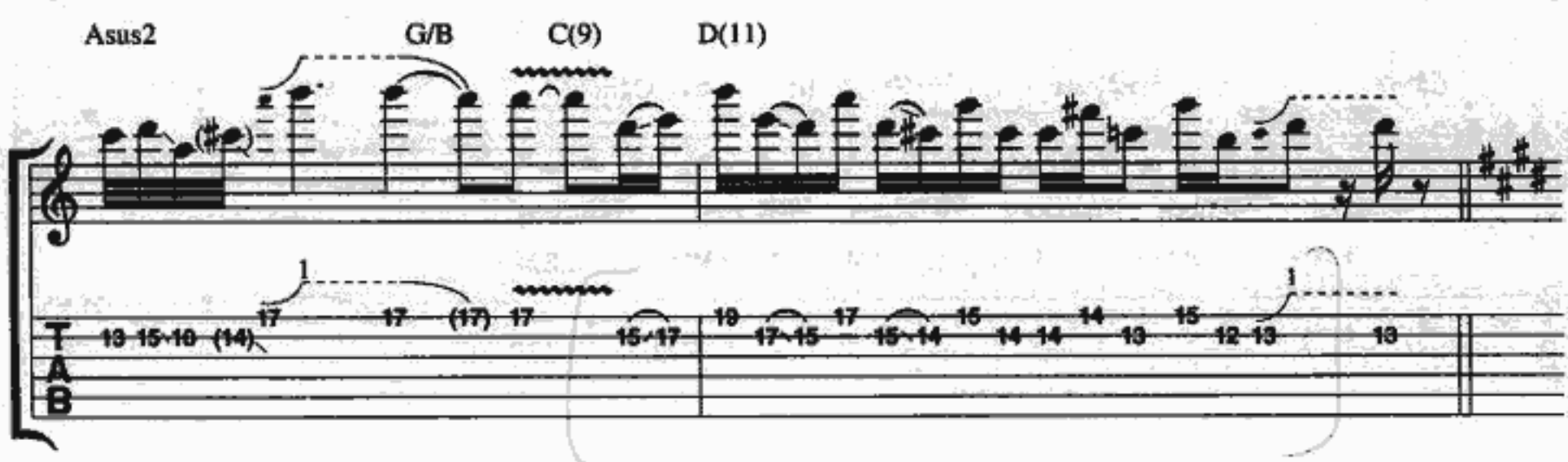
w/Rhy. Fig. 2 *(Gtr. 2) 2 times*



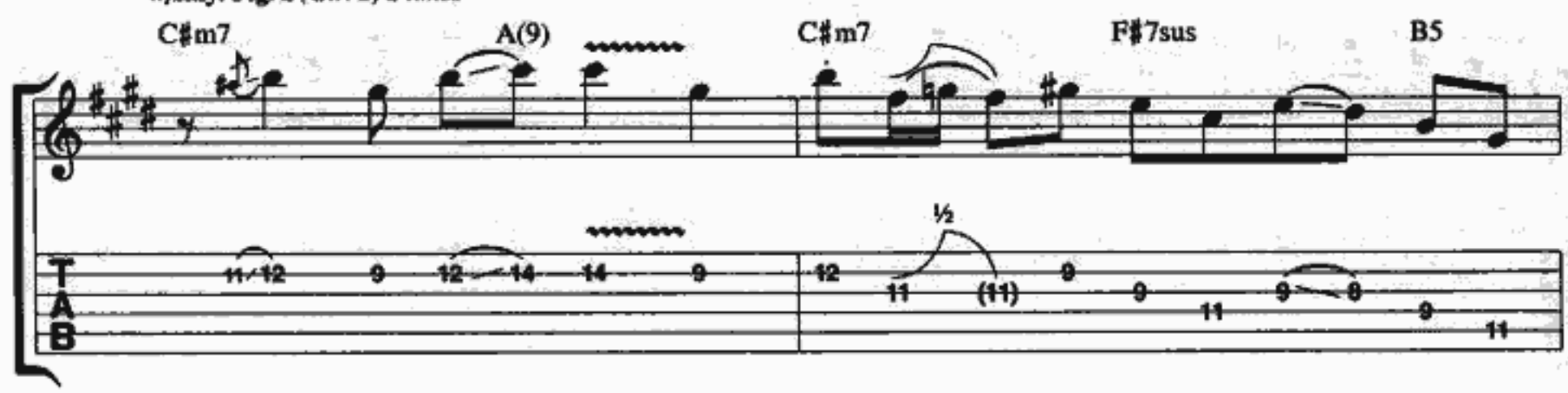
w/Rhy. Fig. 1 *(Gtr. 2) 2 times*

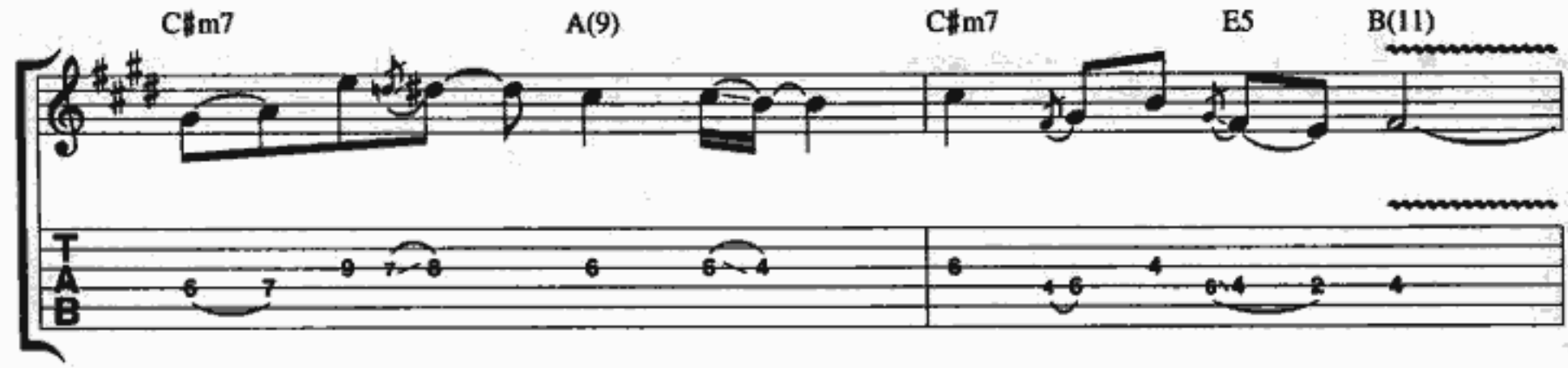


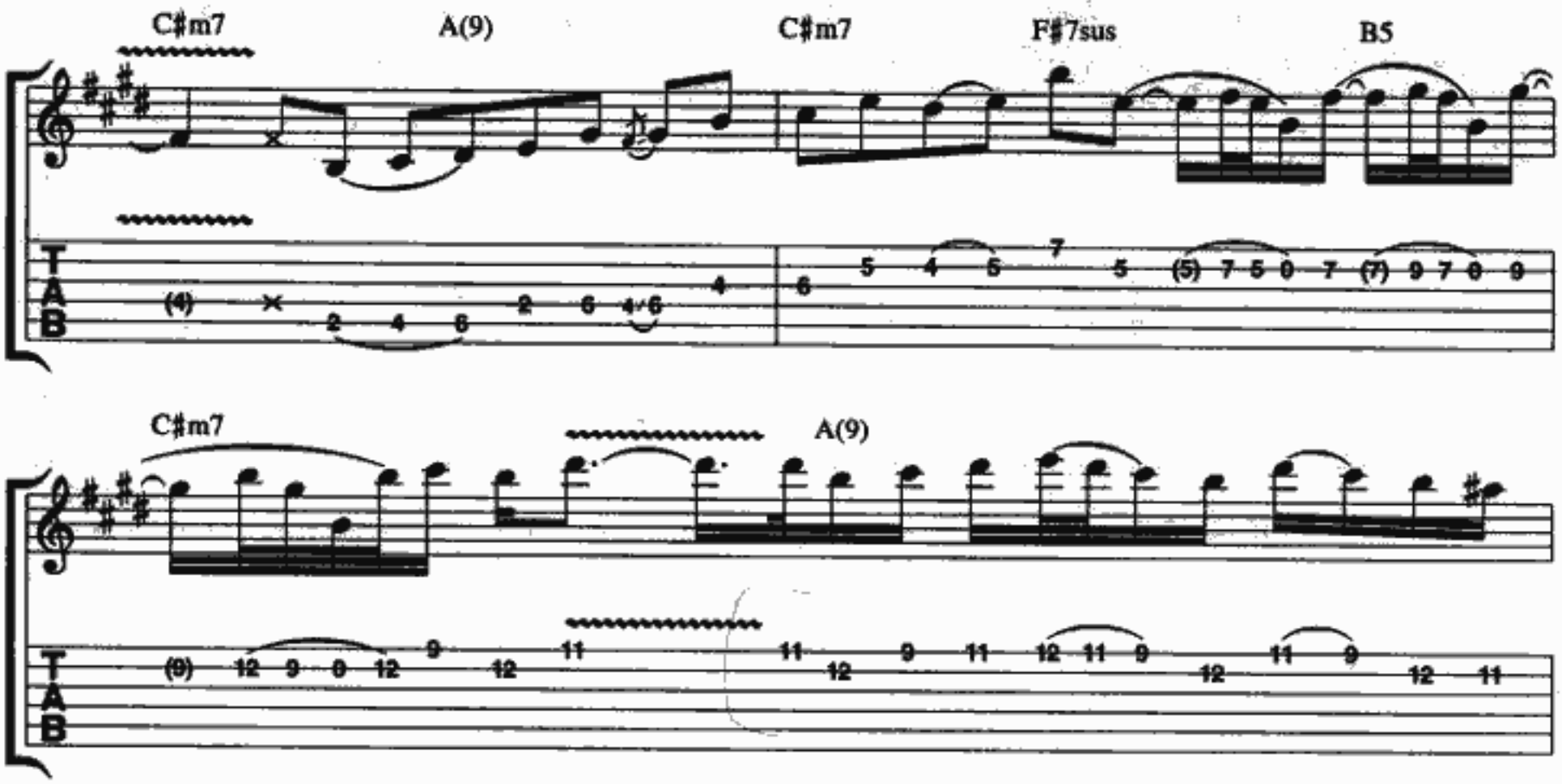
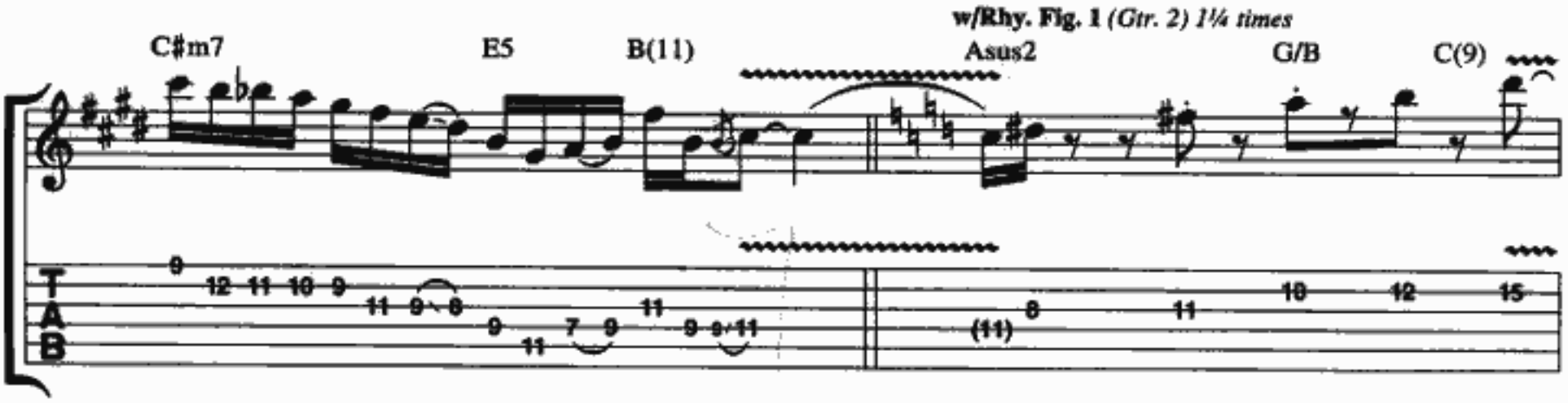
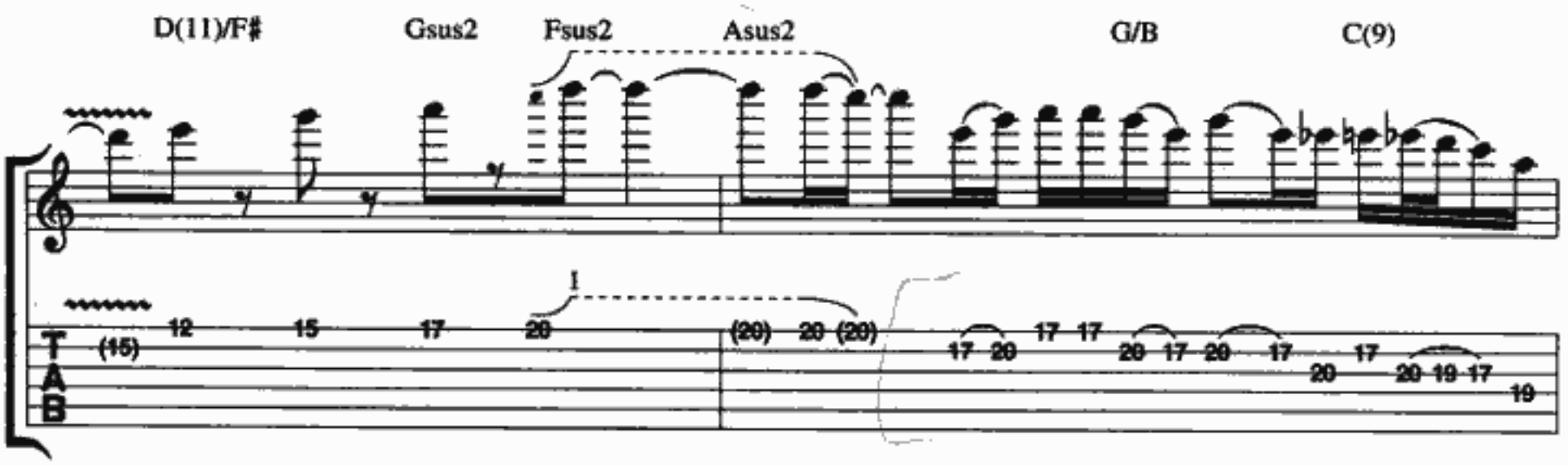
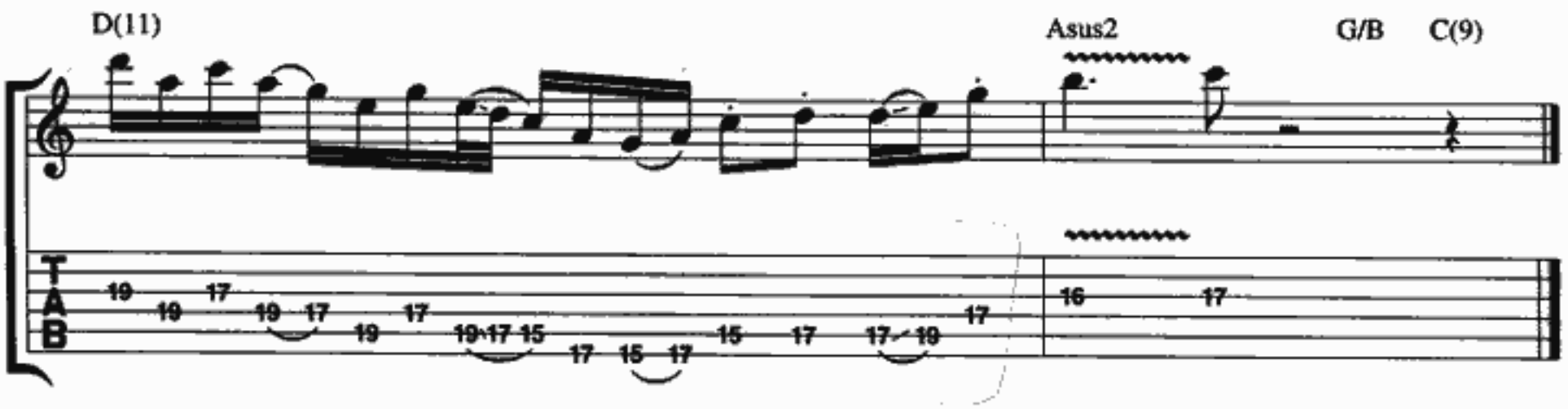




w/Rhy. Fig. 2 *(Gtr. 2) 2 times*







w/Rhy. Fig. 1 *(Gtr. 2) 1¼ times*