

Once upon a time, there was a program that took **two** integers (**a** and **b**) as input from the user. The program performed different operations based on the values of **a** and **b**.

If **a** was greater than **100** and **b** was greater than **10**, the program printed **a is above 100 and b is above 10**. If this condition was not satisfied, the program checked if **a** was greater than **50** and **b** was greater than **50**. In which case it printed **a is above 50 and b is above 50**. If this condition also didn't match, the program checked if **a** was greater than **20** and **b** was greater than **100**, and printed **a is above 20 and b is above 100** if this condition was met. If none of these conditions were met, the program simply printed **None**.

Would you like to write a program that performs these operations using your programming skills?

Input Format

For each test case, you will get

Value of **a** as an integer input, in the first line

Value of **b** as an integer input, in the second line

Constraints

-2\*31 <= a , b <= 2\*31-1

Output Format

Print the string according to the condition satisfied.

Sample Input 0

128  
11

Sample Output 0

a is above 100 and b is above 10

a , b  
if (a > 100 && b > 10) {  
    System.out.println("a is above 100 and b is above 10");  
} else if (a > 50 && b > 50) {  
    System.out.println("a is above 50 and b is above 50");  
} else if (a > 20 && b > 100) {  
    System.out.println("a is above 20 and b is above 100");  
} else {  
    System.out.println("None");  
}

Submitted Code

```
Language: Java 8
1 import java.io.*;
2 import java.util.*;
3
4 public class Solution {
5
6     public static void main(String[] args) {
7         Scanner sc = new Scanner(System.in);
8         int experience = sc.nextInt();
9         int salary = sc.nextInt();
10        int rank = sc.nextInt();
11        if(experience >= 10 || salary >= 50000 || rank >= 10) System.out.print("You are in top management");
12        else System.out.print("You are not in top management");
13    }
14 }
```

Take in **experience**, **salary** and **rank** as integer inputs, then

a. If **experience** is greater than or equal to **10** years or the **salary** is greater than or equal to **50,000** or **rank** is greater than or equal to **10**, then print **You are in top management**

b. Else print **You are not in top management**

Input Format

For each test case, you will get

**Experience** in the first line as an integer input,

**Salary** in the second line as an integer input,

**Rank** in the third line as an integer input.

Constraints

0 <= experience , salary , age <= 2\*31-1

Output Format

Print the string **You are in top management** or **You are not in top management** according to the conditions given in the problem statement.

Sample Input 0

11  
40000  
9

Submitted Code

```
Language: Java 8
1 import java.io.*;
2 import java.util.*;
3
4 public class Solution {
5
6     public static void main(String[] args) {
7         Scanner sc = new Scanner(System.in);
8         int a=sc.nextInt();
9         int b=sc.nextInt();
10
11        if(a>100 && b>10) System.out.print("a is above 100 and b is above 10");
12        else if(a>50 && b>50) System.out.print("a is above 50 and b is above 50");
13        else if(a>20 && b>100) System.out.print("a is above 20 and b is above 100");
14        else System.out.print("None");
15    }
16 }
```

Take in **marks** and **rank** of a student as an integer input, and follow these conditions below in the stepwise manner, which is if the condition given before fails only then move on to the next condition, otherwise don't

- If **marks** are below 20 or **rank** is above 100, print **Needs improvement**
- Or If **marks** are below 40 or **rank** is above 80, print **Concentrate**
- Or If **marks** are below 60 or **rank** is above 120, print **Needs to focus**
- Or if **marks** are above 100 or **rank** is below 10, print **Very good**
- If none of the above condition follows, print **Bright Student**

#### Input Format

For each test case, you will be given

**Marks** of a student as an integer input in the first line,

**Rank** of the student as an integer input in the second line.

#### Constraints

```
0 <= marks , rank <= 2^31-1
```

#### Output Format

Print the string according to the conditions given.

#### Sample Input 0

```
15
90
```

#### Sample Output 0

```
Needs improvement
```

```
if(m < 20 || r > 100)
else if(m < 40 || r > 80)
else if(m < 60 || r > 120)
else if(m > 100 || r < 10)
else
```

## Submitted Code

Language: Java 8

```
1 import java.io.*;
2 import java.util.*;
3
4 public class Solution {
5
6     public static void main(String[] args) {
7         Scanner sc = new Scanner(System.in);
8         int marks = sc.nextInt();
9         int rank = sc.nextInt();
10
11         if(marks<20 || rank >100)System.out.print("Needs improvement");
12         else if(marks<40 || rank >80)System.out.print("Concentrate");
13         else if(marks<60 || rank >120)System.out.print("Needs to focus");
14         else if(marks >100 || rank <10)System.out.print("Very good");
15         else System.out.print("Bright Student");
16     }
17 }
```

Write a Java program that prompts the user to enter a number between **1** and **7** (inclusive) that represents a **day** of the **week**. The program should then use a **switch** statement to output the corresponding name of the day of the week.

for **1** output is **Monday** , for **2** output is **Tuesday** and so on.

**Input Format**

Take input N form the user.

**Constraints**

```
1 <= N <= 7
```

**Output Format**

Print the desired output.

```
1 import java.io.*;
2 import java.util.*;
3
4 public class Solution {
5
6     public static void main(String[] args) {
7         Scanner sc = new Scanner(System.in);
8         int day= sc.nextInt();
9         switch(day){
10             case 1:
11                 System.out.print("Monday");
12                 break;
13             case 2:
14                 System.out.print("Tuesday");
15                 break;
16             case 3:
17                 System.out.print("Wednesday");
18                 break;
19             case 4:
20                 System.out.print("Thursday");
21                 break;
22             case 5:
23                 System.out.print("Friday");
24                 break;
25             case 6:
26                 System.out.print("Saturday");
27                 break;
28             case 7:
29                 System.out.print("Sunday");
30                 break;
31
32         }
33     }
34 }
35 }
```

Write a program that prompts the user to enter a **month** number (1-12) and uses a **switch** statement to display the name of the corresponding **month**. If the user enters an invalid number, the program should print **Invalid Number**.

for 1 print **January** , for 2 print **February** and so on.

### Input Format

Take integer **N** as an input.

### Constraints

```
0 <= N <= 100
```

### Output Format

Print the desired output.

```
1 import java.io.*;
2 import java.util.*;
3
4 public class Solution {
5
6     public static void main(String[] args) {
7         Scanner sc = new Scanner(System.in);
8         int month = sc.nextInt();
9
10        switch(month){
11            case 1:
12                System.out.print("January");
13                break;
14            case 2:
15                System.out.print("February");
16                break;
17            case 3:
18                System.out.print("March");
19                break;
20            case 4:
21                System.out.print("April");
22                break;
23            case 5:
24                System.out.print("May");
25                break;
26            case 6:
27                System.out.print("June");
28                break;
29            case 7:
30                System.out.print("July");
31                break;
32            case 8:
33                System.out.print("August");
34                break;
35            case 9:
36                System.out.print("September");
37                break;
38            case 10:
39                System.out.print("October");
40                break;
41            case 11:
42                System.out.print("November");
43                break;
44            case 12:
45                System.out.print("December");
46                break;
47
48        }
49    }
50 }
51 }
```

## ASCII

Dec = Decimal Value  
Char = Character

'5' has the int value 53  
if we write '5'-'0' it evaluates to 53-48, or the int 5  
if we write char c = 'B'+32; then c stores 'b'

$$A = a \Rightarrow 32$$

$$a = A \Rightarrow -32$$

$$'B' + 32 \Rightarrow b$$

$$b - 32 \Rightarrow B$$

$$Z + 32 \Rightarrow z$$

$$z - 32 \Rightarrow Z$$

```
if (ch >= 'a' && ch <= 'w') {  
    char ans = (char)(ch + 3);  
}
```

$$ch = 'd' (100)$$

$$= 'd' + 3 \Rightarrow 100 + 3 \Rightarrow 103$$

$$\text{char ans} = (\text{char})(ch + 3)$$

$$ans = 'g' \checkmark$$

## Nested if else

if (---) {

if (---) {

}

else {

}

}