1. What gets printed by the following program?

1. What is the output of the following code fragment?

```java
int num1 = 5; int num2 = 4;
if (num1 >= num2) {
    System.out.println("red");
    System.out.println("orange");
} else {
    System.out.println("white");
    System.out.println("yellow");
}
else {
    System.out.println("black");
    System.out.println("blue");
}
else {
    System.out.println("yellow");
    System.out.println("green");
}
```

**Output**

```
red
orange
white
yellow
```

2. Complete the following Java code fragment to print a message based on the value of the `int` variable named `temperature`. If `temperature` is less than or equal to 50, it prints “it is cool”. If `temperature` is greater than or equal to 80, it prints “It is warm. If `temperature` is between 50 and 80, it prints “it is pleasant.”. (use back of this page if needed)

```java
Scanner scan = new Scanner(System.in);
System.out.print("Please enter current temperature");
int temperature = scan.nextInt();
if (temperature <= 50)
    System.out.println("It is cool");
else if (temperature < 80)
    System.out.println("It is pleasant");
else
    System.out.println("It is warm");
// NB: there are many possible correct answers
```
1. What gets printed by the following program?

1. **What is the output of the following code fragment?**

```java
int num1 = 5; int num2 = 14;
if (num1 >= num2)
{
    System.out.println("red");
    System.out.print ("orange");
}
if ((num1 + 5) >= num2)
    System.out.println ("white");
else
    if ((num1 + 10) >= num2)
        { System.out.println ("black");
            System.out.println ("blue");
        }
    else
        System.out.println( "yellow");
System.out.println("green");
```

**Output**

```
black
blue
green
```

2. For each of the following Java code fragments, mark the error and show how to correct it. What do you need to do to fix it so that it works as appears to be intended?

a) 
```java
if (value = 0)
    System.out.print ("Right!");
```

- **= instead of ==**

b) 
```java
if (value > 0)
    System.out.print ("Right!");
```

- remove ; from here

c) 
```java
if (value > 0)
    System.out.print ("Right!");
    System.out.println(" value is positive");
```

- **Only one of the print statements will execute when value>0**
- Use braces around them.