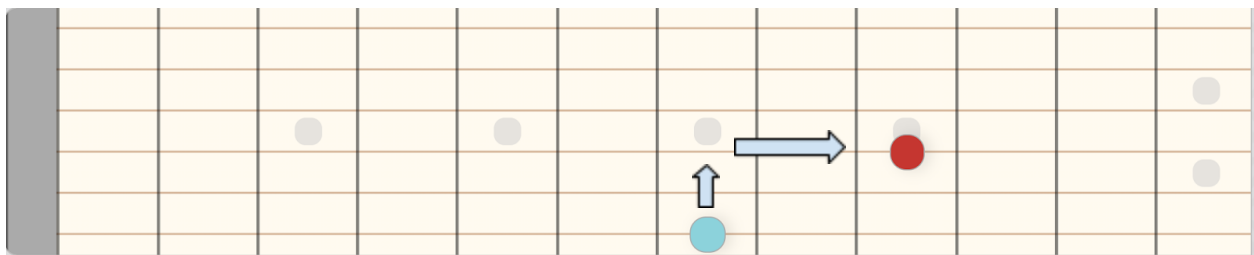


# Octaves

First, what is an **octave**?

The distance from any note to a note of the same name in the next register above or below is called an **octave**.

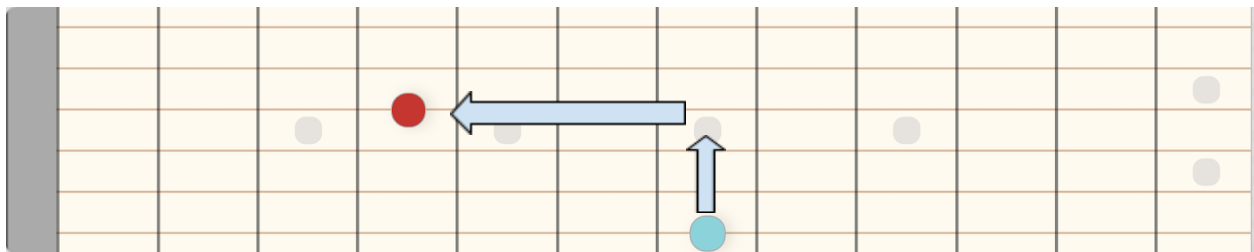
Let's take this B Natural on the 6th string, 7th fret, represented by the blue dot.



To get a note that is an **octave above** this note, we should go up two strings, and up two frets. This is true of any note on strings 6 and 5.

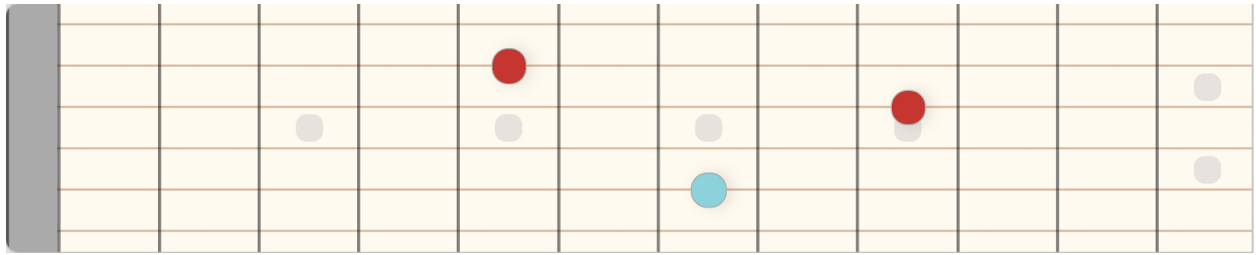
The B on the 4th string is twice the frequency, and has the same name, as the B on the 6th string.

Another way to play an **octave above** a note on the 6th string is to go up three strings and down 3 frets.

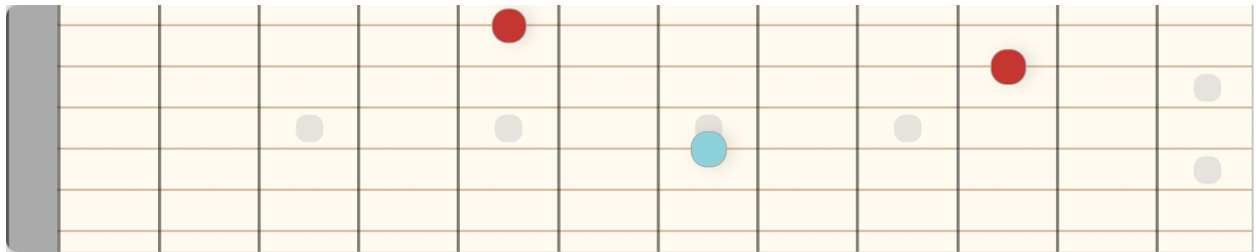


The red notes in each picture are the same note, but played on a different string. They are both an **octave above** the blue note.

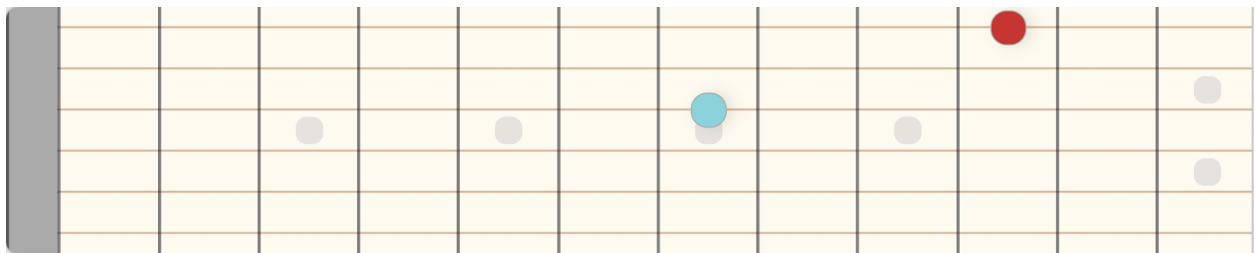
The formula for finding an **octave above** any note on the 5th string is up two strings and up two frets, or up 3 strings and down 2 frets.



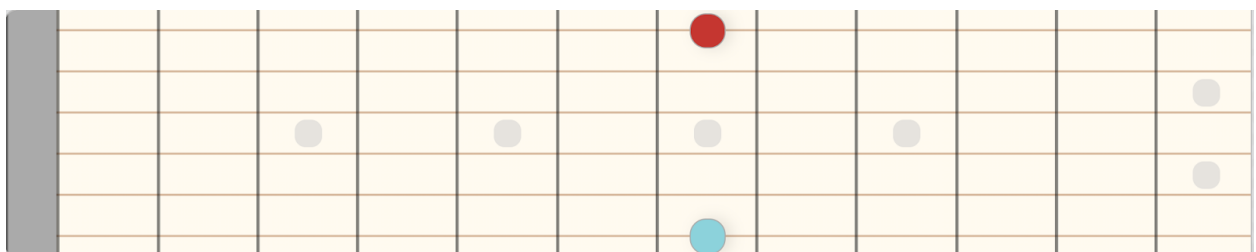
The formula for finding an **octave above** any note on the 4th string is up two strings and up 3 frets, or up 3 strings and down 2 frets.



The formula for finding an **octave above** any note on the 3rd string is up two strings and up 3 frets.

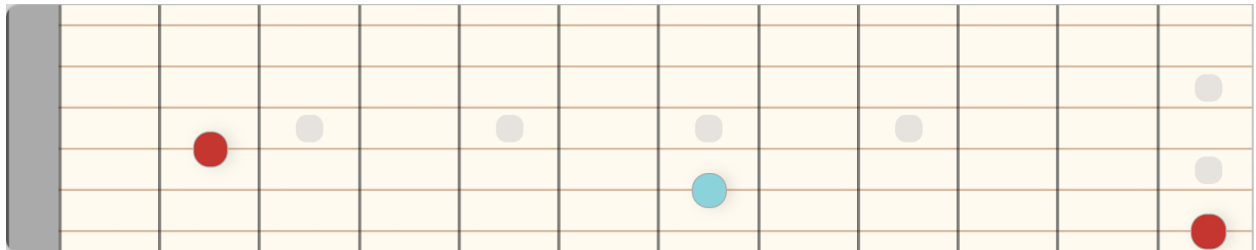


Because strings 6 and 1 are tuned to the same note, any two notes on the same fret of strings 6 and 1 are the same note **two octaves apart**.



# Unisons

To find the same note on a different string, also called a **unison**, go up one string and down 5 frets, or down one string and up 5 frets. This is true for all unisons, except those between strings 2 and 3



All of the above notes are the same note, but played on different strings. They have the same pitch and the same name—E Natural. We might choose to play one note and not another because they have slightly different **tone**, or because it might be more convenient.

The formula for playing a **unison** between the 2nd and 3rd strings is to go up one string and down 4 frets, or down one string and up 4 frets.

