1)

/\*\* \* C program to convert days in to years, weeks and days \*/

 #include <stdio.h> int main() {

 int days, years, weeks;

 /\* Input total number of days from user \*/ printf("Enter days: "); scanf("%d", &days); /\* Conversion \*/

 years = (days / 365); // Ignoring leap year weeks = (days % 365) / 7;

 days = days - ((years \* 365) + (weeks \* 7));

 /\* Print all resultant values \*/ printf("YEARS: %d\n", years);

 printf("WEEKS: %d\n", weeks); printf("DAYS: %d", days); return 0; }

2)#include<stdio.h> #include<math.h> double main()

{

 double x1, y1, x2, y2, x, y, distance;

 // take first point's coordinates printf("Enter coordinates of first point: ");

 scanf("%lf %lf",&x1, &y1);

 // take second point's coordinates printf("Enter coordinates of second point: ");

 scanf("%lf %lf",&x2, &y2);

 x = (x2-x1); y = (y2-y1);

 distance = sqrt(x\*x + y\*y);

 // display result

 printf("Distance = %lf", distance);

 return 0;

}

3)

// C++ program to check if three

// sides form a triangle or not #include<bits/stdc++.h> **using** **namespace** std;

// function to check if three sider // form a triangle or not **bool** checkValidity(**int** a, **int** b, **int** c)

{

 // check condition **if** (a + b <= c || a + c <= b || b + c <= a) **return** **false**; **else** **return** **true**;

}

// Driver function **float** main() {

 **float** a = 7, b = 10, c = 5;

 **if** (checkValidity(a, b, c)) cout << "Valid"; **else**

 cout << "Invalid"; }

4)

 #include <stdio.h>

int main()

{

 int age;

 int cnt\_baby=0,cnt\_school=0,cnt\_adult=0;

 int count=0;

 while(count<20)

 {

 printf("Enter age of person [%d]: ",count+1);

 scanf("%d",&age);

 if(age>=0 && age<=4)

 cnt\_baby++;

 else if(age>=5 && age<=17)

 cnt\_school++;

 else

 cnt\_adult++;

 //increase counter

 count++;

 }

 printf("Baby age: %d\n",cnt\_baby);

 printf("School age: %d\n",cnt\_school);

 printf("Adult age: %d\n",cnt\_adult);

 return 0;

 }

**5,**

**/\*C program to guess a random number.\*/**

#include <stdio.h>

#include <stdlib.h>

#include <time.h>

int main()

{

 int random\_genNo=0,count=0,num;

 int stime;

 long ltime;

 //initialise srand with current time, to get random number on every run

 ltime = time(NULL);

 stime = (unsigned) ltime/2;

 srand(stime);

 //generate random number

 random\_genNo=rand()%100;

 //run infinite loop

 while(1)

 {

 //increase counter

 count+=1;

 //read number from user

 printf("\n\nGuess a number from (0 to 100): ");

 scanf("%d",&num);

 //compare entered number with generated number

 if(random\_genNo==num){

 printf("Congratulations, you have guessed a correct number.");

 break;

 }

 else if(random\_genNo<num){

 printf("Generated number is less than entered number, try your luck again...");

 }

 else if(random\_genNo>num){

 printf("Generated number is greater than entered number, try your luck again...");

 }

 if(count==7){

 printf("\n\n### Maximum limit of atttempt finished, BAD LUCK !!!\n");

 break;

 }

 }

 return 0;

}