Assignment no 9

1. #include<stdio.h>

int main(){

int m;

printf("Enter the month number : ");

scanf("%d",&m);

switch(m){

case 1:printf("this month has 31 days");

break;

case 2:printf("this month has 28 days if it's not a leap year if it's a leap year then it has 29 days");

break;

case 3:printf("this month has 31 days");

break;

case 4:printf("this month has 30 days");

break;

case 5:printf("this month has 31 days");

break;

case 6:printf("this month has 30 days");

break;

case 7:printf("this month has 31 days");

break;

case 8:printf("this month has 31 days");

break;

case 9:printf("this month has 30 days");

break;

case 10:printf("this month has 31 days");

break;

case 11:printf("this month has 30 days");

break;

case 12:printf("this month has 31 days");

break;

}

return 0;

}

2. #include<stdio.h>

int main(){

int a,b,x;

while(1){

printf("1.Addition");

printf("\n2.Subtraction");

printf("\n3.Multiplication");

printf("\n4.Division");

printf("\n5.Exit");

printf("\n\nEnter your choice \n");

scanf("%d",&x);

switch(x){

case 1:

printf("Enter two numbers \n");

scanf("%d%d",&a,&b);

printf("Sum is %d\n\n",a+b);

break;

case 2:

printf("Enter two numbers \n");

scanf("%d%d",&a,&b);

printf("Difference is %d\n\n",a-b);

break;

case 3:

printf("Enter two numbers \n");

scanf("%d%d",&a,&b);

printf("Product is %d\n\n",a\*b);

break;

case 4:

printf("Enter two numbers \n");

scanf("%d%d",&a,&b);

printf("Division is %d\n\n",a/b);

break;

case 5:

break;

}

if(x==5){

break;

}

}

return 0;

}

3. #include<stdio.h>

int main(){

int d;

printf("Enter the day number of the week : ");

scanf("%d",&d);

switch(d){

case 1:

printf("May your day flourish with joy ");

break;

case 2:

printf("A very happy day ");

break;

case 3:

printf("May you have a very good day ahead ");

break;

case 4:

printf("All the best for the day may you succeed in your works ");

break;

case 5:

printf("May your day be full of energy ");

break;

case 6:

printf("May you have a victorious day today ");

break;

case 7:

printf("May your day be filled with happiness ");

break;

}

return 0;

}

4. #include<stdio.h>

int main(){

int x;

int a,b,c;

while(1){

printf("\nEnter your choice : ");

printf("\n1. Check whether a given set of three numbers are lengths of an isosceles triangle or not");

printf("\n2. Check whether a given set of three numbers are lengths of sides of a right angled triangle or not");

printf("\n3. Check whether a given set of three numbers are lengths of an equilateral triangle or not");

printf("\n4. Exit\n");

scanf("%d",&x);

if(x<4){

printf("Enter the set of three numbers : \n");

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

}

switch(x){

case 1:

if(a==b||a==c||b==c){

printf("the given numbers are lengths of an isosceles triangle\n");

}

else{

printf("the given set of three numbers are not the lengths of an isosceles triangle\n");

}

break;

case 2:

if(a\*a+b\*b==c\*c||c\*c+b\*b==a\*a||a\*a+c\*c==b\*b){

printf("the given set of three numbers are the lengths of a right angled triangle\n");

}

else{

printf("the given set of three numbers are not the lengths of an right angled triangle\n");

}

break;

case 3:

if(a==b&&c==a){

printf("the given set of three numbers are the lengths of an equilateral triangle\n");

}

else{

printf("the given set of three numbers are not the lengths of an equilateral triangle\n");

}

break;

case 4:

break;

default : printf(" invalid");

}

if(x==4){

break;

}return 0;}

5. #include<stdio.h>

int main(){

int var;

printf("Enter the value of 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. #include<stdio.h>

int main(){

int year;

printf("Enter the year : ");

scanf("%d",&year);

switch(year%100==0){

case 1:switch(year%400==0){

case 1:printf("the year is a leap year");

break;

case 0:printf("the year is a non leap year");

break;

} break;

case 0:switch(year%4==0){

case 1:printf("the year is a leap year");

break;

case 0:printf("the year is a non leap year");

break;

}break;

}

return 0;

}

7. #include<stdio.h>

int main(){

float units;

printf("Enter how much electricity units you have used : ");

scanf("%f",&units);

switch(units<=50){

case 1:printf("%.2f",units\*0.50+20\*units\*0.50/100);

break;

case 0:switch(units<=150){

case 1:printf("%.2f",units\*0.75+(20\*units\*0.75/100));

break;

case 0:switch(units<=250){

case 1:printf("%.2f",units\*1.20+(20\*units\*1.20/100));

break;

case 0:switch(units>250){

case 1:printf("%.2f",units\*1.50+(20\*units\*1.50/100));

break;

}break;

}break;

}break;

default:printf("Invalid");

}

return 0;

}

8. #include<stdio.h>

int main(){

int n;

printf("Enter any number : ");

scanf("%d",&n);

switch(n>0){

case 1:n=n-2\*n;

printf("%d",n);

break;

case 0:n=n-2\*n;

printf("%d",n);

break;

}

return 0;

}

9. #include<stdio.h>

int main(){

int n;

printf("Enter any number : ");

scanf("%d",&n);

switch(n>0){

case 1:n=n-2\*n;

printf("%d",n);

break;

case 0:n=n-2\*n;

printf("%d",n);

break;

}

return 0;

}

10. #include<stdio.h>//C program to find all roots of a quadratic equation using switch case

int main(){

int a,b,c,d;

printf("Enter the value of constants a, b and c : ");

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

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

switch(d>0){

case 1:switch(a==0){

case 1:printf("The equation is not a quadriatic equation");

break;

case 0:printf("The nature of roots are real and distincts");

break;

}break;

case 0:switch(d==0){

case 1:printf("The nature of roots are real and equal");

break;

case 0:switch(d<0){

case 1:printf("The nature of the roots are imaginary");

break;

}break;

}break;

}

return 0;

}