

2.1 RAT

1. What is the Levenshtein distance between PIECE and PIES?
2. What is the value of the highlighted cell in the following partially-completed Levenshtein distance table (substitutions cost 2):

E	4	3				
R	3	2	?			
I	2	1	2	3		
F	1	2	3	4	5	
-	0	1	2	3	4	5
/	-	I	R	A	T	E

3. How many backpointers does the highlighted cell have?

E	4	3	4	5	4
F	3	2	3	4	5
I	2	1	2	3	4
L	1	0	1	2	3
-	0	1	2	3	4
/	-	L	O	V	E

4. Consider a weighted Levenshtein distance in which the cost of substitutions are doubled if the letter being replaced is alphabetically after the letter with which it is replaced. Let insertions and deletions keep a cost of 1. How many word pairs will have increased distances?
 1. All
 2. Some
 3. None