13A 0993 - programming in java for application development. Regno: 192311081 Name: D. Dhivakosan Date: 29/1/24

1) Write program to print following pattern Import java atil Scanner; Public class patters Pointes & Public static void nain (string [] augs) & Scanner input = new Scanner (System. in); chas c= input. next(). charA (10); int no input. next(nt(); for (int 1=1; (1=1, (++)) System. out Printing string. value Of ((+"'), repeat(i). trim(); Input: * Output: *

find the year of given date is leapyear or

Import java. util. Scanner;
Public class leaplear check?

Public Static void man (string 1) ages) &

Scanner input = New Scanner (89stern in);

INT year = \$1wteger. parseInt (input next().

if ((your 1.4==0 88 your 1.1001=011/your 1.400==0)

gegeten. out. privile ("givon year is loop year");

else & system. out. Print In ("given year is not leapyear");

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Input: 04/11/1947

Output: good givan your is not leap year

3) find number of factors for given Import java. util. Scanner; Public class Factors Countes & Public static void main later 17 days) & int n= new Scanner (3 yeters in) north (), factors = 0; for [it = 1; it = n; i++) if (n:1. 1==0) factors+; 8 ystem. on. Println ("number of factors = "+factors); Input: 100 write program to print given number is perfect numer not Import Java. atil. 8 conner; Public class Perfect Number Checker & Public static void main (string &) asops) & TW n= new Scanner (8 yeton: N), Next (WK), Someo; for (iw i=1; 1 Ln; 1++) (h. 1:==0) Sum+=i; system.ou. Println(":tis a perfect number"); cf (n = = Sum) 8 System. out. Println ("it as not perfect number"); INPUT: 6 vivo Yzocat Put: 1113 a perfect number

to print wo of vowels in write program given statement Emport Jora. Wil. Scanner; Pablic class Vowel Courter & Public & tatic void main (stoing &) & int vous = 0; for (chan c: now Scannor (Bystero. in). Next Live (1.to ((harfray ()) " O [AEIO Vaciou" index Of(1)!=-1) vow++; System out. Println ("number of varets = " + vaio); Input: Savatha School of Engineering Output: Number of vowels=12 corite a program to privil constant and vowels separately in given word. Consevents Emport gara wil 8 cansos; Public class Consonantel owels & Public 8 fatic void main (string (Josqs) & Scanner input = new Scanner (848tim. in); String name = input. next Lines), vovels = "", consorous for (char (: name to Char Array ()) of ("AEID Vaciou", inder of (1) !=-1) voucels += (+""; else consonants += (+ ""; System out-printly ("consovants: "+ consonants. toim)) 848 tun. ou . Println ('vowels: "+vowels. frim ()); Input: engineen; mg OWPW: consonals: ngnrng vowels: eieei vivo Y20G

verite a program le print Fiboveri 8 esus Importjava. alil. Scannes; Public class Fibonacissaies ? Public & Patic void main (stringer) ages) & Scanner input = new Scanner (system, in); rul- n= input-next (N+0), a1 =0, a2=1; for (int ? =0) ? + h; ? ++) & 848 Em. cent. print (a1+""); a2 =a1+(a1-a2); ENPUT: 6 out put: 011235 8) write a program to find square, cube of given decimal num. Import Java. estil. Scanners Public class Square cube & Public Static void mais latring[] ags) { float n= new Scanner (8 ystem. In). Nert Float (); System. Out. Print [n["Square Number: "+ (n*n)); Systemout . Prindln ("cube Number: "+ (n+n+h)); Input: 0.6 Output: Square number: 0.36 Oube number: 0.21600002. vivo Y20G

to find the frequency each element in Import Java. util. HashHap) suport java atil. Map; Public class Frequency Country & Public static void mans (Stringt) augs) & int fja=&1,2,8,3,2,2,2,5,19; Map 1 Integer, Integer frag = New Hash Map(); for (int num: a) foor. Put (num, foor. get Or Default (num, 0)+1); freq. for Each (([cay, value) -> 8 ystem. Out. Println (Kay +" | "trake)); Import java. Wil. Scanner; Public class Perfect Namber Checker & Public Static Void Hair (string[] args) ? Int n = new Scarner (System in) nextInti), Som = 0; for (int i=1; ith; i++) of (n.1. 1==0) Sum+=i; Bystem. out. Print (n["it is perfect number); if (n = = Sum) else geten out . print la l'it is not perfect number"); vivo yzochut: it's a perfect number.

Noste a Program to point hollow Sanase Symbol pattern? get Symbol from user. Import gava atil. Scanner; Public class Hollow Sarvaso Pattern & Public static void mais [string[] args) & Scannes Enput = new Scanner (8 ystem.in); chas (= input. next(), charA) (0); for (int ;=1; 12=5; 1+19, 8 ys tem out. printin(1) for (ind j=1; j=5; j++) 8 ystem. Out. Prind([:==1]] ==1][:==n]] j== 5?(:'')+""); Input: Output:

Write a program to print bellow pattern Import java. util. Scannes; Public class Number Pattern & Public Static void mais (Stringly asgs) & int n = new Scanner (System in). Next Intl); for (int i=1; iL=n; i++, System. out. Print(n1)) for (int j=1; j++) 8ystem-out. Print (i+"); Input: 4 Output: 1