1. Write a C program to print multiplication table for a given integer (use for loops)

#include<stdio.h>

void main()

{

    int i, num;

    printf("Enter a number\n");

    scanf("%d", &num);

    for (i = 1; i <= 10; i++)

        printf("%d x %d = %d\n", num, i, num \* i);

}

Output

Enter a number

12

12 x 1 = 12

12 x 2 = 24

12 x 3 = 36

12 x 4 = 48

12 x 5 = 60

12 x 6 = 72

12 x 7 = 84

12 x 8 = 96

12 x 9 = 108

12 x 10 = 120

1. Write a C program to check if a number is a palindrome number(e.g 1221) [use while loop]

#include<stdio.h>

void main()

{

    int num, n, i = 1, revno = 0;

    printf("Enter a number\n");

    scanf("%d", &num);

    n = num;

    while (n > 0)

    {

        revno = revno \* 10;

        revno = revno + (n % 10);

        n = n / 10;

        i++;

    }

    if (revno == num)

        printf("%d is a palindrome\n", num);

    else

        printf("%d is not a palindrome\n", num);

}

Output

Enter a number

1246

1246 is not a palindrome

Enter a number

1331

1331 is a palindrome

1. Write a C program to print the average of first 10 natural numbers (use do-while loops)

#include<stdio.h>

void main()

{

    int i = 1, sum = 0, avg;

    do{

        sum = sum + i;

        i++;

    } while(i <= 10);

    avg = sum / 10;

    printf("Average: %d\n", avg);

}

Output

Average: 5

4. Write a C program to check if a number is a prime number or no (use while loops and if

conditions)

#include<stdio.h>

void main()

{

    int n, i = 2, test = 0;

    printf("Enter the number\n");

    scanf("%d", &n);

    while(i < n/2)

    {

        if(n % i == 0)

        {

            test = 1;

            break;

        }

        i++;

    }

    if (test == 0)

        printf("%d is a prime number\n", n);

    else

        printf("%d is not a prime number\n", n);

}

Output

Enter the number

31

31 is a prime number

Enter the number

12

12 is not a prime number

1. Write a C program to count frequency of digits in a number

#include <stdio.h>

void main()

{

    int num, i, tally = 0, n;

    printf("Enter a number\n");

    scanf("%d", &num);

    for (i = 0; i <= 9; i++)

    {

        n = num;

        while (n > 0)

        {

            if (n % 10 == i)

                tally++;

            n = n / 10;

        }

        printf("Frequency of %d in given number: %d\n", i, tally);

        tally = 0;

    }

}

Output

Enter a number

668954012

Frequency of 0 in given number: 1

Frequency of 1 in given number: 1

Frequency of 2 in given number: 1

Frequency of 3 in given number: 0

Frequency of 4 in given number: 1

Frequency of 5 in given number: 1

Frequency of 6 in given number: 2

Frequency of 7 in given number: 0

Frequency of 8 in given number: 1

Frequency of 9 in given number: 1

1. Write a C program to enter a number and print it in words

#include<stdio.h>

void main()

{

    int num, n, i = 1, t, revno = 0;

    printf("Enter a number\n");

    scanf("%d", &num);

    n = num;

    while (n > 0)

    {

        revno = revno \* 10;

        revno = revno + (n % 10);

        n = n / 10;

        i++;

    }

    n = revno;

    while (n > 0)

    {

        t = n % 10;

        switch (t)

        {

            case 1:

                printf(" One ");

                break;

            case 2:

                printf(" Two ");

                break;

            case 3:

                printf(" Three ");

                break;

            case 4:

                printf(" Four ");

                break;

            case 5:

                printf(" Five ");

                break;

            case 6:

                printf(" Six ");

                break;

            case 7:

                printf(" Seven ");

                break;

            case 8:

                printf(" Eight ");

                break;

            case 9:

                printf(" Nine ");

                break;

            case 0:

                printf(" Zero ");

                break;

        }

        n = n /10;

    }

}

Output

Enter a number

13464

One Three Four Six Four