**Instance methods**

➢ Write a program to find the grade of 2 students based on total marks(3 subjects) • Get the student‟s marks by constructor • Return total mark to in main method • Find the grade of each student.

**program**

class Grades

{

int mark2;

int mark3;

int mark4;

public static void main(String args[])

{

Grades obj =new Grades(20,50,60);

Grades obj2= new Grades(70,90,60);

System.out.println("Total marks of Student2: " +obj.totalMark());

System.out.println("Total marks of Student3: "+obj2.totalMark());

obj.grade();

obj2.grade();

}

public Grades(int m2,int m3, int m4)

{

mark2=m2;

mark3=m3;

mark4=m4;

}

public int totalMark()

{

int total =mark2+mark3+mark4;

return total;

}

public void grade()

{

int x= totalMark();

if(x>=280)

System.out.println("grade A");

else if (x>=240)

System.out.println("grade B");

else if (x>=220)

System.out.println("grade C");

else if (x>=200)

System.out.println("grade D");

else if (x>=150)

System.out.println("grade E");

else

System.out.println("FAILED");

}

}

**output**

C:\Users\user\Desktop\java>javac Grades.java

C:\Users\user\Desktop\java>java Grades

Total marks of Student2: 130

Total marks of Student3: 220

FAILED

grade C

➢ Write a program to find the • Average of three integer numbers, three float numbers(should have same method name) • Area of figures(circle, rectangle, square) by using three methods(should have same method name)

**program**

class Average

{

public static void main (String args[])

{

Average obj=new Average();

obj.averageArea(100,100,100);

obj.averageArea(20.5f,30.5f,40.5f);

obj.averageArea(2.5);

obj.averageArea(2.5, 100.5);

obj.averageArea(2.5f);

}

// average of 3 interger number

public void averageArea(int a, int b, int c)

{

int d=(a+b+c)/3;

System.out.println("Average of 3 interger number is :"+d);

}

// average of 3 float number

public void averageArea(float a, float b, float c)

{

float d=(a+b+c)/3;

System.out.println("Average of 3 float number is: "+d);

}

//area of circle

public void averageArea(double a)

{

double pie =3.1416;

double b= pie\*(a\*a);

System.out.println("Area of circle :"+b);

}

//area of rectangle

public void averageArea(double a, double b)

{

double c= a\*b;

System.out.println("Area of rectangle :"+c);

}

// area of square

public void averageArea(float a)

{

float b= a\*a;

System.out.println("Area of square :"+b);

}

}

**output**

C:\Users\user\Desktop\java>javac Average.java

C:\Users\user\Desktop\java>java Average

Average of 3 interger number is :100

Average of 3 float number is: 30.5

Area of circle :19.634999999999998

Area of rectangle :251.25

Area of square :6.25