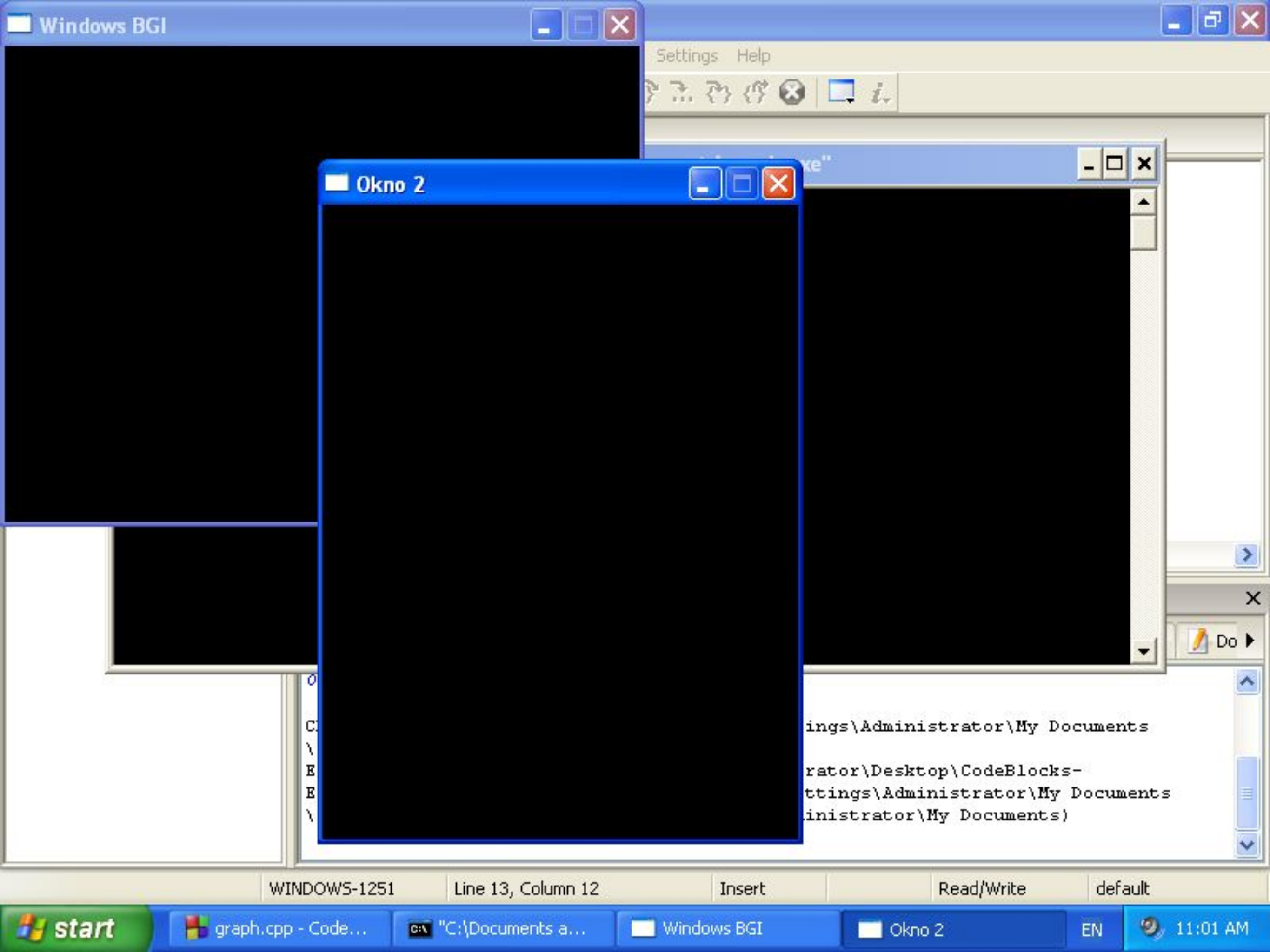


Вычислительная практика

Работа с графикой

Создание окна

```
#include <graphics.h>
int main()
{
    int okno1, okno2;
    okno1 = initwindow(400, 300);
    okno2 = initwindow(300, 400, "Okno 2", 200, 100);
    getch();
    setcurrentwindow(okno1);
    closegraph(okno2);
    getch();
    closegraph();
    return 0;
}
```



Windows BGI

Settings Help

Okno 2

```
C:\Documents and Settings\Administrator\My Documents
\
E
E
\
ings\Administrator\My Documents
rator\Desktop\CodeBlocks-
ttings\Administrator\My Documents
inistrator\My Documents)
```

WINDOWS-1251 Line 13, Column 12 Insert Read/Write default

start

graph.cpp - Code...

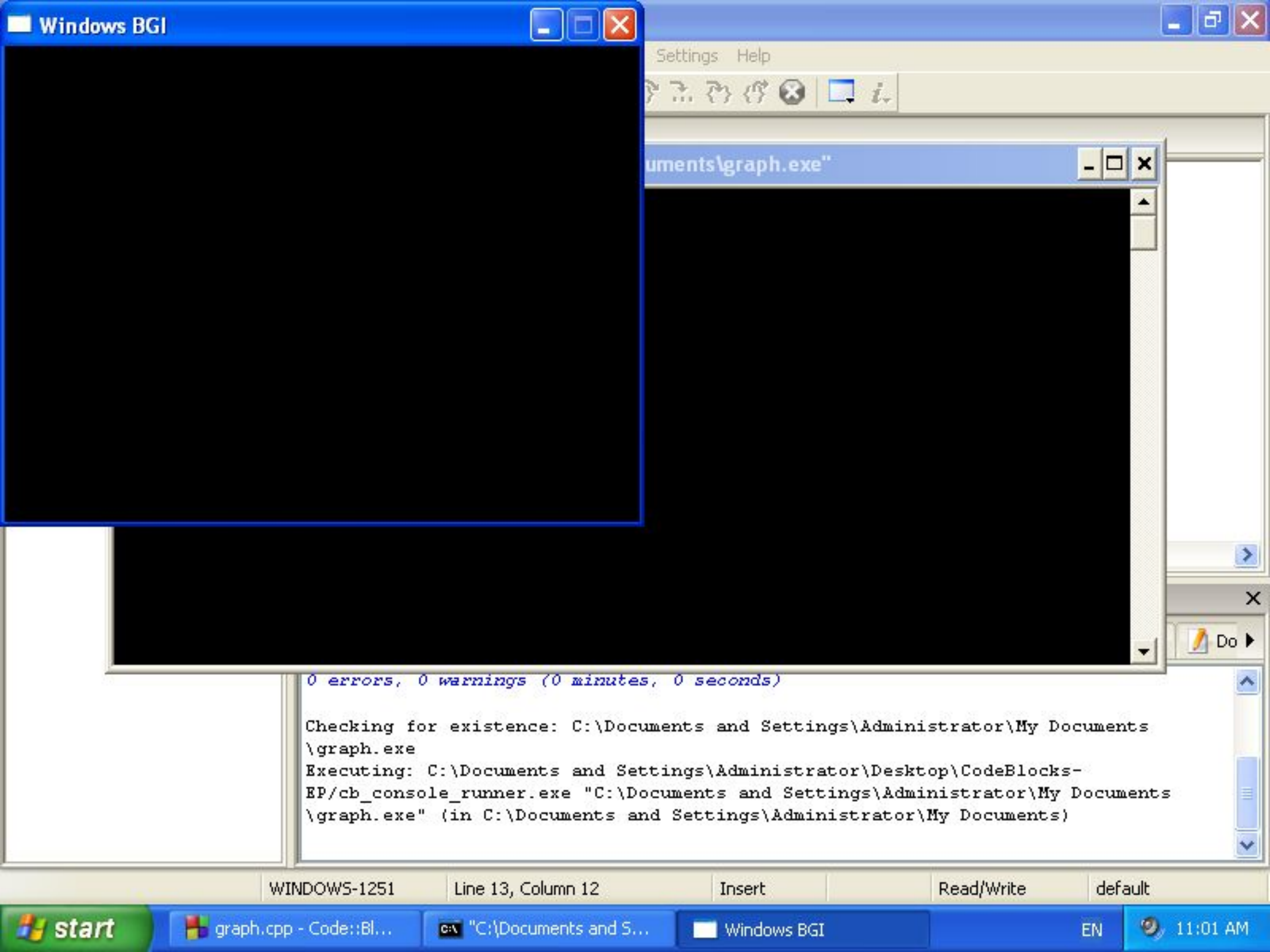
C:\Documents a...

Windows BGI

Okno 2

EN

11:01 AM



Windows BGI

Settings Help

Documents\graph.exe

0 errors, 0 warnings (0 minutes, 0 seconds)

Checking for existence: C:\Documents and Settings\Administrator\My Documents
\graph.exe
Executing: C:\Documents and Settings\Administrator\Desktop\CodeBlocks-
EP\cb_console_runner.exe "C:\Documents and Settings\Administrator\My Documents
\graph.exe" (in C:\Documents and Settings\Administrator\My Documents)

WINDOWS-1251

Line 13, Column 12

Insert

Read/Write

default

start

graph.cpp - Code::Bl...

C:\Documents and S...

Windows BGI

EN

11:01 AM

Projects C:\ "C:\Documents and Settings\Administrator\My Documents\graph.exe"

```
Process returned 0 (0x0)   execution time : 10.766 s
Press any key to continue.
```

```
0 errors, 0 warnings (0 minutes, 0 seconds)

Checking for existence: C:\Documents and Settings\Administrator\My Documents
\graph.exe
Executing: C:\Documents and Settings\Administrator\Desktop\CodeBlocks-
EP\cb_console_runner.exe "C:\Documents and Settings\Administrator\My Documents
\graph.exe" (in C:\Documents and Settings\Administrator\My Documents)
```

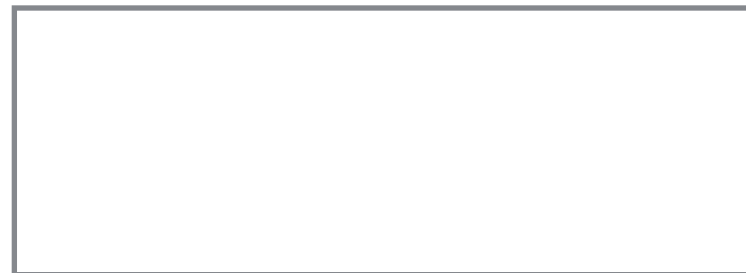
Задание цвета

```
cvet = getpixel(30, 50);  
putpixel(100, 100, cvet);  
setcolor(WHITE);
```

<i>BLACK</i>	Черный	0
<i>BLUE</i>	Синий	1
<i>GREEN</i>	Зеленый	2
<i>CYAN</i>	Циановый	3
<i>RED</i>	Красный	4
<i>MAGENTA</i>	Малиновый	5
<i>BROWN</i>	Коричневый	6
<i>LIGHTGRAY</i>	Светлый серый	7
<i>DARKGRAY</i>	Темный серый	8
<i>LIGHTBLUE</i>	Голубой	9
<i>LIGHTGREEN</i>	Светлый зеленый	10
<i>LIGHTCYAN</i>	Светлый циановый	11
<i>LIGHTRED</i>	Светлый красный	12
<i>LIGHTMAGENTA</i>	Светлый малиновый	13
<i>YELLOW</i>	Желтый	14
<i>WHITE</i>	Белый	15

Графические примитивы

- `line(x1, y1, x2, y2);`
- `circle(x, y, radius);`
- `rectangle(x1, y1, x2, y2);`
- `floodfill(x, y, cvetGranicy);`
- `readimagefile("file.jpg", x1, y1, x2, y2)`



`x2, y2`

ОЧИСТКА ОКНА

```
int razmer, x1=50, y1=50, x2=70, y2=70;  
void *bufer;  
  
razmer = imagesize(x1, y1, x2, y2);  
bufer = malloc(razmer);  
getimage(x1, y1, x2, y2, bufer);  
cleardevice();  
putimage(x1+10, y1, bufer, 0);
```


Клавиатура

- `kodKlavishi = getch();`
- `while(!kbhit())...`
- `outtextxy(x, y, stroka);`

МЫШЬ

```
while (!ismouseclick(WM_LBUTTONDOWN))
{
    delay(10);
    putpixel(mousex(), mousey(), WHITE);
}
int x, y;
getmouseclick(WM_LBUTTONDOWN, x, y);
```

Справочники

<http://window.edu.ru/resource/754/28754/files/ustu361.pdf>

<http://www.cs.colorado.edu/~main/bgi/doc/> (англ.)