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//trasarea axelor pe ecran si realizarea de grafice de functii

```
#include<iostream.h>
#include<stdlib.h>
#include<conio.h>
#include<graphics.h>
#include<math.h>
```

//axele reale

```
float xr_min=-3;float yr_min=-4;
float xr_max=3;float yr_max=4;
```

//coordonatele ecranului

```
int xe_min=0;int ye_min=0;
int xe_max=300;int ye_max=300;
```

```
float sx,sy;
int xe(float xr){
    return (xe_min+sx*(xr-xr_min));
}
int ye(float yr){
    return (ye_max-sy*(yr-yr_min));
}
```

```
float f(float t){
    return pow(t,2);
}
```

$f(x) = x^2$ return $(t+1)$; $f(x) = x+1$

void main()

```
{
    clrscr();
    int gdriver=DETECT,gmode;
    initgraph(&gdriver,&gmode,"C:\\TC\\BGI");
```

```
    sx=(xe_max-xe_min)/(xr_max-xr_min);
    sy=(ye_max-ye_min)/(yr_max-yr_min);
```

```
    //setarea culorii de scriere
    setcolor(EGA_WHITE);
```

```
    //se pozitioneaza la punctul de coordonate(10,20)
    gotoxy(10,20);
    cout<<"graficul functiei f(x)=x*x";
```

```
    //traseaza cele doua axe(line)
    line(xe(0),ye(yr_min),xe(0),ye(yr_max));
    line(xe(xr_min),ye(0),xe(xr_max),ye(0));
    float pasx=1./sx/10.;
    for(float x=xr_min;x<=xr_max;x+=pasx){
        putpixel(xe(x),ye(f(x)),3);
    }
```

```
    getch();
    getch();
    closegraph();
}
```

Options
Libraries



line(xe(xr_max), ye(0))