Q1: Write a recursive function to print first N natural numbers

Answer:

#include<stdio.h>

void PrintNatural(int);

int main()

{

    int n=10;

    PrintNatural(n);

}

void PrintNatural(int n)

{

    if(n==0)

        return;

    PrintNatural(n-1);

    printf("%d ",n);

}

Q2: Write a recursive function to print first N natural numbers in reverse order

Answer:

#include<stdio.h>

void PrintNatural(int);

int main()

{

    int n=10;

    PrintNatural(n);

}

void PrintNatural(int n)

{

    if(n==0)

        return;

    printf("%d ",n);

    PrintNatural(n-1);

}

Q3: Write a recursive function to print first N odd natural numbers

Answer:

#include<stdio.h>

void PrintNaturalOdd(int);

int main()

{

    int n;

    printf("ENter the number: ");

    scanf("%d",&n);

        PrintNaturalOdd(n);

}

void PrintNaturalOdd(int n)

{

    int x=1;

    if(n==0)

        return;

    PrintNaturalOdd(n-1);

    printf("%d ",2\*n-1);

}

Q4: Write a recursive function to print first N odd natural numbers in reverse order

Answer:

#include<stdio.h>

void PrintNaturalOdd(int);

int main()

{

    int n;

    printf("ENter the number: ");

    scanf("%d",&n);

        PrintNaturalOdd(n);

}

void PrintNaturalOdd(int n)

{

    int x=1;

    if(n==0)

        return;

    printf("%d ",2\*n-1);

    PrintNaturalOdd(n-1);

}

Q5: Write a recursive function to print first N even natural numbers

Answer:

#include<stdio.h>

void PrintNaturaleven(int);

int main()

{

    int n;

    printf("ENter the number: ");

    scanf("%d",&n);

        PrintNaturaleven(n);

}

void PrintNaturaleven(int n)

{

    int x=1;

    if(n==0)

        return;

    printf("%d ",2\*n);

    PrintNaturaleven(n-1);

}

Q6: Write a recursive function to print first N even natural numbers in reverse order

Answer:

#include<stdio.h>

void PrintNaturaleven(int);

int main()

{

    int n;

    printf("ENter the number: ");

    scanf("%d",&n);

        PrintNaturaleven(n);

}

void PrintNaturaleven(int n)

{

    int x=1;

    if(n==0)

        return;

    PrintNaturaleven(n-1);

    printf("%d ",2\*n);

}

Q7: Write a recursive function to print squares of first N natural numbers

Answer:

#include<stdio.h>

void PrintSquare(int);

int main()

{

    int n;

    printf("Enter the Number: ");

    scanf("%d",&n);

    PrintSquare(n);

}

void PrintSquare(int n)

{

    if(n==0)

        return;

    PrintSquare(n-1);

    printf("%d ",n\*n);

}

Q8: Write a recursive function to print binary of a given decimal number

Answer:

#include<stdio.h>

void binary(int);

int main()

{

    int n;

    printf("Enter the Number: ");

    scanf("%d",&n);

    binary(n);

}

void binary(int n)

{

    if(n==1)

    {

        printf("%d ",n);

        return;

    }

    binary(n/2);

    printf("%d ",n%2);

}

OR

#include<stdio.h>

void binary(int);

int main()

{

int input;

printf("Enter the NUmber to convert into binary: ");

scanf("%d",&input);

binary(input);

}

void binary(int n)

{

    int a;

    if(n==0)

    {

        return;

    }

    binary(n>>1);

    n=n&1;

    printf("%d",n);

}

Q9: Write a recursive function to print octal of a given decimal number

Answer:

#include<stdio.h>

void octal(int);

int main()

{

    int n;

    printf("Enter the Number: ");

    scanf("%d",&n);

    octal(n);

}

void octal(int n)

{

    if(n<8)

    {

        printf("%d",n);

        return;

    }

    Octal(n/8);

    printf("%d",n%8);

}

Q10: Write a recursive function to print reverse of a given number

Answer:

#include<stdio.h>

void reverse(int);

int main()

{

    int n;

    printf("Enter the Number: ");

    scanf("%d",&n);

    reverse(n);

}

void reverse(int n)

{

    if(n<10)

    {

        printf("%d",n);

        return;

    }

    printf("%d",n%10);

    reverse(n/10);

}