

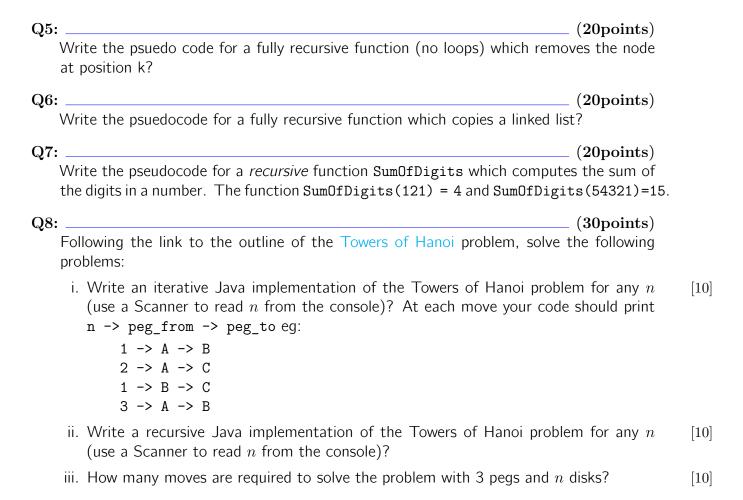
in reverse?

School of Computer Science

COMP20010: Data Structures and Algorithms I Semester I Exercises: Recursion

On: 16/11/2018 Due: ...

$\mathbf{Q1}$:	_ (20points)
•	Draw the recursion trace for $ReverseArray(A,0,6)$ where $A=\{12,5,19,6,19,6,19,6,19,19,19,19,19,19,19,19,19,19,19,19,19,$	
1:	function ReverseArray (A, i, j)	
2:	Input : An array A and non-negative integer indices i and j	
3:	Output : Reversal of elements in A starting at i and ending at j	
4:	if $i < j$ then	
5:	swap $A[i]$ and $A[j]$	
6:	ReverseArray(A, i+1, j-1)	
7:	end if	
8:	return	
9:	end function	
$\mathbf{Q2}$:	_ (20points)
Q 4		` - /
~ <i>_</i>	Using the binary recursive version of Fibonacci, write out the recursive	e trace of the
~,	Using the binary recursive version of Fibonacci, write out the recursive function for the 5th fibonacci number: Fibonacci(5)	e trace of the
•	function for the 5th fibonacci number: Fibonacci(5)	
•	function for the 5th fibonacci number: Fibonacci(5)	e trace of the $_$ (20points)
Q3:	function for the 5th fibonacci number: Fibonacci(5) Consider the following function:	
Q3 :	function for the 5th fibonacci number: Fibonacci(5) Consider the following function: function Foo (x)	
1: 2:	function for the 5th fibonacci number: Fibonacci(5) Consider the following function: function Foo (x) Input: integer x	
Q3 :	function for the 5th fibonacci number: Fibonacci(5) Consider the following function: function Foo (x) Input: integer x print $x\%10$	
1: 2: 3:	function for the 5th fibonacci number: Fibonacci(5) Consider the following function: function Foo (x) Input: integer x print $x\%10$ if $(x/10) \neq 0$ then	
1: 2: 3: 4:	function for the 5th fibonacci number: Fibonacci(5) Consider the following function: function Foo (x) Input: integer x print $x\%10$	
1: 2: 3: 4: 5:	function for the 5th fibonacci number: Fibonacci(5) Consider the following function: function Foo (x) Input: integer x print $x\%10$ if $(x/10) \neq 0$ then Foo $(x/10)$	
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