

Student Name: _____ Student Number: _____

Circle the correct answer:

Recall that the computation of edit distance uses the code to account for the various ways of equating two strings:

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d[i, j]:= minimum(d[i-1, j] + 1,           // deletion
                  d[i, j-1] + 1,         //insertion
                  d[i-1, j-1] + substitutionCost) //substitution
    
```

1. Find the Levinshtein (edit) distance between words "SUNDAY" and "SATURDAY" using the table below. Assume that **substitution costs 1**.

Y	6	5	4	4	5	5	5	4	3
A	5	4	3	4	4	4	4	3	4
D	4	3	3	3	3	4	3	4	5
N	3	2	2	2	3	3	4	5	6
U	2	1	1	2	2	3	4	5	6
S	1	0	1	2	3	4	5	6	7
-	0	1	2	3	4	5	6	7	8
	-	S	A	T	U	R	D	A	Y

2. Now find the Levinshtein (edit) distance between words "SUNDAY" and "SATURDAY" using the table below assuming that **substitution costs 2 units (others 1)**.

Y	6	5	4	5	6	7	6	5	4
A	5	4	3	4	5	6	5	4	5
D	4	3	4	5	4	5	4	5	6
N	3	2	3	4	3	4	5	6	7
U	2	1	2	3	2	3	4	5	6
S	1	0	1	2	3	4	5	6	7
-	0	1	2	3	4	5	6	7	8
	-	S	A	T	U	R	D	A	Y