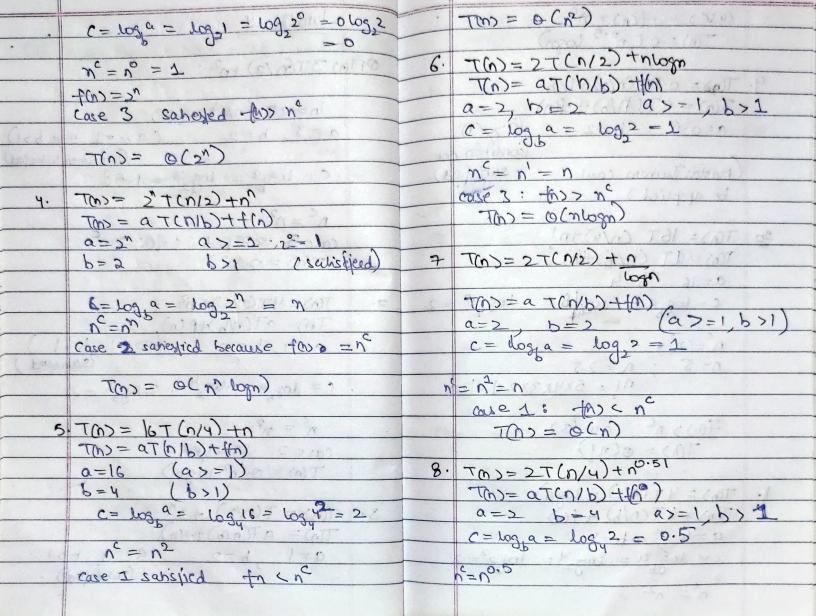
rage No. Tutorial + 4 01Th) 3TGn (2)+n2 Tn= 97 (n/b) +f(n) a=3, b=2 (a>/=1 and b>1) Condinan schafed c= loga = log3 = 1.58 n° = n²
case 3 sansped : +(n) > n°. T(n) = (n2) T(n) = 4T(n/b) + f(n) T(n) = aT(n/b) + f(n)3. a=4, b=2 (a)=1, b>1 c = log a = log 1 = 2 log 2 - 2 $n' = n^2 n - (\mu(n) T - n) = c n T - a$ case 2 sanexied. Cogal solo = colt 3. T(n) = T(n/2) +2" T(n) = aT(n/b) + f(n)a=1 , b=2 a>=1 , b>1 (sundsted).



```
case 2 = -t(n) = n^{c}
T(n) = o c n^{o.5} logn)
                                           -fn) < n° = case 1:
                                          T(n) = O(n2)
9. T(n) = 0.5T(n/2)+1/n
                                      12. T(n) = sqxt(n) T (n/2) + log n
                                         a = \sqrt{n} b = 2 a = 1 + b = 1
   Ton = aT (h/b) + fon)
                       (a7 = 1)
    a = 0.5 b = 2
                                          c=log In (1)
                       (condition not
  (Mastris Theorem cant sansfied)
                                        nen logan
    be applied of the state of the
20 T(n) = 16T (n/4) +n1
                                      13. TON = 3T (n/2)+n
                                          0 a = 3; b = 2 a>= 1 b>1
   T(n) = aT (n/b)+(6)
    a=16 b=4
    c= log a= log 16 = log 42 = 2
                                         c = log 4 = log 3 = 1.58
                                         V1. 28 = VC
    N = N^2 + \frac{1}{2}
N = S \quad ; \quad N^2 = 2S
                                         T(n) = Q(n'58)
            n1 = 5x4x3x2x1=120
    tos no case (3)
                                      14. T(n/2)+ cn
      T(A) = o(n1)
                                          a=4 b=2
                                        c= log a= 100 y = 2
  T(n) = 4T(N2) + \log n
T(n) = 4T(n/b) + + (n)
                                          n^{c} = n^{2} +(n) = 2n

(a + 2) = (a + 2)
    a=40 = b=2 = i pol=
    c = log a = log 4 = log 22 = 2
                                             T(n) = O(A2 Logn)
     n= n2
```

