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Civil engineering

18/ENG03/054

C programming

1. #include <stdio.h>

int main

{

int years, weeks, days;

days = 1343;

years = 1343/365; //ignoring leap year

weeks = (1343/365)/7;

printf

printf

printf

return 0;

2. #include <stdio.h>

#include <math.h>

int main()

{

float x1, y1, x2, y2, gdistance;

printf("Input x1: ");

scanf("%f", &x1);

printf("Input y1: ");

scanf("%f", &y1);

```

printf("Input x2: ");
scanf("%f", &x2);
printf("Input y2: ");
scanf("%f", &y2);
gdistance = ((x2-x1)*(x2-x1))+((y2-y1)*(y2-y1));
printf("Distance between the said points: %.4f", sqrt(gdistance));
printf("\n");
return 0;
}

```

3. #include <stdio.h>

```

int main() {
    float x, y, z, P, A;
    printf("\nInput the first number: ");
    scanf("%f", &x);
    printf("\nInput the second number: ");
    scanf("%f", &y);
    printf("\nInput the third number: ");
    scanf("%f", &z);
    if(x < (y+z) && y < (x+z) && z < (y+x))
    {
        P = x+y+z;
        printf("\nPerimeter = %.1f\n", P);
    }
    else

```

```
{  
printf("Not possible to create a triangle..!");  
return 0;  
}
```

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. 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 attempt finished, BAD LUCK !!!\n");

    break;

}

return 0;

}
```