Assignment 1

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Q.1.

1. Start
2. Read / input the number
3. if n%.2 == 0 then the number is even
4. else number is odd.
5. Stop.

Q.2.

1. Start
2. Read the number
3. Enter the for loop if condn is true

```
for ( i = 1 ; i <= n ; i++)
{
    fact = fact * i ;
}
```

4. check till the condn does not get satisfied
5. After the for loop, print the factorial.

```
System.out.println (fact);
```

6. End.

Q.3.

1. start
2. Read the number
4. create one method factorial ()

```
factorial (int n)
{
    if (n>=1)
        return n * factorial (n-1);
    else
        return 1;
}
```

5. In main() pass the number to factorial method

```
factorial (n);
```

6. Print the values.
7. End.

Q. 4.

1. Start
2. Read the two numbers a & b.
3. Set the algorithm

```
a = a+b;
b = a-b;
a = a-b;
```

4. Now print the values of a & b.
5. End.

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Q.5

1. Start
2. Read the number
3. if (n > 0) then its positive number
4. else it's an negative number.
5. End.

Q.6.

1. Start
2. Read the number for Leap year
3. check if (n % 4 == 0 || (n % 100 == 0 && n % 400 ==
   its true then print "Leap year".
4. else print "Not a Leap year".
5. End.

Q.7.

1. start
2. Take n = 1.
3. Create method printNum (int n)
   {
   If (n <= 10) if true then
   print n,
4. then printNum (n+1);

5. In main() pass the value to
printNum(n);
& print the numbers.
6. End.

Q.8.

1. start
2. Read the number
3. check while(n>0) if true enter the loop
{ int res = n;
int rem = rem % 10;
print(rem);
n = n / 10;
}
4. check the number till the condition
doesn't get satisfied
5. End.

Q.9.

1. Start
2. Read the number
3. set the for loop:
for(int i=0; i<=n; i++)
if true enter the loop
{
if(n%i==0) if true
print(i);
}

4. End.

Q.10.

1. Start
2. Read the number
3. set while (n > 0) if true enter the loop

```
{
    int res = n ;
    int rem = res % 10 ;
    sum = sum + rem ;
    n = n % 10 ;
}
```

4. Check the condition till doesn't get satisfied.
5. Print the ~~sum~~ print (sum) ;
6. End

Q.11.

1. Start
2. Read the three numbers a, b & c
3. Set the conditional operator
   int res = (a < b && a < c) ? a : b < c ? b : c ;
4. check it & store the value in res..
5. print (res) ;
6. End

Q.12

1. Start
2. Read the number
3. Create method add (int a, int b)
4. Set for loop
   for (int i=1; i<=b; i++)
   a++;
   return a;
5. Check for loop till the condⁿ doesn't get satisfied
6. In main() pass the values
   int a = add (10, 20);
   Print (a);
7. End

Q.13.

1. Start
2. Read the number
3. Set while (n > 0) if true enter the loop
   {
   int rem = n % 10;
   int rev = rev * 10 + rem;
   n = n / 10;
   }
4. print (rev);
5. End

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Q.14

1. Start
2. Read the two numbers a & b.
3. set one variable gcd = 1;
4. Enter the for loop if true

```
for (int i = 1 ; i<=a && i<=b ; i++)
{
    if (a%i==0 && b%i==0) if true
enter {
        gcd = i;
    }
}
```

5. check the for condn till it doesn't get satisfied.
6. print (gcd)
7. End

Q.15

1. start
2. Read the 2 number a & b.
3. Set one variable gcd = 1.
4. Enter the for loop if true

```
for (int i=0 ; i<=a && i<=b ; i++)
{
    if (a%i==0 && b%i==0)
    {
        gcd = i;
```

5. check the condn till does not get satisfied
6. then
int lcm = (a * b) / gcd;
7. the print (lcm);
8. End.

Q. 17.

1. Start
2. Read the number
3. set int tem = n;
4. set while (n>0) if true enter the loop
{
int rem = n % 10;
int rev = rev * 10 + rem;
n = n / 10;
}
5. then if (tem == rev) if true then
print "palindrome".
6. else print "NOT palindrome")
7. End

Q. 18

1. Start
2. Set n = 2;
3. set for loop & check the condition

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```
For (int i = 2 ; i >= n ; i+=2)
  {
      print (i);
  }
```

4. End.

q.20

1. start
2. Set n = 1
3. set for loop & check the condition

```
For (int i = 1 ; i >= n ; i+=2)
  {
      print (i);
  }
```

4. End.