

//1. Write a program which takes the month number as an input and display

//number of days in that month.

```
#include<stdio.h>
```

```
int main()
```

```
{
```

```
    int n;
```

```
    printf("Enter a number:");
```

```
    scanf("%d",&n);
```

```
    switch(n)
```

```
    {
```

```
        case 1:
```

```
        case 3:
```

```
        case 5:
```

```
        case 7:
```

```
        case 8:
```

```
        case 10:
```

```
        case 12:
```

```
            printf("31 Days in a month.");
```

```
            break;
```

```
        case 4:
```

```
        case 6:
```

```
        case 9:
```

```
        case 11:
```

```
            printf("30 Days in a month.");
```

```
            break;
```

```
        case 2:
```

```
            printf("28/29 Days in a month.");
```

```
            break;
```

```
    default:
```

```
printf("Invalid month.");

}

return 0;

}
```

/*2. Write a menu driven program with the following options:

- a. Addition
- b. Subtraction
- c. Multiplication
- d. Division
- e. Exit */

```
#include<stdio.h>
#include<stdlib.h>
int main()
{
    int a, b, c;
    while(1)
    {

        printf("\n 1. Addition \n 2. Subtraction \n 3. Multiplication \n 4. Division \n 5. Exit\n");
        printf("Enter your choice:");
        scanf("%d",&c);

        switch(c)
```

```
{  
    case 1:  
        printf("Enter two numbers:");  
        scanf("%d%d",&a,&b);  
        printf("Addition = %d",a+b);  
        break;  
    case 2:  
        printf("Enter two numbers:");  
        scanf("%d%d",&a,&b);  
        printf("Substraction = %d",a-b);  
        break;  
    case 3:  
        printf("Enter two numbers:");  
        scanf("%d%d",&a,&b);  
        printf("Multiplication = %d",a*b);  
        break;  
    case 4:  
        printf("Enter two numbers:");  
        scanf("%d%d",&a,&b);  
        printf("Quotient = %d",a/b);  
        break;  
    case 5:  
        exit(0);  
    default:  
        printf("Invalid Data.");  
}  
  
}  
  
return 0;
```

```
}
```

/*4. Write a menu driven program with the following options:

a. Check whether a given set of three numbers are lengths of an isosceles triangle or not

b. Check whether a given set of three numbers are lengths of sides of a right angled triangle or not

c. Check whether a given set of three numbers are equilateral triangle or not

d. Exit*/

```
#include<stdio.h>
```

```
#include<stdlib.h>
```

```
int main()
```

```
{
```

```
    int choice, a, b, c;
```

```
    while(1){
```

```
        printf("\n 1.To cheack isosceles triangle. \n 2.To cheack right angled triangle. \n 3.To cheack equilateral triangle. \n 4. Exit");
```

```
        printf("\nEnter a choice:");
```

```
        scanf("%d",&choice);
```

```
        switch(choice)
```

```
        {
```

```
        case 1:
```

```
            printf("\nEnter length of 3 sides of triangle.");
```

```

        scanf("%d%d%d",&a,&b,&c);
        if(a==b || b==c || a==c)
            printf("Isosceles.");
        else
            printf("Not isosceles.");
        break;
case 2:
        printf("\nEnter length of 3 sides of triangle.");
        scanf("%d%d%d",&a,&b,&c);
        if(a*a==b*b+c*c || b*b==c*c+a*a || a*a==c*c+b*b)
            printf("Right angled triangle.");
        else
            printf("Not right angle triangle.");
        break;
case 3:
        printf("\nEnter length of 3 sides of triangle.");
        scanf("%d%d%d",&a,&b,&c);
        if((a==b) && (b==c) )
            printf("Equilateral.");
        else
            printf("Not equilateral.");
        break;
case 4:
        exit(0);
default:
        printf("Invalid Data");

    }

}

}

```

/*5. 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");*/
```

```
#include<stdio.h>
int main()
{
    int var;
    printf("Enter an var == ");
    scanf("%d",&var);

    switch(var)
    {
        case 1:
            printf("good.");
            break;
        case 2:
            printf("better.");
            break;
        case 3:
            printf("best.");
            break;
```

```
    default:
        printf("Invalid.");
    }
return 0;

}
```

//6. Program to check whether a year is a leap year or not. Using switch
//statement.

```
#include<stdio.h>

int main()
{
    int x;

    printf("Enter a year:");
    scanf("%d",&x);

    switch(x%100==0)
    {
        case 1:switch(x%400==0)
            {
                case 0:printf("Leap year.");break;
                case 1:printf("Not leap year.");break;
            }break;
        case 0:switch(x%4==0)
            {
                case 1:printf("leap year.");break;
                case 0:printf("not leap year.");break;
            }
    }
}
```

```

    }

}

return 0;
}

```

/*7. 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.*/

```

#include<stdio.h>

int main()
{
    float x=260, amount = 0, total = 0;

    switch(x<=50)
    {
        case 1: amount=x*0.50;
        break;
        case 0: switch(x<=150)
        {
            case 1: amount=25+(x-50)*0.75;
            break;

```



```

    case 0:switch(x<=250)
    {
        case 1: amount = 100+(x-150)*1.20;
        break;

        case 0: amount = 220+(x-250)*1.50;
        break;

    }break;
}break;
}
total=amount+amount*0.20;
printf("Total amount %f",total);

return 0;
}

```

//8. Program to convert a positive number into a negative number and negative
//number into a positive number using a switch statement.

```

#include<stdio.h>

int main()
{
    int choice,number;

    printf("\n 1.convert positive to negative. \n 2. convert negative to positive.\nEnter your choice:");
    scanf("%d",&choice);
    printf("\nEnter a number:");
    scanf("%d",number);

    switch(choice)

```

```
{  
    case 1:  
        printf("\nEnter a number:");  
        scanf("%d",number);  
        number = number * -1;  
        printf("%d",number*-1);  
        break;  
    case 2:  
        printf("Enter a number:");  
        scanf("%d",number);  
        number = number * -1;  
        printf("%d",number);  
        break;  
    default:  
        break;  
}  
return 0;  
  
}
```