

## Nested if-else

Syntax

①  $\text{if}(\text{True}) \{$   
    ①.1  $\text{if}(T) \{$   
         $\text{else} \{$   
             $\text{else} \{$

$\text{if}(T) \{$   
     $\text{else} \{ \text{if}(T) \{$   
         $\text{else} \{ \text{if}(T) \{$   
             $\vdots$   
             $\text{else} \{$   
             $\vdots$

Ex:  $x = 24$

1.)  $\text{if}$  it is even  
     $\hookrightarrow$   $\text{if}$  it is divisible by 6  
        ( divisible by 6 )  
     $\text{else}$   
        ( not divisible by 6 )

$\text{if}$  it is odd  
     $\hookrightarrow$   $\text{if}$  it is divisible by 3  
        ( divisible by 3 )  
     $\text{else}$   
        not divisible by 3.

$n = 24$

$n = 21$

③ Real  
① previous

```

if (n % 2 == 0) {
    if (n % 6 == 0) {
        sys ("divisible by 6");
    }
    else {
        sys ("not divisible by 6");
    }
}
else {
    if (n % 3 == 0) {
        sys ("divisible by 3");
    }
    else {
        sys ("not divisible by 3");
    }
}

```

Take the **age** and **salary** of a person as an integer input,

- ↳ If the **age** is **above 40** then
- ✓ a. If the **salary** is greater than or equal to 30,000 then print You are rich and adult
  - ✓ b. Else print You are an adult

↳ Else if **age** is less than or equal to 40

- ✓ a. If the **salary** is greater than or equal to 12,000, then print **You are rich and young**
- ✓ b. Else print **You are young**

✓ b. Else print You are young

age = 50  
salary = 31000

```
if (age > 40) {  
    if (salary >= 30000) {  
        "you are rich & adult";  
    }  
    else {  
        "you are adult";  
    }  
} else {  
    if (salary >= 12000) {  
        "you are rich & young";  
    }  
    else {  
        "you are young";  
    }  
}
```

example 5

```
marks > 40  
if (pass) {  
    if (marks > 80) {  
        if (marks > 95) {  
            "medical";  
        }  
        else {  
            "engineering (in)";  
        }  
    }  
    else {  
        "science stream without maths";  
    }  
} else {  
    "you are failed";  
}
```

nested if else

```
public static void main(String[] args) {  
    Scanner scn = new Scanner(System.in);  
    int age = scn.nextInt();  
    int salary = scn.nextInt();  
  
    if(age>40){  
        if(salary >= 30000){  
            System.out.println("You are rich and adult");  
        }else{  
            System.out.println("You are an adult");  
        }  
    }else{  
        if(salary >= 12000){  
            System.out.println("You are rich and young");  
        }else{  
            System.out.println("You are young");  
        }  
    }  
}
```

Qw

Oldest one

$a = 10, b = 20, c = 30$

✓ if (a < b) {

if (c < b) {  
    sys("B");  
}  
else {  
    sys("C");  
}

✓ else if (b < c) {  
    if (a < c) {  
        sys("C");  
    }  
    else {  
        sys("A");  
    }  
}

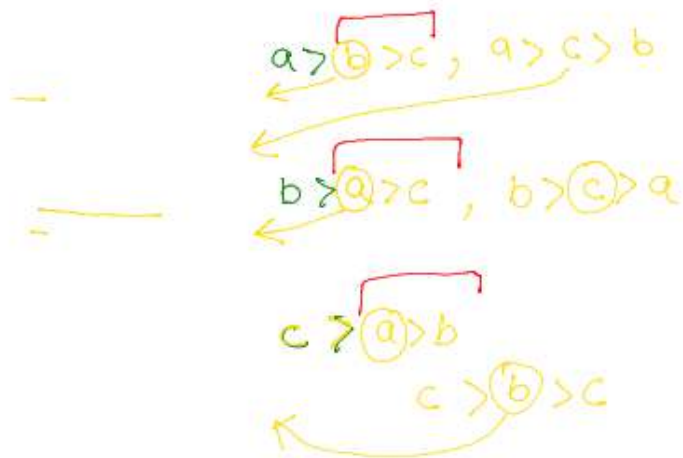
✓ else {

    sys("A");  
}

^

Q

Runner up.



```

public class Solution {

    public static void main(String[] args) {

        Scanner scn = new Scanner(System.in);
        int a = scn.nextInt(); //120
        int b = scn.nextInt();
        int c = scn.nextInt();

        if(a>b && a>c){
            if(b>c){
                System.out.println(b);
            }else{
                System.out.println(c);
            }
        }else if(b>c && b>a){
            if(a>c){
                System.out.println(a);
            }else{
                System.out.println(c);
            }
        }else{
            if(a>b){
                System.out.println(a);
            }else{
                System.out.println(b);
            }
        }
    }

    /* Enter your code here. Read input from STDIN. Print output to STDOUT. Your cl

```