



- Assign and print the roll number, phone humber and address of two students having names " sam" and "John" respectively by creating objects of class student class student

```
92)
                                     class student
 Ans:
                                                                                                                                                                                                                                       SYS
                                       string name;
                                       string address;
                                       Long phoneno;
                                         int rollno;
                                        student (string a, string b, Long Ginler.
                                         name = a ;
                                         Address = b;
                                         phoneno=C;
                                            roll no = d -
                                                                    A SERVICE THE STATE OF THE STAT
                                     class test {
                                       public static void main (string orgs[])
                                    student si= newstudent ("sam", "pyne"
                                                                                          9021450861,1);
                                   Student S2 = new student ("John" patro
                                                                                8263081911,2);
                     Systemoout. Printin ("Rollno: "TS1. rollno
                                                                             +"InName: "+ $1.100
                              11 + In Address: H + SI. address + "In Phone.
                                    no. : " +sl. Phone no );
```



system.out. printin ("Rollno: "1452.
rollno t" in Name: "1452. namet" in
Address: "1+52. address + "In Phone no
:"1 + 52. Phone no);
}

5 2

olp: - Rollno: 1 Name: same

Address: pune

- phoneno: 9021450861

STATISTICS PROVIDED TO STATE STATE

Pollnos 2

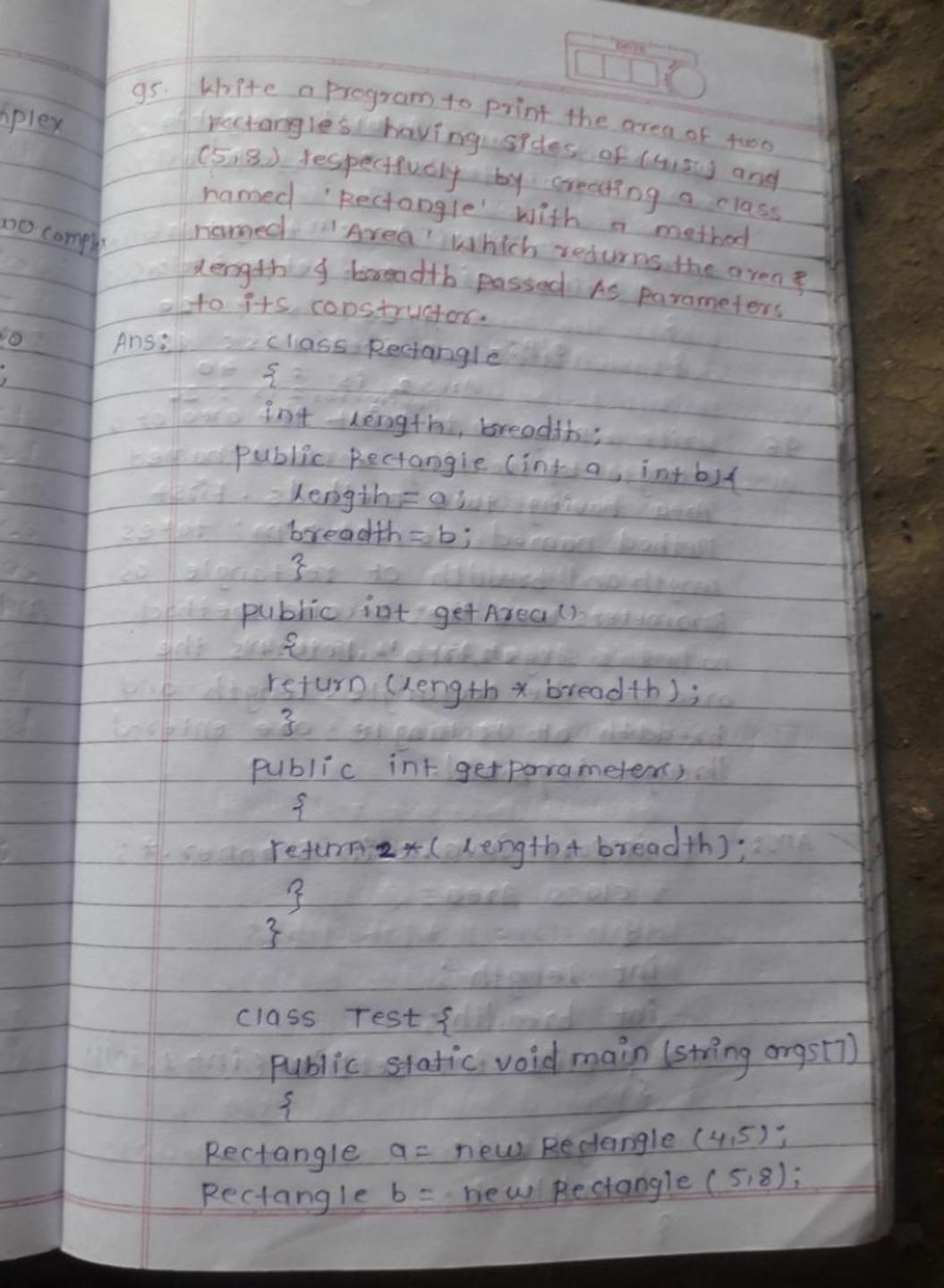
Name: John 'Addr.
Phone no: 8263081911

Address: Latur.

```
P7.
 93) Write a program to print the area
     and perimeter of a triangle having
     sides of 3,4 and 5 units by
     creating a class Named Traingle
    Without any parameter in its consult.
          import. java. util. *;
Ans:
          class Traingle
         int arbro;
        Public double get Area ()
       doubles = (a+b+c)/2.0;
       return = math. pow (S* (S-a) * (S-b) * (S-b)
             ,,5);
       public double get perimeter ()
        return (a+b+c) /2.0;
    class Ans &
      Public static void main (string angs []
```

THE PARTY OF THE P Triangle ti = new triangle (); ti. a = 2 ; ti.b = 53 trc = 6 3 system. out printin(toget Area()); system. out printin (t. get permeter +1). baine STATE OF SHARE STONE STATES nsprygor system. out. println ("Area of Triangle is :" + t1. get Area ()); system.out. println (" perimeter of triangle is : " + t1. get peremeter ()); 1) *(5-6) Area of traintriangle is: 6.5 0/P 3- -Perimeter of priangle is: 21/931 Write a program to print the area and perimeter of a triangle baving sides of 3, 4, and 5 units by creating a class Named Triangle with SEIL constructor the three sides as its

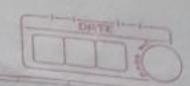
Ans: import iowa. otill. * poblic class Traingle food onea (int a, int b, intc). float S = ((a+b+c)/2.0); Float A = sapt (s*(sa)*(sb)*(sc)); system.out.printin("Area of a traingle Ans: 's": + A Ma " squanits"); y void perimeter (int a fint b, intc) system.out.printin("Perimeter of Traingle is:" + a+b+c "units\n"); public static void main (string angel); This area (sidel sidel, sidel = 4, sidels: The perimeter (sidel, sidels, sidels); The perimeter (sidel, sidels, sidels); Percenter of Traingle is: 6.5 Percenter of Traingle is: 6.5		
public class Traingle { void area (int a, int b, intc). { float 6 = ((a+b+c) / 2.0); float A = sqpt (s * (s-a) * (s-b)*(s-a)); float A = sqpt (s * (s-a) * (s-b)*(s-a)); system.out.println ("Area of a traingle Ans: is": + A Ma " sq:units"); system.out.println ("Perimeter of a Traingle is:" + a+b+c "units\n"); public static void main (string args[]) fint side 1 = 3, side 2 = 4, side 3 = 5; Trangle T1 = new traingle (); T1. Area (side), side 2, side 3); T1. Perimeter (side), side 2, side 3); P:- Area of Triangle is s.s		of Triangle istalis
public class Traingle y public class Traingle float s = ((a+b+c) /2.0); float A = sqpt (s * (s-a) * (s-b) * (s-c)); float A = sqpt (s * (s-a) * (s-b) * (s-c)); float A = sqpt (s * (s-a) * (s-b) * (s-c)); float A = sqpt (s * (s-a) * (s-b) * (s-c)); float A = sqpt (s * (s-a) * (s-b) * (s-c)); float A = sqpt (s * (s-a) * (s-b) * (s-c)); y system.out.println ("Area of a traingle Ans: y void perimeter (inta fint b, intb, intc) fraingle is:" + a+b+c 'units "); public static void main (string args[]) funt side 1 = 3, side 2 = 4, side 3 = 5; Trangle Ti = new traingle (); Ti. perimeter (side1, side2, side3); 71. perimeter (side1, side2, side3);	Po-	of triangle is
public class Traingle subtlic class Traingle void area (int a, in+ b, in+c). float 5 = ((a+b+c) /2.0); Float A = sqpt (s x (s-a) x (s-b)x(s-a)); Float A = sqpt (s x (s-a) x (s-b)x(s-a)); Float A = sqpt (s x (s-a) x (s-b)x(s-a)); system.out.println ("Area of a traingle. Ans: system.out.println ("Perimeter of a Traingle is:" + a +b+c "units units unit	2	Taid one of the
impart lava. utill. * public class Traingle void area (int a, int b, intc). { Float 6 = ((a+b+c) /2.0); Float A = sapt (s* (s-a)*(s-b)*(s-c)); Float A = sapt (s* (sides sint b, intc); Void perimeter (inta sint b, intc) System.out. printin ("Perimeter of a Traingle is:" + a+b+c "units\n"); Fublic static void main (string args); Thought Ti = new trainagle (); Thought Ti = new trainagle (); The perimeter (sides sides sides);	2	TOTOLET OFFICE
impart lava. utill. * public class Traingle tooid area (int a, int b, intc). tooid perimeter (inta int a, int b, intc) system.out. printin ("Area of a traingle Ans: system.out. printin ("Perimeter of a Traingle is:" tathic void main (string args!!) public static void main (string args!!) tooid perimeter (inta interior of a Traingle Ti = new traingle (); Trangle Ti = new traingle (); Ti. area (side1, side2, side3).		sides sides
import inva. utill. * public class Traingle stand area (int a, int b, intc). Float 5 = ((a+b+c)/2.0); Float A = sqpt (sx (sa)*(sb)*(s-c)); Float A = sqpt (sx (sa)*(sb)*(s-c)); Float A = sqpt (sx (sa)*(sb)*(s-c)); System.out.printin("Area of a traingle Ans: system.out.printin("Area of a traingle Ans: Traingle is:" + a +b+c "units\n"); public static void main (string angell) fint side 1 = 3, side 2 = 4, side 3 = 5; Traingle TI = new trainnale ().	7-	des
import inva. utill. *; public class Traingle public class Traingle public class Traingle float 6 = ((a+b+c)/2.0); Float A = sqpt (s*(5-a)*(5-b)*(5-c)); System.out.println("Area of a traingle Ans.; system.out.println("Perimeter of a Traingle is:" + a+b+c '' units\n"); public static void main (string angs)) int side 1 = 3, side 2 = 4, side 3 = 5.	Triahale	1.
impart lava. utill. * public class traingle s void area (int a, int b, intc). float S = ((0+b+c)/2.0); Float A = squt (s* (s-0)*(s-0)); System.out.println("Area of a troingle Ans: system.out.println("Area of a troingle Ans: system.out.println("Perimeter of a Traingle is:" + a+b+c 'units\n"); public static void main (string args[]) S	int	, side2 = 4, side3 = 5
public class Traingle S Public class Traingle S Float S = ((a+b+c) / 2.0); Float A = Sapt (S* (S-a)* (S-b)*(S-C)); System.out.println("Area of a traingle Ans: System.out.println("Perimeter of a Traingle is:" + a+b+c "units\n"); Float A = Sapt (S* (S-a)* (S-b)*(S-C)); Traingle is:" + a+b+c "units\n");	20	Voto High (
public class Traingle public class Traingle f void area (int a, int b, intc). Float S = ((a+b+c)/2.0); Float A = sqpt (s*(s-a)*(s-b)*(s-c)); system.out.printin("Area of a traingle Ans: "s": + A M " sq. units"); P void perimeter (inta intb, intc) system.out.printin(" Perimeter of a Traingle is:" + a+b+c "units\m");	public	roid main
impart java. utill. * public class Traingle public class Traingle public class Traingle void area (int a, int b, intc). float S = (la+b+c)/2.0): Float A = sqpt (s*(s-a)*(s-b)*(s-c)) Float A = sqpt (s*(s-a)*(s-b)*(s-c)) system.out.println("Area of a traingle Ans: "s": + A & "sq. units"); system.out.println("Perimeter of a system.out.println("Perimeter of a		15. Tathe units
import lava. utill. *; public class Traingle yold area (int a, int b, intc). Float s = ((a+b+c) /2.0); Float A = squt (s* (s-a) * (s-b)*(s-c)); system. out.println ("Area of a traingle Ans: is": + A & " sq. units"); void perimeter (inta sintb, intc) s	System	printin (" Penmeter of
import iava. utill. * public class Traingle public class Traingle public class Traingle food area (int a, int b, intc). public class Traingle interpretable froat S = ((a+b+c)/2.0); Float S = ((a+b+c)/2.0); Float A = sqpt (s*(s-a)*(s-b)*(s-c)); Float A = sqpt (s*(s-a)*(s-b)*(s-c)); system.out.println ("Area of a traingle Ans: is": + A & "' sq. units"); roid perimeter (inta fintb, intc)		
public class traingle subtlic class traingle void area (int a, int b, intc). Float S = ((a+b+c)/2.0); Float A = sqrt (s* (s-a)* (s-b)*(s-c)); System.out.printin ("Area of a traingle Ans: is": + A & "sq. units"); 2		Fintb, 1
public class traingle Stand area (int a, int b, intc). Float S = ((a+b+c) /2.0); Float A = squt (s* (s-a)*(s-b)*(s-c)); Float A = squt (s* (s-a)*(s-b)*(s-c)); System.out.println("Area of a traingle Ans: "s": + A & "sq.units");		
import iava. utill. * public class Traingle public class Traingle void area (int a, int b, intc). Float S = ((a+b+c)/2.0); Float A = squt (s* (s-a)* (s-b)*(s-c)), Float A = squt (s* (s-a)* (s-b)*(s-c)), System. out. println ("Area of a traingle Ans: system. out. println ("Area of a traingle Ans:	2	
system. out. println ("Area of a traing!" Ans:	10 5 110	+ A M " Sq. unifs ");
import iava. utill. *; public class Praingle you'd area (int a, int b, intc). Float S = ((a+b+c) /2.0); Float A = squt (s x (s-a) x (s-b)x(s-c)).		of a troingle Ans
import java. utill. *: public class Traingle public class Traingle public class Traingle void area (int a, int b, intc). Float S = ((a+b+c) /2.0): Float A = Sapt (S*(S-a)*(S-b)*(S-c)).		
public class Traingle public class Traingle s void area (int a, int b, intc).	Floor	
public class Traingle s void area (int a, int b, intc).	100+	2
public class Traingle	2010	
public class Traingle	3	0. in+ b, in+c
import 1000.0+111.*	1	class maingle
		java. utill. *.
		FEE



```
System-out-println ("Areal:" + a.get Area
                          "porimeter is" + a gel porimeter
                             A STATE OF S
                    system. out. printin ("Areaz: "+a-get Arean
                                " perimeterzis" + a. get perimeteri
                    3 Arealis ; 20
                    3 O/P:- perimeter 1 is : 18
                   Write a program to print the area of
 96
                    rectangle by creating a class homed
                    'Area' having two methods . First
                     Method named as set bim 'takes
                    length and breadth of rectangle as
                    Parameters and the second method
                   named as 'get Area' returns the
                  area of the rectangle. Length and
                    breadth of rectangle are enterco
                  through keyboard.
Ans:
                              import java. wil. scanner. *;
                                         class Area
                                  int length;
                                  int breadth;
                              o Public int set Dim (int 1, int)
                                    length = 1;
                                   breadth = b;
```

```
public int get Area ()
90)4
m()
       return (length & breadth):
()+
(1);
        Public static void main (string args [7]
       and of sea of the season of the
          Scanner s = new scanner (system.in);
             int Lib;
9
        system. out. printin ("Enter length");
          1 = S. next Int ();
        system.out.printin(" Enter breadth");
           b = s. nextInt();
                - - - Ochipald alie
          Area a = new grea ();
           a. set Dim (LIb);
        system.out.printin (" Area : " + a.get Area
                    ());
          0/P 8- Enter Length
                Enter breadth
          eranger and 4 mis
16
           Area : 20
```

97.	write a program to print the area of a	- (+ e i
	And the second s	
1	The values of 175 and	
	as promoters of ITS constitution and	
1	having a method named required	
1	returns the area of the rectangle length	
	and breadth of rectangle are entered	
- 100	through keyboard.	
-		
- Ans:	import java. util. scanner. *;	
	class Area	98
	He de la ferra de la constitución de la ferra della ferra de la ferra della fe	17720
	int length;	
	int breadth;	1101
-	Public Area (inf t, int b)	
	- for today) Alas May the rills	110
Daving .	length = 1;	
-	breadth = b;	
-	3	98.
	Public int return Area ()	- 17
	5	
	return (Length * breadth);	
	3	(801, 201
	This parks waters	Ans:
	public void static void main estring orgs!	
	2	(1)02
9	canner s = new con-	
	canner s = new scanner (system.in);	
	in+ 1, b;	



system. out. printin ("Enter length"); La La sinextIntia;

system. out. printin ("Enter breadth"); b = s. nextInt (); id = 0

Area a = new Area (1,6)

system out printin (" Area of rectangle:" + a · gereturn Area ()); 3 SEVERAGE A CONTRACTOR

Francisco de la como d

98 print the average of three numbers entered by user by creating a ci

> Olp 8- Enter Length: THE THE STREET STREET

Enter breadth; s

Area of rectangle: 200 add rated a citient of the contrar

98. Print the average of these numbers entered by user by creating a class named. Average having a method to calculate and print the querage

Ans:

hich

import java · util · scanner . *; Public class Average

20 14 19 11 exercis de 20019

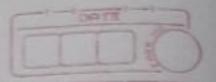
int a, b, c;

```
Public Average (int ni, int nz, int
                                       OIF
      a = n1; - = = = = = = = =
     b = h2;
     € = h3; = 6 000 = 0 000
   public int average ()
    return (a+b+c)/3;
   Public static void main (string args!)
   Scanners = new scanner (system.in);
      int n1, n2, n3
  System. out println ("Enter the ni");
     n1 = S1. nex+In+ ();
 system.out println (" Enter the n2:");
    n2 = 51 nextInt();
 system. out. println ("Enter the na:");
    n3 = sl. next Int();
   Average A1 = new Average (ni, m2,10)
    STANSON PROVINCE TO SHAPE
system. out. printin ("The average of
     entered numbers is: "+ A1. calculate
```

Enter the ni go OPE Enter the no: 100 Enter the na: 95 NEW THE PARTY OF T The average of entered number is: 95 THE REPORT OF THE REPORT OF THE PARTY OF THE 99. print the sum, difference and product of two complex number by creating a class hamed 'complex with separate methods for each operation whose real and imaginant Parist are entered by user import Java. will. *; Ans: class complex { int imag; public complex (intr, inti) " - real = him right bio comerce imag = i; Public static complex add (complex a, comple) -x-6) { return new complex ((a. real + b. real), (a. imag + b. image); Public state complex diff (complex a, complex

```
return new complex (10. real - b. real).
   (a. image -b. imag));
 Public static complex product (complex a
 complex b) {
 return new complex (((a. real * b. real).
  (a.imag * b.imag)), ((a.real * b.ima)
  + (o. imag * b. real));
  Public void print complex () {
    if (real = = 0 & & imag!=0)
                                          910)
 system.out.println(imag +"i").
  else if (imag = = 0 & # real !=0)
   system.out. printin (real); ?
  elses
  system.out. Println (real +"+" + imag";
 class Test }
public static void main (string args [])
  complex c = new complex (4,5);
 complex d - new complex (9,4)
```

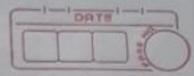
```
complex = complex. add (cid)
         complex F = complex . diff (c,d)
     complex 9 complex, product (c,d)
     e. Paint complex ();
     F. Print complex ();
       g. print complex ();
mag)
    2006 VED 14 10 14 1 1 2 1 1 1
    Class Employee &
        · Private stringname, address;
  Private int year, salary,
  public employes (stringn, inty, int salsting
        name = n; year = y; salary = sal;
          address = add;
     Public Stringget Namel) & return name;
      publice int get year() { return year; }
      public int get salony() {
              return salary ?
         Public string get Address () }
           return address; 33
          CIQSSES
         Public static void main (string orgsi)
```



Employed mployed "Robert"; 1994; 50000 " Q14. Employeen = new employet John", 1999,6000000 wallstreet"); Employee e3 = new employee ("Sam", 2000740, 468d-walishrell). system.out. printint el. getnamer) + "14" eligetyear()+" 1 t 1t 1t " + eligetsalay + " It ! + eliget address ()); system, out printin (ez.get name()+")+" e2, geneon() +"It It It + c2 getsalon Ans + "1+ 11+ +2. 9 etadchess()); systemioutiprintin (esigethamel) + 111 er getyeon 1) + 15 + tit t + + + + + + 3 - getsalar () + "It " e3.9 etaddress ()); Dide = 22 + Could Address year of joing Name 64c-wallsstreet Robert 1994 sam 2000 - 68 D-walls street 1999 26 B- Walls street John

```
q11. Add two/distance in inch - Feet by creating a
     class named Acld Distance
      import java . Util . *;
Ans:
        classAbistance
        Private int Feet;
         private int inches;
        public void get Distance()
        Scanner sc= new scanner (system.in);
         system.out - Print (" Enter feet:");
         feet = Sc. nextInt();
        system. out. print ("Enter inches:");
           inches = sc.nex+ Intog
         public void show Distance()
         system. out printin ("Feet:"+feet +")+
                       Inches: " + inches);
       Public void add pistance (Distance DI, Distance
         D2)
          inches = DI. inches + Dz. inches.
            Feet = D1. feet +D2. Feet + (inches /12).
              inches = inches % 124;
```

```
Public class ADDTWo Distance
   public static void main (string ongs)
   - Secretary
  Distance DI = new Distance ();
    Distance D2 = new Distance():
    Distance - D3 = new Distance().
Systemiout Println (" Enter first distance")
  Dr. get Distance();
system. out printen (" Enter second distant
    D2-get Distance ();
   D3. add Distance (D1, D2)
 system.out.printen ("total distance is:")
  D3. Show Distance ();
    catch (Exception e)
  system : out printin (" Exception
```

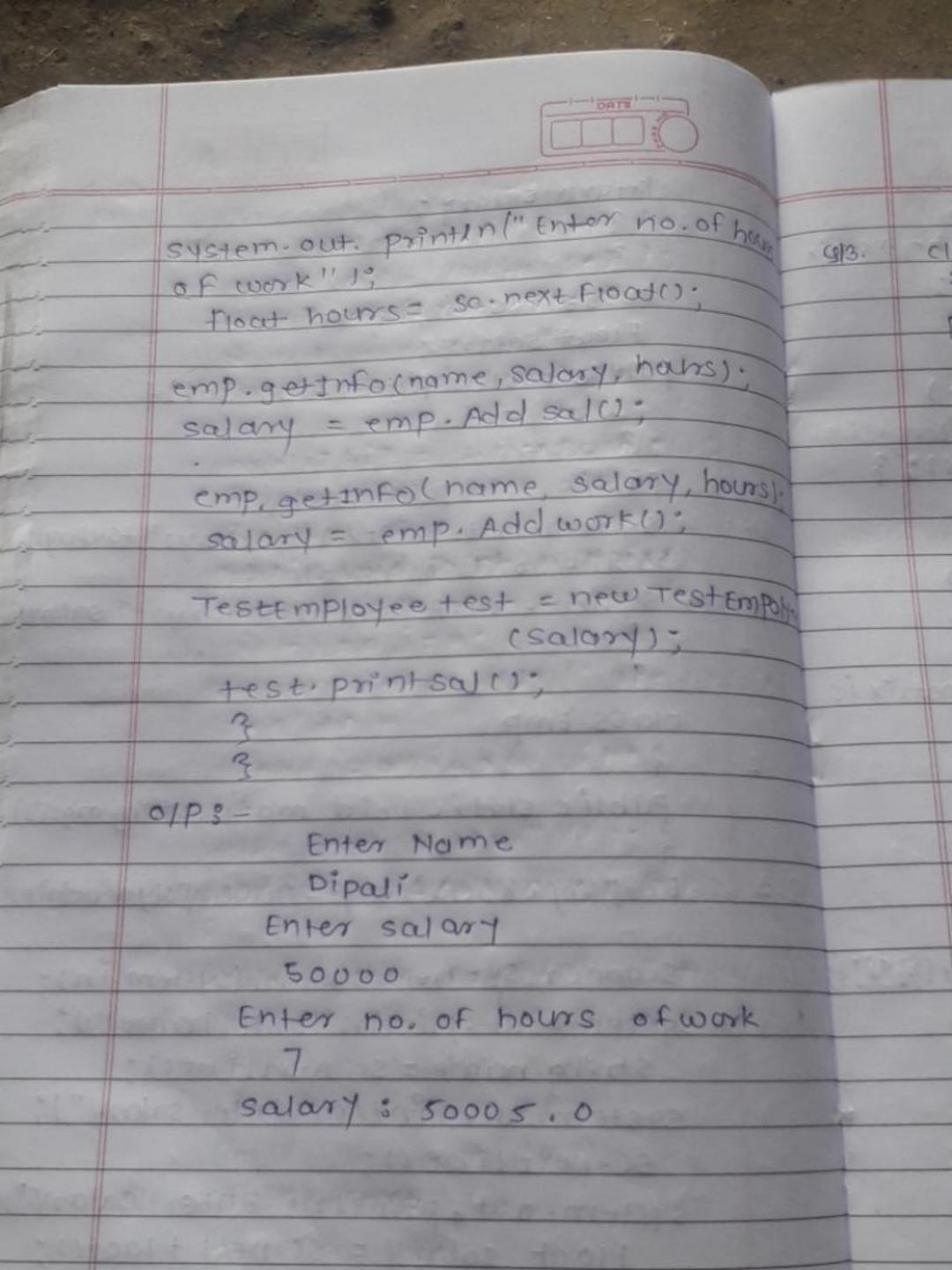


	DATE OF THE OF T
	olp: - Enter First distance:
	Enter feet 120 mil tennen -214
	Enterinches: 10
The second	Entersecond distance:
	Enter Feet : 20 1
	Enter inches: 10
	Total distance is
	Feet: 41 Inches:8
1000	The state of the s
G12	Write a program by creating an Employee
	class having the following methods and
100	Print the final salary.
1	'getInfoll' Which takes the Salary, number
	of hours of work per day of employee
	as parameter las respons
2-	Add sall) Which adds \$10 to salary of
	the empossee if the number of hours
	af work per day is 13.
913.	create o class-called matrix contains
	constructor that initalizes the number
	of rows and number of edumns of 9
	new matrix object. The matrix class
	has followin information
- 1	number of rows of matrix
2	humber of column of mutnix
8	elements of mouthing the form of 2D array

);

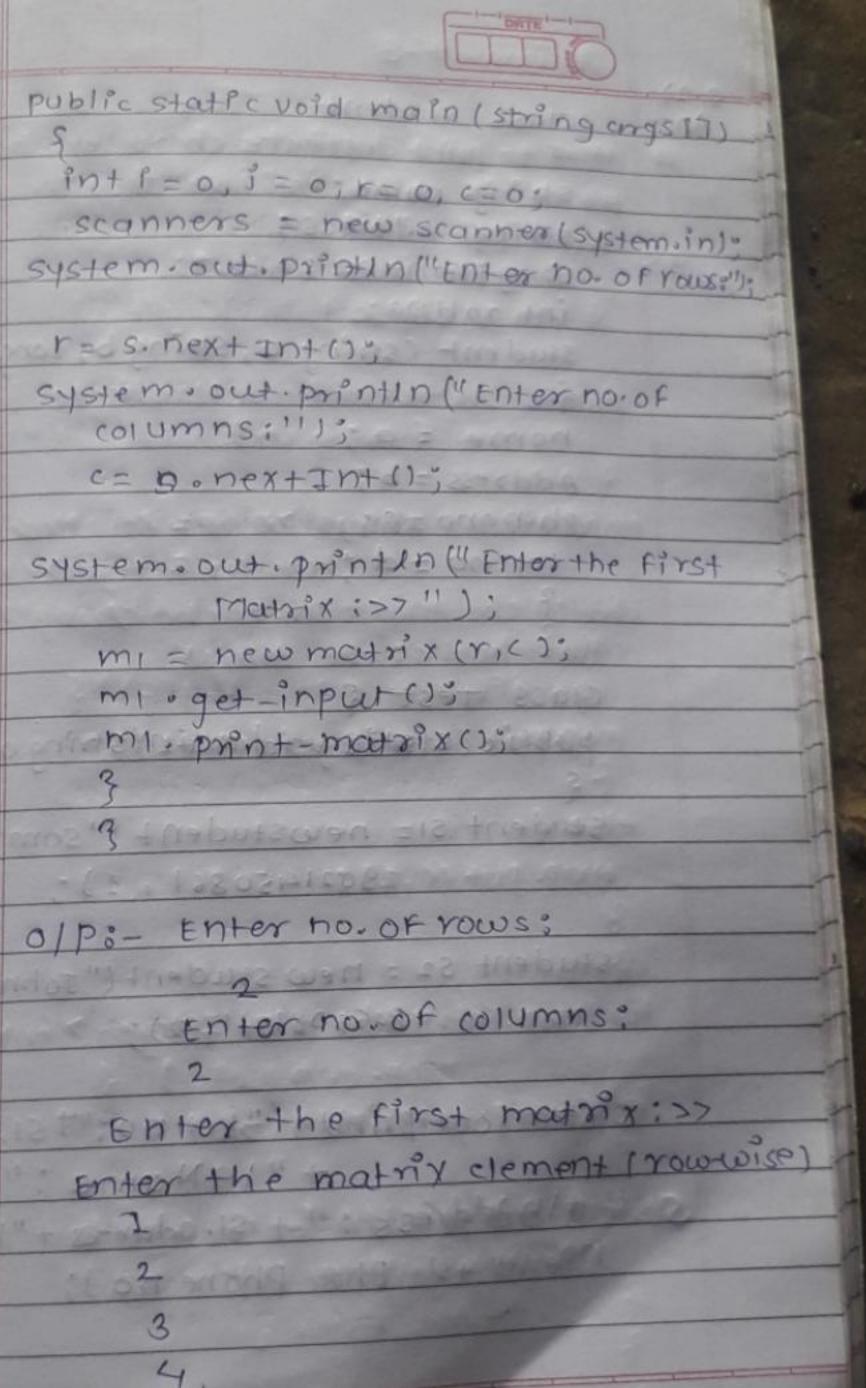
```
0 12
Ans: import java utill +;
     class Employee Details
     Private string name;
     Private Float salony;
     · hours;
     Public Emplyee Detail()}
       name = "" ";
       Salary = 0;
      hours = 0;
      public void get info (String n, flood
    sal, froathr) 3
       name=n:
        soury = sal;
      hours = hr;
      Public float Add Sal() {
       if (salary < 500) }
      Salary = Salary + 10;
              FINE 1940 2 100 TO
      Salary The Market of the Salary
       return salary;
      Public float Add work () s
       if (hours > )
       Salary
            = salary
                     15;
```

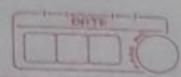
```
return salary;
class restemployers
  Float salary
 public Test Employee ( Float sal) +
   - salary = sali
  public void print sal() }
  systemiout. print In (" salary: " +salary)
  public void print salc) &
  system out print n("saleny; 1t saleny)
  - 1 500 00 60 50 50 50 50
   3
 class Emp
  Public static void main (string angs (3)
  Employee Detailemp = new Empolyee Detailer
  scanner sc=new scanner (system.in).
 system out printin ("Entername");
   string name = sc. nextline();
  systemiautiprintin("Enter salary");
   sconextline ();
 system.out , printin(" Friter salary"),
     Float salary = sc. next fload();
```



```
class matrix
Wir
  9/3.
         3 - Carling Contraction - Clark all
         private double[][] mat;
         int now, column;
        - mortifie ()
         - YOUD = 01,
         column=0;
         int row, column;
           modrix ()
Mar
     Yow = of the
          colum = 0;
          19 + in y case of a property of a party
          moutrix (int r, int() =
           SI THE LACE LICENSE THOUGH THE WAY
          YOW = Y 7 45 - 1 5 - 1 5 - 1
          column = C;
           mat = news
          double [row][column];
           Public voidget-input ()
           scanner s=new scanner (system.in);
           2can
           in+ i= 0, = 0;
```

```
system. out. printin (" Enter the man,
     elements (row-wise)");
   For (i= o; izrow; i++)
  For (j=0; j < column; j++)
  mat[i][i] = s. nex Double(); 3
  public void print-matrix()
   in+ i=0 j=0;
  system.out-printin (" The matrix is
   for (i=o;iLrow;i+t)
 system sout printin(" 11);
  For (i=0; Jccolumne, i++)
 System. out. printin!" +marlije
   3 BUT ANDERSON
 class Text -
 private static matrix mi, m2, ons
```





914. The matrix class has method for each of the following. 1. get the number of roles 2 get the number of columns 3. set the elements of the matrix atgiven Position (i,i) 4 adding two mounices. If the mounices are not addable, "matrice cannot be added" Mill be displayed. 5. Multiplying the two mourices Ans: class matrix & int row; int column; interpretation Public matrix (int r, intc) tow =r; column = 0; a = newint [row] [column]; public int get Rows () } return row; public int get columnos & return column; Public int get Element (int r, intc)

return a[r][c];

```
Public void set Element Cintr, inte, in
                         erement ) §
  a[r][c] = element;
           3 THE STREET OF THE STREET
public static matrix add (matrix x, melin
                                                 if ((x. row = = y. row) & f(x. column = =y.
                        column)
          9
           Matrix m = new matrix (x. row, x.calum.
             for (int i = 0 ; i cm · rows itt)
                                              THE RESIDENCE OF THE PARTY OF T
             For (int j = 0; jzm; column; j++)
            f and the second second
        m. set Flement (isi) (x. get Flement
                 (i,i) + y.get Element (i,i));
                return m;
                 THE MEND FOR THE PORT OF L
                elses
                   system.out- printin (" matrices e
 an not be added" 1;
                                                   return new matrix (0,0);
                          3 ......
                                       3 STATES AND STATES
 Public static Matrix Product (Matrix 1,
                  Matrixy) {
```

Math

Ee

PU

```
COATE !-!
```

```
int
            matrix m = new matrix (x. Yow, y column);
              For (in+ i= 0 j jk x . row; itt)
             for (int i = 0; i < y - (olumn ; itt)
             int sum = 0;
            For (intk = 0; K < x. column; k ++)
column:
              sum = sum+(x, get Element (j, k) + y.
              get Element (Kill); }
            moset Element (jii) sum); } }
                veturn m; ?
           Public void printratrix() }
           system-outiprintln (" matrix is : ");
             for (int i = 0; i < row; i++) }
              For (in+ j = o j < column; itt)
            Systemioutiprintin (ali][j] + ""\t"):
            system.out.println("");
            Class Test &
           public static void main (string orgs[])
            Matrix m = new Matrix (313);
             Matrix n = new matrix (3,3);
             int k=1;
```

```
For (int i=0 ; iz3 ; i++) f
                             QII. Ade
    For (in+ j=0; j =3 ; j++ ) }
    m. setElement (i) j, k);
                             Ans:
    K++;
    n. set Element (i,j,k);
    m. print matrix ();
    n. print matrix ();
    Matrix v = matrix = add (m,n);
     0. prin+matrix();
    Matrix P = matrix. product (m,n);
     P. print Matrix ();
OIP: matrix is:
     3 5
   13 15 17
   Matrix is:
           6
    2 4
    8 10 12
   14 - 16 18
   matrix is
                    matrix is
                   96 114 139
   3
                   240 294 348
           B 5
                   384 4014 564
```