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MATRIC NO.: 18/ENG02/092

DEPARTMENT: Computer Engineering

Question 1:

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

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

```
int main()
```

```
{
```

```
    int days, years, x, weeks, d;
```

```
    days = 1343;
```

```
    years = days/365;
```

```
    x = days%365;
```

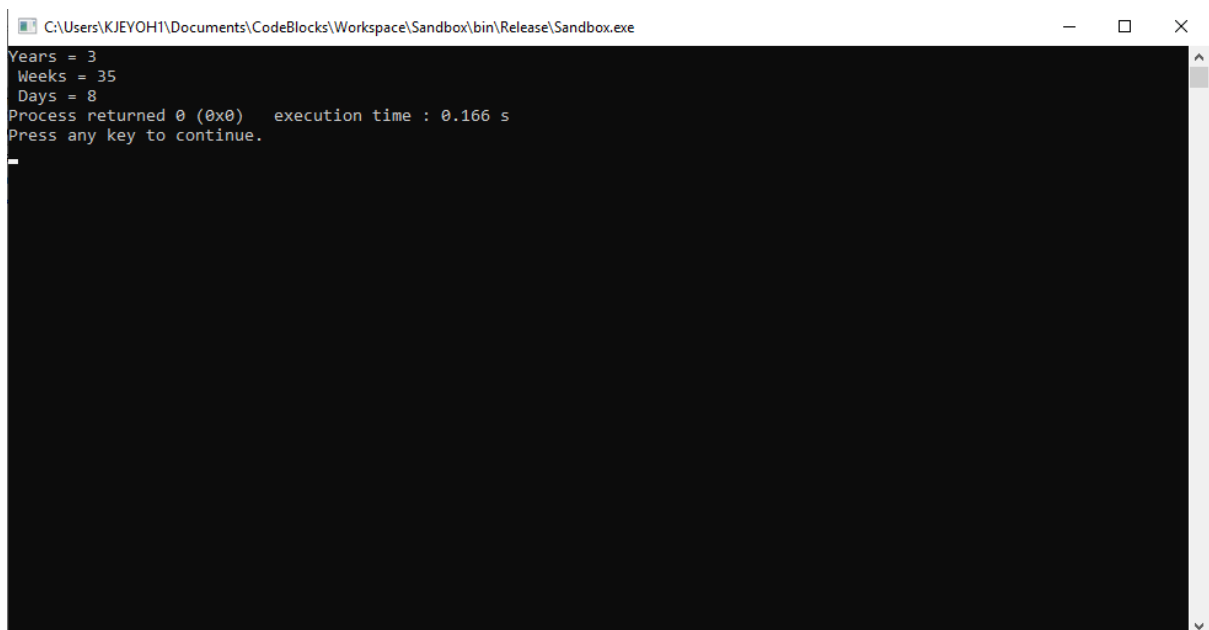
```
    weeks = x/7;
```

```
    d = x%30;
```

```
    printf("Years = %d \n Weeks = %d \n Days = %d",years,weeks,d);
```

```
    return 0;
```

```
}
```

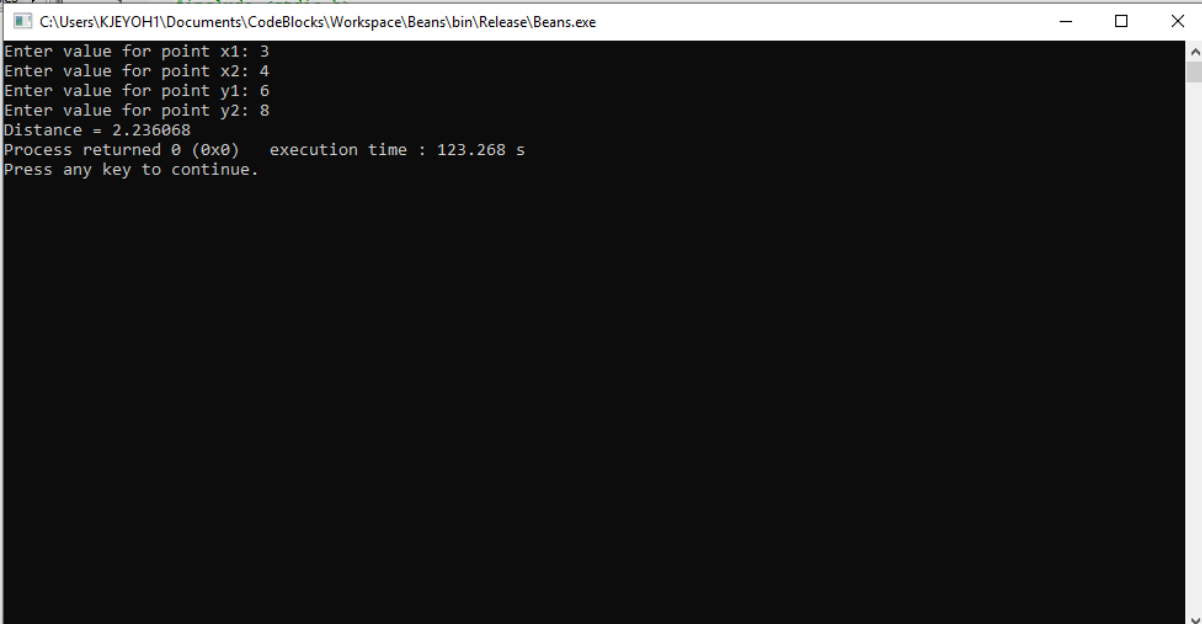


```
C:\Users\KJEYOH1\Documents\CodeBlocks\Workspace\Sandbox\bin\Release\Sandbox.exe
Years = 3
Weeks = 35
Days = 8
Process returned 0 (0x0)   execution time : 0.166 s
Press any key to continue.
```

Question 2:

```
#include <stdio.h>
#include <stdlib.h>
#include <math.h>
int main()
{
    int x1,y1,x2,y2;
    float d;

    printf("Enter value for point x1: ");
    scanf("%d",&x1);
    printf("Enter value for point x2: ");
    scanf("%d",&x2);
    printf("Enter value for point y1: ");
    scanf("%d",&y1);
    printf("Enter value for point y2: ");
    scanf("%d",&y2);
    d = (float)sqrt((x2-x1)*(x2-x1)+(y2-y1)*(y2-y1));
    printf("Distance = %f",d);
    return 0;
}
```



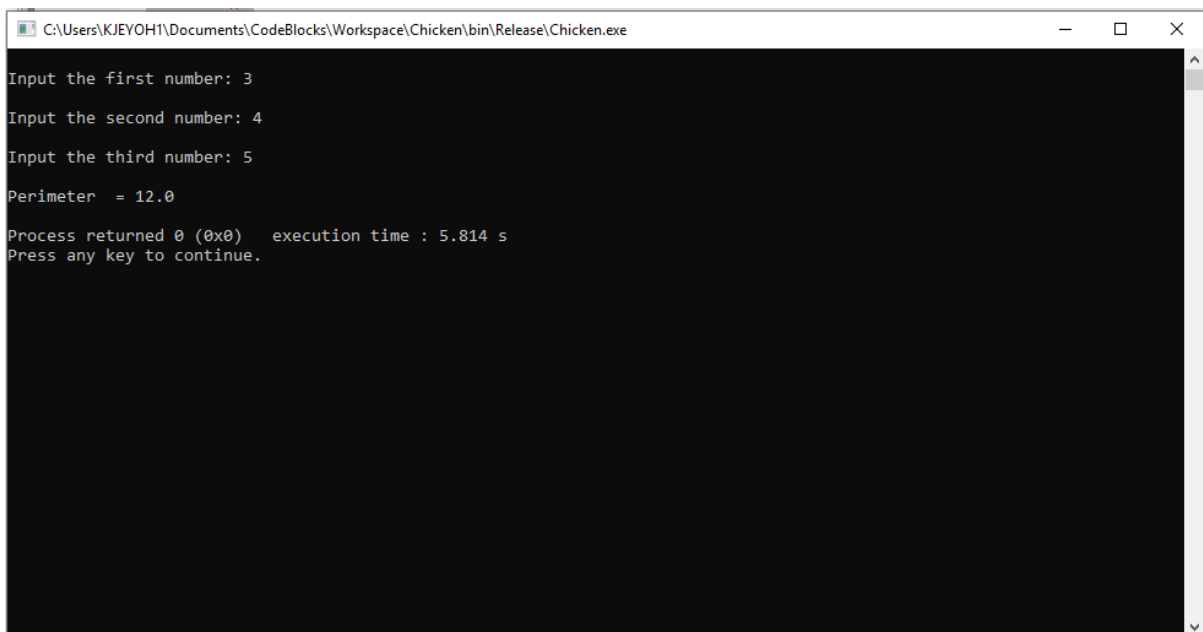
```
C:\Users\KJEYOH1\Documents\CodeBlocks\Workspace\Beans\bin\Release\Beans.exe
Enter value for point x1: 3
Enter value for point x2: 4
Enter value for point y1: 6
Enter value for point y2: 8
Distance = 2.236068
Process returned 0 (0x0)   execution time : 123.268 s
Press any key to continue.
```

Question 3:

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

int main()
{
    float a, b, c, P;
    printf("\n Input the first number: ");
    scanf("%f", &a);
    printf("\n Input the second number: ");
    scanf("%f", &b);
    printf("\n Input the third number: ");
    scanf("%f", &c);

    if(a < (b + c) && b < (a + c) && c < (b + a))
    {
        P = a + b + c;
        printf("\n Perimeter = %.1f\n", P);
    }
    else
    {
        printf("Not possible to create a triangle");
    }
}
```



```
C:\Users\KJEYOH1\Documents\CodeBlocks\Workspace\Chicken\bin\Release\Chicken.exe
Input the first number: 3
Input the second number: 4
Input the third number: 5
Perimeter = 12.0
Process returned 0 (0x0)   execution time : 5.814 s
Press any key to continue.
```

Question 4:

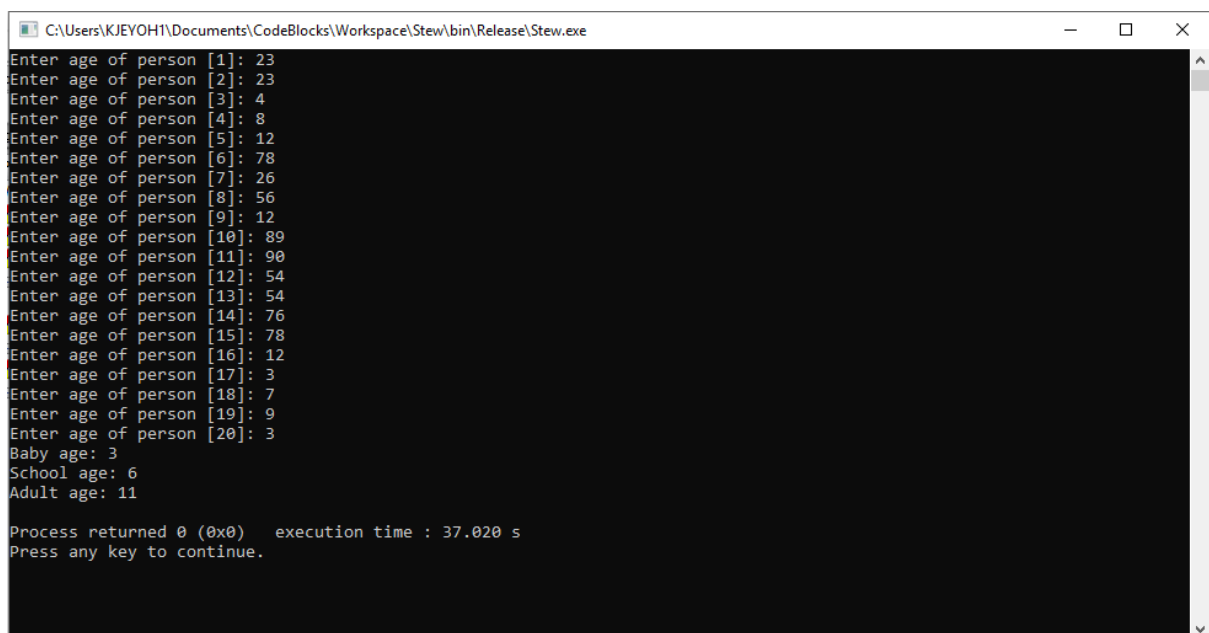
```
#include <stdio.h>
#include <stdlib.h>
```

```
int main()
{
    int age;
    int no_baby_age=0,no_school_age=0,no_adult_age=0;
    int count=0;

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

        if(age>=0 && age<=5)
            no_baby_age++;
        else if(age>=6 && age<=17)
            no_school_age++;
        else
            no_adult_age++;

        count++;
    }
    printf("Baby age: %d\n",no_baby_age);
    printf("School age: %d\n",no_school_age);
    printf("Adult age: %d\n",no_adult_age);
    return 0;
}
```



```
C:\Users\KJEYOH1\Documents\CodeBlocks\Workspace\Stew\bin\Release\Stew.exe
Enter age of person [1]: 23
Enter age of person [2]: 23
Enter age of person [3]: 4
Enter age of person [4]: 8
Enter age of person [5]: 12
Enter age of person [6]: 78
Enter age of person [7]: 26
Enter age of person [8]: 56
Enter age of person [9]: 12
Enter age of person [10]: 89
Enter age of person [11]: 90
Enter age of person [12]: 54
Enter age of person [13]: 54
Enter age of person [14]: 76
Enter age of person [15]: 78
Enter age of person [16]: 12
Enter age of person [17]: 3
Enter age of person [18]: 7
Enter age of person [19]: 9
Enter age of person [20]: 3
Baby age: 3
School age: 6
Adult age: 11

Process returned 0 (0x0)   execution time : 37.020 s
Press any key to continue.
```

Question 5:

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

```
int main()
{
    int random_gen_no=0,count=0,num;
    int stime;
    long ltime;

    ltime = time(NULL);
    stime = (unsigned) ltime/2;
    srand(stime);
    random_gen_no=rand()%100;

    while(1)
    {

        count+=1;
        printf("\n\n Guess a number from (0 to 100): ");
        scanf("%d",&num);

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

        if(count==7){
            printf("\n\n >>>Maximum limit of attempt finished<<<\n");
            break;
        }
    }

    return 0;
}
```

C:\Users\KJEYOH1\Documents\CodeBlocks\Workspace\Dior\bin\Release\Dior.exe

```
Guess a number from (0 to 100): 23
Generated number is greater than your number, try again

Guess a number from (0 to 100): 34
Generated number is greater than your number, try again

Guess a number from (0 to 100): 23
Generated number is greater than your number, try again

Guess a number from (0 to 100): 45
Generated number is greater than your number, try again

Guess a number from (0 to 100): 12
Generated number is greater than your number, try again

Guess a number from (0 to 100): 345
Generated number is less than your number, try again

Guess a number from (0 to 100): 23
Generated number is greater than your number, try again

### Maximum limit of attempt finished

Process returned 0 (0x0)   execution time : 8.369 s
Press any key to continue.
```