

# QUESTION 1

The screenshot shows the Code::Blocks IDE with the following content:

```
1 #include<stdio.h>
2 #include<conio.h>
3
4
5 void main()
6 {
7     int days ,year,month,week,day;
8     printf("Enter the number of days");
9     scanf("%d",&days);
10
11     year = days /365;
12
13     month =(days /365)/30;
14
15
16     printf("Years= %d \t Months= %d \t Weeks =%d \t days = %d",year,month,week,day);
17     // converts days to years, weeks and months
18     getch();
19 }
20
```

The build messages window shows the following output:

```
==== Build: Debug in question1 (compiler: GNU GCC Compiler) ====
warning: return type of 'main' is not 'int' [-Wmain]
In function 'main':
warning: 'week' is used uninitialized in this function [-Wuninitialized]
warning: 'day' is used uninitialized in this function [-Wuninitialized]
```

The screenshot shows the Code::Blocks IDE with the following content:

```
Enter the number of days 1343
Years= 3      Months= 0      Weeks =79      days = 4208752
Process returned 13 (0xD)   execution time : 7.671 s
Press any key to continue.
```

The build messages window shows the following output:

```
----- Run: Debug in question1 (compiler: GNU GCC Compiler)-----
Checking for existence: C:\Users\karee\Desktop\c assignment\question1\bin\Debug\question1.exe
Executing: "E:\dont touch\code blocks\cb_console_runner.exe" "C:\Users\karee\Desktop\c assignment\question1\.."
```

## QUESTION 2

The screenshot shows a code editor window titled "main.c [question2] - Code::Blocks 17.12". The editor displays the source code for a C program that calculates the distance between two points. The code is as follows:

```
1 #include <stdio.h>
2 #include <math.h>
3
4 int main()
5 {
6     float x1, y1, x2, y2, mdistance;
7     printf("Input x1:");
8     scanf("%f", &x1);
9     printf("Input y1:");
10    scanf("%f", &y1);
11    printf("Input x2: ");
12    scanf("%f", &x2);
13    printf("Input y2: ");
14    scanf("%f", &y2);
15    mdistance = ((x2-x1)*(x2-x1))+((y2-y1)*(y2-y1));
16    printf("Distance between the said points:%.4f", sqrt(mdistance));
17    printf("\n");
18    return 0;
19 }
20
21
```

Below the code editor, the "Build log" window shows the following output:

```
mingw32-gcc.exe -Wall -g -c "C:\Users\karee\Desktop\c assignment\question2\main.c" -o obj\Debug\main.o
mingw32-g++.exe -o bin\Debug\question2.exe obj\Debug\main.o
Output file is bin\Debug\question2.exe with size 28.59 KB
Process terminated with status 0 (0 minute(s), 0 second(s))
0 error(s), 0 warning(s) (0 minute(s), 0 second(s))
```

The screenshot shows the same code editor window, but now displaying the execution output of the program. The output is as follows:

```
Input x1: 6
Input y1: 5
Input x2: 2
Input y2: 7
Distance between the said points:4.4721
Process returned 0 (0x0)   execution time : 10.864 s
Press any key to continue.
```

Below the execution output, the "Debug" window shows the following output:

```
----- Run: Debug in question2 (compiler: GNU GCC Compiler)-----
Checking for existence: C:\Users\karee\Desktop\c assignment\question2\bin\Debug\question2.exe
Executing: "E:\dont touch\code blocks\ch_console_runner.exe" "C:\Users\karee\Desktop\c assignment\question2\bin\Debug\question2.exe" (in C:\Users\karee\Desktop\c assignment\question2\)
```

## QUESTION 3

The screenshot shows the Code::Blocks IDE with a C++ project named 'question3'. The main.c file contains the following code:

```
1 // a program to check whether a triangle is valid or not if the sides are given//
2
3 #include<stdio.h>
4 int main()
5 {
6     float s1, s2, s3;
7     printf("Enter three sides of the triangle:\n");
8     scanf("%f%f%f", &s1, &s2, &s3);
9
10    if((s1+s2) > s3)
11    {
12        if((s2+s3)>s1)
13        {
14            if((s1+s3)>s2)
15            {
16                printf("Triangle is valid");
17            }
18            else
19            {
20                printf("Triangle is not valid");
21            }
22        }
23    }
24 }
```

The 'Logs & others' window shows the following output:

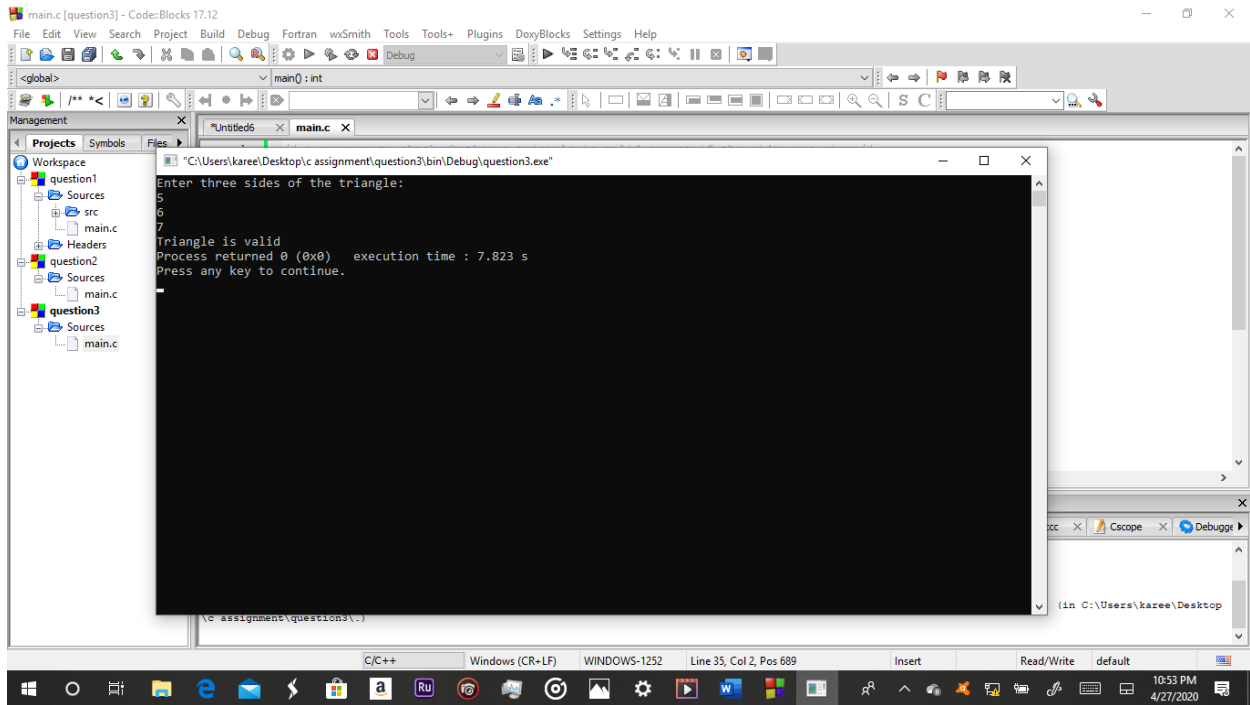
```
----- Run: Debug in question3 (compiler: GNU GCC Compiler)-----
Checking for existence: C:\Users\karee\Desktop\c assignment\question3\bin\Debug\question3.exe
Executing: "E:\dont touch\code blocks\cb_console_runner.exe" "C:\Users\karee\Desktop\c assignment\question3\bin\Debug\question3.exe" (in C:\Users\karee\Desktop\c assignment\question3\.)
Process terminated with status 0 (0 minute(s), 16 second(s))
```

The screenshot shows the Code::Blocks IDE with the same C++ project. The main.c file has been updated with the following code:

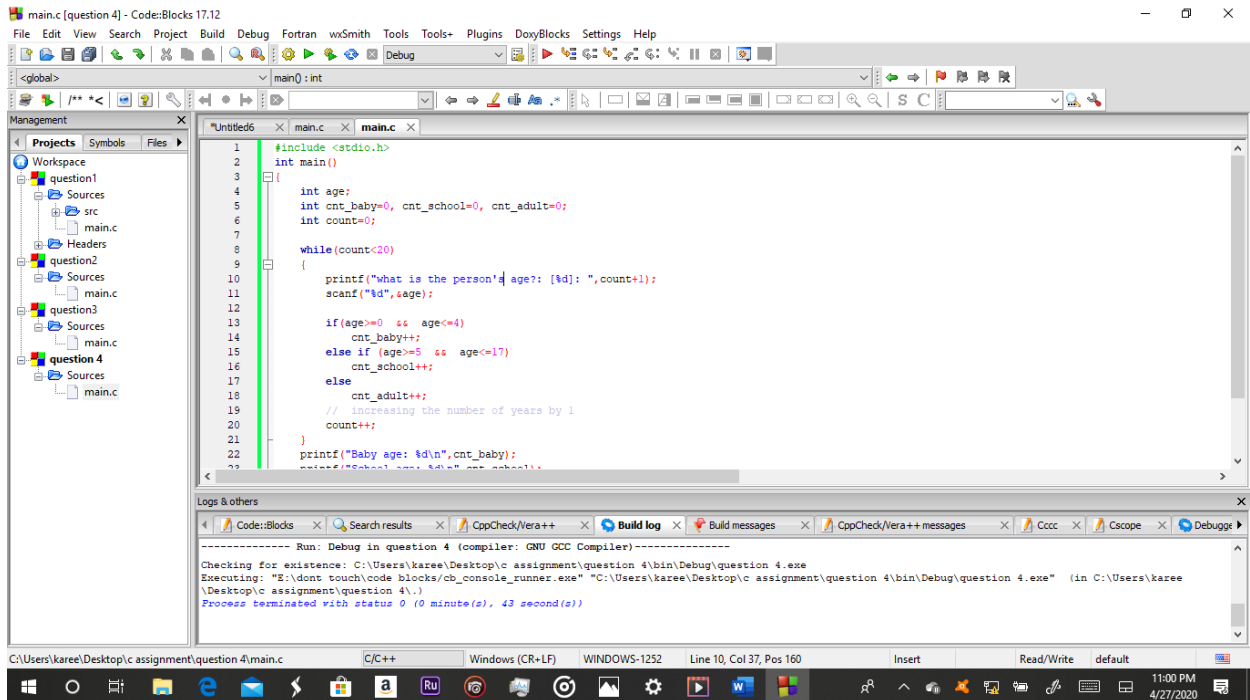
```
16         printf("Triangle is valid");
17     }
18     else
19     {
20         printf("Triangle is not valid");
21     }
22 }
23
24 else
25 {
26     printf("Triangle is not valid");
27 }
28
29 }
30 else
31 {
32     printf("Triangle is not valid");
33 }
34 return 0;
35
36 }
```

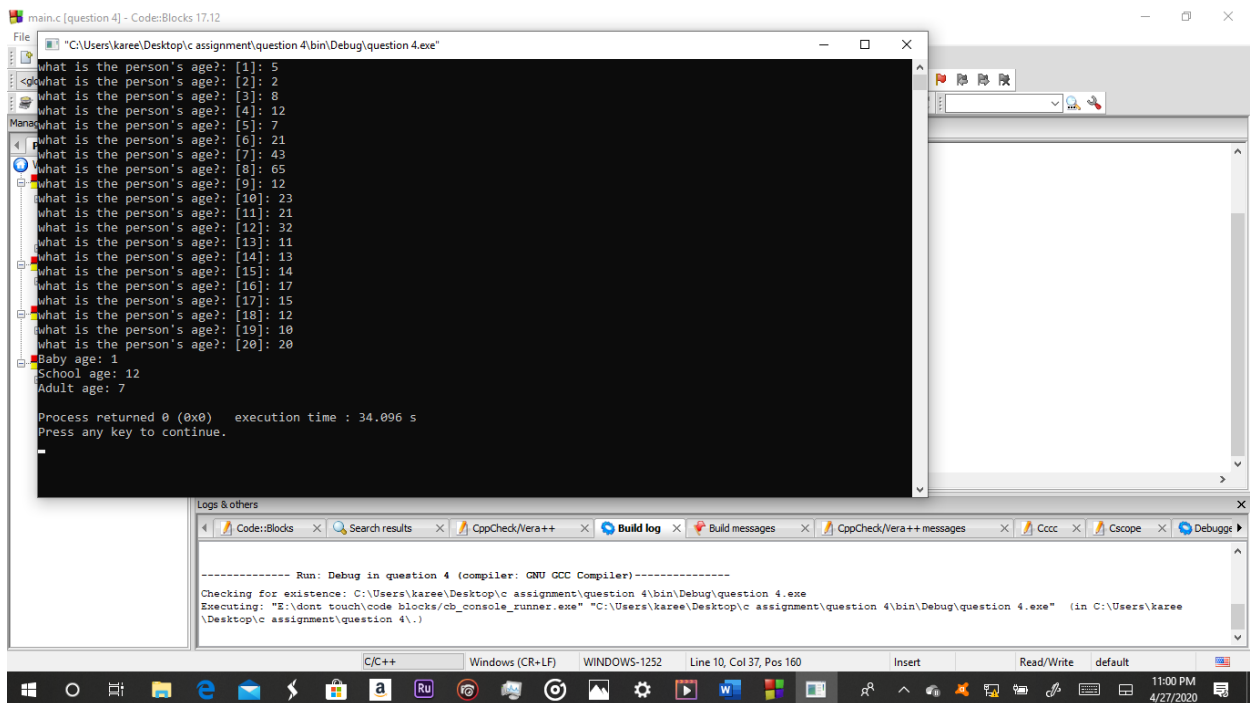
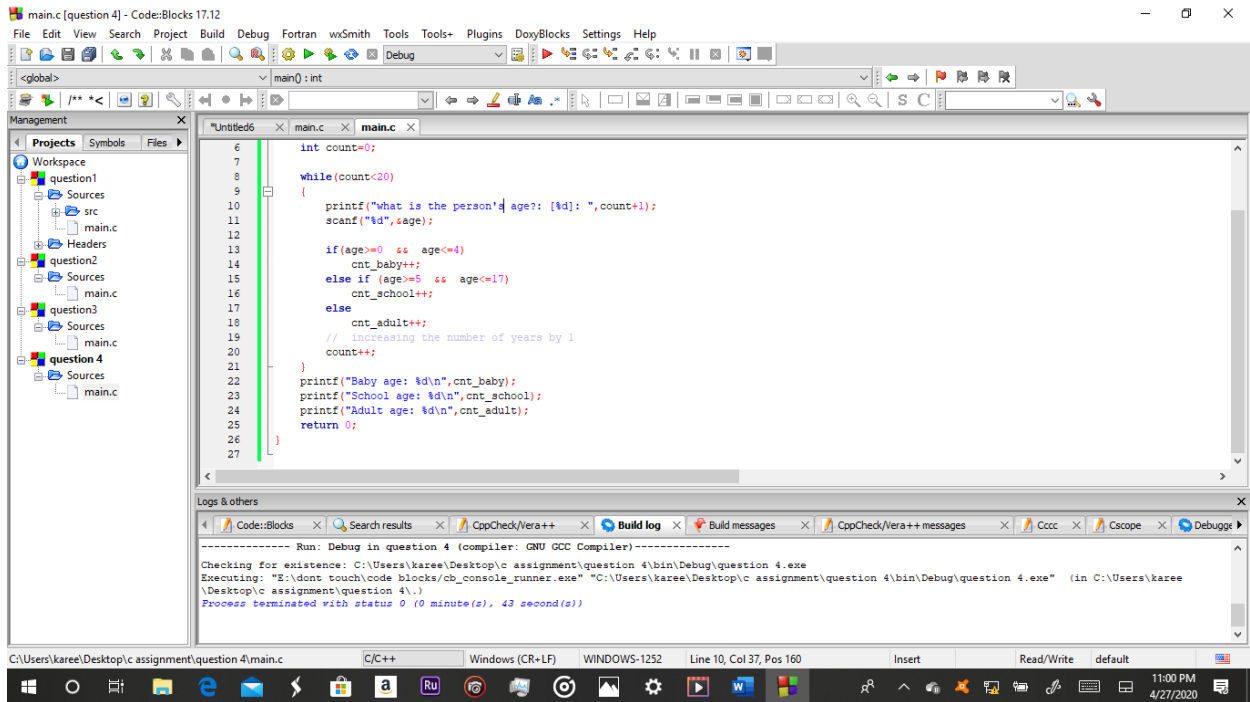
The 'Logs & others' window shows the same output as the previous screenshot:

```
----- Run: Debug in question3 (compiler: GNU GCC Compiler)-----
Checking for existence: C:\Users\karee\Desktop\c assignment\question3\bin\Debug\question3.exe
Executing: "E:\dont touch\code blocks\cb_console_runner.exe" "C:\Users\karee\Desktop\c assignment\question3\bin\Debug\question3.exe" (in C:\Users\karee\Desktop\c assignment\question3\.)
Process terminated with status 0 (0 minute(s), 16 second(s))
```



## QUESTION 4





## QUESTION 5

The screenshot shows the Code::Blocks IDE with a C++ project named 'question5'. The main window displays the source code for 'main.c'. The code includes a header file 'main.h' and defines a constant 'MAX\_ATTEMPTS' as 7. The main function starts with a 'run infinite loop' and a 'while' loop. Inside the loop, it increments a counter, reads a number from the user, and compares it to a generated number. If the user guesses correctly, it prints a congratulatory message and breaks the loop. If the generated number is less than the entered number, it prints a message to try again. If the generated number is greater, it also prints a message to try again. The code is currently at line 39.

```
19 //run infinite loop
20 while(1)
21 {
22     //increase counter
23     count++;
24
25     //read number from user
26     printf("\n\nGuess a number from (0 to 100): ");
27     scanf("%d",&num);
28
29     //compare entered number with generated number
30
31     if(random_genNo==num){
32         printf("Congratulations, you have guessed a correct number.");
33         break;
34     }
35     else if(random_genNo<num){
36         printf("Generated number is less than entered number, try your luck again...");
37     }
38     else if(random_genNo>num){
39         printf("Generated number is greater than entered number, try your luck again...");
```

The screenshot shows the Code::Blocks IDE with the same C++ project. The main window displays the source code for 'main.c' from line 31 to 51. The code continues from the previous screenshot, showing the 'if' and 'else if' conditions for the number-guessing logic. It also includes a condition to check if the counter has reached the maximum limit (7). If the limit is reached, it prints a message indicating the game is over and breaks the loop. The main function ends with a 'return 0;' statement. The code is currently at line 51.

```
31     if(random_genNo==num){
32         printf("Congratulations, you have guessed a correct number.");
33         break;
34     }
35     else if(random_genNo<num){
36         printf("Generated number is less than entered number, try your luck again...");
37     }
38     else if(random_genNo>num){
39         printf("Generated number is greater than entered number, try your luck again...");
40     }
41
42     if(count==7){
43         printf("\n\nMaximum limit of attempts finished, GAME OVER FOR YOU!\n");
44         break;
45     }
46 }
47
48 return 0;
49
50
51
```

