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ELECT/ELECT

18/ENG04/023

ENG 224 ASSIGMENT

1.
```
#include <stdio.h>
int main()
{
   int days, years, weeks;
   days = 1343;

   // Converts days to years, weeks and days
   years = days/365;
   weeks = (days % 365)/7;
   days = days- ((years*365) + (weeks*7));

   printf("Years: %d\n", years);
   printf("Weeks: %d\n", weeks);
   printf("Days: %d \n", days);

   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..!");
            }
}
```

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.  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()%1000;

   //run infinite loop
   while(1)
   {
      //increase counter
      count+=1;

      //read number from user
      printf("\n\nGuess a number from (0 to 1000): ");
      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;
}
```