

Assignment-1

1)	steps John Steps 7 300 1000 mon house	
	0 1 0 1 125 1 1 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
	1 2 1 1 1 2	
	2 3 1 5 = 27 1 1/2 + 2 ; 1 = 1) 1404	
1	1 12+4243	
	K KANZU "((") 17/1/29	
	2	
	2K+NC2N N+2KC2N	
	2K LN 2K LN	
	(Haton 10)0 = 100 (11)0 × (11)0 = 10 tal	
37	O(N) x (O(N) x O (log2N) = O(N2 log2N)	
	5) I fun et Pon e Part M) E	
2)	Vold tanction clut n) & Elast is el tris 130t	,
1 · · · · · · · · · · · · · · · · · · ·	if (n = = 11] eletuel n o; il ; i = i) noch	
	for clut P= 1. 1: 9 CU; 94+75	
vie	forchutg=1; 9 LN; 9++) > j	
	pellute "k");) och; Och;	
	belean; = 150 mg. Jill	
	J	
21	3(NIN9) NOHO WOLE (3	
	o(v) jost, as were traf	
(1) A	3(647: 73) (0-9+49) 1204	
3)	vold funcintuli	
	int f= count=0;	
	for (1=)1; 12=41; 17+17 4 +1193 1207	
	E L= - NYLLE	
Å	countti;	
	(N)0- 11310+ 11210	-
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	(- 13 2/VJL)	rage
4)	function clut use	e leute (
	tol clut 1=1; 92=4; 1+F)	1 0
	f the state of	
A	for(f21; 9/=11; 9+=2)	E 3 11 13
00	E I W - I - I	o(logzu)
	balbutt ("#"),	1.14
)	
	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	2 K + W
		242
	Total = O(N) X O(10g2N) = O(U10	ST Warm
	(1:001:N)) = (14.0000 N-	(1)0) X (N)0
5)	function eputu) &	
-	fool (Pn+ P=1; 91=0/3; (P++) 5) (1)	TOWNA LIOVICE
	forteluff=1; 1=0,019+=41){(1)	= 10) Hacula
	P24 P N + + (" + ") , 1 + 1	o curo o
	9 3 C++P: N29 · 1=9=1199 1	0%
(42	(N)O (CY)INILEA	
	$T(N) = o(N^2) = o(N^2)$.	
e)	function (fut n) ¿	
	Put gum=0, 9=0;	(1/10)
	for (Pn+ 1 = 0) 9 Ln; 9+7) {	
		9) vold fur (8)
	else & de fanos	- 4 / 6.0
	for that K=0; Kinj. K++)?	71 /402
	sum -=1;)
	5 HANDOS	-5
	0 (n) + 0 (n) = 0 (n)	

+	calculates oxider of cov	uplexity using masteus
	theolley	La la Carlo Maria Maria La
	\$ 4	
1)	T(N)= 37(N/2) + N2	3) r(n1= 27(N/2) + N10g N
	$a = 3 \qquad 3 \times 2^2$	9 = 2 2 2 2 2 2 1
	6-2 (Nyorky) 3	b = 2 $2 = 2$
	$k=2$ TCM1=0 (M^2)	400/16/21/12=(AU) (0)
	10 30 A 40	p = 1 Olutogen)
	1 / 1	codil
23)	TON)= 47(N(2) + N2-(11)) ()	6) T(M) = 2T (M/2) + M/1094
	9 = 4 da 6/11/	9 2 2 = 2'
	6 = 2 4 2?	6 - 2
<i>y</i> -	K= 2 41) = 41110	(21 2 (31 N) 70 CM (39 - 10 q (10 g m 7)
	P = 0 0 (U2 (04 K)	P = 3010
	4800 6 - (M) y (3	(S 2) (S 2)
3)	T(N)= T(N/2)+1/2 (1)	7) T (N)= 27 (N/4) + NO.5)
	a = 1 1 L 4	Q = 2 2 4 0.51
	6 = 2 (1) < (1)	(3) TEM = 31 (VI) H = (6)
- 1 2,5	k = 2 0(N2)	K = 0.51 0(N0.51)
	P > 6 PG-(11) - (8	P(210010)0 Pad
	14 = ((V) B	4
4)	7 cu1= 167(N/47+h1	8) T(U)=67(N/3) + N2/09 N
	9=16 (16 2 4 m)	a = 6
÷	b = 4	b=Bit (8/40 cnelugin) (A)
	K= 1 0 Ln2)	(C = 2
	p > 0	(P=1/4) 2 8 d

	71 T(U) = 77(m19) + M2, 19 (NO) (5) 7 (M = 27 (M12) + M
	9 = 7 7 232 a = 2 (N3/20) Nt.
	$b = 3 \qquad 0 (N^2) \qquad b = 2$
(Mpd)	H 1
	P= 0
· · · · · · · · · · · · · · · · · · ·	o (nlogn)
(0)	TCM)=ATLM121+logn (MUDICAL)
(4)	Q=4 4712 Q-37
	b=2 owe
_ deal	1
_,	P=1 gin) + Wlogh
	1 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
. (14, 12)	7 cn = 37 (n 2) +h g un 1 > f (n)
,	a=3 372 (A)
·	$b = 2$ $o(N^{10923})$ 2) $f(N) = 2^{1099}$
,-	9 (H) = 6 My (SIN) 7 = (N) 7 (8
(13)	TEN]= 3TEN 141 + NIOGY 9(N) >41M
1	a=3 3241 · ((1))
	6=4 o(ulogn) 3) f(u)=24
	9(N1 = 2 ² N
	1) I (N)= 16 ((N)4)+ (N) = 61 (N) = 61 (N) = 93
17.3	9(n) > f(n)
(4)	2 0
	a=3 a=5
	b=3 0 (Mlugn)
	K = D
	P =



Q-4 1) Ten) = 5 Ten-1)+40-, 10-701-1012 (0)) (3 1 1 WELL OMEDITED THE T(M)= 7(M-1) +M - 0 1+ (E-M); substating in-1717 partiture 7(M-1)= 7(M-2)+M-1 - 91) ((16(2.12)) = 1417 putting elis enels (1) (1) (5-AL) LAULITUG TLM)=(7(M-2)+M-1)+M = T(M-21+2N-1 -1(i) + (F-1) 12 = 12-11) substituting non-2 pin prog TLN -21 = 7 (4-3) + N-2 &+ (111) ((8 M) 10) A= (M) putting (iii) In iv++(8-N))&= = TCM-3) +4M-2) +2M-1 = TCM-3) +3M-3 TW1= TLN-31+3N-3 (0)1= +4-12) K Steps (1 Ms + (M M) Mg = (M) T(M)=T(M-K) +KN-K 1-1134245 = in Base case, 7(N-16)=T(0) N=K T(M)=T(N-N) + N2-N T(N)=(10) + n2- u :- 7(u) = y2-u = owe) 2) [(N) = 27 (N-1) (+1) - (N) 1 7 = (N) (N) substituting u=u1 T(M-1) = 27(M-2) +1 (1-M) =(M) 1 putting Tru-11) in Mitture the TIMI: 2 (2(TM-2)+1) +11) - 1-M+(1-N)) - (1-NU) = AF(N-21+3 - 5(11)) (10 px/16/19 putting r(n-2) (n (1) 1111) - (14102) - (141) 71M-21 = 27 (M-3) +1 purting Tru-21 PM (ii) had 130 = 37 (N-3) + 7 / (1/10 Maintellan) 12-Steps Louis (S-Male NI): (MI) = 2 KT(N-K) +2K-1 1-18+ (8-18) PN Base case TLW-K1 = 7(0) c Tyc = (E-WIX - IN) +" TIM1 = 2" [M-M] +24-1) $= 2^{N} + 2^{N} - 1$ O(1 M) = 2 M



		23
3)	Vold Test Clut N) E	
	8+ (M>1){	
	perquit ("ICT");	American Company
	Test (N/2);	
	5	
	3	
	TLA+2 T(N1=T(N(2)+1	
	Accouding to Master's Theorem	
	a=1 0(n los2 (0g n)	
g Shelle , d	b = 2	and the second s
-	(L=0	
	* Ava Copera Signature	properties of the company of the com
4)	7(N)=5 27 (Nb) +4 ; N>1	Productive property of the Parket State of Community of the Parket State of Community Sta
	1 , N=1	
7		2 (c) of the second sec
30 la	T(N) = 27 (M (2) 4'M	
	a=2 2'=2'	
	b=2 O(N(vgN)	
-	V=1	
	34 3 W V	
•		a constitution of the cons
		y or a second of the second of
		1