**Program that uses a function to implement a binary logarithm. (Input/Output)**

Code: -

#include <iostream>

using namespace std;

//Program to compute binary logarithm of the given number

//function prototype

int BinaryLog(int);

int main() {

//declare and initialize the local variables

int number = 0;

int answer = 0;

char input = 'y'||'Y';

//Starting a loop

do {

//prompt user for an integer

cout << "Please enter a positive integer = ";

//store user's response

cin >> number;

//call the function

answer = BinaryLog(number);

cout << "The binary logarithm of " << number

<< " is " << answer << endl;

cout << "\nWould you like to run another calculation?" << endl;

cout << "(Y/N)?\t";

cin >> input;

cout << "\n";

} while (input == 'y' || input == 'Y');

return 0;

}

//Declaring quotient

int BinaryLog(int num)

{

int count = 0;

double quotient = num;

while (quotient >= 2)

{

count++;

quotient = quotient / 2;

cout << quotient << endl;

}

return count;

}

Program Run: -

