

Strings? Why not!

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Part I

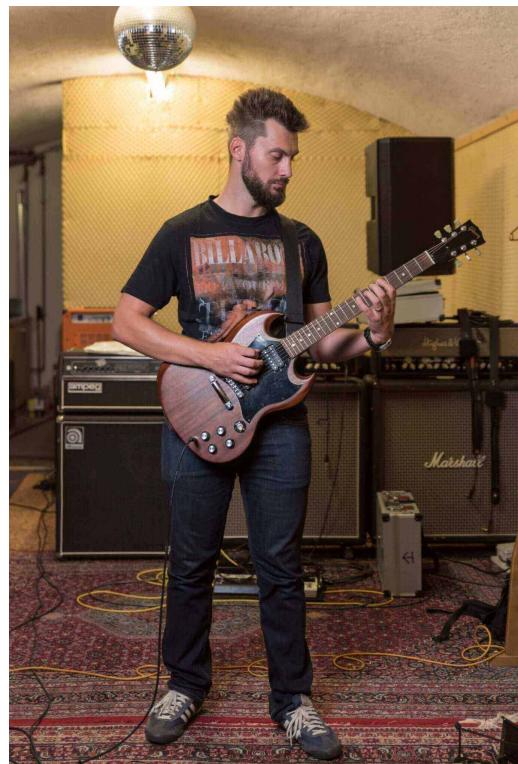
Guitar

1 Getting ready to play

1.1 Sitting/stading position



(a)



(b)

Figure 1.1: [SitStandPosition]



This method assumes a right-handed player. If you are left-handed, replace “right” with “left” and vice versa.

Even though it may look cooler to place the guitar on your right leg. You will be more comfortable and precise when you are sitting the classical way. The classical way of sitting also translates better to a standing position (see 1.1b).

In the classical position you place the guitar on your left leg and the left leg will be slightly raised. You can use a foot stool this this (see the leeft foot in 1.1a).

1.2 Tuning

Your guitar needs to be in tune. This means that each string has a certain pitch. Even though this is already implied, it is important to note that the relative pitch difference per string is important as well.

In 1.2 you see the names (letters) from the thinnest (*e*) to the thickest (*E*) string.



Figure 1.2: Names of the guitar strings

A mnemonic is (from low/thick to high/thin):

- 6) **E** ddie
- 5) **A** te
- 4) **D** ynamite
- 3) **G** ood
- 2) **B** ye
- 1) **e** eddie



Note that things is the standard tuning. Sometimes the guitar will be tuned differently. But that will then be explicitly mentioned

You use a tuner to tune (see 1.3). The tuner either gives a note value, and then you have to tune up or down to get the correct note on the screen. Or it shows a string number and you have to get the 'pointer' in the middle.

Be careful with tuning the string up (to a higher pitch). Especially the thinner strings can break if they are too tight.



Figure 1.3: Tuning a guitar [Tuning]

Another tuning options relies on the previously mentioned difference in pitch between the string. In 1.4 you see which positions on the neck have the same pitch as the thinner string next to it.

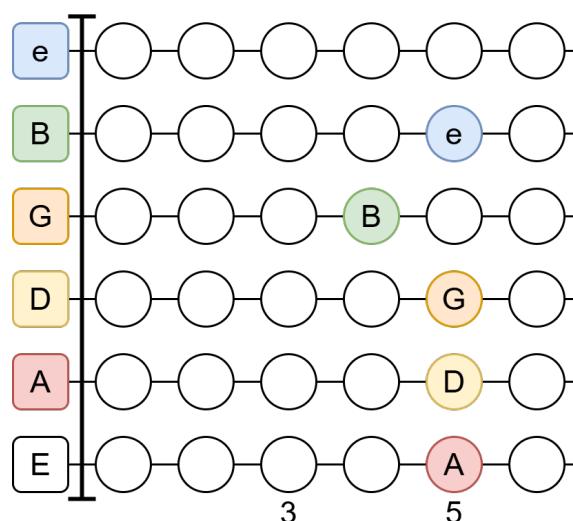


Figure 1.4: Relative tuning

2 First sounds

2.1 Fretboard

Each position on the neck has a different pitch. The metal bars on the neck are called the **frets**. For example, if someone asks to press the 2nd fret on the 3rd string, then you press your finger in the area of the green dot. Right next to the fret. See 2.1.

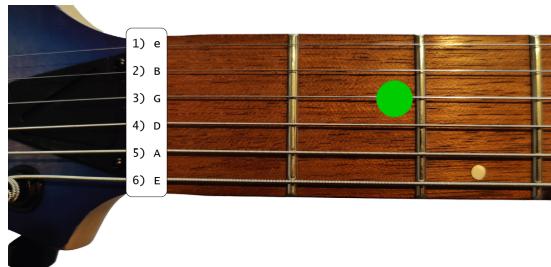


Figure 2.1: The green dot in the finger placement for the 2nd fret on the 3rd string

In music there are 12 different pitches before coming 'back around'. When you come back at the same note letter you are an octave higher. The 12 different notes are shown below.

A A♯ B C C♯ D D♯ E F F♯ G G♯

You may see that there are only **7** different letters and **5** letters with a **#**. These **#**symbols are called **sharps**. On the fretboard a **#**means you move one fret up (to the body of the guitar).



The reason that there are not just 12 different letters like "A, B, C, D, E, F, G, H, I, J, K, L", has to do with the history of music.

In 2.2 a music staff with underneath it tablature (TAB). In the next section we will learn to read the notes. For now you can try to read the tabs first to play the sequence.

Each line in the TAB section represents a guitar string, with the 6th (thickest) string on the bottom. The numbers indicate which fret should be pressed (a 0 means an open string). So the TAB in 2.2 says to first play an open A string, and then play each ascending fret up to the 12th fret.

Figure 2.2: An octave from A to A on the 5th A string

2.2 Finger names

When playing guitar, your fingers will be given a name. This makes it easier in music notation to indicate which finger should be used. The names are shown in 2.3.

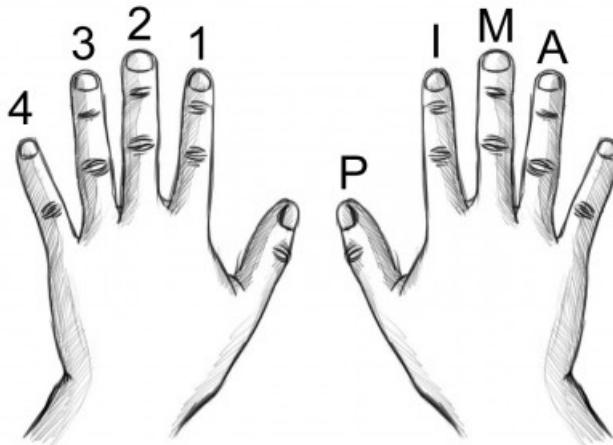


Figure 2.3: Names of the fingers [FingerNames]

2.2.1 Free and rest stroke

With a free stroke you hold your right hand in a relaxed position over the string (see 2.4). To play a string, move your finger through the string without lifting the upper part of your finger. Your finger should slightly curl into your hand. Once you made the sound, move your finger back to the relaxed position.

The trick now is, to not hit the other strings, and to not 'pluck' the string (making a buzzing sound).



(a)



(b)

Figure 2.4: Free stroke [FreeStrokePositionBradlyWerner]

A rest stroke may sound a bit louder (but with some practicing a free stroke can be as loud). Like the same suggests, a rest stroke means that you move your finger through a string to play it, but now you let your finger rest on the next string.

2.2.2 Exercises

In the exercises below you see some symbols above the notes. The numbers with circles around them indicate on which string the note should be played (this can also be seen from the TAB). The *i* and *m* indicate which right-hand finger should be used to play the note.

Play exercise 2.5 first with a rest stroke and then with a free stroke to feel the difference.

Figure 2.5: Exercise: rest and free strokes

This second exercise (2.6) is similar to 2.5, but a bit more challenging.

Figure 2.6: Exercise: changing strings with *i* and *a* fingers

To make use of all PIMA fingers, try to play the intro of *Nothing Else Matters* from *Metallica*. Play 2.7 with a free stroke.

Nothing Else Matters - Metallica

Intro

Figure 2.7: Exercise: PIMA with Nothing Else Matters - Metallica intro

In 2.8 you will also use your left hand. The numbers above the notes indicates which left-hand finger should be used to press the fret. Play this exercise using alternating *i* and *m* fingers.

The image shows two staves of musical notation for a guitar. The top staff is in common time (indicated by a '4' over a '4') and has a treble clef. The bottom staff shows the guitar's neck with three strings labeled T (top), A (middle), and B (bottom). The first measure consists of two eighth notes on the B string (finger 0), followed by two eighth notes on the A string (finger 1), and two eighth notes on the B string (finger 1). The second measure consists of two eighth notes on the A string (finger 3), followed by two eighth notes on the B string (finger 3), and two eighth notes on the A string (finger 1). The third measure consists of two eighth notes on the B string (finger 0), followed by two eighth notes on the A string (finger 3), and two eighth notes on the B string (finger 1). The bottom staff shows the corresponding fingerings: 0-0-1-1, 3-3-1-1, and 0-3-1-0 respectively.

The bottom staff shows the guitar's neck with three strings labeled T (top), A (middle), and B (bottom).

Figure 2.8: Exercise: fretting on 1st string

Exercise 2.9 is adds another string to the exercise.

The image shows two staves of musical notation for a guitar. The top staff is in common time (indicated by a '4' over a '4') and has a treble clef. The bottom staff shows the guitar's neck with four strings labeled T (top), A (middle), G (middle), and B (bottom). The first measure consists of two eighth notes on the B string (finger 0), followed by two eighth notes on the A string (finger 1), and two eighth notes on the B string (finger 1). The second measure consists of two eighth notes on the A string (finger 3), followed by two eighth notes on the G string (finger 3), and two eighth notes on the A string (finger 1). The third measure consists of two eighth notes on the B string (finger 0), followed by two eighth notes on the A string (finger 3), and two eighth notes on the B string (finger 1). The bottom staff shows the corresponding fingerings: 0-0-1-1, 3-3-1-1, and 0-3-1-0 respectively.

The bottom staff shows the guitar's neck with four strings labeled T (top), A (middle), G (middle), and B (bottom).

Figure 2.9: Exercise: fretting on 1st and 2nd string

3 Music notation

3.1 Music notation anatomy

3.1.1 Note names

You have already seen the music staff from 3.1 in the previous exercises. However, the meaning of it was not explained yet.

The letters A-G on the staff show which line on the staff has which note value. The notes that are in between the lines nicely spell out "FACE", making it easy to remember. The notes that are on the lines can be remembered with the mnemonic "Every Good Boy Does Fine". But another important thing to see is that the notes go up alphabetically (starting again with A after G).

The most left symbol () is called the G clef. Note that the curl of the G clef is on the line of the G note.

The vertical line in the middle indicates the start/end of a new measure. and the thinner vertical line in at the end indicates the end of the piece.

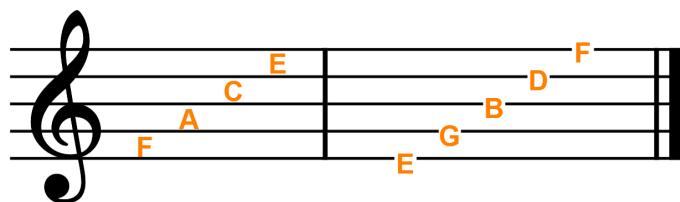


Figure 3.1: Note names on the staff in two measures

3.1.2 Time signatures

So far we have also only seen one type of note. The quarter note. However, there are more. See 3.2. The $\frac{4}{4}$ means that there can fit 4 (top number) quarter notes (bottom number) in a measure.



Figure 3.2: Note duration

Important: A whole note (o) equal 4 quarter notes (♩). It does **not** equal a whole measure.

There are also other time signatures. But they all have the meaning. The top value indicated how many notes of the bottom number's duration fit in a measure. So a $\frac{3}{4}$ time signature can fit 3 quarter notes per measure. And a $\frac{6}{8}$ time signature can fit 6 eighth notes per measure. Note that $\frac{3}{4}$ and $\frac{6}{8}$ actually indicate the same duration per measure, but they indicate a different feel. This is indicated in 3.3

In 3.3 you also see a new duration notation. In the first measure with $\frac{6}{8}$ timing, there are dots next to the notes (♩). This means that the note has a duration of 1.5x its original duration.

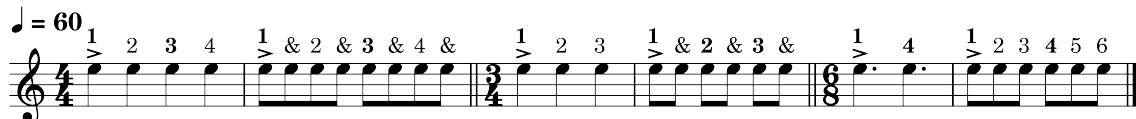


Figure 3.3: Time signatures

Remember exercise 2.7 (Metallica - Nothing else matters (intro))? That is also in $\frac{6}{8}$.

3.1.3 Exercise

In preparation to play the well-known "Tetris" tune, the notes from 3.4 should be learned.

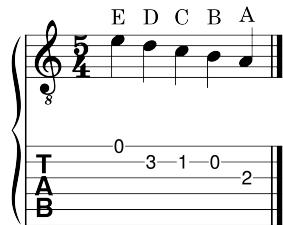


Figure 3.4: Notes used for the first part of the Tetris tune

In 3.5 the first part of the Tetris tune is written. This time no TABs are shown. This exercise has 4 different note durations and 5 different notes pitches.

Tetris (first part)



Figure 3.5: First part of the Tetris tune



The "Tetris" tune is actually derived from a Russian folk song called "Korobeiniki", which is based on a similar named poem written by Nikolai Nekrasov.

Part II

Ukulele

4 Klaarmaken om te spelen

4.1 Stemmen

Om goedklinkende muziek te maken moet je ukulele gestemd zijn. Dit wil zeggen dat de snaren een bepaalde toonhoogte hebben.

In 4.1 zie je de namen (letters) van de snaren. Hier is **4)** de snaar die het dichtste bij je hoofd zit. Over het algemeen zit de G snaar qua toonhoogste tussen de E en de A. De C snaar heeft de toonhoogste van C4.

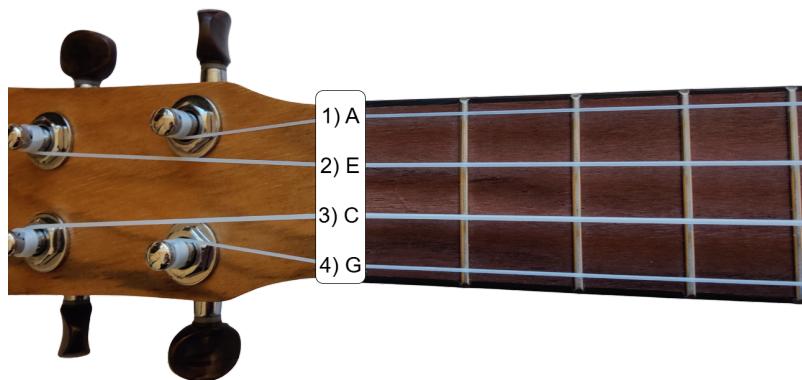


Figure 4.1: Namen van de ukulele snaren

5 Eerste geluiden

5.1 Fretbord

5.1.1 Notennamen

Elk vakje op de gitaar heeft een bepaalde toonhoogte. Deze vakjes, of preciezer gezegd, de metalen strips, heten de fretten.

Als iemand bijvoorbeeld vraagt om de 2e fret op de 3e snaar in te drukken, dan zet je je vinger op het groene puntje in 5.1.

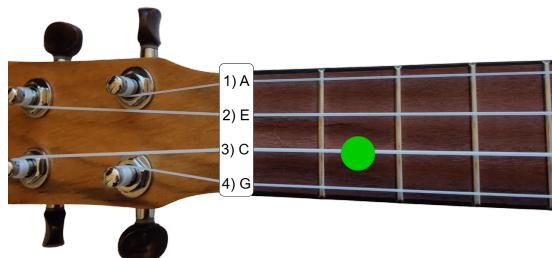


Figure 5.1: Het groene puntje is de 2e fret op de 3e snaar

Zoals eerder gezegd heeft elke fret een eigen toonhoogte. In de muziek zijn er 12 verschillende tonen die in verschillende octaven (hier komen we later op terug) gespeeld kunnen worden. De namen van deze tonen zie je hieronder.

A A♯ B C C♯ D D♯ E F F♯ G G♯

Je ziet dat er maar 7 verschillende letters zijn, en 5 letters met een ♯. Deze ♯ symbolen heten **kruisen**. Een kruis wil zeggen dat de toon één fret omhoog gaat. Een stap van één fret wordt ook wel een halve stap genoemd.

In 5.2 zijn de noten in een C octaaf te zien. In the TAB is te zien op welke fret en op welke snaar dat op de ukulele gespeeld wordt. In 5.3 zijn dezelfde noten te zien, maar dan gespeeld op andere snaren (zie de TAB).

Figure 5.2: Een octaaf van C naar C op de 3e C snaar met kruisen

Figure 5.3: Een octaaf van C naar C op de snaren 1 t/m 3 met kruisen

Ter referentie kan 5.4 gebruikt worden om een noot op het fretbord te vinden. Probeer nu echter niet meteen alle noten te onthouden. Dit zal vanzelf gaan tijdens latere oefeningen.

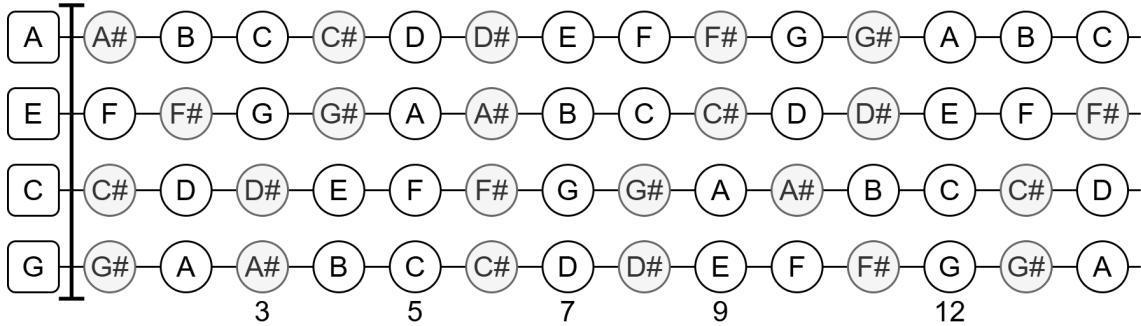


Figure 5.4: Alle noten op ukulele gestemd met GCEA

Naast kruisen zijn er ook mollen. Een mol (\flat) wil zeggen dat de noot één fret (een halve stap) omlaag gaat. Als je 5.3 dus met mollen zou schrijven in plaats van kruisen krijg je 5.5.

In 5.5 zie je ook het nieuwe herstel teken (\natural). Dit wil zeggen dat de noot waarvoor een \flat of \sharp was gezet, nu weer 'normaal' is. Als er namelijk een \flat of \sharp bij een noot is gezet, geldt dit voor alle noten met dezelfde naam voor de rest van de maat. Wat een 'maat' is komen we zo op.

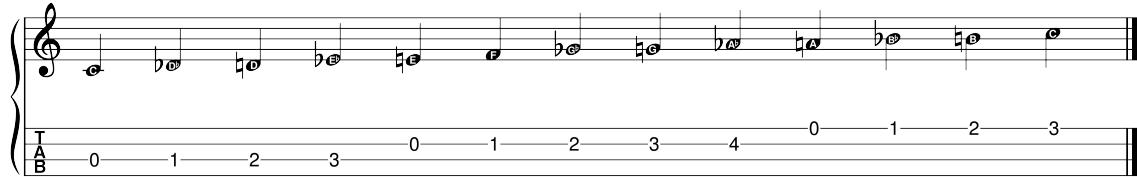


Figure 5.5: Een octaaf van C naar C op de snaren 1 t/m 3 met mollen en herstel symbolen

TODO: Things about measures, treble clef, names of the notes on the score, etc.

5.1.2 Tonische noten

Eerder hebben we de ukulele gestemd met een stemapparaat. Dit moet je natuurlijk altijd doen. Maar naast dat de snares de juiste toonhoogte hebben, is het net zo van belang dat de noten relatief aan elkaar de juiste toonafstand hebben. De toonafstand tussen noten is namelijk wat er voor zorgt dat noten wel of niet mooi samen klinken. In 5.6 zien je welke twee fretten (het interval) dezelfde toonhoogte hebben. Dus als je wilt kijken of de 3e C snaar en 2e E snaar de juiste toonafstand hebben, dan kan je je vinger op de 4e fret op C snaar zetten, en de E snaar open aanspelen. dit zou dezelfde toonhoogte moeten hebben. Zo niet, dan kan je aan de stemknop draaien tot het goed klinkt.

Vergelijkt 5.4 en 5.6 maar eens. Dan zul je zien dat de groene punten dezelfde nootnaam hebben. Om de snares op elkaar af te stemmen worden de volgende combinaties gebruikt:

- A** Fret 5 snaar 2 - open snaar 1
- E** Fret 4 snaar 3 - open snaar 2
- C** Dit is al de laagste toon
- G** Fret 3 snaar 2 - open snaar 4

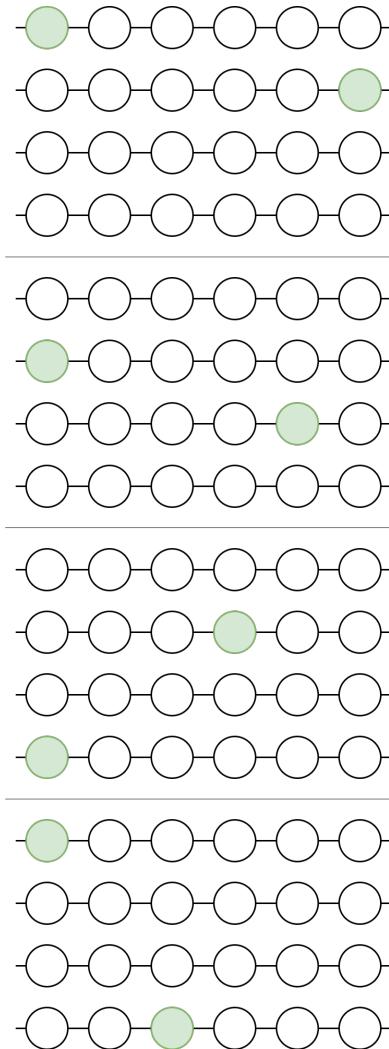


Figure 5.6: Tonische intervallen op de ukulele

5.1.3 Octaven

Er zijn ook octaven te vinden op de ukulele. Deze zijn te zien in 5.7. Waar de toonhoogte bij de vorige intervallen hetzelfde was, zijn ze hier een octaaf van elkaar af.

Weten waar de octaven liggen is handig wanneer er meer over de toonladders geleerd wordt.

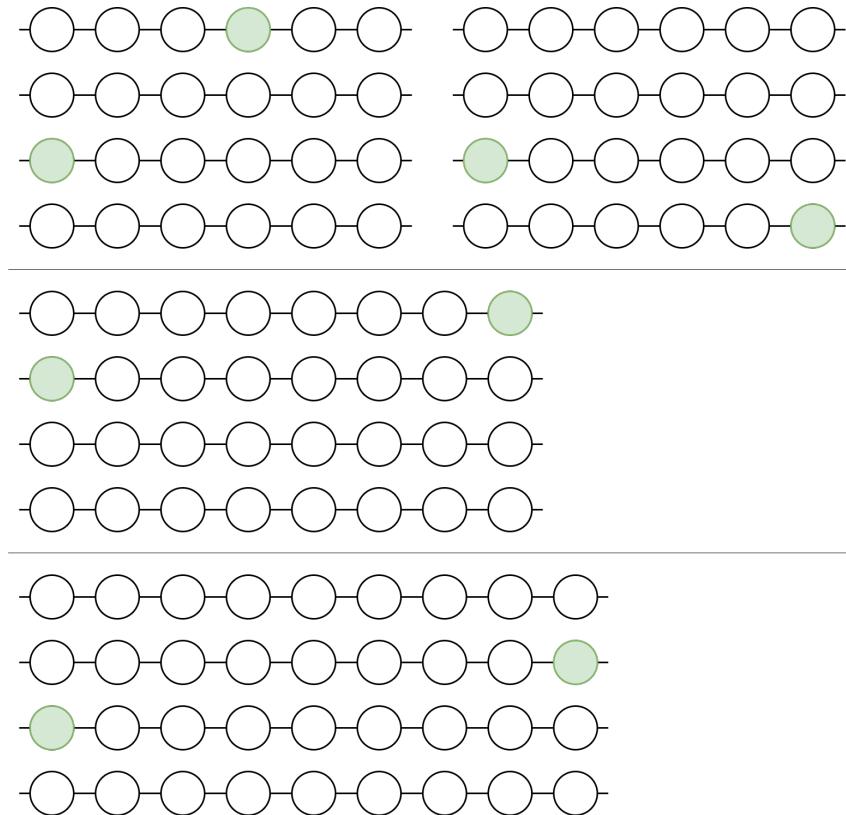


Figure 5.7: Octaaf intervallen op de ukulele