Duestion 1

1.  $\theta(n^2)$ the time complexity of the insert function is  $\theta(n)$ , and it's placed in a while loop inhoch i goes from  $\theta$  - length;

the runtime is  $\theta(n^2)$ 

2. Acn 1	, mutine of append 23 Del)	
and the	i muntime of append 23 Oct) while loop run n time (len(1st))	
ranti	me Acn)	

Question 3		· .			
b. analys		rst - case	rumzha	time	
7h -	the unst	CACE	both 1	for looses	
run 1	n times	(n=len	(let)	is tome	complexity = Ol
, , ,	1 100		<del>((20)///////////////////////////////////</del>	1	1.

Question 4:

a. While loop runs h times and remove function running time is linear. So running time is Oln

c. worst case run time. Ocn)

i only one for loop iterate through the lat elepathing dee has nuntime of Oll) :: O(n)

westen
1. D. 2
1. $\theta(n^2)$ the time complexity of the sheet function is $\theta(n)$ , and its placed in a white loop inhigh i gres of time $\theta(n)$ .  the nuntime is $\theta(n')$
the time complexity of the
placed in a white top most
the nurture of Ola
and the second s
2. Den1 , mentione of append 23 Oct)
in motime $\theta(n)$
: motome U(n)
Buestion 3.
b. analyse the worst-case running time
The most case, both for loops
run n times (n-lenc(st)), in time complexty = O(n)
Question 4:
nunny time is linear. So running time is O(n')
runny time is thear.
a. worst case run time. Ocn)
n 's only one for loop iterate through the fat
elserything else has nintone of O(1) :: O(n)