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1.  $n \times n$  box ( $n = \text{RNA sequence length}$ )

2. Put the sequence in the box as shown in the example.

~~3. Draw the~~

~~3. For~~

3. Draw the principle diagonal (For proper calculation).

4. Choose lower diagonal matrix or upper diagonal matrix (Better to choose lower diagonal matrix).

5. Match: - A-U, C-G, G-U.

If matched, then put 1 in that cell.

Otherwise ignore the cell.

6. After putting 1 in matched cell, draw the every possible secondary diagonal (diagonal must have at least 3 letters).

7. Take the largest diagonal.

The largest diagonal in the ~~exat~~ example is

(1, 15)  $\rightarrow$  7 ~~lett~~ (stem)

{ Stem: Every possible secondary diagonal.

'Sequence:

0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20

C A A C C C C C C G A A A A U U C U C A C

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