

ENG 224 ASSIGNMENT

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[Document subtitle]

1

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

int main()
{
    int days, years, weeks;
    days= 1343;
    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;
}
```

```
Years: 3
Weeks: 35
Days: 3

Process returned 0 (0x0)   execution time : 0.049 s
Press any key to continue.
```

2

```
#include <stdio.h>
#include <stdlib.h>
#include <math.h>

int main()
{
    float x1, y1, x2, y2, distance;
    printf("Input x1: ");
    scanf("%f", &x1);
    printf("Input y1: ");
    scanf("%f", &y1);
    printf("Input x2: ");
    scanf("%f", &x2);
    printf("Input y2: ");
    scanf("%f", &y2);
    distance = ((x2-x1)*(x2-x1))+((y2-y1)*(y2-y1));
    printf("Distance between the two points: %.4f", sqrt(distance));
    printf("\n");
    return 0;
}
```

```
Input x1: 30
Input y1: 20
Input x2: 70
Input y2: 50
Distance between the two points: 50.0000

Process returned 0 (0x0)   execution time : 19.666 s
Press any key to continue.
_
```

3

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

int main()
{
    float x, y, z, P, A;
    printf("\nLength of first side: ");
    scanf("%f", &x);
    printf("\nLength of second side: ");
    scanf("%f", &y);
    printf("\nLength of third side: ");
    scanf("%f", &z);

    if(x < (y+z) && y < (x+z) && z < (y+x))
    {
        P = x+y+z;
        printf("Triangle can be formed");
        printf("\nPerimeter = %.1f\n", P);
    }
    else
    {
        printf("Not possible to create a triangle..!");
    }
}
```

```
Length of first side: 5
Length of second side: 3
Length of third side: 7
Triangle can be formed
Perimeter = 15.0

Process returned 0 (0x0)    execution time : 4.555 s
Press any key to continue.
```

4

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

```
int main()
{
    int age;
    int cnt_baby=0,cnt_school=0,cnt_adult=0;
```

```
int count=0;

while(count<20)
{
    printf("Enter person's age [%d]: ",count+1);
    scanf("%d",&age);

    if(age>=0 && age<=4)
        cnt_baby++;
    else if(age>=5 && age<=17)
        cnt_school++;
    else
        cnt_adult++;

    count++;
}

printf("Still a baby: %d\n",cnt_baby);
printf("Still in School: %d\n",cnt_school);
printf("Adult life: %d\n",cnt_adult);

return 0;
}
```

```
Enter person's age [1]: 20
Enter person's age [2]: 30
Enter person's age [3]: 40
Enter person's age [4]: 1
Enter person's age [5]: 2
Enter person's age [6]: 3
Enter person's age [7]: 6
Enter person's age [8]: 7
Enter person's age [9]: 19
Enter person's age [10]: 18
Enter person's age [11]: 4
Enter person's age [12]: 2
Enter person's age [13]: 11
Enter person's age [14]: 12
Enter person's age [15]: 34
Enter person's age [16]: 56
Enter person's age [17]: 17
Enter person's age [18]: 19
Enter person's age [19]: 22
Enter person's age [20]: 21
Still a baby: 5
Still in School: 5
Adult life: 10

Process returned 0 (0x0)   execution time : 73.322 s
Press any key to continue.
```

5

```
#include <stdio.h>
#include <stdlib.h>
#include <time.h>
```

```
int main()
{
    int random_genNo=0,count=0,num;

    int stime;

    long ltime;

    ltime = time(NULL);
    stime = (unsigned) ltime/2;
    srand(stime);
```

```
random_genNo=rand()%100;

while(1)
{

    count+=1;

    printf("\n\nGuess a number from (0 to 100): ");
    scanf("%d",&num);

    if(random_genNo==num){
        printf("Congratulations, you have guessed the correct number.");
        break;
    }
    else if(random_genNo<num){
        printf("Generated number is less than the number you entered, try again...");
    }
    else if(random_genNo>num){
        printf("Generated number is greater than the number you entered, try again...");
    }

    if(count==7){
        printf("\n\n You have exhausted your attempts, BAD LUCK !!!\n");
        break;
    }
}

return 0;
}
```



```
Guess a number from (0 to 100): 30
Generated number is less than the number you entered, try again...

Guess a number from (0 to 100): 49
Generated number is less than the number you entered, try again...

Guess a number from (0 to 100): 20
Generated number is less than the number you entered, try again...

Guess a number from (0 to 100): 10
Generated number is less than the number you entered, try again...

Guess a number from (0 to 100): 9
Generated number is less than the number you entered, try again...

Guess a number from (0 to 100): 5
Generated number is greater than the number you entered, try again...

Guess a number from (0 to 100): 7
Generated number is less than the number you entered, try again...

You have exhausted your attempts, BAD LUCK !!!

Process returned 0 (0x0)   execution time : 32.423 s
Press any key to continue.
```