

This question is challenging, I encounter lots of questions and almost cost 2 days to solve it.

When I used `f = [float(440*2**(float(i)/12)) for i in range(13)]`, `f` stayed in 440 and 880 only. Then I used `print` to test the result of the `f`, it showed that I must have place float in a wrong place. Then I asked TA for help, he told me `f = [float(440*2**(float(i)/12)) for i in range(k)]`, since `i` is an integer, 12 is also an integer, so the result was aliquot. So I need to place the float on `i`.

What's more, overlapping confused me for a long time, it should be the sum of all the voice of key. I needed a matrix to save the coefficients of each output signal. But I didn't know how to use matrix, so I set array instead of it. I initialized the coefficients at beginning and called the value in the loop. Making impulses for each input. Then I got a well working program.