```
import numpy
import math
from math import log
note=numpy.array(['La','La#','Si','Do','Do#','Re','Re#','Mi','Fa','Fa#','Sol','Sol#'])

freq=numpy.array([[32.7,34.7,36.7,38.9,41.2,43.7,46.3,49.0,51.9,55.0,58.3,61.7],
 [65.4,69.3,73.4,77.8,82.4,87.3,92.5,98.0,103.8,110.0,116.5,123.5],
 [130.8,138.6,146.8,155.6,164.8,174.6,185.0,196.0,207.7,220.0,233.1,246.9],
 [261.6,277.2,293.7,311.1,329.6,349.2,370.0,392.0,415.3,440.0,466.2,493.9],
 [523.3,554.4,587.3,622.3,659.3,698.5,740.0,784.0,830.6,880.0,932.3,987.8],

[1046.5,1108.7,1174.7,1244.5,1318.5,1396.9,1480.0,1568.0,1661.2,1760.0,1864.7,1975.5],

[2093.0,2217.5,2349.3,2489.0,2637.0,2793.8,2960.0,3136.0,3322.4,3520.0,3729.3,3951.1],

[4186.0,4434.9,4698.6,4978.0,5274.0,5587.7,5919.9,6271.9,6644.9,7040.0,7458.6,7902.1],

[8372.0,8869.8,9397.3,9956.1,10548.1,11175.3,11839.8,12543.9,13289.8,14080.0,14917.2,15804.3]])

for y in range(4):
    for x in range(12):
        print(note[x]+str(y)+" freq. "+str(freq[y,x])+" converti en ")
        calc = 12.0*(log(freq[y,x])-log(32.7))/log(2.0)
        print(str(calc))
        print('')
```