**Bài 1:**

a.

public class Point2D {

private float x=0.0f;

private float y=0.0f;

public Point2D() {

}

public Point2D(float x, float y) {

this.x = x;

this.y = y;

}

public float getX() {

return x;

}

public float getY() {

return y;

}

}

b.

public class triangle {

float width=0.0f;

float height=0.0f;

public triangle() {

}

public triangle(float width, float height) {

this.width = width;

this.height = height;

}

public float getWidth() {

return width;

}

public void setWidth(float width) {

this.width = width;

}

public float getHeight() {

return height;

}

public void setHeight(float height) {

this.height = height;

}

@Override

public String toString() {

return width+""+height;

}

}

c.

public class Fraction {

int numerator;

int denominator;

public Fraction() {

}

public Fraction(int numerator, int denominator) {

this.numerator = numerator;

this.denominator = denominator;

}

public Fraction(Fraction f) {

}

public Fraction add(Fraction f) {

if (this.denominator == f.denominator) {

this.numerator = this.numerator + f.numerator;

} else if (this.denominator == 0 || f.denominator == 0) {

return null;

} else if (this.denominator != f.denominator) {

this.numerator = (this.numerator \* f.denominator) + (f.numerator \* this.denominator);

this.denominator = this.denominator \* f.denominator;

}

return this;

}

public Fraction sub(Fraction f) {

if (this.denominator == f.denominator) {

this.numerator = this.numerator - f.numerator;

} else if (this.denominator == 0 || f.denominator == 0) {

return null;

} else if (this.denominator != f.denominator) {

this.numerator = (this.numerator \* f.denominator) - (f.numerator \* this.denominator);

this.denominator = this.denominator \* f.denominator;

}

return this;

}

public Fraction mul(Fraction f) {

this.numerator = this.numerator \* f.numerator;

this.denominator = this.denominator \* f.denominator;

return this;

}

public Fraction div(Fraction f) {

this.numerator = this.numerator \* f.denominator;

this.denominator = this.denominator \* f.numerator;

return this;

}

@Override

public String toString() {

return "Fraction(num=" + numerator + ",den=" + denominator + ")";

}

public void reducer() {

int g = gcd(this.numerator, this.denominator);

this.numerator = this.numerator / g;

this.denominator = this.denominator / g;

}

private int gcd(int a, int b) {

if (b == 0) {

return a;

}

return gcd(b, a % b);

}

}

**Câu 2**

public class Student {

private String stID;

private String stName;

private String stClass;

public Student() {

this.stID = "";

this.stName = "";

this.stClass = "";

}

public Student(String stID, String stName, String stClass) {

this.stID = stID;

this.stName = stName;

this.stClass = stClass;

}

public Student(Student st) {

this.stID = st.stID;

this.stName = st.stName;

this.stClass = st.stName;

}

public String getStID() {

return this.stID;

}

public String getStName() {

return this.stName;

}

public String getStClass() {

return this.stClass;

}

public void setStID(String id) {

this.stID = id;

}

public void setStName(String name) {

this.stName = name;

}

public void setStClass(String Class) {

this.stClass = Class;

}

public String toString() {

return ("Student [ID : " + this.stID + ", Name : " + this.stName + ", Class : " + this.stClass + "]");

}

}

public class Book {

private String boCode;

private String boTitle;

private String boAuthor;

public Book() {

}

public Book(String boCode, String boTitle, String boAuthor) {

this.boAuthor = boAuthor;

this.boCode = boCode;

this.boTitle = boTitle;

}

public Book(Book bo) {

this.boAuthor = bo.boAuthor;

this.boCode = bo.boCode;

this.boTitle = bo.boTitle;

}

public String getBoCode() {

return this.boCode;

}

public String getBoTitle() {

return this.boTitle;

}

public String getAuthor() {

return this.boAuthor;

}

public void setBoCode(String boCode) {

this.boCode = boCode;

}

public void setBoTitle(String boTitle) {

this.boTitle = boTitle;

}

public void setBoAuthor(String boAuthor) {

this.boAuthor = boAuthor;

}

public String toString() {

return ("Book [Code : " + this.boCode + ", Title : " + this.boTitle + ", Author : " + this.boAuthor + "]");

}

}

public class LibraryCard {

private long lbCode;

private String owner;

private int borrowCount;

public LibraryCard() {

}

public LibraryCard(long lbCode, String owner, int borrowCount) {

this.lbCode = lbCode;

this.owner = owner;

this.borrowCount = borrowCount;

}

public long getLbCode() {

return this.lbCode;

}

public String getOwner() {

return this.owner;

}

public int getBorrowCount() {

return this.borrowCount;

}

public void setLbCode(long code) {

this.lbCode = code;

}

public void setOwner(String owner) {

this.owner = owner;

}

public void setBorrowCount(int borrowCount) {

this.borrowCount = borrowCount;

}

public void checkOut(int num) {

if (num > 0) {

System.out.println("Trả số tiền đã mượn sách theo yêu cầu : " + num);

} else {

System.out.println("Bạn không cần trả tiền vì chưa mượn 1 cuốn sách nào cả !");

}

}

public String toString() {

return ("LibraryCard [ Code : " + this.lbCode + ", Owner : " + this.owner + ", BorrowCount : "

+ this.borrowCount + "]");

}

}

Bài 1 BTVN :

package BTVN01;

public class HinhTron {

private double banKinh;

public HinhTron(double banKinh) {

if (banKinh > 0) {

this.banKinh = banKinh;

}

}

public double getR() {

return this.banKinh ;

}

public void setR(double banKinh) {

if (banKinh > 0) {

this.banKinh = banKinh;

}

}

}

package BTVN01;

public class HinhVuong {

private double canhA;

public HinhVuong(double canhA) {

if (canhA > 0) {

this.canhA = canhA;

}

}

public double getA() {

return this.canhA;

}

public void setA(double canhA) {

if (canhA > 0) {

this.canhA = canhA;

}

}

}

Bài 2 BTVN :

package BTVN02;

public class Vector {

private double x, y, z;

public Vector() {

}

public Vector(double x, double y, double z) {

this.x = x;

this.y = y;

this.z = z;

}

public Vector congVecTor(Vector v) {

return new Vector(this.x + v.x, this.y + v.y, this.z + v.z);

}

public Vector truVecTor(Vector v) {

return new Vector(this.x - v.x, this.y - v.y, this.z - v.z);

}

public void nhanVoiHangSo(double hangSo) {

double a = this.x \* hangSo;

double b = this.y \* hangSo;

double c = this.z \* hangSo;

System.out.println("Sau khi vector nhân với 1 hằng số :");

System.out.println("Vector (" + a + "," + b + "," + c + ")");

}

public double tichVoHuongHaiVector(Vector v) {

double tong = ((this.x \* v.x) + (this.y \* v.y) + (this.z \* v.z));

return tong;

}

}

Bài 3 BTVN :

public class NV {

private String tenNhanVien;

private double luongCoBan, heSoLuong, Luong\_Max;

public NhanVien(String tenNhanVien, double luongCoBan, double heSoLuong, double LuongMax) {

if (luongCoBan > 0) {

this.luongCoBan = luongCoBan;

}

if (Luong\_Max > 0) {

this.Luong\_Max = Luong\_Max;

}

this.tenNhanVien = tenNhanVien;

if (heSoLuong > 0) {

this.heSoLuong = heSoLuong;

}

}

public void setLuongCoBan(double luongCoBan) {

if (luongCoBan > 0) {

this.luongCoBan = luongCoBan;

}

}

public double getLuongCoBan(double luongCoBan) {

return this.luongCoBan;

}

public void setHeSoLuong(double HSL) {

if (HSL > 0) {

this.heSoLuong = HSL;

}

}

public double getHeSoLuong(double HSL) {

return this.heSoLuong = HSL;

}

public void setLuongMax(double LMAX) {

if (LMAX > 0) {

this.Luong\_Max = LMAX;

}

}

public double getLuong\_Max(double LMAX) {

return this.Luong\_Max = LMAX;

}

public double tinhLuong() {

return this.luongCoBan \* this.heSoLuong;

}

boolean tangLuong(double heSoLuong) {

if (heSoLuong \* this.luongCoBan > this.Luong\_Max) {

System.out.println("Không cho phép thay đổi mức lương này");

return false;

}

return true;

}

public void inTTin() {

System.out.println("Ho va ten : " + this.tenNhanVien);

System.out.println("Luong co ban : " + this.luongCoBan);

System.out.println("He so luong : " + this.heSoLuong);

System.out.println("Luong : " + tinhLuong());

System.out.println("Luong toi da cho phep : " + this.Luong\_Max);

System.out.println("Co duoc tang luong khong : " + tangLuong(20));

}

}