Q1-> Write a program which takes the month number as an input and display number of days in that month.

Answer:

#include<stdio.h>

int main()

{

int Month;

printf("Enter the number for month: ");

scanf("%d",&Month);

switch(Month)

{

    case 1:

        printf("Number of days of JAN: 31 Days");

        break;

    case 2:

        printf("Number of days of FEB: 28 Days");

        break;

    case 3:

        printf("Number of days of MAR: 31 Days");

        break;

    case 4:

        printf("Number of days of APR: 30 Days");

        break;

    case 5:

        printf("Number of days of MAY: 31 Days");

        break;

    case 6:

        printf("Number of days of JUN: 30 Days");

        break;

    case 7:

        printf("Number of days of JUL: 31 Days");

        break;

    case 8:

        printf("Number of days of AUG: 31 Days");

        break;

    case 9:

        printf("Number of days of SEP: 30 Days");

        break;

    case 10:

        printf("Number of days of OCT: 31 Days");

        break;

    case 11:

        printf("Number of days of NOV: 30 Days");

        break;

    case 12:

        printf("Number of days of DEC: 31 Days");

        break;

    default:

        printf("Invalid Number entry");

}

    return 0;

}

Q2-> Write a menu driven program with the following options:

a. Addition

b. Subtraction

c. Multiplication

d. Division

e. Exit

Answer:

#include<stdio.h>

int main()

{

int a;

float b,c;

printf("Enter a symbol to perform specific task: ");

scanf("%c",&a);

switch(a)

{

    case '+':

        printf("Enter the two number to perform addition: ");

        scanf("%f %f",&b,&c);

        printf("The addition is: %f",b+c);

        break;

    case '-':

        printf("Enter the two number to perform subtraction: ");

        scanf("%f %f",&b,&c);

        printf("The addition is: %f",b-c);

        break;

    case '/':

        printf("Enter the two number to perform division: ");

        scanf("%f %f",&b,&c);

        printf("The addition is: %f",b/c);

        break;

    case '\*':

        printf("Enter the two number to perform multiplication: ");

        scanf("%f %f",&b,&c);

        printf("The addition is: %f",b\*c);

    default:

        printf("Invalid symbol entry");

}

    return 0;

}

Q3: Write a program which takes the day number of a week and displays a

unique greeting message for the day.

Answer:

#include<stdio.h>

int main()

{

int a;

printf("Enter the Number: ");

scanf("%d",&a);

switch(a)

{

    case 1:

        printf("This is Monday");

        break;

    case 2:

        printf("This is Tuesday");

        break;

    case 3:

        printf("This is Wednesday");

        break;

    case 4:

        printf("This is Thursday");

        break;

    case 5:

        printf("This is Friday");

        break;

    case 6:

        printf("This is Saturday");

        break;

    case 7:

        printf("This is Sunday");

        break;

}

    return 0;

}

Q4-> Write a program which takes the day number of a week and displays a

unique greeting message for the day.

Answer:

#include<stdio.h>

#include<stdlib.h>

int main()

{

int a;

float b,c,d;

while(1)

{

printf("Choose as per below options\n1=Isoceles Triangle\n2=Right Angle Triangle\n3=Equivalent Triangle\n4=Exit\n\n\n");

printf("Enter a number to check type of triangle: ");

scanf("%d",&a);

if(a=1 || a=2 || a=3)

{

printf("Enter the length 3 sides of triangle: ");

scanf("%f%f%f",&b,&c,&d);

}

switch(a)

{

    case 1:

        if(b==c && c!=d || c==d && b!=c || b==d && c!=d)

                printf(":::::This is Isosceles Triangle:::::\n\n");

else

printf(“This is not Isoceles Triangle”);

        break;

    case 2:

        if(b\*b+c\*c==d\*d || d\*d+c\*c==b\*b || b\*b+d\*d==b\*b)

                printf(":::::This is Rectangle Triangle:::::\n\n");

else

printf(“This is not Rectangle Triangle”);

        break;

    case 3:

        if(d==b && b==c)

                printf(":::::This is equivalent Triangle:::::\n\n");

else

printf(“This is not equivalent Triangle”);

        break;

    case 4:

        exit(0);

    default:

        printf("Invalid choice");

}

}

    return 0;

}

Q5: Convert the following if-else-if construct into switch case:

*if(var == 1)*

*System.out.println("good");*

*else if(var == 2)*

*System.out.println("better");*

*else if(var == 3)*

*System.out.println("best");*

*else*

*System.out.println("invalid");*

Answer:

#include<stdio.h>

int main()

{

    int var;

    printf("Enter var: ");

    scanf("%d",&var);

    switch(var==1)

    {

        case 1:

            printf("good");

            break;

        case 0:

            switch(var==2)

            {

                case 1:

                    printf("better");

                    break;

                case 0:

                    switch(var==3)

                    {

                        case 1:

                            printf("best");

                            break;

                        case 0:

                            printf("invalid");

                            break;

                    }

            }

    }

    return 0;

}

Q6: Program to check whether a year is a leap year or not. Using switch

Statement

Answer:

#include<stdio.h>

int main()

{

    int year;

    printf("Input the Year: ");

    scanf("%d",&year);

    switch(year%100==0)

    {

        case 1:

            switch(year%400==0)

            {

                case 1:

                    printf("This is leap Year");

                    break;

                case 0:

                    printf("This is not Leap Year");

                    break;

            }

            break;

        case 0:

            switch(year%4==0)

            {

                case 1:

                    printf("This is Leap year");

                    break;

                case 0:

                    printf("This is not Leap year");

                    break;

            }

            break;

    }

    return 0;

}

Q7 : Program to take the value from the user as input electricity unit charges

and calculate total electricity bill according to the given condition . Using

the switch statement.

For the first 50 units Rs. 0.50/unit

For the next 100 units Rs. 0.75/unit

For the next 100 units Rs. 1.20/unit

For units above 250 Rs. 1.50/unit

An additional surcharge of 20% is added to the bill.

Answer:

#include<stdio.h>

int main()

{

    float unit,total,surcharge;

    printf("Input the Electric Unit: ");

    scanf("%f",&unit);

    switch(unit<=50)

    {

        case 1:

            total=unit\*0.50;

            break;

        case 0:

            switch(unit<=150)

            {

                case 1:

                    total= (unit-50)\*0.75+50\*0.50;

                    break;

                case 0:

                    switch(unit<=250)

                    {

                        case 1:

                            total=(unit-150)\*1.20+100\*0.75+50\*0.50;

                            break;

                        case 0:

                             total=(unit-250)\*1.5+50\*0.50+100\*0.75+100\*1.2;

                             break;

                    }

                    break;

            }

            break;

        default:

            break;

    }

    surcharge=(total/100)\*20;

    total=total+surcharge;

    printf("Your electricity bill is: %f",total);

    return 0;

}

Q8: Program to convert a positive number into a negative number and negative

number into a positive number using a switch statement.

Answer:

#include<stdio.h>

int main()

{

    int Number;

    printf("Input the Number: ");

    scanf("%d",&Number);

    switch(Number<0)

    {

        case 1:

            Number=0-Number;

            break;

        case 0:

            Number=0-Number;

            break;

    }

    printf("The output is: %d",Number);

    return 0;

}

Q9: Program to Convert even number into its upper nearest odd number

Switch Statement.

Answer:

#include<stdio.h>

int main()

{

int a;

printf("Enter the Number: ");

scanf("%d",&a);

switch(a%2==0)

{

    case 1: a=a+1; printf("The odd is: %d",a); break;

    case 0: printf("THe odd Number is: %d",a); break;

}

    return 0;

}

Q10: C program to find all roots of a quadratic equation using switch case

Answer:

#include<stdio.h>

int main()

{

double a,b,c,d;

printf("Enter the value of \'a\' in this quadratic equation a\*x\*x+b\*x+c=0: ");

scanf("%lf",&a);

printf("Enter the value of \'b\' in this quadratic equation a\*x\*x+b\*x+c=0: ");

scanf("%lf",&b);

printf("Enter the value of \'c\' in this quadratic equation a\*x\*x+b\*x+c=0: ");

scanf("%lf",&c);

d=b\*b-4\*a\*c;

switch(d==0)

{

    case 1:

        printf("The roots of given quadratic equation is real & equal");

        break;

    case 0:

        switch(d>0)

        {

            case 1:

                printf("The roots of given quadratic equation is real & distinct");

                break;

            case 0:

                printf("The roots of given quadratic equation is not real");

                break;

        }

}

return 0;

}