Subject: 90 minutes Test
Topic Condition Statement - Loop Statement

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Students kindly practice these questions, and submit them to Google Drive Folder. Thank you :-D

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Question 1:
Write a program to check a number is a prime number or not.
Hints:

```
for (int i = 1; i <=number; i++) {
        if (number%i==0) {
                count=count+1;
        }
}
```

Question 2:
Write a program to find the factorial value of any number entered through the keyboard.

Hints:

```
for (int i = 1; i <= number; i++) {

        factorial=factorial*i;
}
```

Question 3:
Write a program that prompts the user to input a positive integer. It should then print the multiplication table of that number.

Hints:

```
for(int i=1; i<=10; i++)
{
   System.out.println(num +" x " + i + " = " + (num*i) );
}
```

Question 6

Write a program that prompts the user to input an integer and then outputs the number with the digits reversed. For example, if the input is 12345, the output should be 54321.

Hints:

```
while(temp>0)
{
        remainder = temp % 10;
        reverse = reverse * 10 + remainder;
        temp /= 10;
}
```

Question 7

Write a program that reads a set of integers, and then prints the sum of the even and odd integers.

Hints:

```
if( number % 2 == 0)
{
   evenSum += number;
}
else
{
   oddSum += number;
}
```

Question 8

Compute the natural logarithm of 2, by adding up to n terms in the series
1 - 1/2 + 1/3 - 1/4 + 1/5 -... 1/n
where n is a positive integer and input by user.

Hints:

```
for(int i = 1; i <= number; i++)
    {
  sum = sum+ (1.0 * sign) / i;
  sign = sign *(-1);
    }
```

Question 9

Write a program to compute the cosine of x. The user should supply x and a positive integer n. We compute the cosine of x using the series and the computation should use all terms in the series up through the term involving x^n

cos x = 1 - x^2/2! + x^4/4! - x^6/6! .....

Hints:

pow(a, b) -> pow(x,6)-> x^6

Parameter:

a : this parameter is the base

b : this parameter is the exponent.

Return :

This method returns a^b.