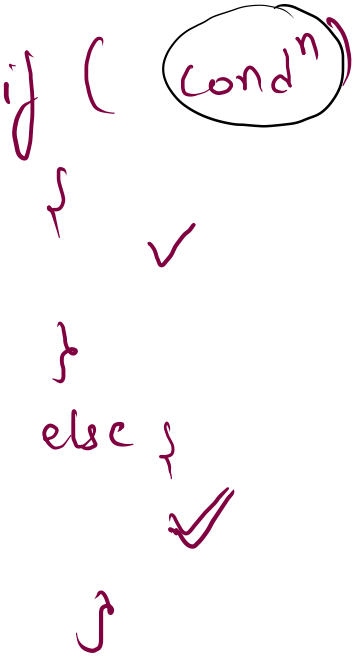
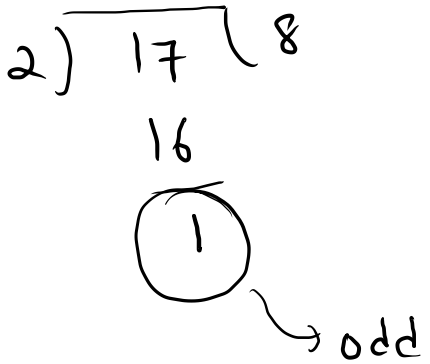
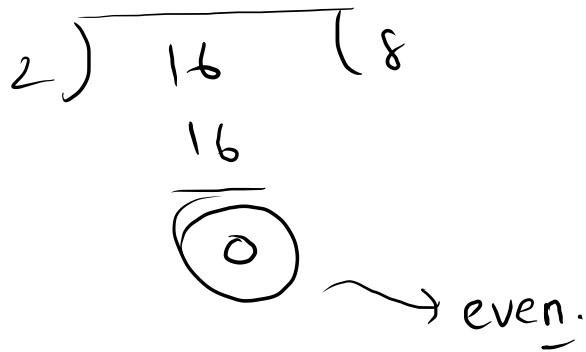
Conditional Statements.

↳ if - else



even - odd.





$29 \% 6 = ?$

$32 \% 6 = 2$

$100 \% 6 = 4$

5

$[0 - 6)$

0 1 2 3 4 5

$29 / 6 = (24/6) + 5$

$30 / 6 = 30/6 + 0$

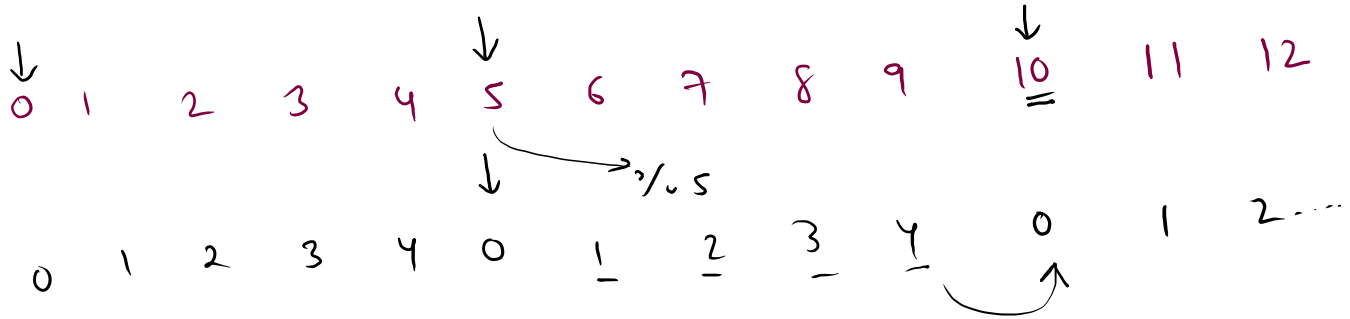
$24 \% 5 = 4$

$21 \% 5 = 1$

$[0 \text{ ---- } 4]$

0 1 2 3 4

$[0 \quad 4]$



$5 \overline{)75} (15$

5

22

20

0

0, 1, 2, 3, 4

$p \% q \quad (q != 0)$

↳ ans $[0, 1, 2 \cdots, q-1]$

0 1 2 3 4 5 6 7 8 9

%2

0 1 0 1 0 1 0 1 0 1

Even or not

You have to take an integer as input and print True if it is an even number and False otherwise.

Sample Input 0

```
22
```

Sample Output 0

```
True
```

eg. 16 → True

eg. 17 → False

eg. 27 → False.

1. i/p ⇒ x
2. x % 2 == 0 → True
   == 1 → False

```java
import java.io.*;
import java.util.*;

public class Solution {

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

        if(n % 2 == 0){
            System.out.println("True");
        }
        else{
            System.out.println("False");
        }


    }
}
```

Adult or not 1

Problem | Submissions | Leaderboard | Discussions

You will be given the age of a person as an integer input, you need to print "Adult" if the age is greater than or equal to 18 and print "Below age" if the age is below 18.

Sample Input 0

```
20
```

Sample Output 0

```
Adult
```

1. i/p { age

2. if(age ≥ 18)
   ↳ Adult.

else {
    "Below age";
}

```java
import java.io.*;
import java.util.*;

public class Solution {

    public static void main(String[] args) {
        Scanner scn = new Scanner(System.in);
        int age = scn.nextInt();

        if(age >= 18){
            System.out.println("Adult");
        }
        else{
            System.out.println("Below age");
        }
    }
}
```

Shop Discount

Problem | Submissions | Leaderboard | Discussions

A shop will give a discount of 10% on the total cost if the cost of the quantity purchased is more than 1000 a. Ask user for the number of units b. Suppose one unit will cost 100 c. Judge and print total cost for the user in the integer format.

Sample Input 0

```
15
```

Sample Output 0

```
1350
```

Sample Input 1

```
10
```

Sample Output 1

```
1000
```

```java
import java.io.*;
import java.util.*;

public class Solution {

    public static void main(String[] args) {
        Scanner scn = new Scanner(System.in);
        int units = scn.nextInt();
        int tcost = units * 100;

        if(tcost > 1000){   //discount
            int discount = (10 * tcost/ 100);
            System.out.println(tcost - discount);
        }else{
            System.out.println(tcost);
        }

    }
}
```

High Sum or Low Sum

Problem | Submissions | Leaderboard | Discussions

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
```

4-5 code

1. i/p { x ✓ y ✓

2. x+y ≥ 100 → HS
   else → LS

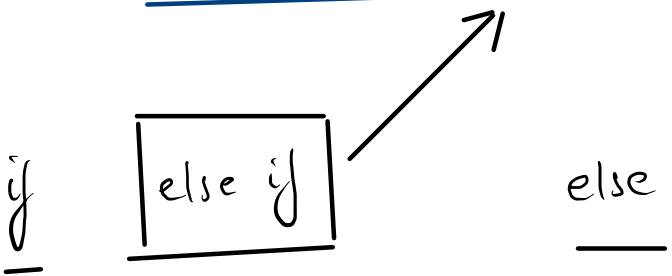
?

```java
import java.io.*;
import java.util.*;

public class Solution {

    public static void main(String[] args) {
        Scanner scn = new Scanner(System.in);
        int x = scn.nextInt();
        int y = scn.nextInt();

        if(x + y >= 100){
            System.out.println("High Sum");
        }
        else{
            System.out.println("Low Sum");
        }
    }
}
```

if without else ✓

else without if ✗

We need multiple condition.




```java
public static void main(String[] args) {
    int n = 36;

    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{
        System.out.println("something else");
    }
```

```
something else
```

* Can we use multiple else if → Yes
* Can we use multiple if → Yes.
* Can we use multiple else

```java
public class Main
{
    public static void main(String[] args) {
        int n = 1;

        if(n == 1){
            System.out.println("one");
        }
        if(n < 10){
            System.out.println("less than 10");
        }
        else{
            System.out.println("blank");
        }

    }
```

One

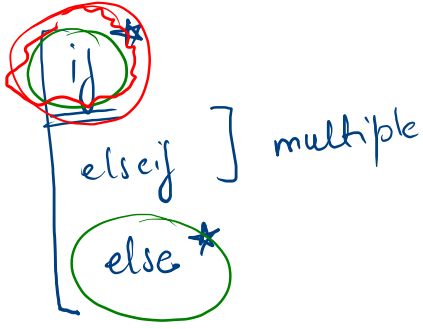
one
less than 10

less than 10

Main.java

```java
public class Main
{
    public static void main(String[] args) {
        int n = 1;

        if(n == 1){
            System.out.println("one");
        }
        else if(n < 10){
            System.out.println("less than 10");
        }
        else{
            System.out.println("blank");
        }


    }
```

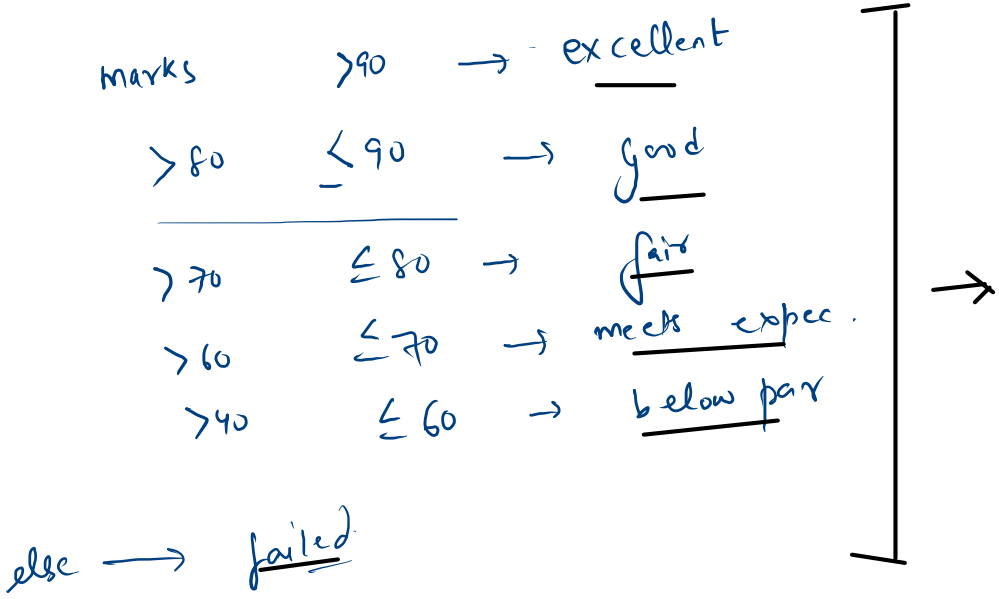
```java
public class Main
{
    public static void main(String[] args) {
        int n = 1;

        if(n == 1){
            System.out.println("one");
        }
        if(n < 10){
            System.out.println("less than 10");
        }
        else{
            System.out.println("blank");
        }


    }
```



Grade the student 1

Problem | Submissions | Leaderboard | Discussions

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
```

```java
public class Solution {

    public static void main(String[] args) {
        Scanner scn = new Scanner(System.in);
        int marks = scn.nextInt();

        if(marks > 90){
            System.out.println("excellent");
        }
        else if(marks > 80){
            System.out.println("good");
        }
        else if(marks > 70){
            System.out.println("fair");
        }
        else if(marks > 60){
            System.out.println("meets expectations");
        }
         else if(marks > 40){
            System.out.println("below par");
        }
        else{
            System.out.println("failed");
        }

    }
}
```