Assignment - 1

① Even or odd

1) Take the no. From user
2) check it it even or odd
   (no%2 == 0)
   ↓
   Even
3) end

start
↓
Enter No
↓
no%2 == 0 ——→ odd
↓
even
↓
End.

② Factorial No

1) Start
2) Enter the number
3) calculate Factorial
   Fact = no * Fact
   no--;
4) End

Start
↓
Enter No.
↓
Fact = no * Fact] whi
100
no
↓
Fact
↓
End

③ Recursion

1) Start
2) Take no. From user
3) Rearsim using Fun
4) Print return value
5) End.

start
↓
Enter the no.
↓
Recursion using Fu
↓
Print return valu
↓
End.

4) Swap no.

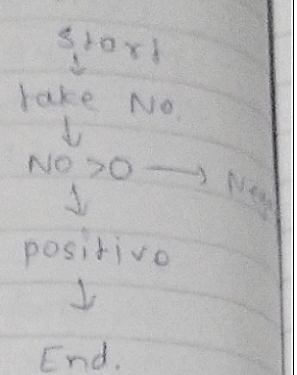
x y
10 20

x = 10+20 = 30 ← x = 30
y = x-y
30-20 = 10 .. y = 10
x = x-y = 30-10 = 20
i.e. = x = x+y
y = x-y

Star
↓
take two no
↓
Swap logic
↓
Display No.
↓
Stop.

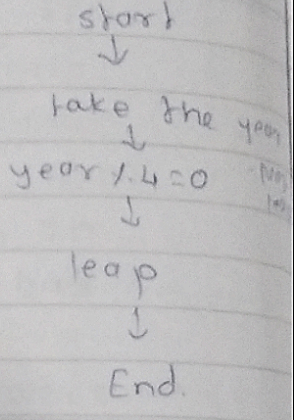
5) How to check whether no is +ve or -ve

1) Start
2) take no from user
   Scan it using Scanner class
3) check no positive or Neg.
   No > 0 Positive
   else Negative
4) Display statement
5) End



6) leap year / Not

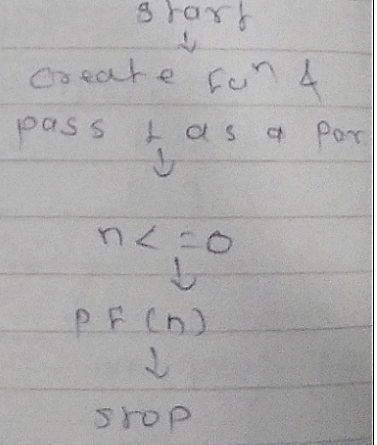
1) Start
2) take year from user
3) check it is leap or Not
   year % 4 == 0
4) Display
5) End



7) Print 1 to 10 without using loop

1) Start
2) print 1 to 10 using printfn
3) end

we can use recursion here



8) Write program to print digit of given no

→ 1) Start
2) Take the no from user (no)
3) No 1 to 10 (print one by one)

4) Display one by one
5) End.

start
↓
take no From user
↓
no % 10
↓
print
↓
stop.

9) print all the Factors of given no.
1) start
2) take no From user
3) no % i == 0 (logic)
4) Display that no
5) End

start
↓
take ng From user
↓
no % i == 0 → Not Factor
↓
print no
↓
End

10) Write a java program to Find sum of digit OF given
1) start
2) take no From user (no)
3) no % 10 = rem
sum = sum + rem
hollo = no
4) print sum
5) End

start.
↓
take no From user
↓
rem = no % 10
sum = sum + rem
no = no/10
↓
print sum
↓
End

11) Smallest of 3 no.
1) start
2) take 3 no From user
3) compare each no. with another
a, b, c.
i) a < b && a < c
a is smaller
b < a && b < c
b is smaller
c < a && c < b
c is Smaller.

start
↓
take 3 no
↓
a < b && a < c
b < a && b <
c < a && c
↓
print No
↓
End.

(12) How to add two no. without using arithmatic op

—> 1) start

2) take two no.

3) Add without arith. oper

4) using For loop;

```
a = 2    b = 6
For (int i = 1; i <= b; i++)
  {
     a++;
  }
stop
```

(13) Write program to reverse a given no.

1) start

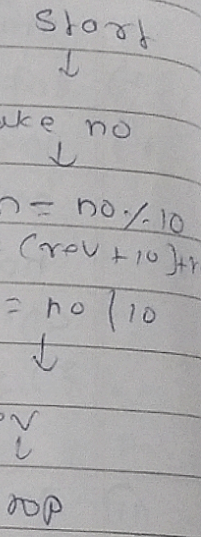
2) take no from user

3) Apply logic

```
rem = no % 10
rev = rev * 10 + rem
no = no / 10
```

4) Print rev

5) stop



(14) Write a Java program to Find GCD of two no.

1) Start.

2) take two no From user

3) check small no. using ternary or IF - else.

(num1 < num ? num1 : num1;

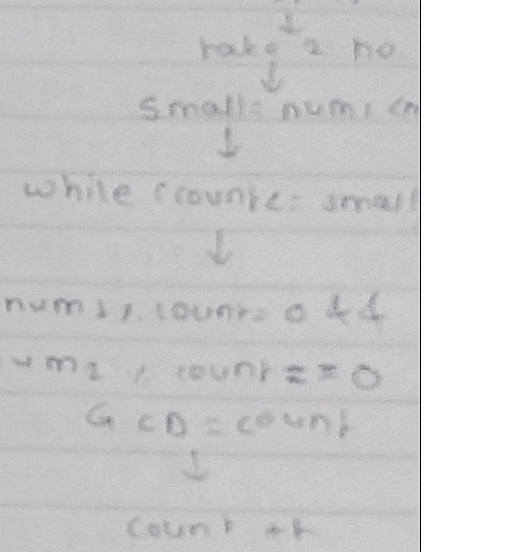
4) Take one count variable set as 1

5) while (count <= num1)

if (num1 % count == 0 && num2 % count == 0) {
GCD = count; }
count ++;
6) Display GCD
7) stop

(15) Write java program to LCM of given no

1) start
2) take two no.
3) LCM = (num1 * num2) / GCD
4) Display LCM
5) Stop



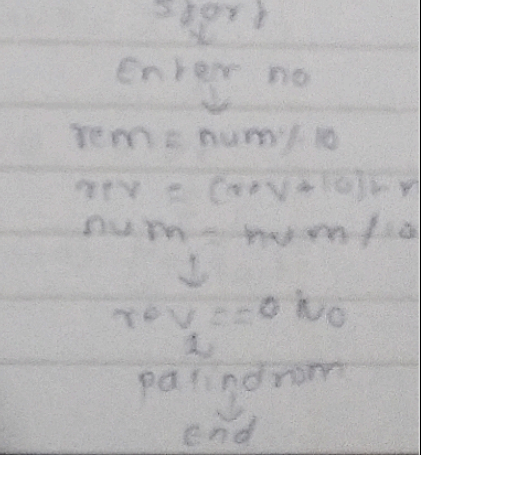
(16) Program do LCM of two no using prime Factor m

1) Start
2) take two no.
3) Find LCM & GCD
4) Apply prime Factorizat^n logic
5) stop

(17) check whether given no. is palindrome or not

1) start
2) Enter no
2) take while loop

```
while (num > 0) {
    rem = num % 10
    rev = (rev * 10) + rem
    num = num / 10 }
```



4) if your reverse no is compare no original no is palidroom
5) stop

18) To print prime factors of given no.
1) start
2) take no.
3) condition
take one variable for increament
while (i <= no)
{
while (no % i == 0) {
syso (i);
no = no / i; }
no = no / i;
}
i++;
print i

19) To print even no. series.
1) start.
2) take while loop & one count variable.
count = 0
while (count < 50) {
if (count != 50)
{
sysO (count)
}
display count.

20 print odd no. series.

1) start
2) take one variable i & set as 0
3) take while loop
   while (i<=50)
4) write condition For odd series
   IF (i%2!=0)
5) Display i;
6) stop.