

The code is :

```
class Face implements Cloneable {
private int eyes, noses, mouths;
////////////////////////////////////
// Helping functions
////////////////////////////////////
private void trace(String s){
    System.out.println(s);
}
////////////////////////////////////
// Manager function
////////////////////////////////////
// Constructor
// Either one is fine
public Face(int e, int n, int m) { eyes = e; noses = n; mouths = m;}
////////////////////////////////////
// Access function
////////////////////////////////////
public int getEyes() { return eyes; }
public int getNoses() { return noses; }
public int getMouths() { return mouths; }
// Either one is fine
public void setEyes(int e) { eyes = e; }
public void setNoses(int n) { noses = n; }
public void setMouths(int m) { mouths = m; }
// predicate
// This is wrong
public boolean isNormal() { return eyes == 2 && noses == 1 && mouths == 1; }
////////////////////////////////////
// Implementor function
////////////////////////////////////
public void convertToNormal(){
    this.setEyes(2);
    this.setNoses(1);
    this.setMouths(1);
}

public Object clone() {
    try
    {
        return super.clone();
    }
}
```

```

        catch (CloneNotSupportedException e)
        {
            return null;
        }
    }
    public boolean equals(Object obj) {
        Face nor;
        if (!(obj instanceof Face)) return false;
        nor = (Face) obj;
        return (eyes == nor.eyes && noses == nor.noses && mouths == nor.mouths);
    }
    public String toString(){
        return ("\nEyes = " + eyes + "\n" + "Noses = " + noses + "\n" + "Mouths = " + mouths + "\n");
    }

}

```

```

public class TestFace {
    public static void main(String args[]) {
        //create 3 objects
        Face f=new Face(2 , 2, 1);
        Face f1=new Face(2, 1, 1);
        Face f2=(Face)f.clone();
        System.out.println("first face : " +f);
        System.out.println("second face : " +f1);
        System.out.println("third face : " +f2);
        //check
        if (f.equals(f1))
            System.out.println("first face equals to second face \n");
        else
            System.out.println("first face not equals to second face \n");

        if (f.equals(f2))
            System.out.println("first face equals to third face \n");
        else
            System.out.println("first face not equals to third face \n");
        //convert f1 into a normal one
        f.convertToNormal();
        System.out.println("after convert to normal " + f);
        //check
        if (f.isNormal())
            System.out.println("first face is normal");
        else

```

```
System.out.println("first face is not normal");
```

```
if (f.equals(f1))
```

```
System.out.println("first face equals to second face");
```

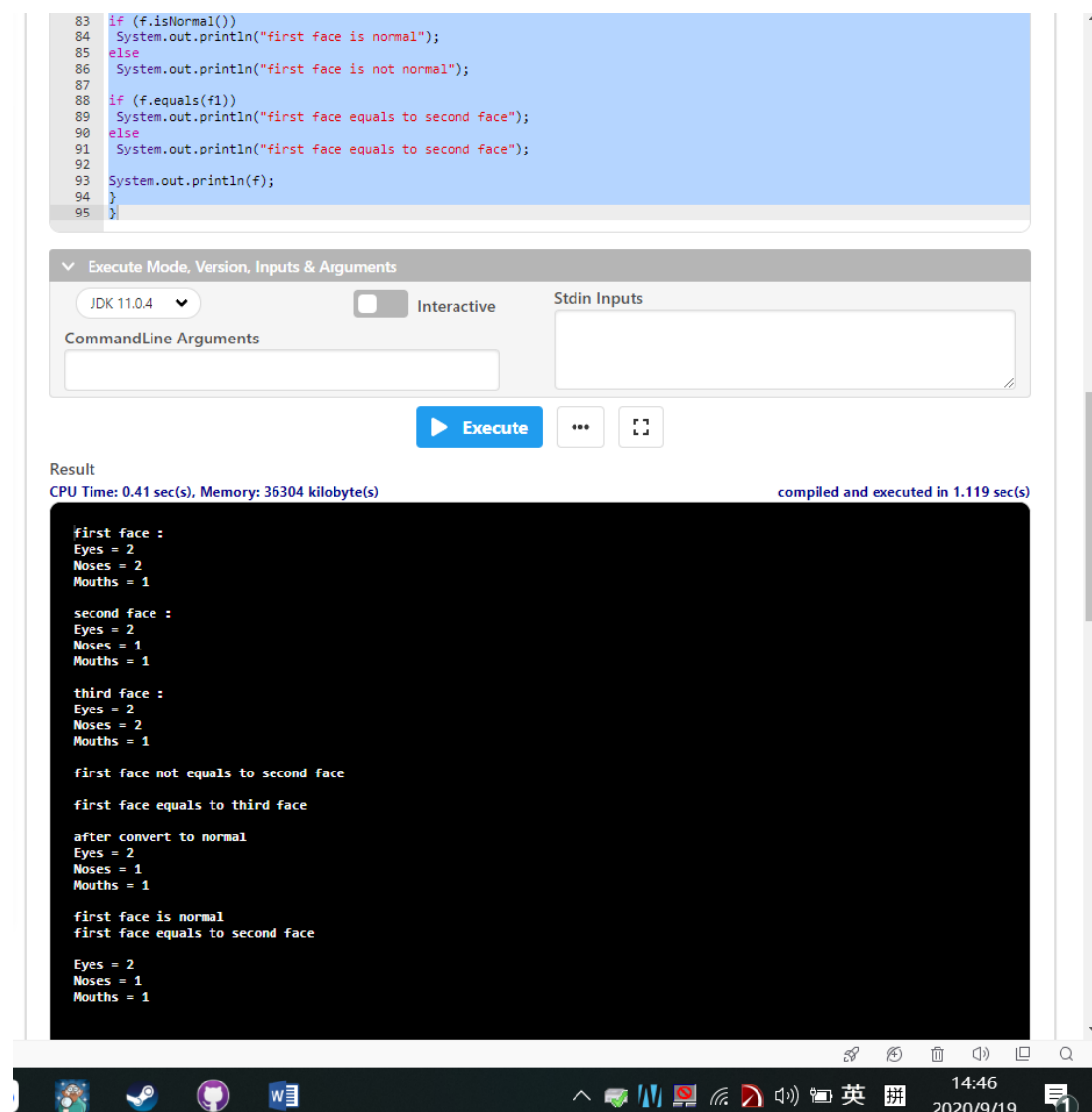
```
else
```

```
System.out.println("first face equals to second face");
```

```
System.out.println(f);
```

```
}
```

```
}
```



The screenshot shows an IDE window with a Java code editor at the top and an execution panel below. The code in the editor is as follows:

```
83 if (f.isNormal())
84     System.out.println("first face is normal");
85 else
86     System.out.println("first face is not normal");
87
88 if (f.equals(f1))
89     System.out.println("first face equals to second face");
90 else
91     System.out.println("first face equals to second face");
92
93 System.out.println(f);
94 }
95 }
```

Below the code editor, the 'Execute Mode, Version, Inputs & Arguments' panel is visible. It shows 'JDK 11.0.4' selected, an 'Interactive' checkbox, and empty fields for 'Stdin Inputs' and 'CommandLine Arguments'. An 'Execute' button is present.

The 'Result' panel below shows the output of the program execution. It includes performance metrics: 'CPU Time: 0.41 sec(s), Memory: 36304 kilobyte(s)' and 'compiled and executed in 1.119 sec(s)'. The output text is as follows:

```
first face :
Eyes = 2
Noses = 2
Mouths = 1

second face :
Eyes = 2
Noses = 1
Mouths = 1

third face :
Eyes = 2
Noses = 2
Mouths = 1

first face not equals to second face

first face equals to third face

after convert to normal
Eyes = 2
Noses = 1
Mouths = 1

first face is normal
first face equals to second face

Eyes = 2
Noses = 1
Mouths = 1
```

The bottom of the image shows a Windows taskbar with various icons and a system clock displaying '14:46' and '2020/9/19'.