TRIANGLE:

```
#include<stdio.h>
#include<ctype.h>
void main()
{
int a,b,c;
printf("\n Enter 3 integer which are side of triangle \n");
scanf("%d %d %d",&a,&b,&c);
if((a>=1&&a<=10)&&(b>=1&&b<=10)&&(c>=1&&c<=10))
{
if((a<(b+c))&&(b<(a+c))&&(c<(a+b)))
{
if((a==b)&&(b==c))
printf("Triangle is equilateral");
else if((a!=b)&&(a!=c)&&(b!=c))
printf("Triangle is scalene\n");
else
printf("Triangle is isoceles\n");
}
else
printf("\n Triangle cannot not be formed");
}
else
printf("\n The values are out of range\n");
}
```

COMMISION:

```
#include<stdio.h>
void main()
{
int locks,stocks,barrels,totalsales;
int totallocks=0,totalstocks=0,totalbarrels=0;
float commission=0;
printf("Enter the number of locks\n");
scanf("%d",&locks);
while(locks!=-1)
{
printf("Enter the no. of stocks\n");
scanf("%d",&stocks);
printf("Enter the no. of barrels");
scanf("%d",&barrels);
totallocks=totallocks+locks;
totalstocks=totalstocks+stocks;
totalbarrels=totalbarrels+barrels;
printf("\nEnter -1 to end of the sales\n Else Enter the number of locks\n");
scanf("%d",&locks);



}
if((totallocks>=0&&totallocks<=70)&&(totalstocks>=0&&totalstocks<=80)&&(totalbarrels
 >=0&&totalbarrels<=90))
{
totalsales=(totallocks*45)+(totalstocks*30)+(totalbarrels*25);
if(totalsales<=1000)
{
commission=0.10*totalsales;
}
```

```
else if(totalsales<1800)
{
commission=0.10*1000;
commission=commission+(0.15*(totalsales-1000));
}
else
{
commission=0.10*1000;
commission=commission+(0.15*800);
commission=commission+(0.20*(totalsales-1800));
}
printf("The total sales is %d\n The commission is %f",totalsales,commission);
}
else
{
printf("\n invalid input");
}
}
```

NEXT DATE:

```
#include<stdio.h>
#include<stdlib.h>
void main()
{
int day,month,year;
int nextday,nextmonth,nextyear;
printf("\n Enter the date format DD MM YYYY:");
scanf("%d%d%d",&day,&month,&year);
if(((day>=1)&&(day<=31))&&((month>=1)&&(month<=12))&&((year>=1812)&&(year<=
 2012)))
{
```

```
nextmonth=month;
nextyear=year;

if((month==1)||(month==3)||(month==5)||(month==7)||(month==8)||(month==10))
{
if(day<31)
{
nextday=day+1;
}
else
{
nextday=1;
nextmonth=month+1;
}}
else if((month==4)||(month==6)||(month==9)||(month==11))
{
if(day<30)
nextday=day+1;
else if(day==30)
{
nextday=1;
nextmonth=month+1;
}
else
{
printf("invalid");
exit(0);}
}
else if(month==12)
{
if(day<31)
```

```
nextday=day+1;
else
{
nextday=1;
nextmonth=1;
nextyear=year+1;
if(nextyear>2012)
{
printf("Invalid");
exit(0);
}}}
else
{
if((year%4==0&&year%100!=0)||(year%400==0))
{
if(day<29)
nextday=day+1;

else if(day==29)
{
nextday=1;
nextmonth=month+1;
}
else
{
printf("Invalid date");
exit(0);
}}
else
{
if(day<28)
```

```
nextday=day+1;
else if(day==28)
{
nextday=1;
nextmonth=month+1;
}
else
{printf("Invalid date");
exit(0);
}}}
printf("\nThe next date is = %d %d %d",nextday,nextmonth,nextyear);
}
else
printf("\n the date is invalid\n");
}
```

BINARY SEARCH:

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

2. int main()
3. {
4.    int i, low, high, mid, n, key, array[100];

5.    printf("Enter number of elements\n");
6.    scanf("%d",&n);

7.    printf("Enter %d integers\n", n);
8.    for (i=0; i<n; i++ )
9.       scanf("%d",&array[i]);
```

```
10.   printf("Enter value to find\n");
11.   scanf("%d",&key);

12.   low = 0;
13.   high = n-1;

14.   while( low <= high )
   {
15.  mid = (low + high)/2;

16.  if ( array[mid] == key )
      {
17.   printf("%d found at location %d.\n", key, mid+1);
18.   return;
19.  }

20.      else if ( array[mid] < key )
21.   low = mid + 1;

22.       else
23.   high = mid- 1;
24.      }

25.   if ( low > high )
26.       printf("Not found! %d is not present in the list.\n", key);

27.   return;
28. }
```