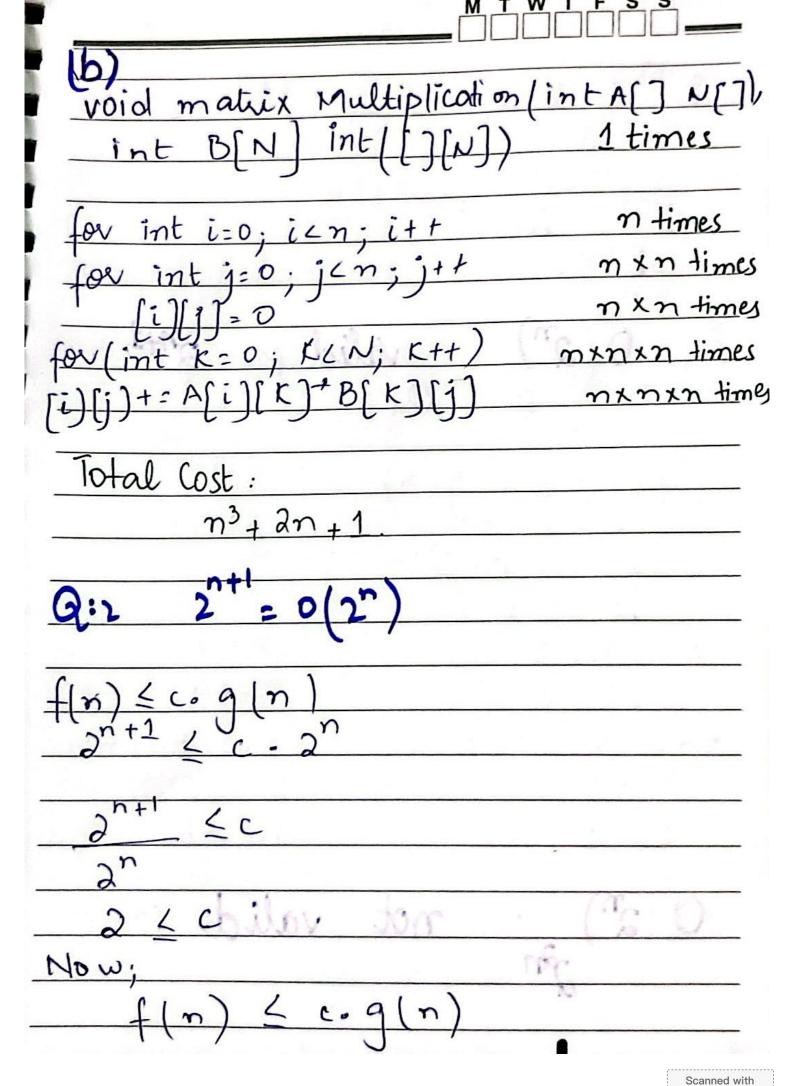
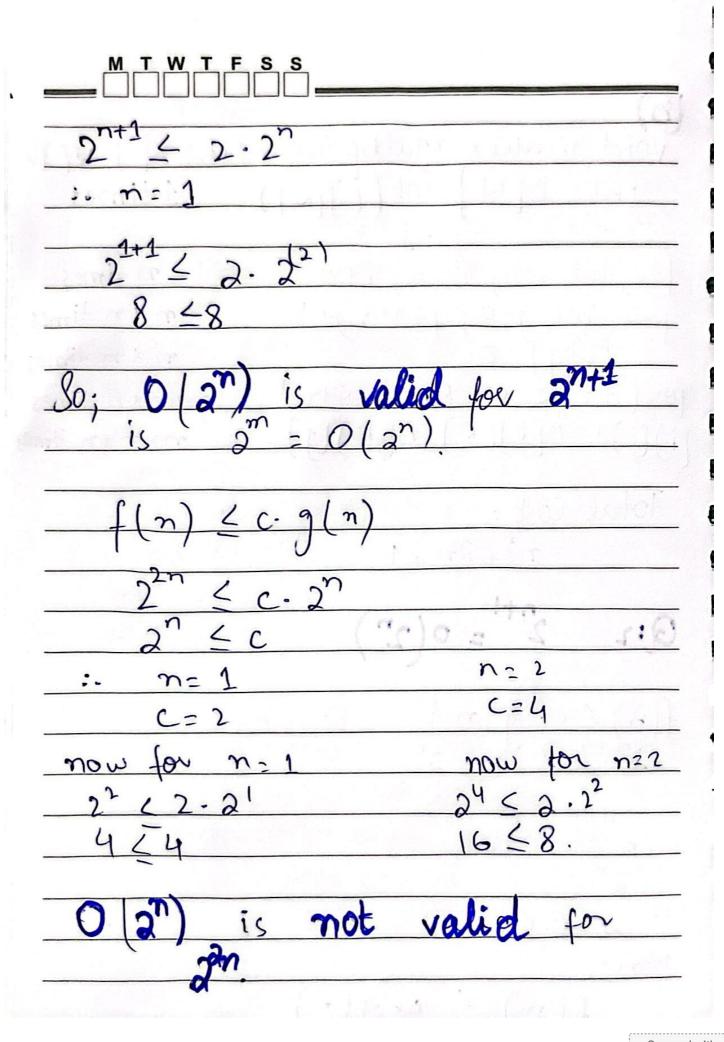
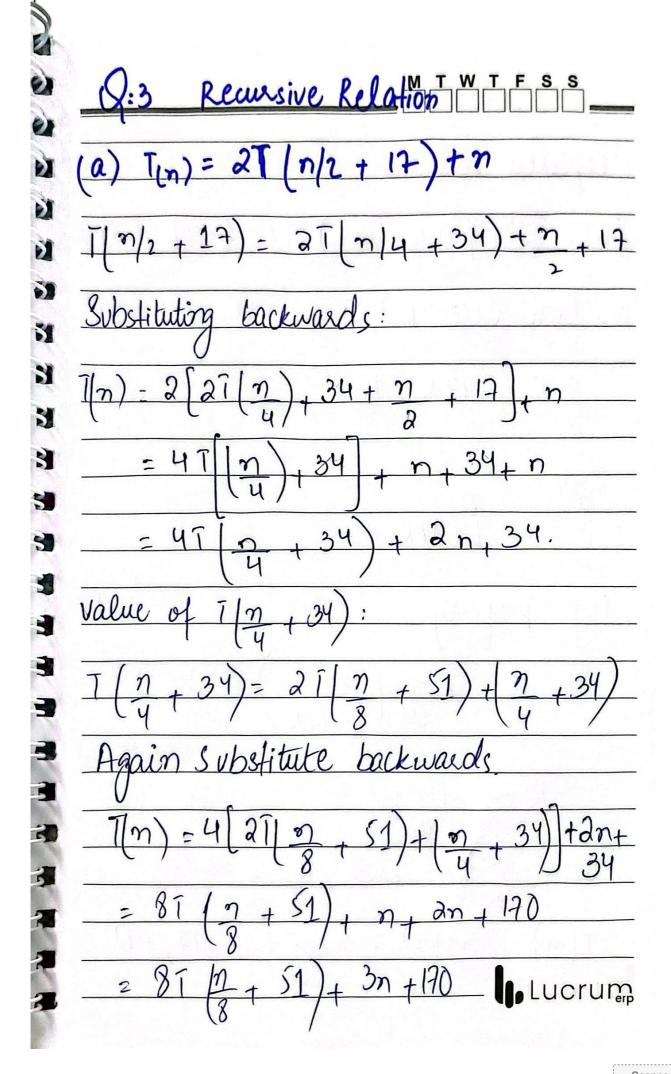
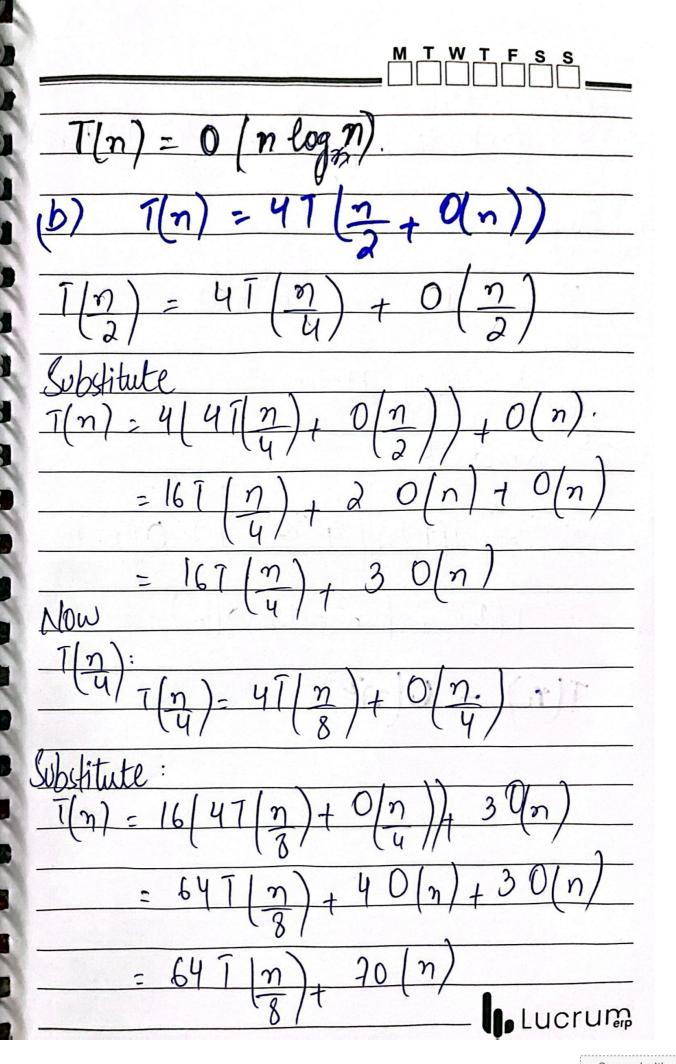
MTWTFSS
70142254
Altiya Sajid
Assignment: 1
Q:1(a) Total Execution Cost:
void print Pattern (int n).
for / int i= 0 : i < n : i++)
for (int i=0; $i \le n$; $i+t$) for (int j=i; $j \le n$; $j+t$)
cout Li" ".
(Joseph som)
for (int K=1; K Li+1; K++)
cout LC " @ ";
cout LL end!;
$(n^2-n)(n^2+3n)$.
Now; = $\binom{n^2-n}{2} + \binom{n^2+3n}{2} + 3$
· n²+2 total cost O(n²) time complexity
Olar) line complexity
Time complexity.







M T W T F S S
Experted Pottern.
[(n) - 2 / [(n) (+ 17 K) + Kn + 17 (2 K-1)
for Base case (K)
n K + 17K=1
2 ⁿ 2
1-17K
log property.
$K = log \left(\frac{n}{1 - 12k} \right)$
$L \sim log n$
Using 2k = n and k=log n
$\frac{1}{(n)} = n\tilde{1}(1) + n \log_{10}(n) + 17_{n} - 17$
Lucrum —



M T W T F S S
Expected Pattern:
Expected Pattern: $ \frac{1}{1(n)} = 4^{k} \frac{1}{2} \frac{n}{2} + (4^{k} - 1) \frac{0}{2} \frac{n}{2} $
Base (K)
n k = 1 = 7 2 = n
a
K= log n.
Oa Maria Maria
at and K
The same to both to be a first
$=4\log_2^n 1(1) + (4\log_2^n - 1) O(n).$
$= n^2 \Gamma(1) + (n^2 - 1) O(n)$
$= n^{-1}(1) + (n^{-1}) O(n)$
a_{1}
$T(n) = O(n^2)$