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| **1** | Write a function to reverse a given number and check whether a given number is palindrome or not.Input:Enter the number121Output:The Number 121 is PalindromeInput:Enter the numberOutput:123Number 123 is Not Palindrome |
|  | **Program:**  **#include<stdio.h>**  **#include<conio.h>**  **int reverse(int num);**  **int isPalindrome(int num1, int num2);**  **int main()**  **{**  **int num,temp,num1,rev=0;**  **printf("Enter a number to check if its a palindrome ");**  **scanf("%d",&num);**    **num1 = num;**  **rev = reverse(num);**    **if(isPalindrome(num1, rev))**  **printf("The number %d is a Palindrome ",num1);**  **else**  **printf("The number %d is not a Palindrome ",num1);**  **return 0;**  **}**  **int reverse(int num)**  **{**  **int rev = 0;**  **int temp;**  **while(num)**  **{**  **temp = num%10;**  **num = num/10;**  **rev = rev\*10 + temp;**  **}**  **return rev;**    **}**  **int isPalindrome(int num1, int num2)**  **{**  **if(num1==num2)**  **return 1;**  **else**  **return 0;**  **}** |
|  | **Output Screenshot:** |
| **2** | Write a C program to compute GCD of three numbers using functions. **Input:**  Enter the values of a,b and c  10 4 16  **Output:**  GCD(10,4,16)=2 |
|  | **Program:**  **#include<stdio.h>**  **#include<conio.h>**  **int gcd(int num1,int num2);**  **int main()**  **{**  **int num1,num2,num3,result;**  **printf("Enter three numbers to find GCD ");**  **scanf("%d%d%d",&num1,&num2,&num3);**  **result = gcd(num1,num2);**  **result = gcd(num3,result);**  **printf("The GCD of three numbers %d, %d and %d is %d ",num1,num2,num3,result);**  **return 0;**  **}**  **int gcd(int num1,int num2)**  **{**  **while(num1!=num2)**  **{**  **if(num1>num2)**  **num1 = num1-num2;**  **else**  **num2 = num2-num1;**  **}**  **return num1;**  **}** |
|  | **Output Screenshot:** |
| **3** | Write a program in C to check Armstrong and perfect numbers using functions.  **Input:**  Input any number: 153  **Output:**  The 153 is an Armstrong number.  The 153 is not a Perfect number.  **Input:**  Input any number: 28  **Output:**  The 28 is not an Armstrong number.  The 28 is a Perfect number. |
|  | **Program:**  **#include<stdio.h>**  **#include<conio.h>**  **void armstrong(int num);**  **void perfectNumber(int num);**  **int main()**  **{**  **int num;**  **printf("Enter a number ");**  **scanf("%d",&num);**  **armstrong(num);**  **perfectNumber(num);**  **return 0;**  **}**  **void armstrong(int num)**  **{**  **int r,temp,sum=0;**  **temp = num;**  **while(num>=1)**  **{**  **r = num%10;**  **sum = sum + (r\*r\*r);**  **num = num/10;**  **}**  **if(temp==sum)**  **printf("The number %d is an Armstrong number \n",temp);**  **else**  **printf("The number %d is not an Armstrong number \n",temp);**  **}**  **void perfectNumber(int num)**  **{**  **int sum=0,i,temp;**  **temp = num;**  **for(i=1;i<num;i++)**  **{**  **if(num%i==0)**  **sum = sum +i;**  **}**  **if(temp == sum)**  **printf("The number %d is a perfect number ",temp);**  **else**  **printf("The number %d is not a perfect number ",temp);**  **}** |
|  | **Output Screenshot:** |
| **4** | Write a program in C to check whether a number is a prime number or not using function  **Input:**  Input a positive number : 12  **Output:**  The number 12 is not a prime number  **Input:**  Input a positive number : 13  **Output:**  The number 13 is a prime number |
|  | **Program:**  **#include<stdio.h>**  **#include<conio.h>**  **int isPrime(int num);**  **int main()**  **{**  **int num;**  **printf("Enter a number to check prime or not ");**  **scanf("%d",&num);**  **if(isPrime(num))**  **printf("The number %d is a prime ",num);**  **else**  **printf("The number %d is not a prime ",num);**  **}**  **int isPrime(int num)**  **{**  **int i;**  **for(i=2;i<num;i++)**  **{**  **if(num%i==0)**  **return 0;**  **}**  **return 1;**  **}** |
|  | **Output Screenshot:** |
| **5** | Write a program in C to convert decimal number to octal number using function  **Input:**  Input any decimal number : 25  **Output:**  Equivalent Octal Number: 31  **Input:**  Input any decimal number : 15  **Output:**  Equivalent Octal Number: 17 |
|  | **Program:**  **#include<stdio.h>**  **#include<conio.h>**  **int decToOct(int num);**  **int main()**  **{**  **int num,octal;**  **printf("Enter a number ");**  **scanf("%d",&num);**  **octal = decToOct(num);**  **printf("The decimal number %d in octal is %d",num,octal);**  **return 0;**  **}**  **int decToOct(int dec)**  **{**  **int rem,oct,k;**  **k = 1;**  **oct = 0;**  **while(dec!=0)**  **{**  **rem = dec%8;**  **oct = rem\*k + oct;**  **k = k\*10;**  **dec = dec/8;**  **}**  **return oct;**  **}** |
|  | **Output Screenshot:** |
| **6** | Write a program in C to find the sum of the series 1!/1+2!/2+3!/3+4!/4+5!/5 using function.  **Output:**  The sum of the series is : 34 |
|  | **Program:**  **#include<stdio.h>**  **#include<conio.h>**  **int series(int n);**  **int fact(int n);**  **int main()**  **{**  **int n,s;**  **printf("Enter the number of terms ");**  **scanf("%d",&n);**  **s = series(n);**  **printf("The sum of series is %d",s);**  **return 0;**  **}**  **int series(int n)**  **{**  **int i,sum=0;**  **for(i=1;i<=n;i++)**  **{**  **sum = sum + (fact(i))/i;**  **}**  **return sum;**  **}**  **int fact(int n)**  **{**  **int i,factorial=1;**  **for(i=n;i>0;i--)**  **{**  **factorial = factorial\*i;**  **}**  **return factorial;**  **}** |
|  | **Output Screenshot:** |
| **1** | **Practice Programs**  Write a program to display Fibonacci series in C within a range using a function  **Input:**  Enter range: 5  **Output:**  The fibonacci series is:  0 1 1 2 3 5 |
|  | **Program:**  **#include<stdio.h>**  **#include<conio.h>**  **void fibonacci(int n);**  **int main()**  **{**  **int n;**  **printf("Enter the number of terms ");**  **scanf("%d",&n);**  **fibonacci(n);**  **return 0;**  **}**  **void fibonacci(int n)**  **{**  **int i,fib1,fib2,fib;**  **fib1 = 0;**  **fib2 = 1;**  **printf("%d %d ",fib1,fib2);**  **for(i=2;i<=n;i++)**  **{**  **fib = fib1 + fib2;**  **printf("%d ",fib);**  **fib1 = fib2;**  **fib2 = fib;**  **}**  **}** |
|  | **Output Screenshot:** |
| 2 | Write a program to check triangle validity when angles are given using functions.  **Input:**  Enter three angles of triangle:  30  40  60  **Output:**  Triangle is not valid  **Input:**  Enter three angles of triangle:  30  60  90  **Output:**  Triangle is valid |
|  | **Program:**  **#include<stdio.h>**  **#include<conio.h>**  **void triangle(int a,int b,int c);**  **int main()**  **{**  **int a,b,c;**  **printf("Enter the three angles of the triangle ");**  **scanf("%d%d%d",&a,&b,&c);**  **triangle(a,b,c);**  **return 0;**  **}**  **void triangle(int a,int b,int c)**  **{**  **if(a>0 && a<179 && b>0 && b<179 && c>0 && c<179)**  **{**  **if(a+b+c==180)**  **printf("The triangle is valid");**  **else**  **printf("The triangle is invalid");**  **}**  **else**  **printf("Input angle/angles are invalid");**  **}** |
|  | **Output Screenshot:** |