ا**لسؤال ال2:A)** public class Time {

private int hour;

private int minute;

public Time() {

hour = 0;

minute = 0;

}

}

**B)** private boolean isValid(int hour, int minute) {

return (hour >= 0 && hour <= 23) && (minute >= 0 && minute <= 59);

}

**C)** public void setTime(int hour, int minute) {

if (isValid(hour, minute)) {

this.hour = hour;

this.minute = minute;

}

}

**D)**public void setTime(int hour, int minute, boolean isAm) {

if (hour >= 1 && hour <= 12 && isValid(hour + (isAm ? 0 : 12), minute)) {

this.hour = hour + (isAm ? 0 : 12);

this.minute = minute;

}

}

**السؤال ال7**

public class Temperature {

private float degrees;

private char scale;

public Temperature() {

degrees = 0.0f;

scale = 'C';}

public Temperature(float degrees) {

this.degrees = degrees;

scale = 'C';}

public Temperature(char scale) {

degrees = 0.0f;

this.scale = scale;}

public Temperature(float degrees, char scale) {

this.degrees = degrees;

this.scale = scale;}

public float getCelsius() {

if (scale == 'F') {

return (degrees - 32) \* 5 / 9;}

return degrees;}

public float getFahrenheit() {

if (scale == 'C') {

return degrees \* 9 / 5 + 32;}

return degrees;}

public void setDegrees(float degrees) {

this.degrees = degrees;}

public void setScale(char scale) {

this.scale = scale;}

public void setTemperature(float degrees, char scale) {

this.degrees = degrees;

this.scale = scale;}

public boolean equals(Temperature other) {

return (getCelsius() == other.getCelsius());}

public boolean greaterThan(Temperature other) {

return (getCelsius() > other.getCelsius());}

public boolean lessThan(Temperature other) {

return (getCelsius() < other.getCelsius());

}}

**السؤال ال11**

public class Android {

private static int tag = 1;

private String name;

public Android() {

this.name = "Bob" + tag;

changeTag();}

public String getName() {

return this.name;}

private static boolean isPrime(int n) {

if (n <= 1) {

return false;}

for (int i = 2; i < n; i++) {

if (n % i == 0) {

return false;}}

return true;}

private static void changeTag() {

while (!isPrime(tag)) {

tag++;

}

tag++;

}

}

}

**السؤال ال12:**

public class TestAndroid {

public static void main(String[] args) {

for (int i = 0; i < 5; i++) {

Android android = new Android();

System.out.println(android.getName());

}}}

**السؤال ال9:**

public class RationalNumber {

private int numerator;

private int denominator;

public RationalNumber (){

numerator = 0 ;

denominator = 1 ;}

public RationalNumber(int numerator , int denominator){

simplify( numerator ,denominator);}

public static int getGCD(int x , int y) {

int min = Math.min(x, y);

for(int j =min; j>=2; j--){

if(x%j==0&& y%j==0){

return j ;}

}return 1;}

public void simplify(int numerator , int denominator){

int gcd = getGCD( numerator ,denominator);

this.numerator=numerator/gcd;

this.denominator=denominator/gcd;}

public String toSting(){

return this.numerator+"/"+this.denominator;}

public RationalNumber add (RationalNumber r){

int newNumerator=(this.numerator\*r.denominator)+(r.numerator\*this.denominator);

int newDenominator=(this.denominator\*r.denominator);

RationalNumber w = new RationalNumber(newNumerator , newDenominator);

return w; }

public int getNumerator() {

return numerator;}

public void setNumerator(int numerator) {

this.numerator = numerator;}

public int getDenominator() {

return denominator;}

public void setDenominator(int denominator) {

this.denominator = denominator;

}