Example Questions: String Matching

Due No due date Points 26 Questions 3 Time Limit None Allowed Attempts Unlimited

Instructions

Attention! If an answer consists of a sequence of items, the items must be separated with commas, with no blank. No sign is to be put at the ends of the sequence.

For example: 1,3,4,6

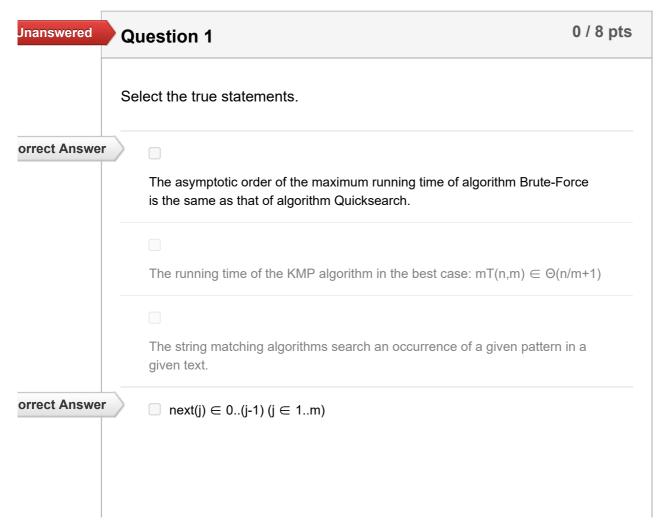
Another example: APPLE, ORANGE, BANANA

Take the Quiz Again

Attempt History

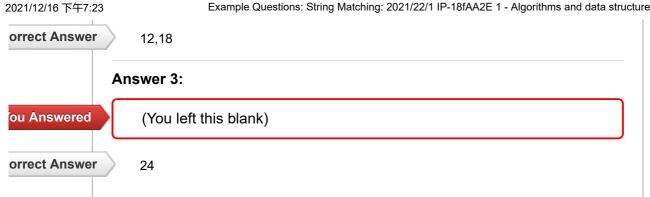
	Attempt	Time	Score
LATEST	Attempt 1	less than 1 minute	0 out of 26

Submitted Dec 16 at 12:23pm



orrect Answer			
	The asymptotic order of the minimum running time of algorithm Brute-Force is the same as that of algorithm KMP, provided that $n>m$ (n is much greater than m , for example, $n>2*m$).		
	Among the string matching algorithms learnt, only Quick-Search does not go back in text T.		
	$next(j+1) < next(j)+1 (j \in 1m-1)$		
orrect Answer	□ P[1h+1]⊐P[1j+1]⇔P[1h]⊐P[1j]∧P[h+1]=P[j+1]		

0 / 9 pts **Question 2** We run the **Quick Search** algorithm with alphabet {A, B, C, D}, and we search for pattern P = ADABABA in text T =ADABACACACABADABABADABABA. Present the following values. If an answer consists of a sequence of numbers, the numbers must be separated with commas, with no blank. No sign is to be put at the ends of the sequence. (For example:0,1,2) • Present in order the shift values. SHIFT: Present the set of valid shifts in increasing order. S={ } • How many character comparisons were done -- between the characters of *P* and *T* -- during the run of the main procedure of algorithm **Quick** Search? Answer 1: ou Answered (You left this blank) orrect Answer 1,2,8,6 Answer 2: ou Answered (You left this blank)



0 / 9 pts **Question 3**

We search for pattern P = BABAABAB in text T =ABABAABABAABABABABABABA with algorithm KMP. Present the following values.

If an answer consists of a sequence of numbers, the numbers must be separated with commas, with no blank. No sign is to be put at the ends of the sequence. (For example:0,1,2)

- Present in order the values of array next. NEXT:
- Present the set of valid shifts in increasing order. S={

• How many character comparisons were done -- between the characters of *P* and *T* -- during the run of the main procedure of algorithm KMP?

Answer 1:

ou Answered

(You left this blank)

orrect Answer

0,0,1,2,0,1,2,3

Answer 2:

ou Answered

(You left this blank)

orrect Answer

3,8,15

Answer 3:

ou Answered

(You left this blank)

orrect Answer

31