GOOD MORNING EVERYONE

Time to do some more **logic-building questions** on your own.

NOTE:- You have to do all the questions in a while loop as well as in a do-while loop.

Questions:

1.) Write a c++ program to print natural numbers till n.

2.) Write a c++ program to print natural numbers between two intervals.

3.) Write a c++ program to print positive numbers till n.

4.) write a c++ program to print the sum of natural numbers till n.

5.) write a c++ program to print the sum of positive numbers till n.

6.) Write a c++ program to print the sum of factorial till n.

HINT: factorial of 5 = 1*2*3*4*5 = 120

7.) Write a c++ program that prints the sum of odd numbers till n.

8.) Write a c++ program that prints the sum of even numbers till n.

9.) Write a program in c++ to determine and print the sum of the following harmonic series.
HINT:
for a given value of n:
1/1 + 1/2 + 1/3 +.....+ 1/n

10.) Write a c++ program to find all the factors of a given number n. and then find the sum of all the factors and also multiply separately.

11.) Write the best-optimized c++ code to find the square root of a very large number n.

12.) Write a c++ program to find the reverse of any number.
Hint:
INPUT: 123456789
OUTPUT: 987654321

13.) Write a c++ program to calculate the given series.
(1) + (1+2) + (1+2+3) + (1+2+3+4) + (1+2+3+4+5) + ... +
   (1+2+3+4+5+...+n).

13.) Write a c++ program to calculate the given series.
(1*1) + (1 * 2) + (1 * 2 * 3) + (1 * 2 * 3 * 4) + (1 * 2 * 3 * 4 * 5) + ... + (1 *2
   * 3 * 4 * 5 * ... * n).

14.) Write a c++ program to calculate the given series.
(2/(1*1)) + (2/(1*2)) + (2/(1*2*3)) + (2/(1*2*3*4)) + (2/(1*2*3*4*5)) + ... +
   (2/(1*2*3*4*5*...*n)).

15.) Write a c++ program to calculate the given series.
(2/(1*1)) + (2/(2*2)) + (2/(3*3*3)) + (2/(4*4*4*4)) + (2/(5*5*5*5*5)) + ...
   + (2/(n*n*n*n*n*...*n)).

16.) Write a c++ program to calculate the given series.
 (1*1) + (2*2) + (3*3) + (4*4) + (5*5) + ... + (n*n).

17.) Write a program in C++ to calculate the given series
$1 + 1/2^2 + 1/3^3 + ..+ 1/n^n$

18.) Write the best-optimized c++ code to find whether any
   number is prime or not.

19.) Write a c++ program that is designed in such a way:

if any n, 1 <= n <= 15 :
Print the Uppercase word of every number.
 like: ONE for 1, TWO for 2, THREE for 3, and so on.

else if n>15:
     If it is odd, print ODD
     If it is even, print EVEN

INPUT:
12
17

OUTPUT:
TWELVE
THIRTEEN
FOURTEEN
FIFTEEN
EVEN
ODD

20.) Write a c++ program that finds the ASCII values of any given number.

INPUT:
7
A
N
C
W
e
o
9

OUTPUT:
65
78
67
87
100
111
103

21.) Write a C++ program to print all natural numbers in reverse (from n to 1). - using while loop

22.) Write a C++ program to print all alphabets from a to z.
   - using while loop

23.) Write a C++ program to print all even numbers
   between 1 to 100. - using while loop

24.) Write a C++ program to print all odd numbers between
   1 to 100.

25.) Write a C++ program to find the sum of all even
   numbers between 1 to n.

26.) Write a C++ program to find the sum of all odd
   numbers between 1 to n.

27.) Write a C++ program to print the multiplication table of
   any number.

28.) Write a C++ program to find the first digit of a number.

29.) Write a C++ program to find the last digit of a number.

30.) Write a C++ program to count the number of digits in a
   number.

31.) Write a C++ program to find the sum of the first and last digit of a number.

32.) Write a C++ program to calculate the sum of digits of a number.

33.) Write a C++ program to calculate the product of digits of a number.

34.) Write a C++ program to enter a number and print its reverse.

35.) Write a C++ program to check whether a number is a palindrome or not.

36.) Write a C++ program to find the frequency of each digit in a given integer.

37.) Write a C++ program to enter a number and print it in words. (use switch case & loop)

38.) Write a C++ program to print all ASCII characters with their values.

39.) Write a C++ program to find the power of a number using for loop.

40.) Write a C++ program to find all factors of a number.

41.) Write a C++ program to check whether a number is a Prime number or not.

42.) Write a C++ program to print all Prime numbers between 1 to n.

43.) Write a C++ program to find the sum of all prime numbers between 1 to n.

44.) Write a C++ program to print all Prime numbers between two intervals.

45.) Write a C++ program to find all prime factors of a number.

46.) Write a C++ program to check whether a number is an Armstrong number or not.

47.) Write a c++ program to print all the Armstrong numbers between 1 to n.

48.) Write a c++ program to print all the Armstrong numbers between two intervals.

49.) Write a C++ program to print the Fibonacci series up to n terms.

50.) Write a C++ program to print the Fibonacci series up between two intervals.

Strict instructions:

• You all have to do these questions in your compiler and the Mentors will check anytime in the class.

• The codes written by the students should not be copied from anywhere.
I Repeat, No Plagiarism accepted.

All the questions/explanations should be done on the compiler.

Regards,
The Coders Association Club