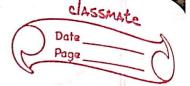


(0)	WH UN sopresti dual retro dit. (9)
	By assumption, and definitions of 9 and
	O there storists coro and no, such that
	foor pol n>nopulve have fing conlog in),
	there < exists of c. ro and en such that for
	n>n, we have fin>> c, nlog (n) and there
(12(n	exists (2 >0 and 1 nz such that for Thom we
A STATE OF THE STA	have gend < czn. (ngornie =
	0
	Torrent max (not not note) we thus have (since
MENN	then logicis > 16 mas n/2) = 10
	fini) - g cn) + con log (n) - con log (n) =
A STATE OF THE STA	(Co+(2) nlog(n)-
NO	which tophows that fright o intog (n), and
lev.	whom (970) fin) + 19 (n) > fin) >, (mog (n) which shows, fig & Di (niog (n)). Hence, fig & O (cniog (n)).
D	shows, frg 6, 2 (niogin), Hence frg & O(cniogin).
9-L	Estimating + the Surion timordes 930112
Then.	(ai) an foor je dub sintat out and
1667A	794-0
	52-1941
40.	9-0 52-jæj while 9-6 s 9-5+9 2-2+9
	9 < 5.49
	7 - 2-19
	le and weith
	The outer loop suns of times with
	the iteration taking time in
型製造	O(1). Since squaring is smooth function,
理弘生	the jth iteration taking time in $\theta(j^2)$. Since squaring is smooth function, total gunning time is $\theta(n,n^2) = \theta(n^3)$.



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	(b) The outer loop iterates un times
ni 8	with the 15th iteration taking time
tant-	is O(logs (j2)) is I smooth ofunction
(11)	(cos 1095 ((2j2)) = 1 (95 (4j2) = 1095 (4)+
	log=1j23 <12 log=1j2) ~ when 1 1/2 >21)
प्रश्तिक	1200 (N) points (NH grod on, NK)
N TO	Estotal tonunna time is O(4n 1095(C4n)2))
	$= \Theta(n\log n) \cdot (nn) > (nn) $
((1)	(c) 1 Initlast literation, is atisfies of
<u> </u>	n/2 29 Kn wand chence the inner
= (1	priloop + (sunsing > +1me p +och).
tar to a	(Co+Co)mlogin
1	Trothe oranning time regulast diteration
(A)	rision bigger than the in total sunning
4.100 P	time gral previous fiterations
	ris higger than the total sunning time of grall previous fiterations, since 1+2++ 2 ^{k-2} + 2 ^{k-1} = 2 ^k -1.
	Thus, the total sunning stime is ocns.
	CHAIN CHAIN CHAIN
	C+> = 10/10/1/1/1/
	· Anthony II
19.21	1914th Co MANH GOOD HUMA ONT
	the the itemption making there ?
throng.	Style some series of the
7.018	= Charle Water paranie Ortot
	是自己的第一位,然后也就是自己的主义,是这种人的人,但是他们的人的人,但是他们的人的人。 第一个人的人的人的人的人的人的人的人的人的人的人的人的人的人的人的人的人的人的人的