| | la.) 3 x 3 + x2 log n + 2 x 2 + 3 log n |
|---|--|
| | * 2 × 3 = bighost time complexity |
| | * $3x^3$ = highest time complexity = $3x^3 + 2x^2 + x^2 \log n + 3 \log n$ = $3x^3 + 2x^2 + \log n (x^2 + 3)$ |
| | $\frac{-3x^{2}+2x^{2}+10911+310911}{22x^{3}+2x^{2}+10011+310911}$ |
| | dropping the lower terms $3x^3 + 2x^2 + \log n(x^2 + 3)$ = $3x^3 + 2x^2 + \log n(x^2 + 3)$ |
| | "aropping the lower terms |
| | $= 3x^3 + 2x^2 + \log n(x^2 + 3)$ |
| | = 3x3 and and allumy at the material |
| | $ dropping constants = x^3 \rightarrow o(x^3) / dropping constants $ |
| | $= \chi^3 \rightarrow o(\chi^3) \sqrt{11}$ |
| | COLUMN CAPADAYD - MAN 12719 |
| | 1b.) 2 x 2 + (log x)2+ log x + 8 |
| | * 2x2 = highest time complexity |
| | = 2 · 2 · () m · y) 2 + log y + 8 |
| | $= 2x^{2} + \log x (\log x + 1) + 8$ |
| | = $2x^2 + \log x (\log x + 1) + 8$ #dropping Hower terms = $2x^2 + \log x (\log x + 1) + 8$ = $2x^2 + \log x (\log x + 1) + 8$ |
| | $= 2 \times ^{2} + 100 \times (100 \times + 1) + 80000000$ |
| | = 2 × 2 (xnm = mn/1/m2338) fi |
| | "Idranaina Constants |
| | $ dropping constants = x^2 \longrightarrow O(x^2) \sqrt{2}$ |
| 4 | to the state of th |
| | 21 |
| | 2.) procedure two smallest Int (int arr [], size) |
| | if (size(2) // Tist must contain at least 2 elements |
| | 1151: 22 3 4 55 ATMITS |
| 8 | tor (1=0 torsize) Translate & Sacri |
| | it carr Eig (First Num) |
| | Second Num - first Nam |
| | + = m.FirstNum=arreiz-10 = A = 22 > A +1 |
| | else it Carr [1] < second Num) & stange |
| | Second Num = arr [] |
| | if |
| | T |
| | |
| | |
| | |
| | |

2.) procedure two smallest (intarrE), int size) lat reast Two elements to doid the if (size < 2) prole + prolex + 2 x 8 + 8 x 8 return (8+ 1x) 1 1001 + 5x 5 + 8x 8: first Num = Second Num = max ant paragonal for (i = 0; i < size; i++) poly xxx + Ex Ex lifelement is smaller than first if (arr(i) (first Num) 10) pringgoil second Num , first Num x) 6 - x = first Num : arr Cij Hit element is smaller than tirst .. if carreid efirst dut 123 apid = 5x5 4 Second Num - first Num FIRST 8 + (1+ x pol) x pol else if (arr Cij < second Dum) Second Num = arr [i] if (second Num == max) return manage page eise contestist & second cout < first Num & second Num TO CALERCE THIS MAST CONTRAL WE TRUE TO CONTRAL OF THE CONTRAL OF list: 22 3 4 55 if 22 < 3 -> else statement 3 = arr [i] (muy min) (i) min) if 3 < 4 -> 4 = arr [i] -> first Num = 3 if 4 < 55 → 4 = arr [i] → second Num = 4 prints: 3 & 4 partings 2) [] Trad + 1 200 Filter - mulbasss2

| 0.1 | 3a.) for j = 1 to n - 1 // 0(n-1) 1 1580 as 0.2 |
|-----|---|
| 01 | $f_0 r = 2i + 1 + 6 + 2 = 1 = 1 = 1 = 1$ |
| | comparison aperation |
| - | = 2(n-1-1) + 2(n-1-2) + + 2(n-1-(n-1) |
| - | $= 2 \cdot (n \cdot (n-1)-1) \cdot (n-1) - (n \cdot (n-1)/2)$ |
| | |
| | $= O(n^2)$ |
| | |
| | 3b.) for i=1 to n-1 // o(n-1) |
| | for j: 1 +0 m+1 //0(m+1) |
| | for k=1 +0 + 110(+) |
| - | comp. operation |
| - | for = 1 +on 10(n) |
| 0 0 | multiplication op. |
| | $n-1 \cdot m+1 \cdot t + n = O(n*m*+)$ |
| 4 | |
| | 4a.) procedure negative Count (a1, a2,, an integers |
| | with n>1) |
| | K:= 0 |
| - | for i:= 1 to n |
| | if a; <0 then k:= k+1 |
| | return K |
| | |
| | 4b.) int power (int a, intb) |
| | if (b<0) |
| 3 | return 0 |
| 3 | else if (b==0) |
| | return 1 |
| | eist |
| | return a * power (a, b=1) |
| | return a power ca, o ; |
| | |
| | |
| 2 | |
| | |

