High Sum or Low Sum

You will get two integer inputs x and y, you need to print "High Sum" if sum is greater than or equal to 100, and print "Low Sum" otherwise.

Sample Input 0

```
40
70
```

Sample Output 0

```
High Sum
```

i/p $\begin{cases} x \\ y \end{cases}$

$x + y >= 100$

```java
1  import java.io.*;
2  import java.util.*;
3
4  public class Solution {
5
6      public static void main(String[] args) {
7          Scanner scn = new Scanner(System.in);
8          int x = scn.nextInt();
9          int y = scn.nextInt();
10
11         int sum = x + y;
12
13         if(sum >= 100){
14             System.out.println("High Sum");
15         }else{
16             System.out.println("Low Sum");
17         }
18     }
19 }
```

Conditonal   Statements   ⌠ → multiple conditions.

(if) (else.)   (else if)   ⌡

Que → ⌠ one   ∩
       ⎰ ═══   1
       ⎱ two   2
       ⌡ not 1 & 2   anything else

Task

i/p → ⌐(n)   n == 1   ⟶ one   ⌐
       ⌊   n == 2   ⟶ two   ⎱
               n anythingelse → not1 & 2.   ⌡

```java
import java.util.*;
public class Main
{
    public static void main(String[] args) {
        Scanner scn = new Scanner(System.in);
        int n = scn.nextInt();

        if(n == 1){
            System.out.println("one");
        }else if(n == 2){
            System.out.println("Two");
        }
        else{
            System.out.println("not one and two");
        }

    }
}
```

*   if — else if — else — (ladder)

n i/p (n)

$1 \rightarrow$ one

$2 \rightarrow$ two

$3 \rightarrow$ three

$4 \rightarrow$ four

$5 \rightarrow$ five

anything else $\rightarrow$ don't know

```java
public class Main
{
    public static void main(String[] args) {
        Scanner scn = new Scanner(System.in);
        int n = scn.nextInt();

        if(n == 1){
            System.out.println("one");
        }else if(n == 2){
            System.out.println("Two");
        }else if(n == 3){
            System.out.println("three");
        }else if(n == 4){
            System.out.println("four");
        }else if(n == 5){
            System.out.println("five");
        }
        else{
            System.out.println("don't know");
        }

    }
}
```

```java
public class Main
{
    public static void main(String[] args) {
        Scanner scn = new Scanner(System.in);
        int n = scn.nextInt();

        if(n == 1){
            System.out.println("one");
        }else if(n == 2){
            System.out.println("Two");
        }else if(n == 3){
            System.out.println("three");
        }else if(n == 4){
            System.out.println("four");
        }else if(n == 5){
            System.out.println("five");
        }
        else{
            System.out.println("don't know");
        }

    }
}
```

multiple else if → (Yes)

can you use only else → (NO)

can you use only else if → (NO)

can you use only (if) * → (Yes)

Can we use two if - ?

```java
import java.util.*;
public class Main
{
    public static void main(String[] args) {
        Scanner scn = new Scanner(System.in);
        int n = scn.nextInt();

        if(n < 10){
            System.out.println("Less than 10");
        }
        if(n == 2){
            System.out.println("Two");
        }else{
            System.out.println("DOn't know");
        }

    }
}
```

Less than 10
Two

Grade the student 1

You are given marks of a student as an integer input. You need to print according to the following rules: 1 for marks above 90, print excellent. 2 for marks above 80 and less than equal to 90, print good. 3 for marks above 70 and less than equal to 80, print fair. 4 for marks above 60 and less than equal to 70, print meets expectations. 5 for marks above 40 and less than equal to 60, print below par. 6 print failed if none of the above conditions follow.

Sample Input 0

92

Sample Output 0

excellent

i/p { marks

1. marks >90
   excellent.

2. marks >80   marks ≤90
   good.

3.   >70   ≤ 80 → fair

4.   >60   ≤ 70 → meets expect...

5.   >40   ≤ 60   below par

6.   else   failed.

```java
1  import java.io.*;
2  import java.util.*;
3
4  public class Solution {
5
6      public static void main(String[] args) {
7          Scanner scn = new Scanner(System.in);
8          int marks = scn.nextInt();
9
10         if(marks > 90){
11             System.out.println("excellent");
12         }else if(marks > 80){
13             System.out.println("good");
14         }else if(marks > 70){
15              System.out.println("fair");
16         }else if(marks > 60){
17             System.out.println("meets expectations");
18         }else if(marks > 40){
19             System.out.println("below par");
20         }else{
21             System.out.println("failed");
22         }
23     }
24 }
```

Print Bonus

Problem	Submissions	Leaderboard	Discussions

The bonus in a company is given by Bonus= Salary * (5 / 100). A company decided to give a bonus of 5% to employees if his/her years of service is more than 5 years. Ask user for their salary and year of service and print the net bonus amount. If the years of service is less than or equal to 5, print 0, otherwise print Bonus calculated.

$$Bonus = Sal * \left(\frac{5}{100}\right)$$

$$yos > 5$$

Sample Input 0

```
20000
6
```

i/p { Sal
      yos

if → yos > 5
        ↳ 5%

else   yos ≤ 5
          ↳ 0

Sample Output 0

```
1000
```

```java
1  import java.io.*;
2  import java.util.*;
3
4  public class Solution {
5
6      public static void main(String[] args) {
7          Scanner scn = new Scanner(System.in);
8          int sal = scn.nextInt();
9          int yos = scn.nextInt();
10
11         if(yos > 5){
12             System.out.println((sal*5)/100);
13         }else{
14             System.out.println("0");
15         }
16
17     }
18 }
```
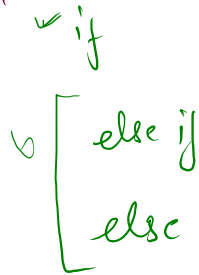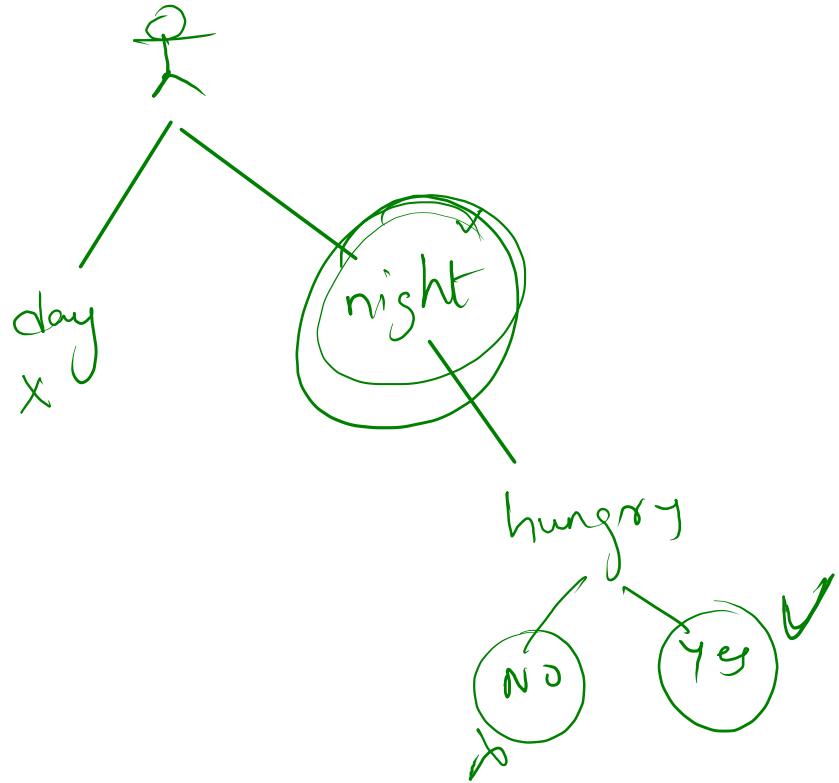
Nested if-else.

```
if(          )
{
    if
    [ else if
    [ else

}
else {  if
    [ else if
    [ else
}
```

if (day) ⟶ nothing
else ⟶ eat

he will eat only
in night & only if
he is hungry.

day
X

night

hungry

NO
∅

Yes
✓

Print the oldest among three

There are three friends **A , B , C**. You will be given the **ages** of these three friends as an integer input, you have to print **the same of the oldest friend among them.**

eg1.

$$A \quad B \quad C$$

i/p { 10 20 30

eg2:

$$A \quad B \quad C$$
$$7 \quad 18 \quad 6$$

ans = ?

B

C

A B C

3 8 1

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 scn = new Scanner(System.in);
8          int A = scn.nextInt();
9          int B = scn.nextInt();
10         int C = scn.nextInt();
11
12         if(A > B){
13             if(A > C){
14                 System.out.println("A");
15             }else{
16                 System.out.println("C");
17             }
18         }else{   //else -> A cannot be the answer
19             if(B > C){
20                 System.out.println("B");
21             }else{
22                 System.out.println("C");
23             }
24         }
25
26     }
27 }
```

dry run .

pen paper

5 7 3

2 9 1

6 7 2

$$= \left(200 \times \left(\frac{5}{100} \right) \right)$$

[0.05

5 × 2

$$200 \times 0 = 0$$

$$\frac{1000}{100} = 100$$