TSP: Tutorial 7

1 Question 1

Pattern	$DA[a]$	$DA[b]$	$DA[c]$
ababa	2	1	5
abcacabb	2	1	3
abcacababc	2	1	5
abacabacab	1	4	2

2 Question 2

$i =$	0	1	2	3	4	5	6	7	8	9
$x =$ ababa										
$suff[i] =$	1	0	3	0	-	-	-	-	-	-
$x =$ abcacabb										
$suff[i] =$	0	1	0	0	0	1	8	-	-	-
$x =$ abcacababc										
$suff[i] =$	0	0	3	0	1	0	0	0	0	10
$x =$ abacabacab										
$suff[i] =$	0	2	0	0	0	6	0	0	0	10

3 Question 3

The worst-case run time when the pattern **is not** in the text is $O(n + m)$.

The worst-case run time when the pattern **is** in the text is $O(nm)$.

4 Question 4

$x =$ aba

$y =$ abcacacabac

$c =$	a	b	c
$DA[c] =$	2	1	3

$i =$	0	1	2
$D[i] =$	2	2	1

pos	0	3	3	5	5	7	7	7	**7**	9
i	2	2	1	2	1	2	1	0	**-1**	END

Matching position shown in red.