

CALCULATE NOTES

Version 0.1
Computing
COMP280

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This algorithm is used to generate a set of notes based on a base frequency and a start and end note. The step is also taken into account when stepping through the notes.

The starting note (n_s) should be smaller than the ending node (n_e) and a positive non-zero step size (i). The algorithm could be altered to support a negative step size. The size of the returned list should be equal to the number of steps required to move from (n_s to n_e).

Algorithm 1 Note Calculator

Require:

$$0 \leq b \leq 22050$$

▷ Base frequency

$$0 \leq n_s \leq n_e \leq 255$$

▷ Min and Max notes

$$1 \leq i \leq n_e$$

▷ The step value

Ensure:

A list, n , containing frequencies for each of the required notes

1: **function** NOTES(b, n_s, n_e, i)

2: $E \leftarrow 2^{\frac{1}{12}}$

3: $n \leftarrow \text{LIST}$

4: **for** $i = n_s, i < n_e$ **do**

5: $n \leftarrow bE^i$

6: **end for**

7: **return** n

8: **end function**
