3rd assignment of c programing .

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Section or lab : 8

Electrical communication engineering.

Code 1

```
#include <stdio.h>

#include <stdlib.h>


int main()

{

  int num1 , x , y , z , i ;


  printf("please enter a +ve  number\n");

  scanf("%d",&num1);


  while(num1<0){

    printf("please enter a +ve number not a -ve one\n");

    scanf("%d",&num1);

  }

  x=num1;

  y=1;


  for (i=1;i<=x;i+=2){
```

```c
        z=i/y;

    if (z==y){

        printf("%d\n",i);

        y++;

    }



    }



    return 0;

}
```
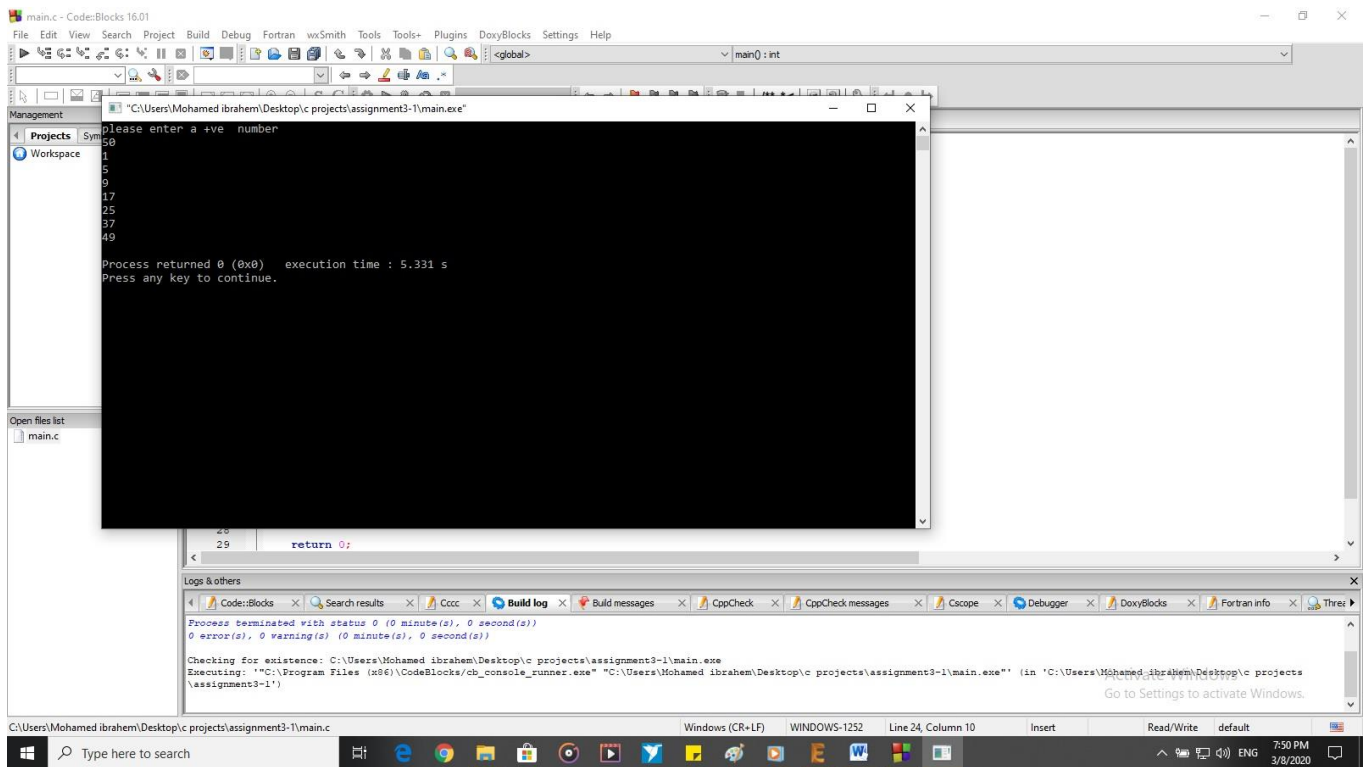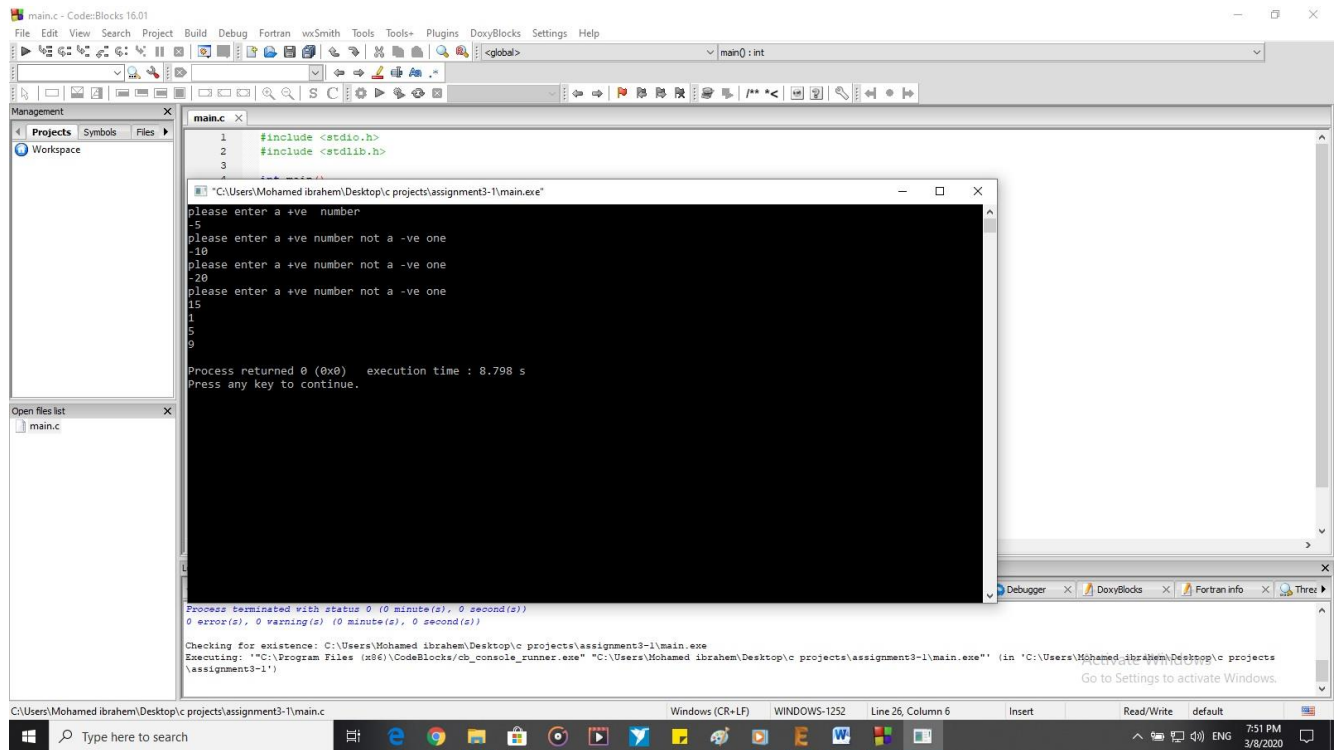
Code 2:-

```c
#include <stdio.h>

#include <stdlib.h>

int main()
{
    int x , y , z , w , a , b , c , d ,i,j;

    printf("we have an equation here we just need you to enter its coefficients\n");

    printf("the equation is a*(x*x)-b*(y*y*y)-c*(z)=d*(w*w) \n");

    printf("so please enter a \n");

    scanf("%d",&a);
```

```c
printf("so please enter b \n");

scanf("%d",&b);

printf("so please enter c \n");

scanf("%d",&c);

printf("so please enter d \n");

scanf("%d",&d);


j=1;


for ( x=1; x<=20; ++x)
{

    for ( y=1; y<=20; ++y)
    {

        for ( z=1; z<=20; ++z)
        {

            for ( w=1; w<=20; ++w)
            {
            if (a*(x*x)-b*(y*y*y)-c*(z)==d*(w*w))
            {

                printf("Solution%d: x=%d y=%d z=%d w=%d\n",j,x,y,z,w);

                j++;
```

```
                  }


              }

          }

      }

  }



if(j==1){

    printf("there is no solution for this equation with those coefficients\n");

}



    return 0;

}
```

Code 3:-

```c
#include <stdio.h>

#include <stdlib.h>

int main()

{

    int i , n , m,j,k,l,h , space;

    int f ;

    char z;

    z='*';

    printf("please enter the heart number\n");

    scanf("%d",&n);
```

```c
k=n-1;

m=2*n-1;



for(space=k;space>0;space--){

    printf(" ");

}



printf("%c",z);

printf("\n");

k--;

for (j=3;j<=m;j+=2){

    for(space=k;space>0;space--){

        printf(" ");

    }

    for (i=0;i<j;i++){

    printf("%c",z);

    }

printf("\n");

k--;

}



k=n-1;



for (l=0;l<3;l++){
```

```c
        for(space=0;space<l;space++){

            printf(" ");

            }

        for (i=0;i<k;i++){

            printf("%c",z);

            }


    for(space=0;space<(l+1);space++){

            printf(" ");

        }

        if(l==1){

            printf(" ");

        }

        if(l==2){

            printf("  ");

        }

    for (i=0;i<k;i++){

        printf("%c",z);

        }


printf("\n");

k-=2;

}
```

return 0;

}
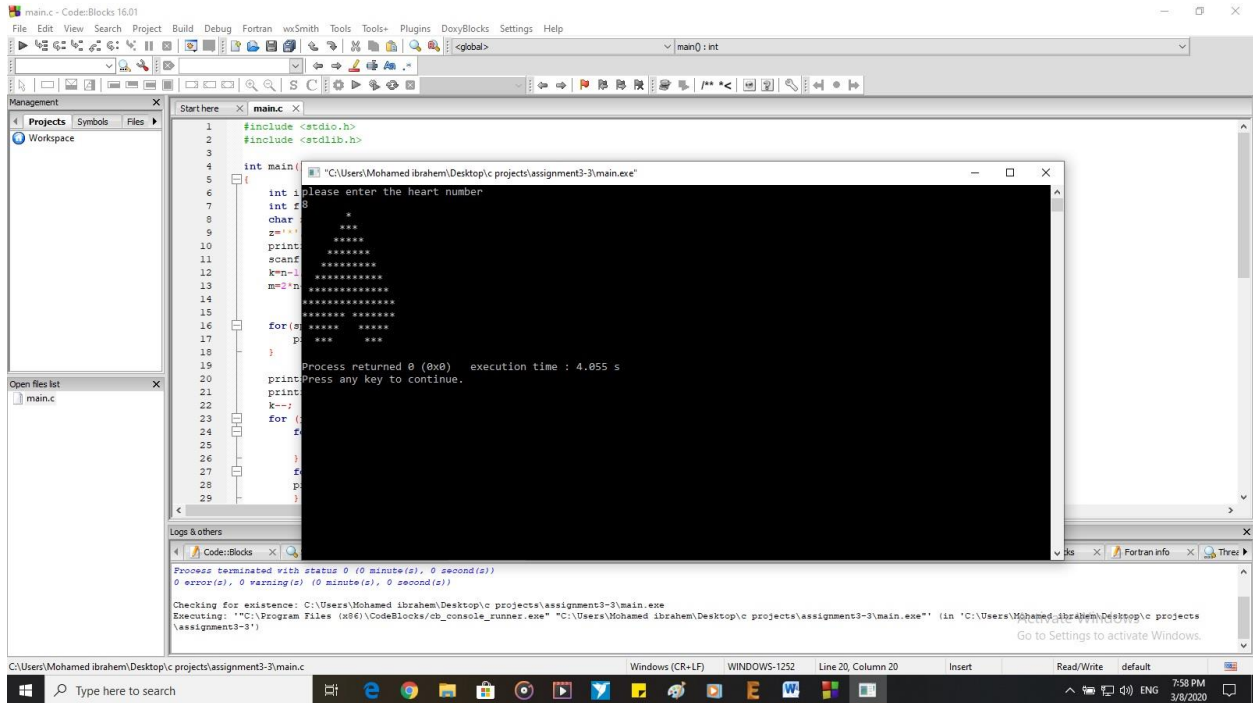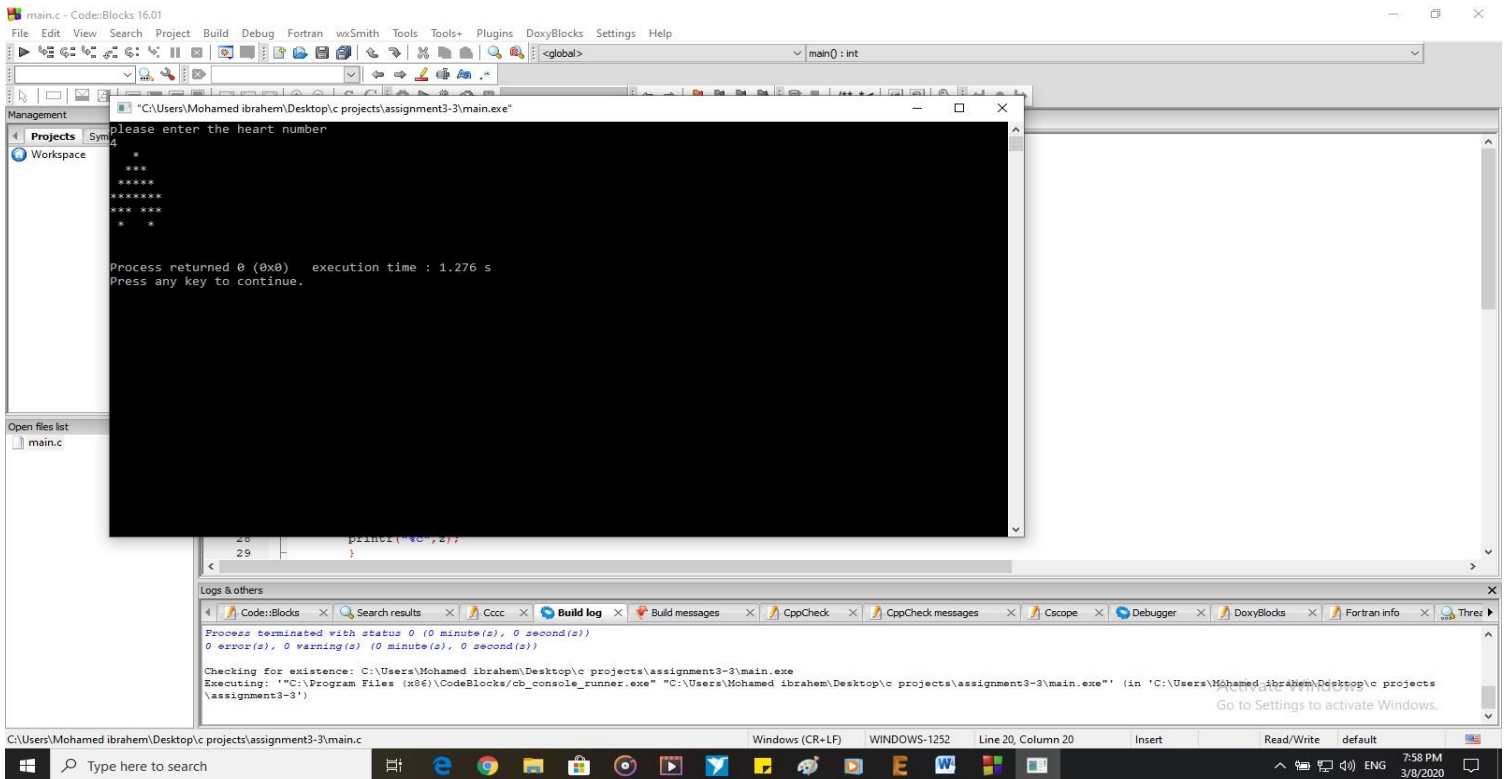
Code 4 : the bonus one :D

```c
#include <stdio.h>

#include <stdlib.h>


int main()

{

    int x , i , h,k,l ,a,space;

    printf("please enter the number of the pattern\n");

    scanf("%d",&x);

    k=x/2;



    for(space=k;space>0;space--){
```

```c
        printf(" ");

    }


    for (h=0;h<(x/2);h++){

        printf("**");

        printf(" ");

    }
k--;




for(i=0;i<(x/2-1);i++){

    printf("\n");

        for(space=k;space>0;space--){

            printf(" ");

        }

    k--;

    printf("**");

    }
printf("\n");

    for(i=0;i<(x/2+1);i++){

        printf("**\n");

    }
```

```c
    for(l=1;l<=(x/2-1);l++){

        for(space=1;space<=l;space++){

            printf(" ");

            }

        printf("**");

        if(l==(x/2-1)){

            for(a=0;a<(x/2-1);a++){

                printf(" ");

                printf("**");



            }

        }

        printf("\n");

    }


    return 0;

}
```

Screenshot 1:

main.c - Code::Blocks 16.01

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main() : int

Start here   main.c

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

"C:\Users\Mohamed ibrahem\Desktop\c projects\assignment3-bonus\main.exe"

```
please enter the number of the pattern
5
 ** **
**
**
**
**
 ** **

Process returned 0 (0x0)   execution time : 1.046 s
Press any key to continue.
```

Management
Projects | Symbols | Files
Workspace

Open files list
main.c

Code::Blocks | Search results | Cccc | Build log | Build messages | CppCheck | CppCheck messages | Cscope | Debugger | DoxyBlocks | Fortran info | Threa

File   Line   Text

C:\Users\Mohamed ibrahem\Desktop\c projects\assignment3-bonus\main.c   Windows (CR+LF)   WINDOWS-1252   Line 16, Column 28   Insert   Read/Write   default

Type here to search   8:00 PM 3/8/2020

Screenshot 2:

main.c - Code::Blocks 16.01

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main() : int

"C:\Users\Mohamed ibrahem\Desktop\c projects\assignment3-bonus\main.exe"

```
please enter the number of the pattern
10
    ** ** ** ** **
   **
   **
  **
 **
**
**
**
**
**
**
  **
   **
    ** ** ** ** **

Process returned 0 (0x0)   execution time : 2.369 s
Press any key to continue.
```

Management
Projects
Workspace

Open files list
main.c

```
27                 }
28             k--;
29             printf("**");
```

Logs & others

Code::Blocks | Search results | Cccc | Build log | Build messages | CppCheck | CppCheck messages | Cscope | Debugger | DoxyBlocks | Fortran info | Threa

File   Line   Text

C:\Users\Mohamed ibrahem\Desktop\c projects\assignment3-bonus\main.c   Windows (CR+LF)   WINDOWS-1252   Line 16, Column 28   Insert   Read/Write   default

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main.c - Code::Blocks 16.01

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`<global>`   main() : int

Management

Projects Symbols Files

Workspace

Start here   main.c

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

"C:\Users\Mohamed ibrahem\Desktop\c projects\assignment3-bonus\main.exe"

```
please enter the number of the pattern
8
   ** ** ** **
    **
  **
 **
**
**
**
**
**
**
 **
  **
   ** ** ** **


Process returned 0 (0x0)   execution time : 3.889 s
Press any key to continue.
```

Open files list

main.c

Code::Blocks   Search results   Cccc   Build log   Build messages   CppCheck   CppCheck messages   Cscope   Debugger   DoxyBlocks   Fortran info   Threa

File   Line   Text

C:\Users\Mohamed ibrahem\Desktop\c projects\assignment3-bonus\main.c

Windows (CR+LF)   WINDOWS-1252   Line 16, Column 28   Insert   Read/Write   default

Type here to search