



CAGED System Primer

**For Community Guitar
by Andrew Lawrence**

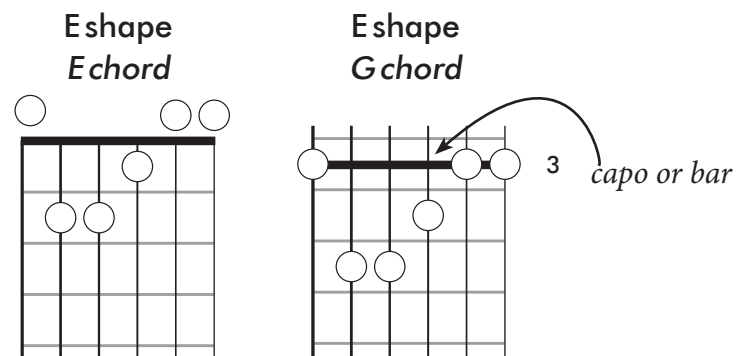


Chords and Chord Shapes

The CAGED system is based on the recognition that although there are many major chords on the neck of the guitar, there are really only five major chord shapes that you can use to play them. These chord shapes correspond to the common chords C, A, G, E and D, hence the system's name. To make use of the CAGED system it is important that you understand the difference between a *chord* and a chord *shape* (which some refer to as a chord form).

- A *chord* is defined by the notes that make it up (for example, an E chord is made up of E, G# and B). It can be played on guitar, piano, autoharp or any other chording instrument.
- A chord *shape*, on the other hand, is just a configuration of your fingers on the guitar fretboard. With one major chord shape you can play every major chord, simply by moving the shape up or down the fingerboard using a capo or bar.

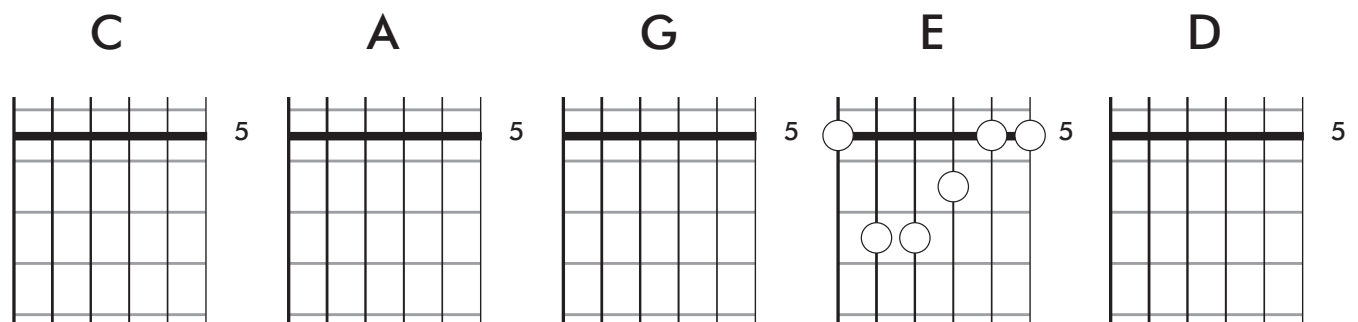
As you can see here, the distinction between a chord and a chord shape really only becomes important when you move the chord beyond open position. After all, in open position an E chord is played using the E shape, a C chord with a C shape, and so forth. But as soon as you place a bar behind an E shape and play it—as shown here—at the 3rd fret, now there is a difference between the shape (which still looks like an E) and the actual chord being played (which is now a G).



Although many guitarists learn to bar the E and A shapes and move them around the fingerboard, most would never think to do the same thing with the C, G and D shapes for the simple reason that, when barred, these chord shapes are physically challenging. That's why it is critical to understand that the real value of the CAGED system has nothing to do with being able to *play* all five barred shapes. It just has to do with being able to *see* and *understand* them on the fingerboard. Your mind doesn't have the physical limitations of your hands, so you should be able to visualize all kinds of things that your hands couldn't possibly do. Let your hands worry about what's physically possible when it comes time to actually grab something. For now, let's get the picture of the basic CAGED shapes clear in your mind's eye.

Exercise 1:

Use the diagrams below to sketch out the remainder of the five major chord shapes—we've already done the E shape for you—with the bar at the fifth fret. Then try to *play* each of them. Remember though, it makes no difference whether you can get all the notes of the chord to ring out clearly. You don't even need to pick the strings. Just make sure you know where the fingers of your fretting hand belong in each barred shape.



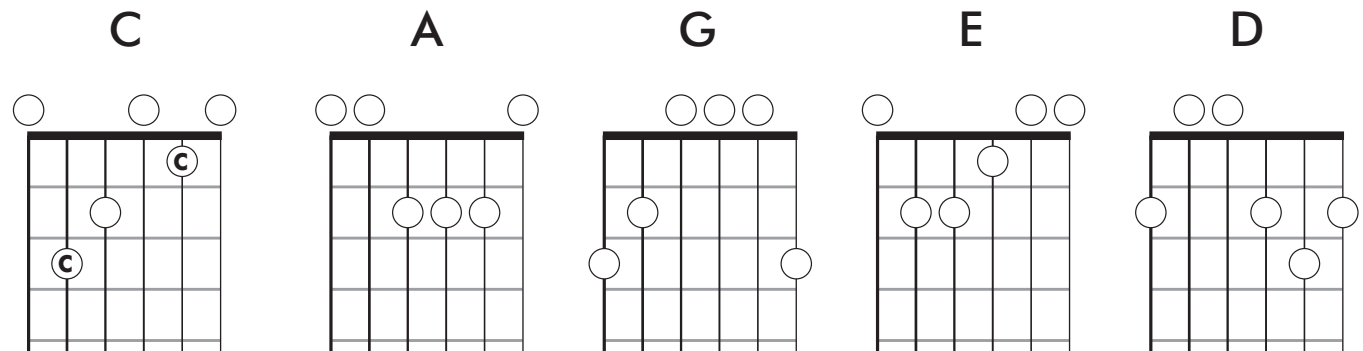
Once you've dislodged the C, A, G, E and D chords from their home in open position by putting a bar behind them, you realize something very significant: that each major chord shape can be used to play *any* major chord simply by moving it up or down the fingerboard. So now the question becomes, "How do I know what chord I'm playing when I put a barred shape in a given fingerboard position?" Let's find out.

Root Configurations and Chord Names

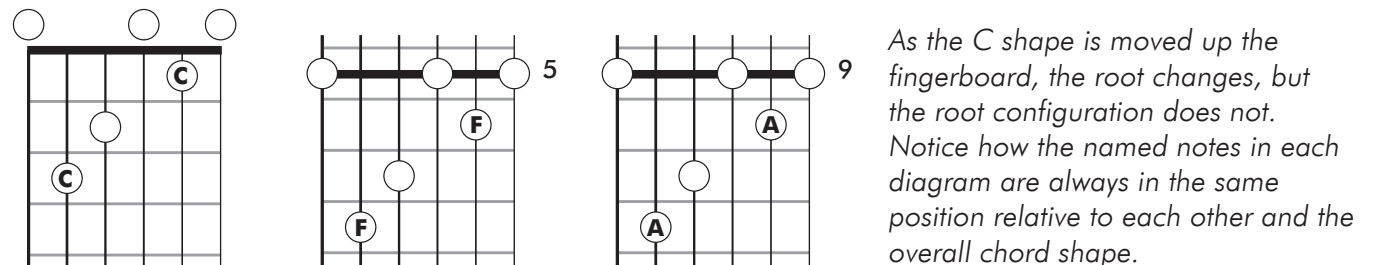
The first critical piece of information you need in order to answer this question is the location of the root within the chord shape. Fortunately, this is easy information to get your hands on: simply look at the chords in open position. Shall we?

Exercise 2:

The diagrams below show the five major chord shapes in open position. (Because they are in open position, the name of the chord and the shape are the same.) For each chord/shape, identify all the occurrences of the root as we have done for C.



When you've completed the exercise above you will have identified what we'll call the *root configuration* of each of the shapes. The important thing to notice at this point is that as you move the shape up the fingerboard, the actual note given by the root configuration changes (and so, the name of the chord), but the position of those notes relative to each other and the overall chord shape stays constant. In other words although the root of the chord changes, the root configuration of the chord shape does not. The diagrams below should make this idea clear.



As the C shape is moved up the fingerboard, the root changes, but the root configuration does not. Notice how the named notes in each diagram are always in the same position relative to each other and the overall chord shape.

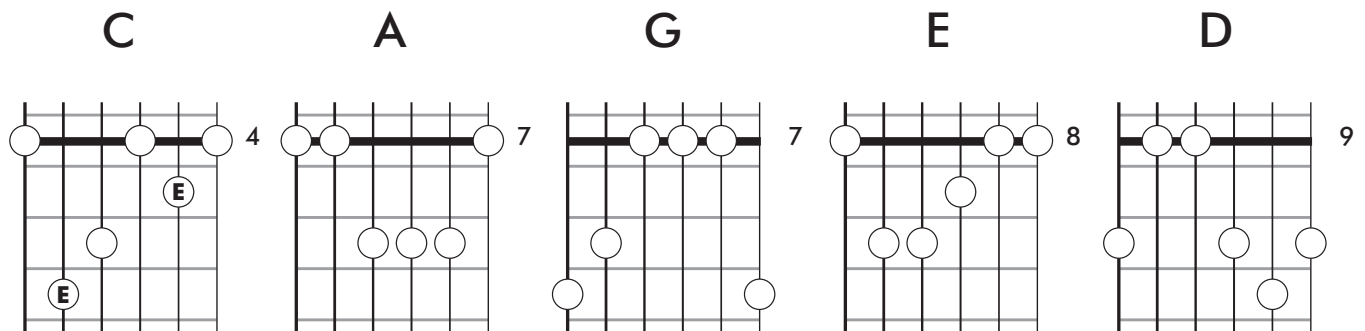
This brings us to the second piece of information you need in order to name the actual chord you are playing as you move these shapes up and down the neck: the names of the notes on the fingerboard, including those beyond the fifth fret. We'll assume here that you know how to find those notes (if not, see our Level 1 Theory Primer) but if you are just beginning to explore the entire fingerboard, chances are that you don't know them quickly enough to make use of that knowledge "on the fly". That's the point we're trying to get to. In a jam setting you don't have time to count up fret by fret from the nut to the 8th fret to find a good G chord!

Although you can approach it from a variety of angles, there's no real trick to learning the notes up the fingerboard. As you work on Level 2 or 3 Community Guitar material you will be playing up the neck a lot, especially if you get to the second rhythm parts and solos. In the accompanying *Theory and Exercises* for these songs you'll be invited again and again to say, sing or write the names of the notes of the music you're learning. The more you do it, the more familiar the note names become in various positions, just as they have (presumably) in open position. If you skip those exercises, however, you can pretty much count on getting lost as you move up the fingerboard. It's your choice!

The following exercise will give you a chance to combine your understanding of the root configurations of the five CAGED shapes with your knowledge of the notes on the fingerboard. Together, these two elements give you all you need in order to determine what actual chord you are playing as you move a chord shape around the fingerboard. Since this is not a jam situation, speed is of no value or concern, so take your time.

Exercise 3

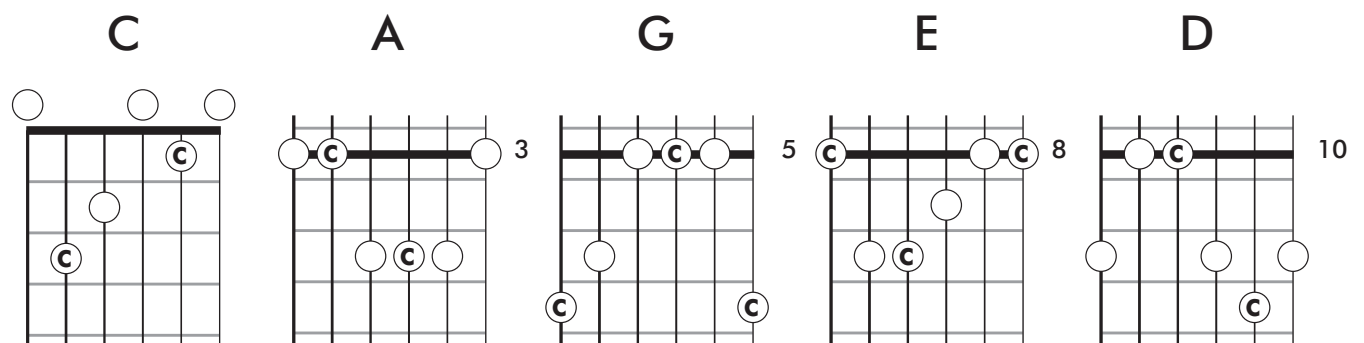
For each diagram below, name the actual note of the root configuration given the chord shape's position on the fingerboard. In so doing, you name the root of the chord. The first diagram is provided by way of example.



The CAGED Sequence

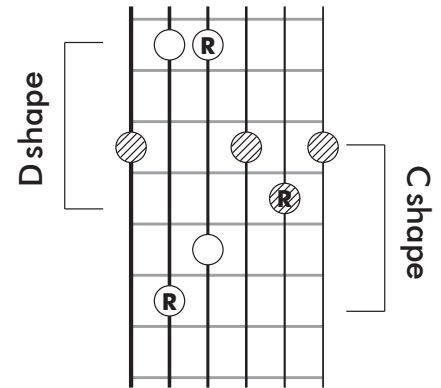
We have already seen above that any one of the five major chord shapes can give us any major chord simply by moving the shape up or down the fingerboard. Here's a related insight: any major chord can be played five different ways, using each of the five chord shapes. The word "CAGED" not only tells us which chord shapes we use to accomplish this, but it also gives us the *order* in which they occur as we move up the fingerboard.

The fretboard diagram below should make clear how this works. Assume we want to play a C major chord five different ways. We begin, of course, with the common C chord in open position. Moving up the fingerboard, the next C chord we could play would be the A shape (barred at the third fret), then the G shape (barred at the fifth fret), and so on. Notice the order of the shapes: C-A-G-E-D.



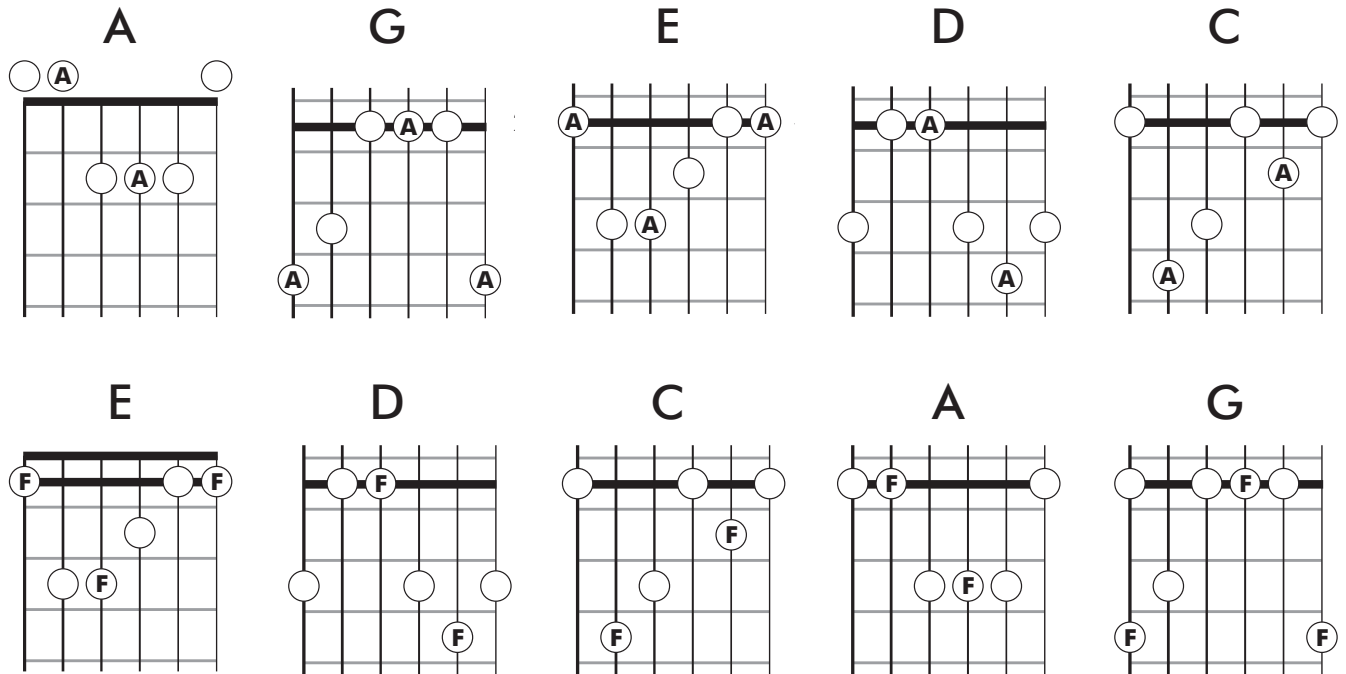
As they succeed one another up the fingerboard there are no gaps between the five chord shapes. Rather, they fit together like pieces of a jigsaw puzzle, interlocking by means of shared notes. It will be much easier for you to see exactly how the chord shapes fit together if you keep at least one of those shared notes in mind, namely, the root. Every root is shared by two adjacent chord shapes. So think about it—as long as the root stays constant, the shapes you play will give you the same chord.

The diagram to the right illustrates this point. It shows the D and C shapes side by side on the fingerboard with their roots indicated. The notes with cross-hatching are shared by both chord shapes. Notice that one of these is a root of both shapes. If your guitar is nearby, try moving back and forth between those two shapes anywhere on the fingerboard, keeping that shared root constant as you do. Then try putting this insight to use on the entire fingerboard by doing the exercise below.



Exercise 4:

The two rows of fretboard diagrams below start with a common chord followed by a series of chord shapes that are organized in the CAGED sequence, but at undetermined locations on the fretboard. Add fret numbers to each diagram (to the right of the bar) so that every shape in the row gives you the chord that starts the row.



Partial Chord Shapes

Once you can visualize the full chord shapes all over the fingerboard, the question becomes, “OK, so what can I do with them?” You’ll be answering that question for as long as you play the guitar with an enquiring mind. But for starters, you can break the full chord shapes into more manageable units by selecting just a few notes from them, creating what we’ll refer to as *partial chord shapes*. In Level 2 and 3 Community Guitar arrangements we commonly use these partial shapes to create 2nd or 3rd rhythm guitar parts up the neck. For that purpose you don’t really need the sound of a five or six-note chord, but just enough to add something of rhythmic or harmonic interest. The next exercise will help you begin your exploration of partial major chord shapes.

Exercise 5

To do this exercise, start by visualizing the full chord shape indicated above each pair of diagrams. If you'd like, you can pencil that shape in with very light or dotted lines. Then sketch in the partial chord shape that would be created by using only the notes on the bracketed strings. (The x's beside the bracket indicate which strings to avoid.) On the top row, you'll map out partial chord shapes on strings 1, 2 and 3; the second row will use only strings 2, 3 and 4. Indicate which (if any) of the notes in the partial shape would be the root. The first diagram of each row is provided by way of example.

The image displays two rows of guitar fretboard diagrams for chords C, A, G, E, and D. Each diagram shows a 4-string section with frets 1-4. The first diagram in each row shows a full chord shape with a bracketed partial shape and root notes marked 'R'. The second diagram in each row shows only the bracketed partial shape for practice.

- Row 1 (Strings 1, 2, 3):**
 - C:** Full shape: fret 1 (1st string), fret 2 (2nd), fret 3 (3rd). Partial shape: fret 2 (2nd), fret 3 (3rd). Root notes: fret 1 (1st), fret 2 (2nd).
 - A:** Full shape: fret 2 (1st), fret 3 (2nd), fret 4 (3rd). Partial shape: fret 3 (2nd), fret 4 (3rd).
 - G:** Full shape: fret 3 (1st), fret 4 (2nd), fret 5 (3rd). Partial shape: fret 4 (2nd), fret 5 (3rd).
 - E:** Full shape: fret 4 (1st), fret 5 (2nd), fret 6 (3rd). Partial shape: fret 5 (2nd), fret 6 (3rd).
 - D:** Full shape: fret 5 (1st), fret 6 (2nd), fret 7 (3rd). Partial shape: fret 6 (2nd), fret 7 (3rd).
- Row 2 (Strings 2, 3, 4):**
 - C:** Full shape: fret 1 (2nd), fret 2 (3rd), fret 3 (4th). Partial shape: fret 2 (3rd), fret 3 (4th). Root notes: fret 1 (2nd), fret 2 (3rd).
 - A:** Full shape: fret 2 (2nd), fret 3 (3rd), fret 4 (4th). Partial shape: fret 3 (3rd), fret 4 (4th).
 - G:** Full shape: fret 3 (2nd), fret 4 (3rd), fret 5 (4th). Partial shape: fret 4 (3rd), fret 5 (4th).
 - E:** Full shape: fret 4 (2nd), fret 5 (3rd), fret 6 (4th). Partial shape: fret 5 (3rd), fret 6 (4th).
 - D:** Full shape: fret 5 (2nd), fret 6 (3rd), fret 7 (4th). Partial shape: fret 6 (3rd), fret 7 (4th).

Scale Forms Based on the Five Chord Shapes

As useful as the first few insights discussed above may be, the CAGED system will be of very limited use if you only apply it in the cookie-cutter fashion we've been discussing so far. To take things to the next level of flexibility we need to turn our attention away from chords per se and toward their building blocks—individual notes. We'll start with the exercise below.

Exercise 6

The fretboard to the right shows the 5th through 9th frets. By whatever method you choose, sketch in all the notes of the C major scale (that is, all the notes of the musical alphabet without sharps or flats) between the low A and high C that have been provided. For this exercise it will not be helpful to duplicate notes on adjacent strings, so move up to a higher string whenever possible. As a final step, shade in all the C's in the diagram you've just created so they stand out.

The diagram shows a guitar fretboard with frets 5 through 9. A circled 'A' is on the 5th fret of the 1st string, and a circled 'C' is on the 7th fret of the 4th string.

When you are done with the exercise above, have a look at the answer we've provided at the back of this primer (or at your own if you're sure it is correct). Notice the configuration of the C's that have been shaded in. Pop Quiz: those C's give you the root configuration of which chord shape? If you said the G shape, you're right. (If you're having trouble seeing that, you might want to review our discussion of root configurations above.)

So now you can look at the notes of that root configuration in either of two ways: as the *roots* of a G-shape chord (as we've been doing up to this point), or as reoccurrences of the *tonic* of a major scale that references the G shape. No matter where you position the G shape on the fingerboard, you will now know not only what chord it is, but how to play two octaves of a major scale starting on the root of that chord simply by following the finger pattern you yourself outlined above.

We'll call that finger pattern the *G scale form*. That is different from a G scale, just as a G chord shape is different from a G chord. A scale form is similar to a chord shape in that they both refer to a certain finger pattern on the guitar. In the case of a scale form, that finger pattern gives you a series of intervals. And just as a G chord shape can give you many different major chords depending on where it is positioned on the fingerboard, so too the G scale form can give you any major scale you'd like. Prove that this is true by trying the next exercise.

Exercise 7

For this exercise there is no writing involved, just playing: position a G chord shape anywhere on the fingerboard and then use the diagram you just completed to play two octaves of the major scale that references that shape. The tonic of the scale will coincide with the root configuration of the G shape. When referring to your diagram you'll want to ignore the note names (for now) and simply pay attention to the finger pattern.

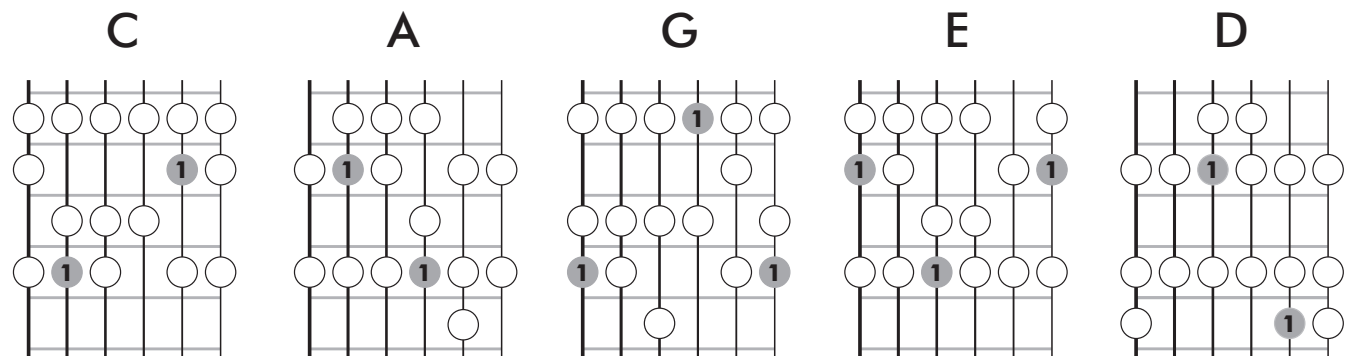
You could do the same, of course, with the other four chord shapes as well. And so we shall, but as we do let's look at them in terms of scale degrees.

Scale Forms and Scale Degrees

The big advantage of thinking in terms of scale forms on guitar is that although the actual notes change as you move the reference shape up and down the fingerboard, the underlying scale form does not. And notice this: just as the root configuration of the chord shape is fixed, the position of *every* scale degree is fixed within the overall scale form. Learn the scale form in term of scale degrees and that information is good no matter where you use it on the fingerboard. Try the following exercise to both deepen your insight into the five scale forms and to begin getting them under your fingers.

Exercise 8

The diagrams below show five scale forms that reference the CAGED chord shapes. We've only filled in the root/tonic of each scale form—now you fill in the rest of the scale degrees (2, 3, 4, etc.) Then begin to familiarize yourself with the scale forms by playing them. Ascend and descend through all the notes of each form, always starting and ending on a 1. This note is both the root of the chord and the tonic of the major scale. It would be very good practice to say or sing the scale degrees as you play. It will also be helpful if you notice the intervals between the various scale degrees. For example, notice that there is always only a half step between the pairs 3/4 and 7/1. Your goal is to start seeing—and hearing—each scale degree as having a distinct “flavor” within the scale. That way, you can decide whether that's the flavor your own musical recipe calls for.



Be aware that the scale forms shown above are not the only options within the CAGED system. In these, the emphasis has been on visualizing the forms within a very narrow range of frets. There are advantages and disadvantages to seeing and playing “in position” in this way. To compliment this approach, we will include horizontal scale forms—those that span two or more CAGED shapes—at the end of this primer. These forms will also crop up on various Resource Sheets (found at communityguitar.com) as well. Neither is “better” than the other; knowing both is best!

Putting chord shapes and scale forms together

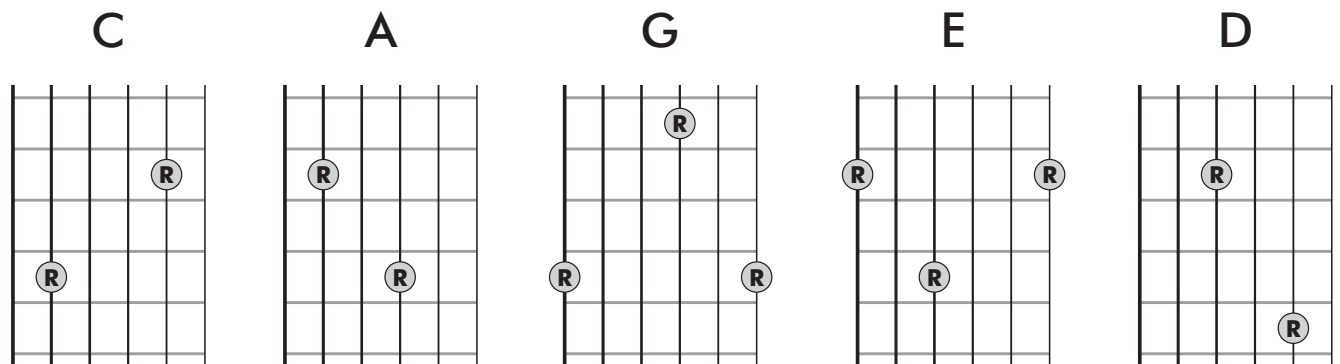
Once you can see the fingerboard in terms of the five root configurations and use them to visualize either chord shapes or scale forms, you have some very powerful tools at your disposal. The rest of this CAGED system primer will be devoted to some of the more practical ways you can apply these insights. These exercises are only intended as introductory examples. In the course of the exercises that accompany Level 2 or 3 Community Guitar arrangements you’ll have many more opportunities to put them to work in a variety of musical contexts.

Major Arpeggios

Since arpeggios are commonly expressed as scale degrees it should be obvious that the scale forms you outlined above are a treasure trove of movable arpeggio fingerings. In our Level 2 and 3 material you will be encouraged again and again to play through chord progressions using only arpeggios up the fingerboard. If you would like to move toward crafting your own solos with confidence, there is probably no single thing you could do that would be more valuable over the long haul than to drill yourself on common arpeggios. Use the exercise below to map out a few mobile major arpeggio forms.

Exercise 9

Major arpeggios consist of the root, 3rd and 5th of the major scale. The diagrams below give you the root configuration associated with each CAGED shape. Use the scale form diagrams you have already completed to sketch in the major arpeggio for each shape, including the scale degree of each chord tone.

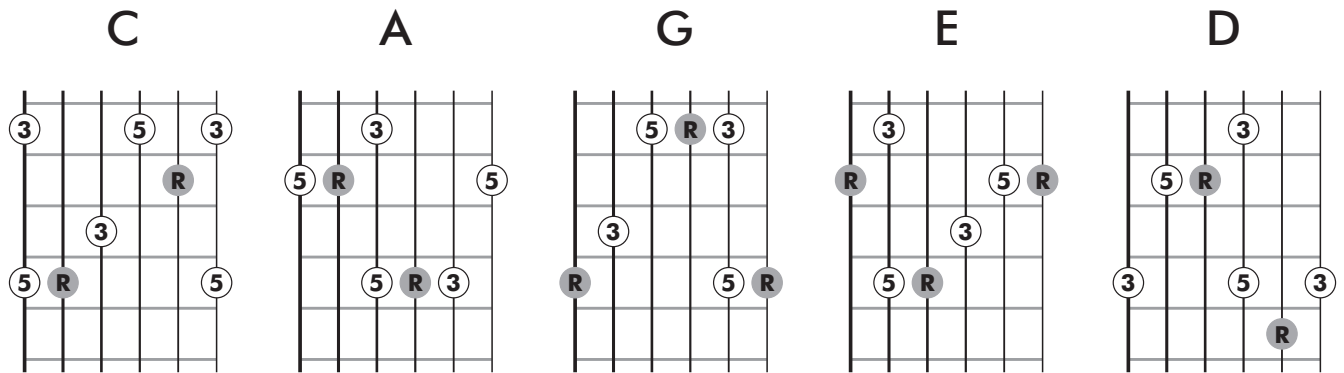


Dominant Seventh Arpeggios and Voicings

As you know, the dominant 7th chord is created by adding the b7 scale degree to a major triad. (If this is new information to you, please see the section in the *Level 1 Theory Primer* devoted to this.) Although this note is not included in the major scale forms we’ve discussed so far, you can easily derive it from them simply by flattening the 7th scale degree. This note will end up one *whole* step below the root of the underlying chord shape you are referencing. Once you have identified that note you can incorporate it into either arpeggios or moveable chord voicings. That’s exactly what you’ll do in the exercises that follow.

Exercise 10

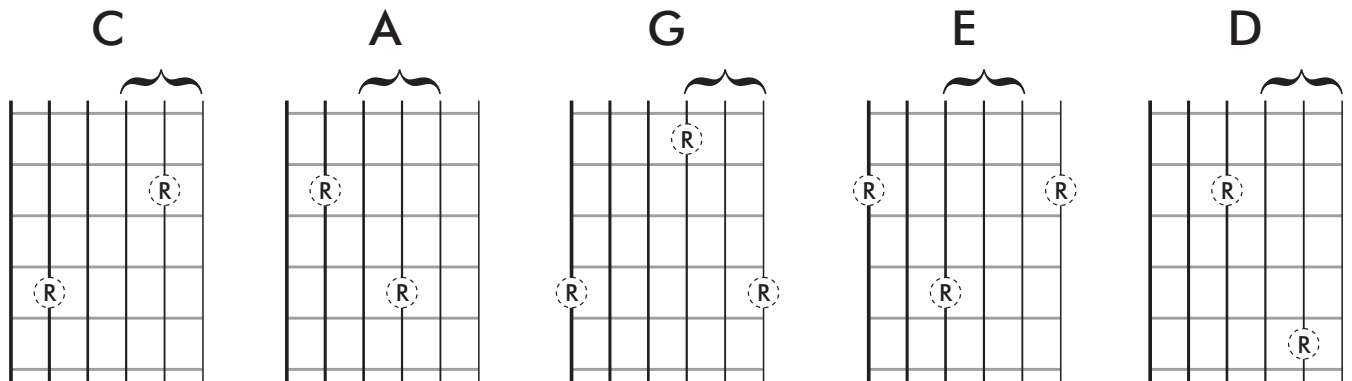
The diagrams below give you the major arpeggio associated with each of the CAGED shapes. Turn these into dominant 7th arpeggios by adding the b7th wherever possible.



Exercise 11

The notes of a dominant 7th arpeggio provide the source material for exploring different possible voicings of 7th chords, so let's try doing just that. Above each of the following diagrams you've been given a CAGED shape with the position of the root shown to help you orient yourself. On the strings indicated by the bracket, sketch in a three-note 7th chord derived from the arpeggios you just completed above. Identify each note of the chord by scale degree. Since there may be several ways to solve each of these puzzles, limit your options by following these guidelines:

- Don't double any scale degrees within a chord.
- All your voicings should include a 3rd and 7th; 5ths and roots are optional.

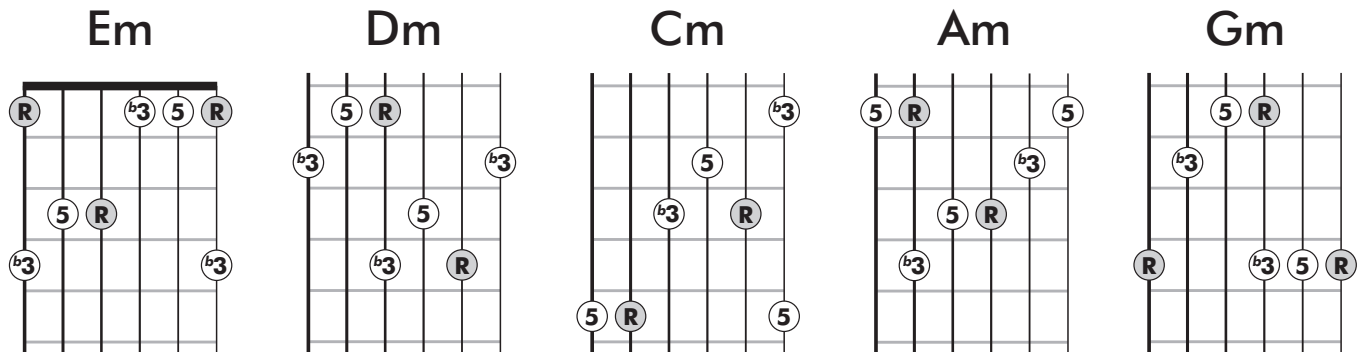


Other Extended Chords

Dominant 7th chords belong a larger family of so-called *extended* chords. A chord extension is any note beyond the basic triad of root, 3rd and 5th. We set dominant 7th chords apart because they are so common, but the same method you employed above could be used to find voicings of other extended chords as well, such as 6th chords, sus4 chords and maj7th chords, to name just a few examples. For all of these chords, the number that has been added to the chord's name indicates a major scale degree, and these can be drawn directly from the scale forms. Try your hand at exploring different voicings of extended chords in the following exercise.

Minor Arpeggios

The diagrams below show one way you could play a minor arpeggio based on each CAGED root configuration. Notice that the first diagram—based on the E shape—starts on the first fret, which means the root configuration falls on F. As you play through these arpeggios, give yourself a little extra practice by positioning them on the fingerboard so that each one gives you an F minor arpeggio.

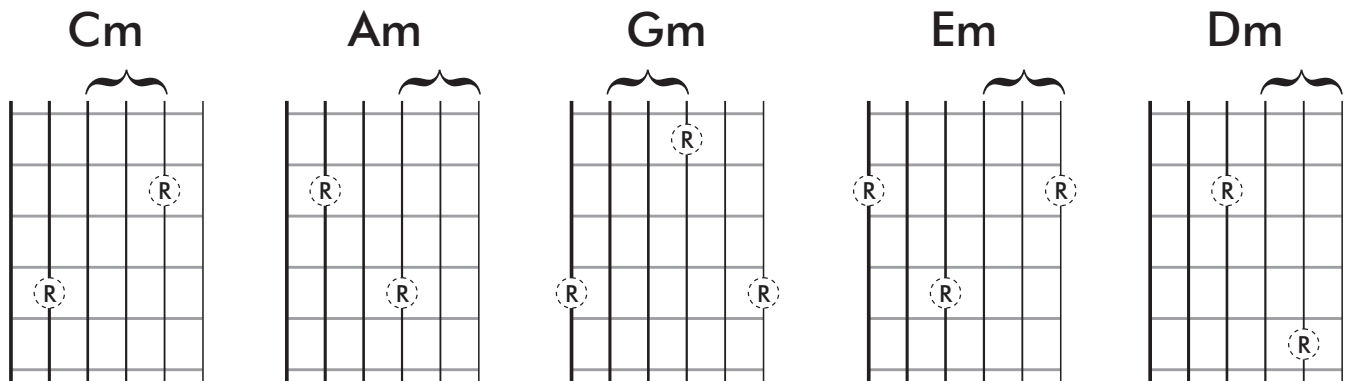


Partial Minor Shapes

Since several of the full minor chord shapes are rather unwieldy it is worth our while to look deeper to find partial minor shapes that will prove useful in actual playing situations. One way to do this, of course, is to derive them directly from the arpeggios in the diagrams above. Any combination of R, b3 and 5 will give you a minor chord. Try extracting some partial minor chapes in the following exercise.

Exercise 13

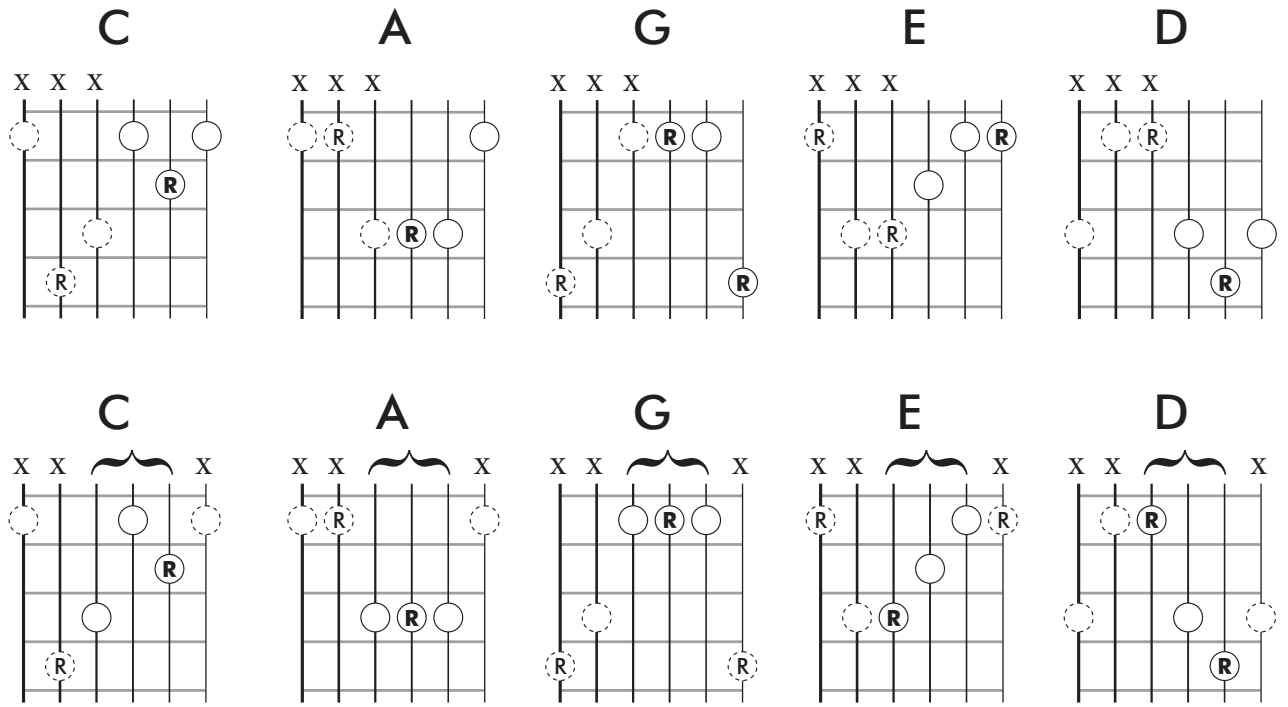
Use the arpeggio diagrams above to sketch a three-note minor chord shape (including scale degrees) on the bracketed strings of each diagram. The root configurations are provided in dotted lines to help you orient yourself, but include only those that fall on the bracketed strings in your partial minor chord shape.



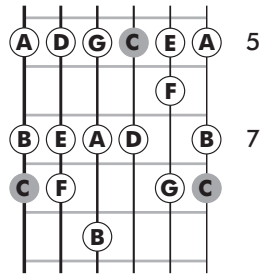
Other Scales, Arpeggios and Chords

There are many other scales, arpeggios and chords that can be understood in terms of the CAGED system. We won't go into a detailed discussion of any of them in this primer, but you will find Resource Sheets devoted to many of them at communityguitar.com. We'll steer you towards them as the need arises in the context of songs you're learning. If you understand what we've covered here—at least in theory—you have the most important thing: a way to organize and integrate whatever new information you find or seek. Have fun putting it all to work making music with others!

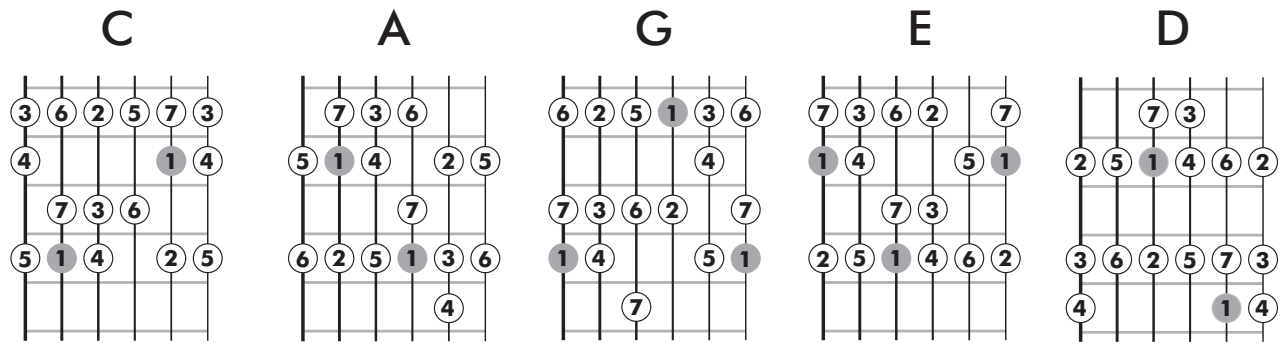
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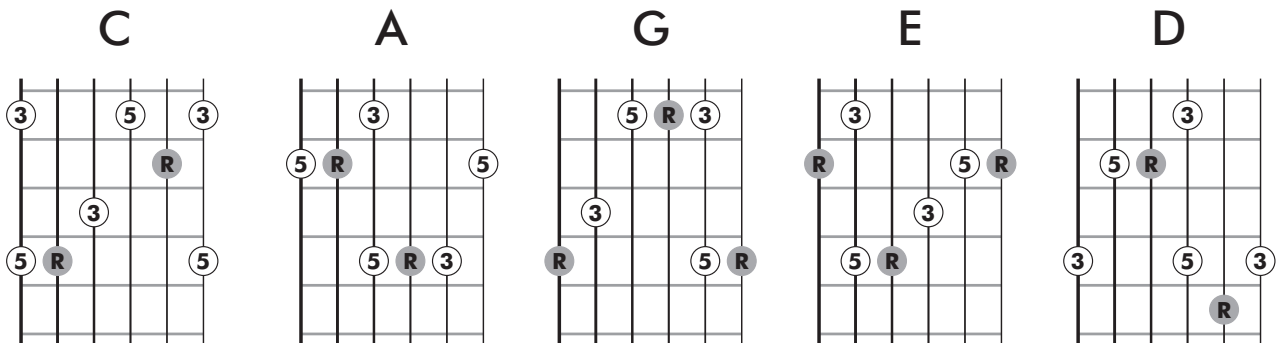
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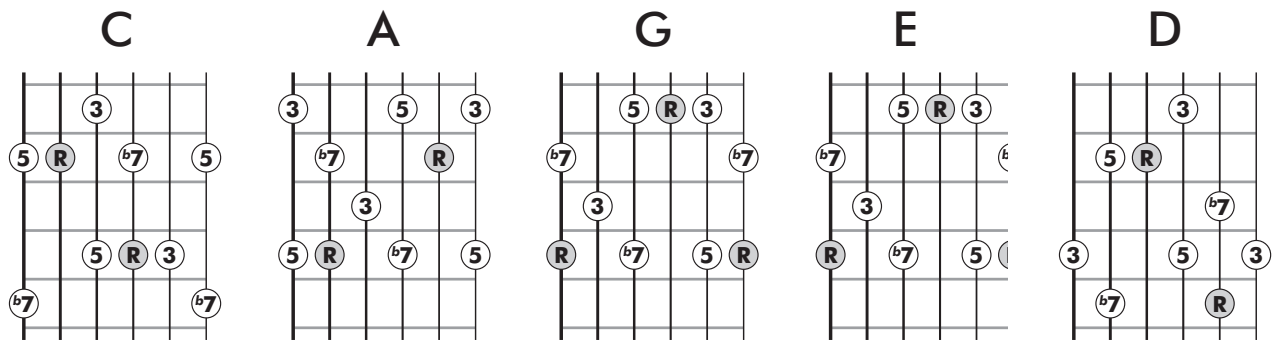
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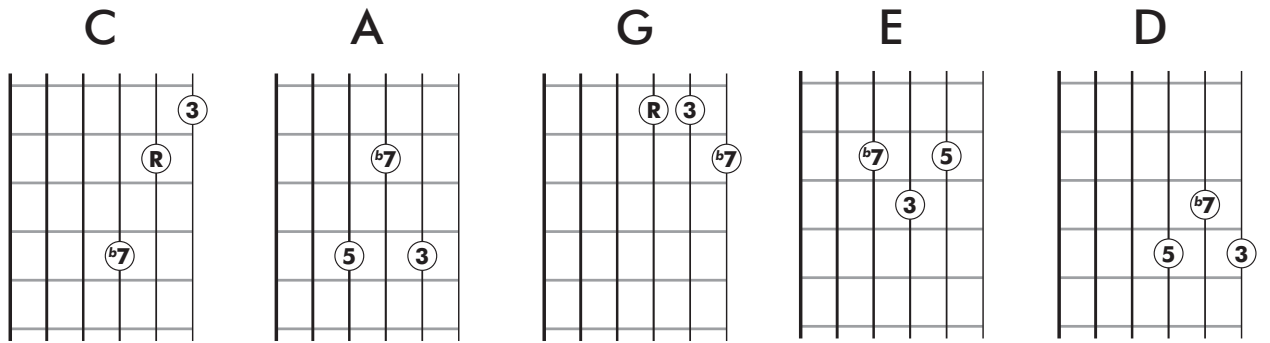
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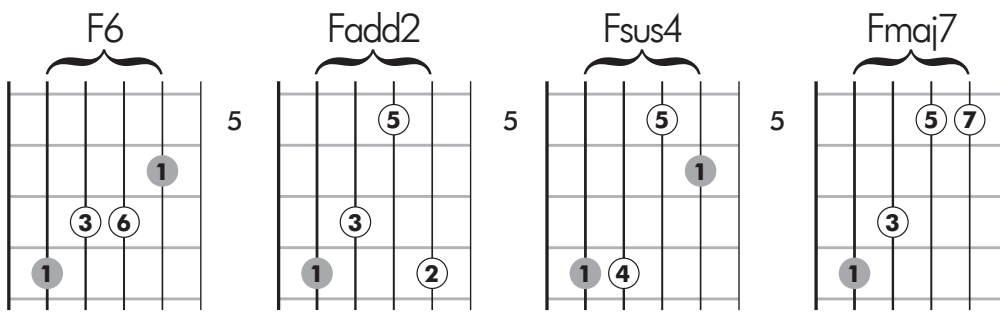
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