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18/Eng06/040

Mechanical engineering

1).

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

void  main( )
{
   int  days ,yr,mn,wk,d;
   printf("Enter the no of days");
   scanf("%d",&days);

   yr = days /365;

   mn =(days /365)/30;



   printf("Years= %d \t Months=  %d \t Weeks =%d \t days = %d",yr,mn,wk,d);
   // converts days to years, weeks and months
   getch();
 }
```

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).

```
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..!");
        }
}
```

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++;
                //  increasing the number of years by 1
                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 shorttime;
   long longtime;

   longtime = time(NULL);
   shorttime = (unsigned) ltime/2;
   srand(shorttime);

   //generates 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\nMaximum limit of atttempt finished, GAME OVER FOR YOU!\n");
            break;
        }
    }

    return 0;
}
```