

Guitar Hero

So, we've been tasked with creating a program that will read guitar fingering positions and convert them into sheet music. We're just starting, so we're just going to focus on the first four frets so that we can "play" through a scale of notes.

Here are the note positions:

Open Fret:	E	A	D	G	B	E
Fret 1	F	A#	D#	G#	C	F
Fret 2	F#	B	E	A	C#	F#
Fret 3	G	C	F	A#	D	G
Fret 4	G#	C#	F#	B	D#	G#

One example of a simple measure for a song could look like the following:

x - - o - o ← The x represents a missed string (don't play it) The o means play

- - - - * - it, but you don't have to press a string because you can play

- - * - - - it without holding a fret position (it's an open note)

- * - - - - ← The star represents a finger position. You are playing that specific note

- - - - - - ← The dash means that no note is being played in that position

ONE IMPORTANT NOTE!!!! (Or is it two important notes? Or one note, but two positions?)

In the 4th and 5th column, notice that B is at the bottom of the 4th column and at the top of the 5th column of notes. IT'S THE SAME NOTE! Same tone. Two different positions. You have to make sure that you account for that when you code the solution. If both positions are pressed (or rather, the G string (4th column) B is pressed along with the open B string (5th column) note (which means you wouldn't have to press that string at all – just hit it), you get nothing different in tone (maybe a fuller B, but a B nonetheless).

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You need to read through the “finger position” music sheet and output the “sheet” music version of the song.

For example, if your input file looks like the following:

```

X--O-O, X--O-O, XX---O, ----, ----, X--O-O, XX---O
---*-, ---*-, ----, ---*-, ----, ---*-, ---- //btw: there is only a comma
-*---, -*---, ---**-, ----, -*---, -*---, ---**- //between sets in the file. I tabbed
-*---, -*---, ----, -*---, ----, -*---, ---- //them here to make them more
----, ----, ----, ----, ----, ----, ---- //readable by humans

```

Then your output should be as follows:

Measure	1	2	3	4	5	6	7
G#							
G							
F#							
F							
E	O	O	O			O	O
D#							
D							
C#			O				O
C	O	O		O		O	
B							
A#							
A			O				O
G#							
G	O	O				O	
F#							
F							
E	O	O	O		O	O	O
D#							
D							
C#							
C	O	O		O		O	
B							
A#							
A							
G#							
G							
F#							
F							
E							