

Grafica a confronto

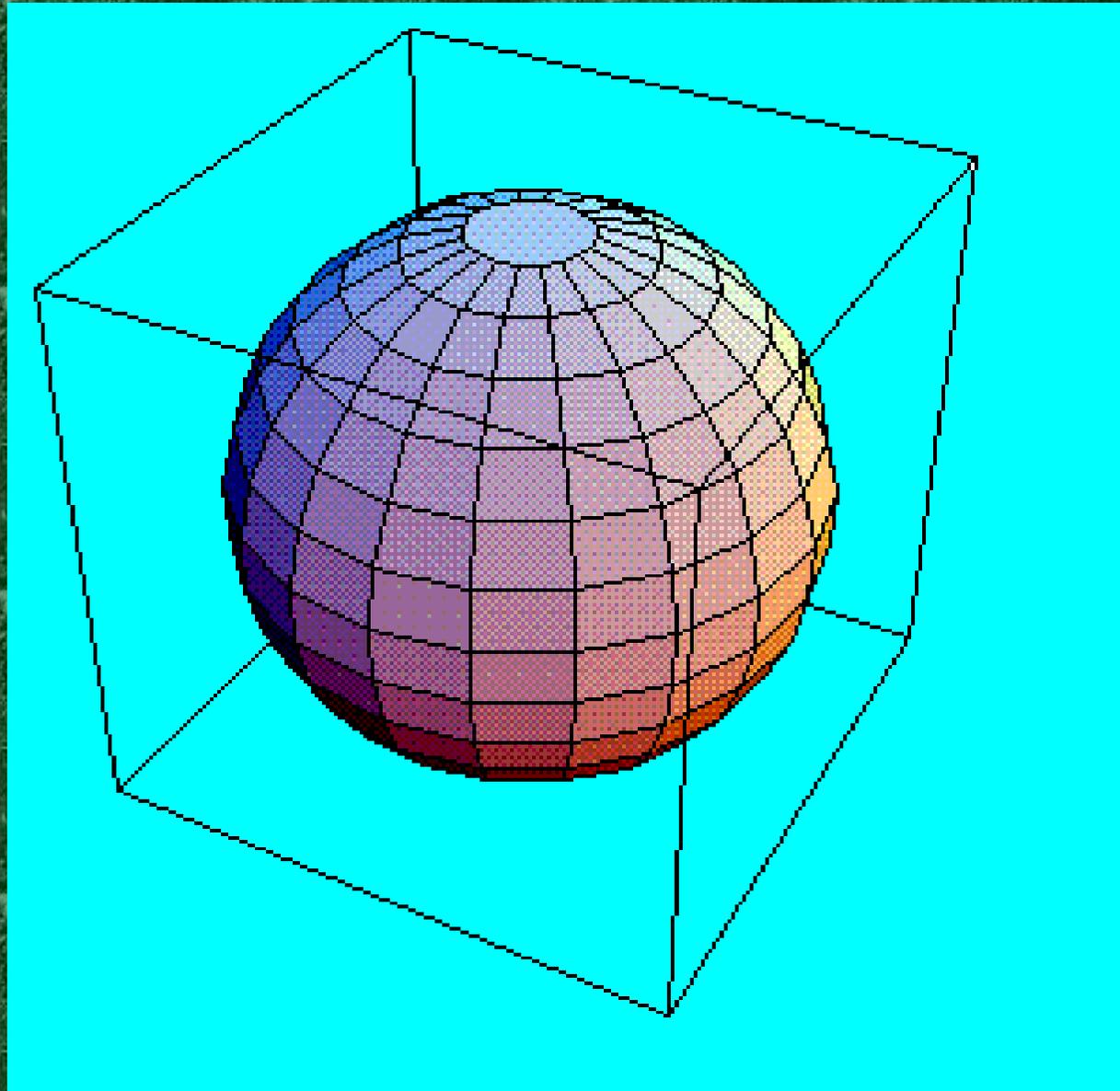
*Linguaggi
e
applicazioni*

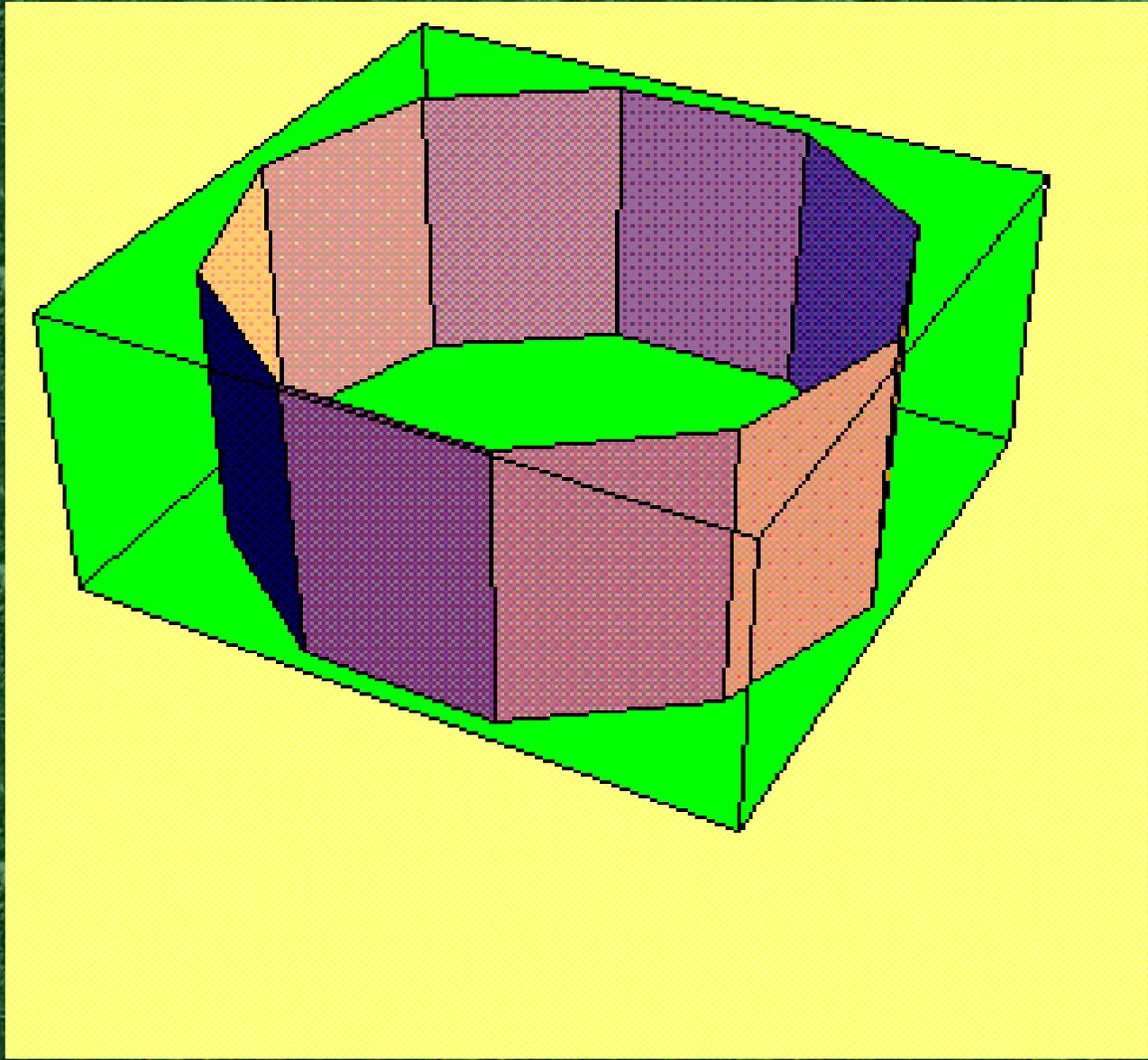
Mathematica cabri3D
Frattali theorist-mac
geofract-mac
calcolatrice grafica-mac
Windfract turbo pascal
Derive prolog C++ Lisp
Hypercard-mac
Gnuplot

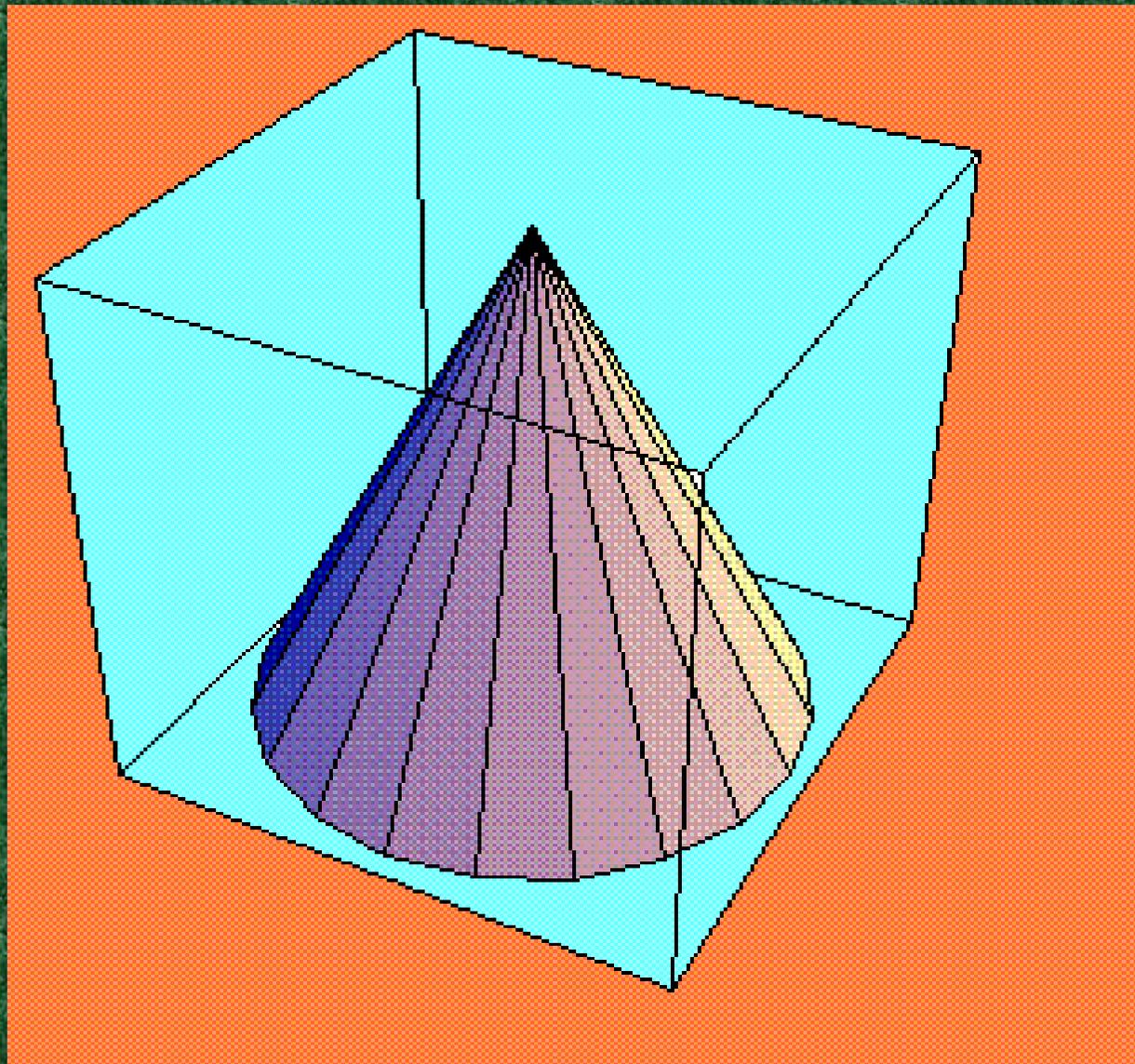
grafica

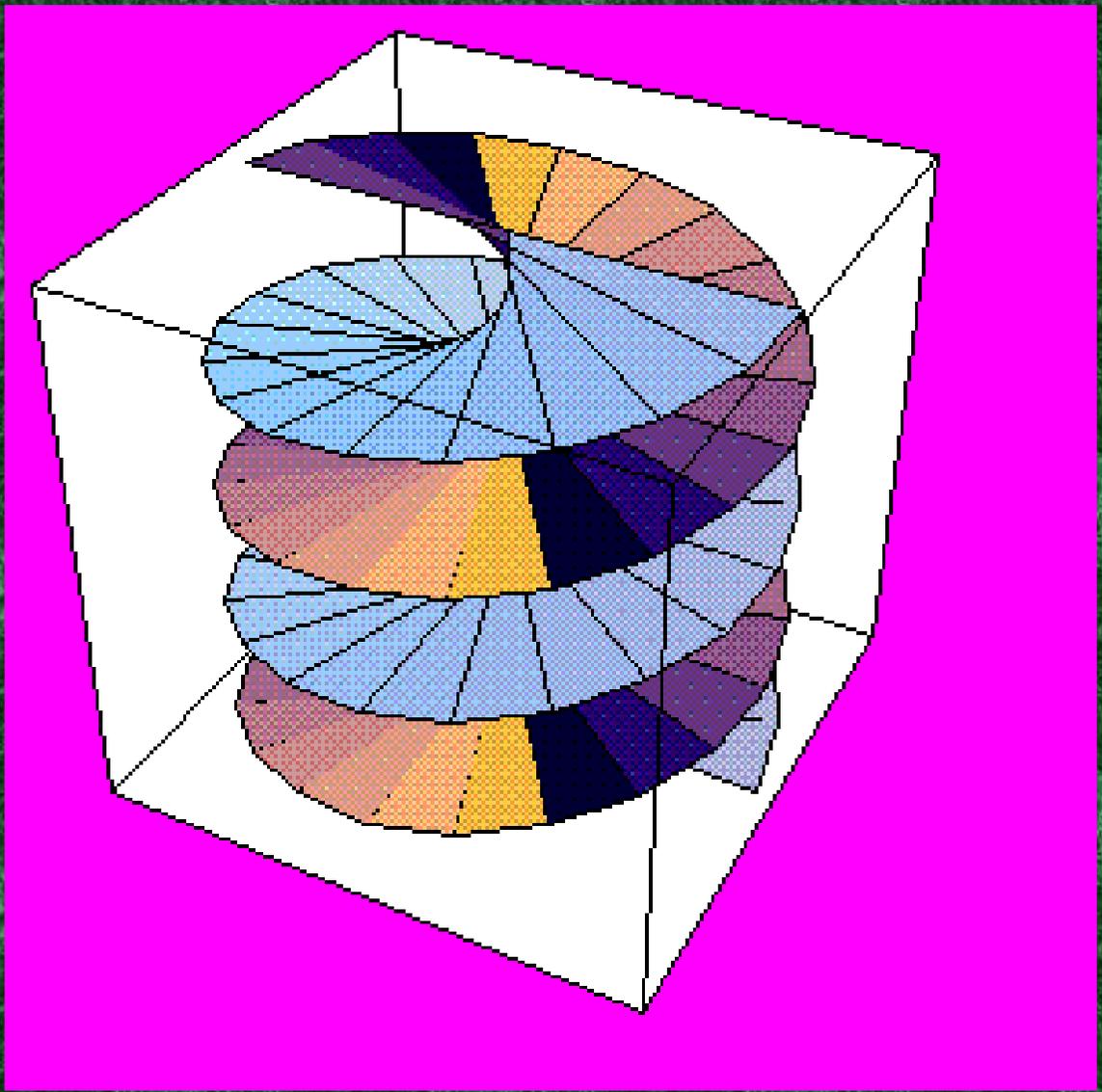
con

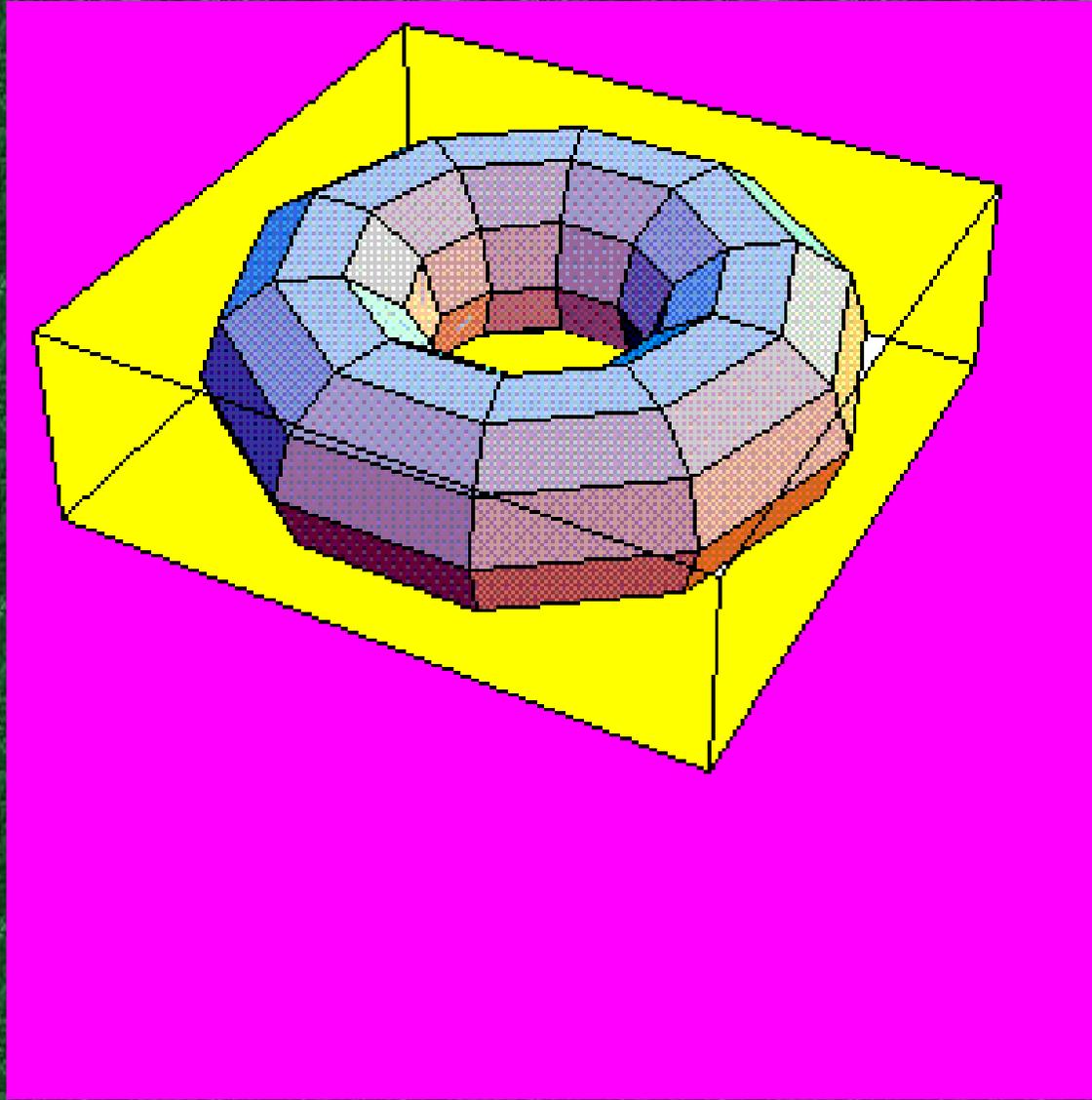
mathematica

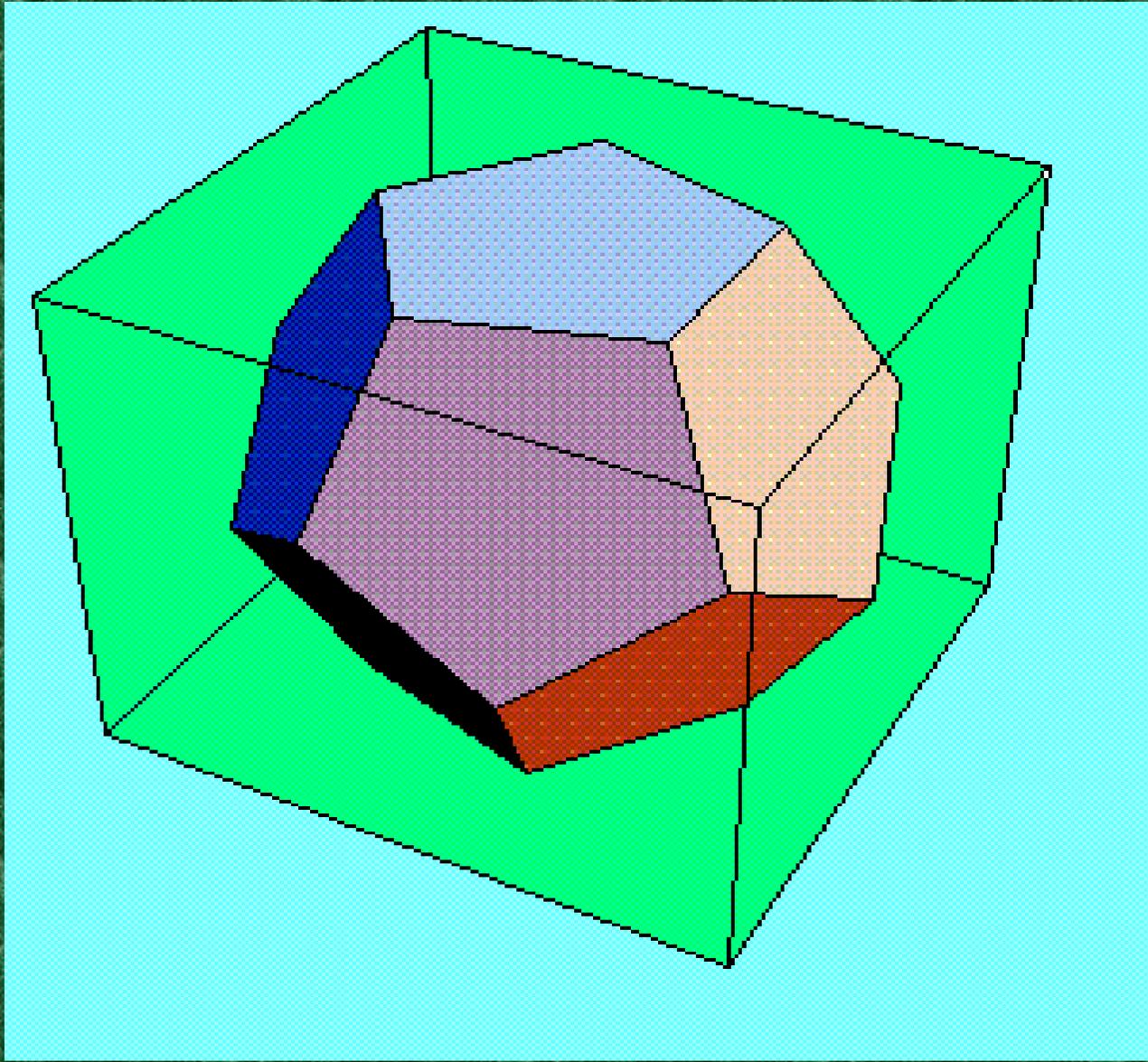








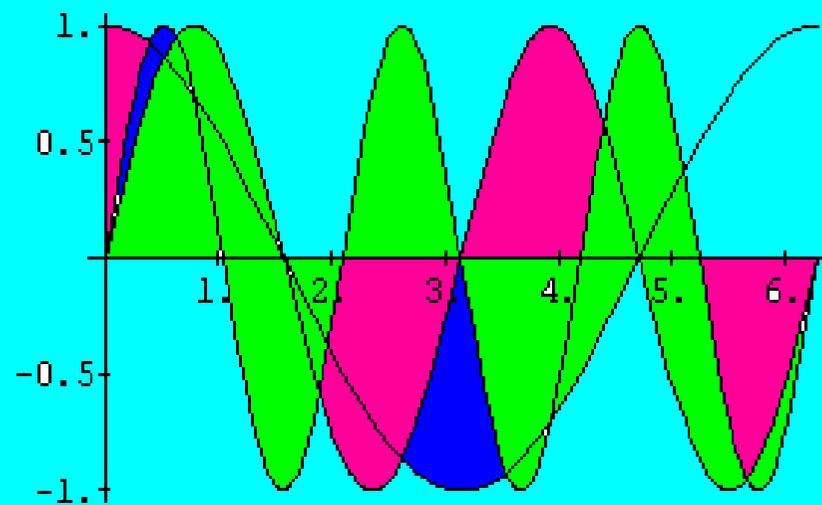




- grafo2
- modifica di graf1
- cambiare Sin[x] con Cos[x]
- selezionare cella con Plot...e poi ACTION-EVALUATE SELECTION
- viene eseguito nuovo grafico con modifica

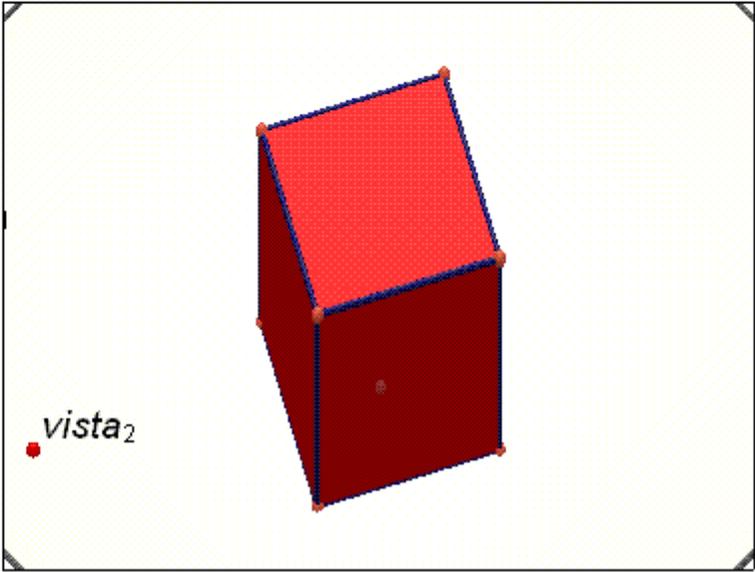
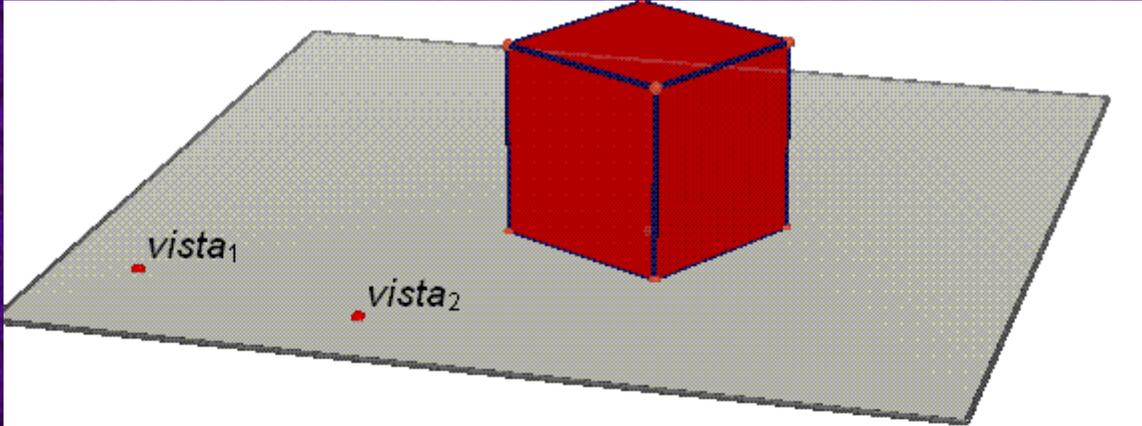
Plotting Several Functions

```
Plot[{Cos[x], Sin[2x], Sin[3x]}, {x, 0, 2Pi}];
```

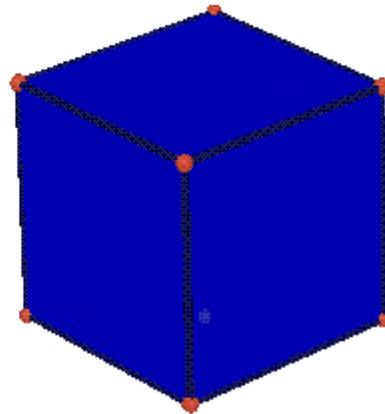
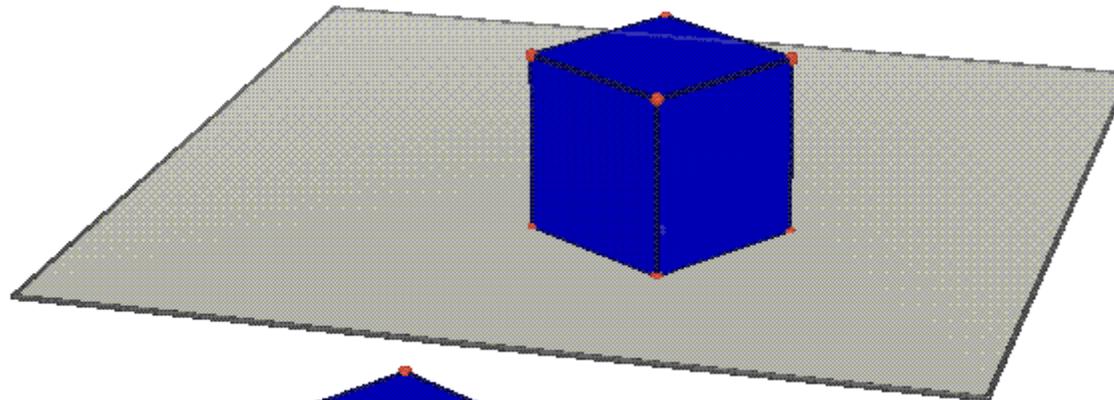
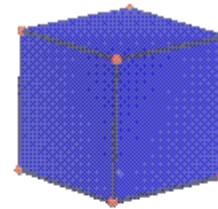


grafica

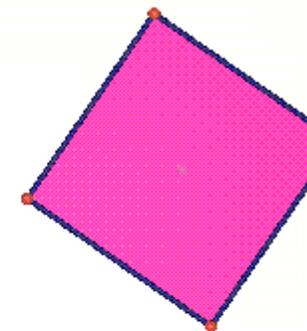
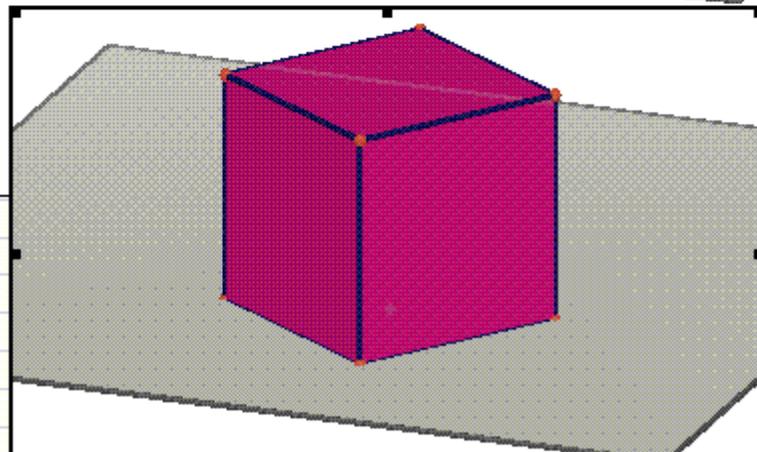
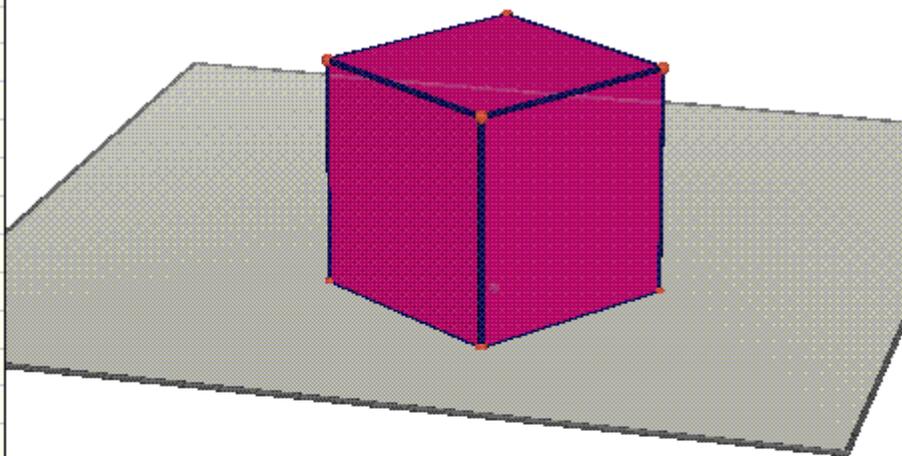
Con Cabri 3D



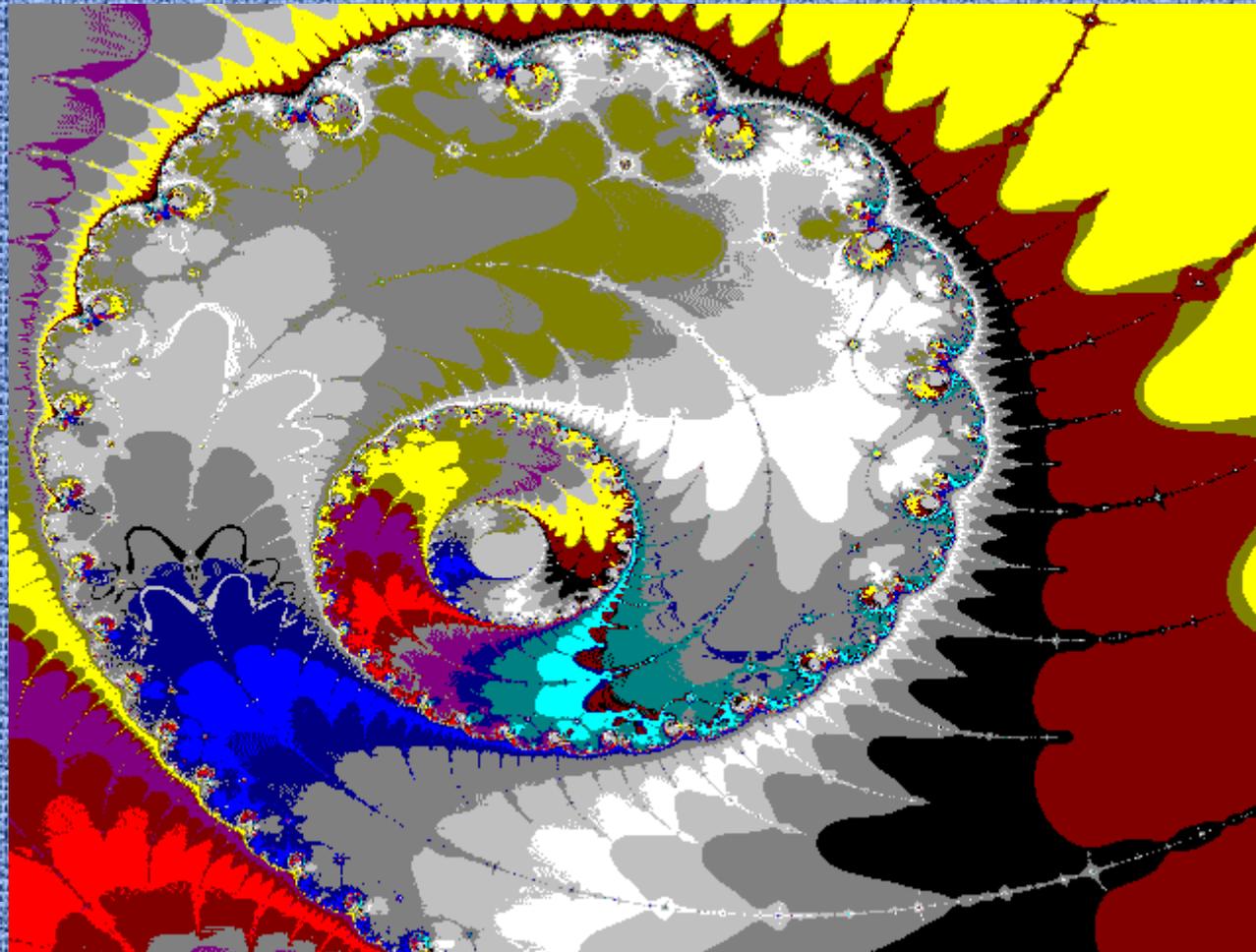
costruiti tre cubi
trascinati uno verso alto e uno verso il basso
sono complanari e presentano diversa
dimensione per effetto prospettico accentuato
da diversa gradazione del colore della
superficie

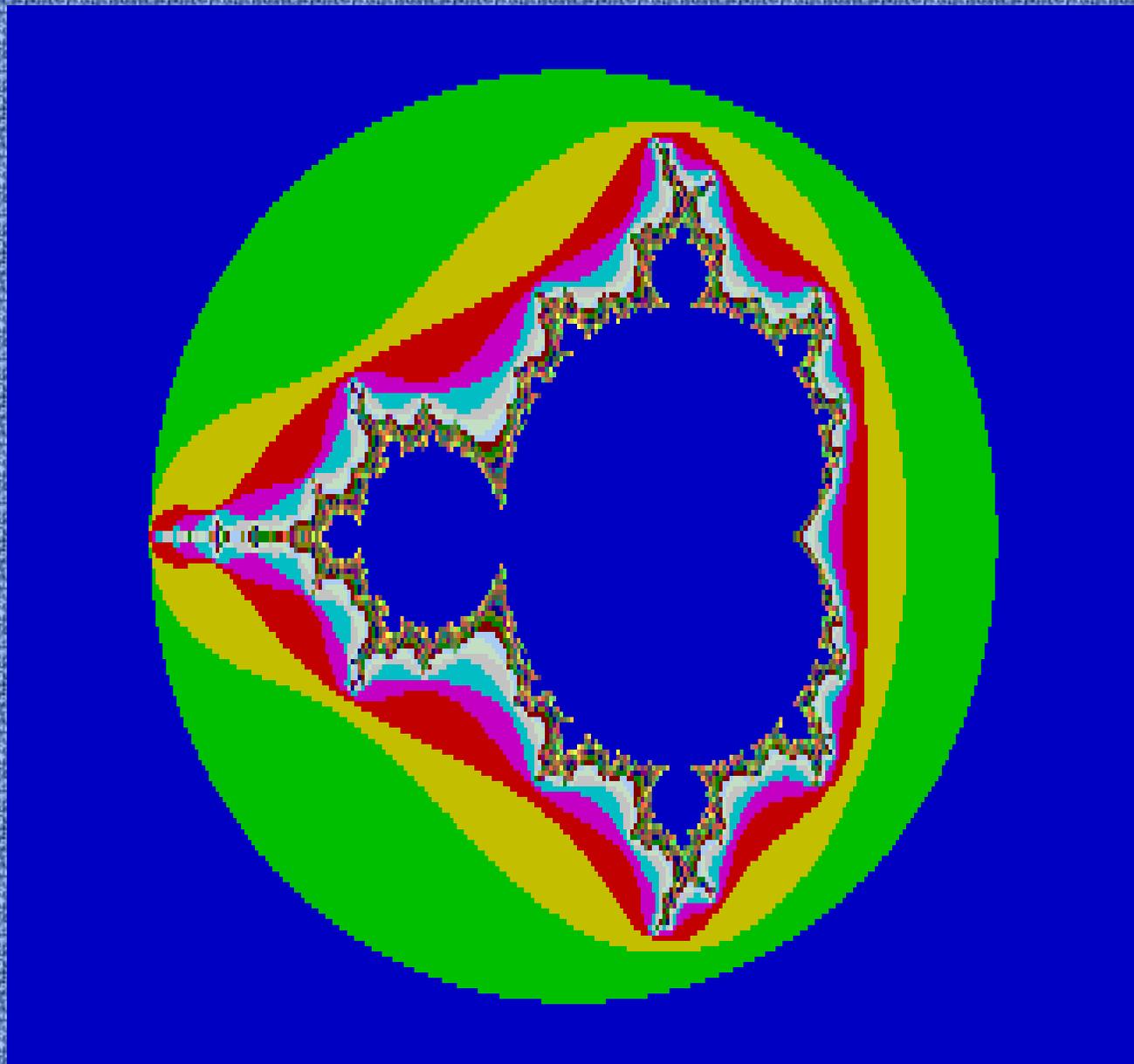


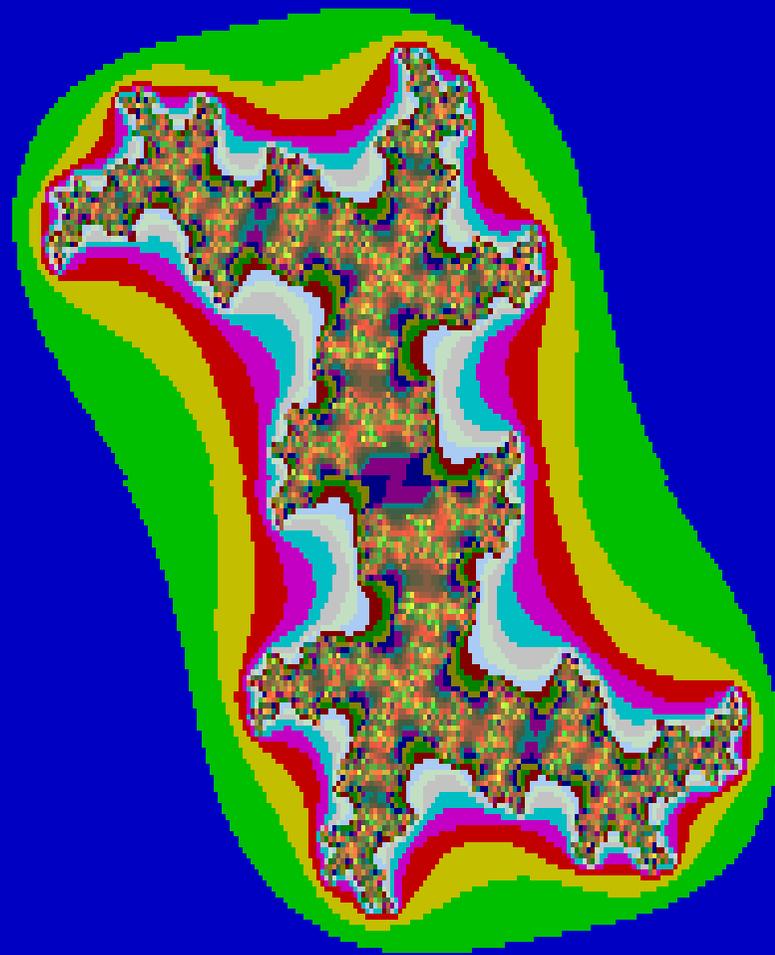
documento con una sola pagina e tre viste



grafica
frattale



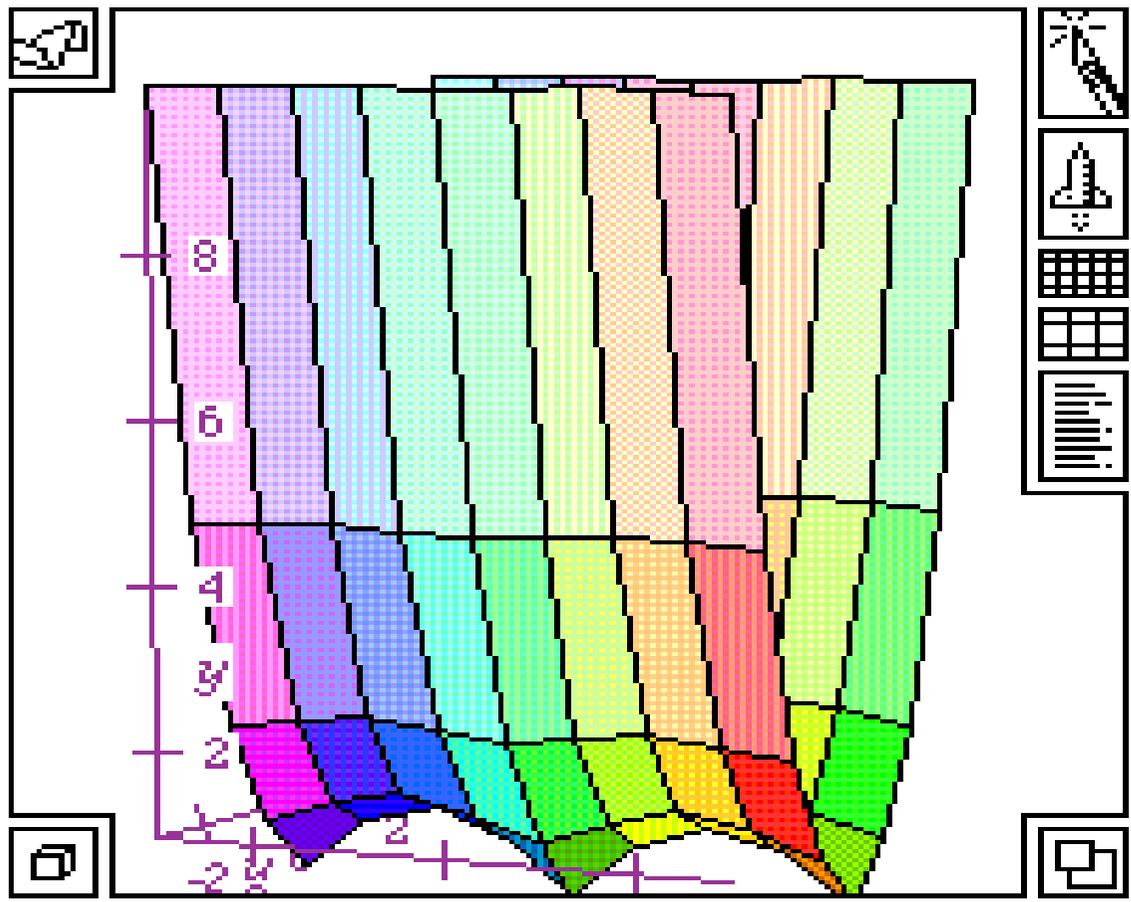




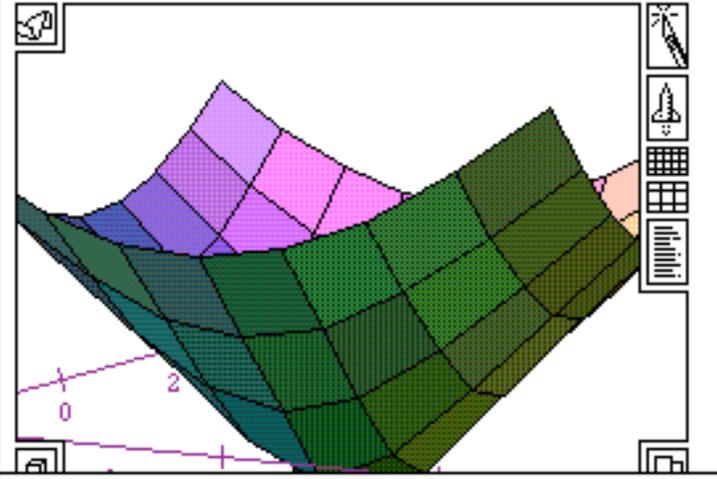
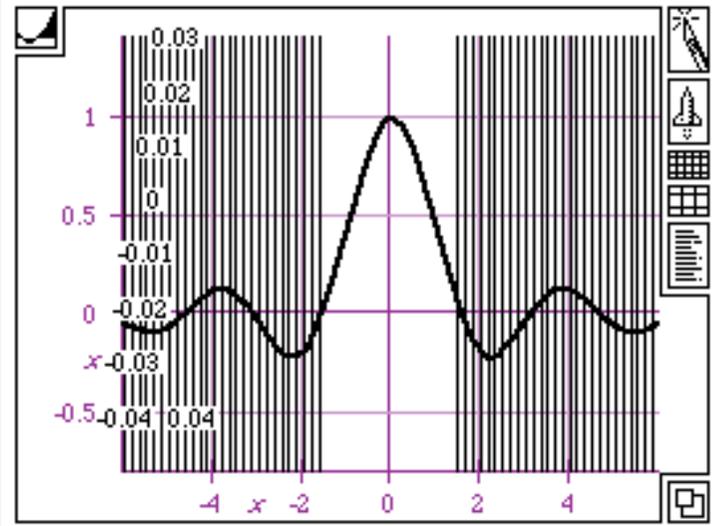
Grafica
con
Theorist
su mac

grafico da animare

$y = \sin(x)$



$y = \sin(x) \frac{\cos(x)}{x}$



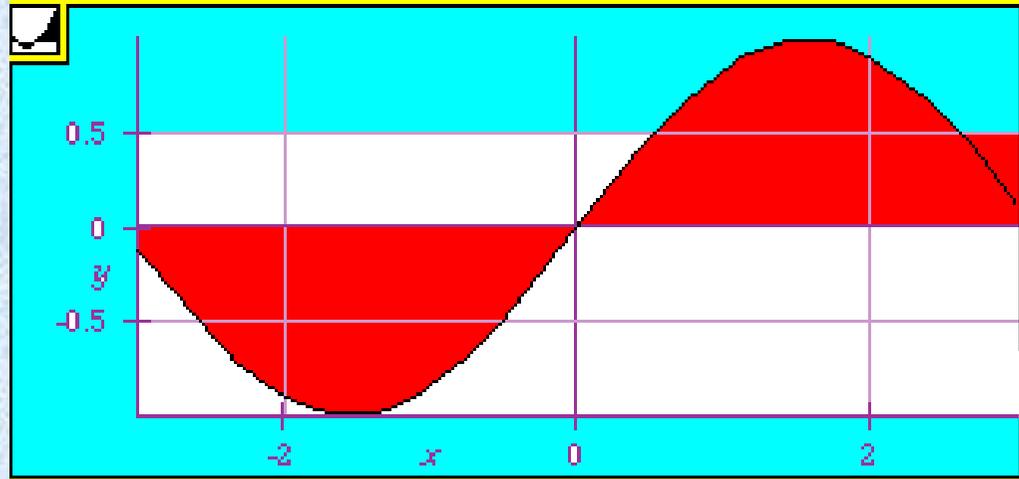
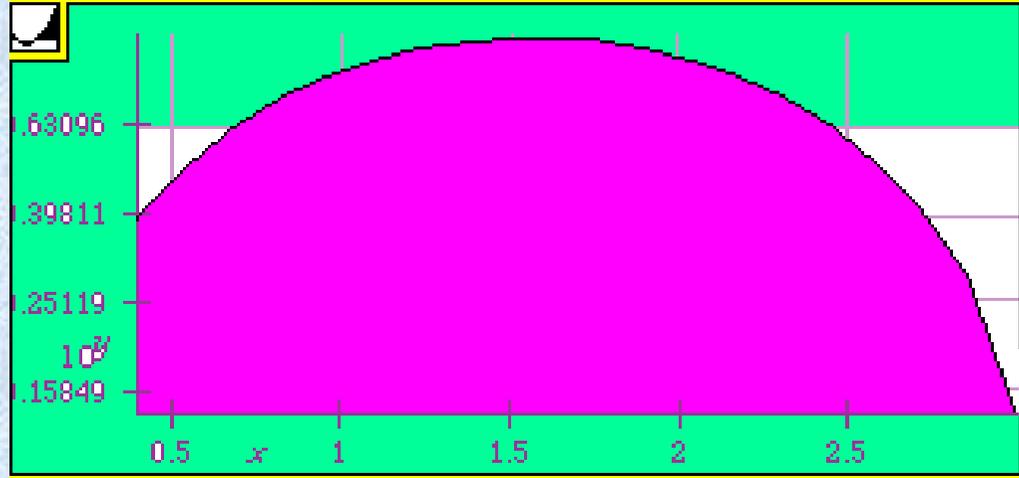
$f(x)$	$x+y$	$-x$	$x=y$	$x<y$	$x>y$	$\partial_y x$	$/x$	$\sin(x)$
	$x-y$	\sqrt{x}	$x \neq y$	$x \leq y$	$x \geq y$	Σx	$f_y^2 x$	$\cos(x)$
	$x * y$	x^y	$\vec{x} \times \vec{y}$	$x!$	x^+	Πx	$\int [x$	$\log(x)$
	x/y	x_y	$\vec{x} \cdot \vec{y}$	$ x $	$x \dots y$		$\{ \}$	

Untitled

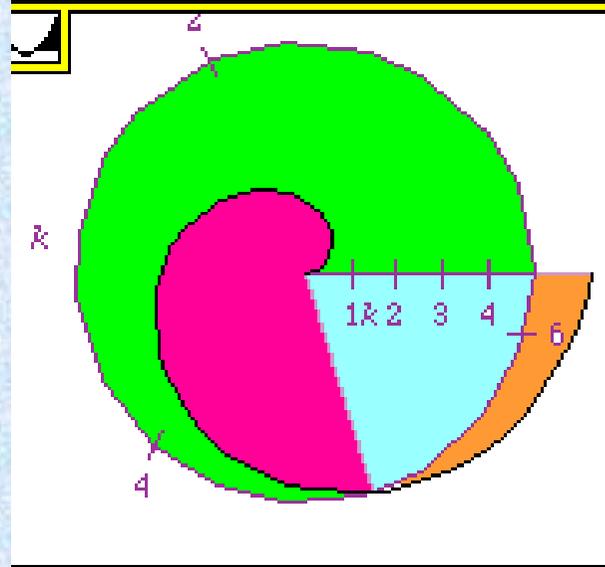
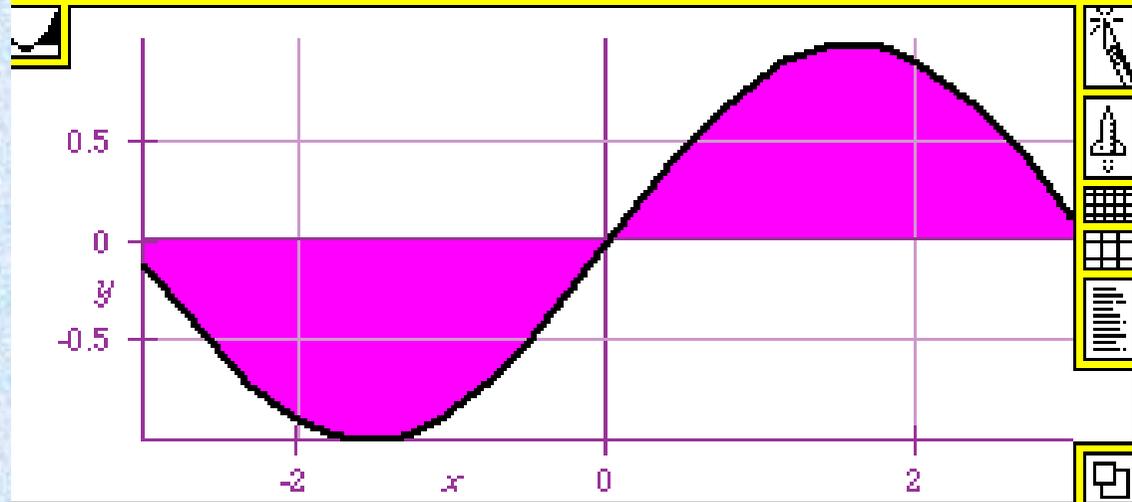
Declarations

$y = \sin(x)$

$f(x)$	$x+y$	$-x$	$x=y$	$x<y$	$x>y$	$\partial_y x$	f/x	$\sin(x)$
	$x-y$	\sqrt{x}	$x\neq y$	$x\leq y$	$x\geq y$	Σx	$f_j^* x$	$\cos(x)$
	$x \times y$	x^y	$\vec{x} \times \vec{y}$	$x!$	x^+	Πx	$\int f(x)$	$\log(x)$
	x/y	x_y	$\vec{x} \cdot \vec{y}$	$ x $	$x...y$		$\{i\}$	



A large yellow workspace area with a mouse cursor. To the left of this area is a vertical toolbar containing icons for: a pencil (drawing), a calculator, a grid, a list, a zoom in/out, and a refresh/reset icon.

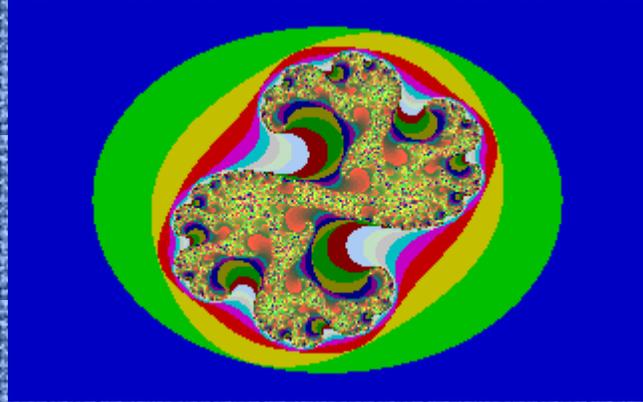


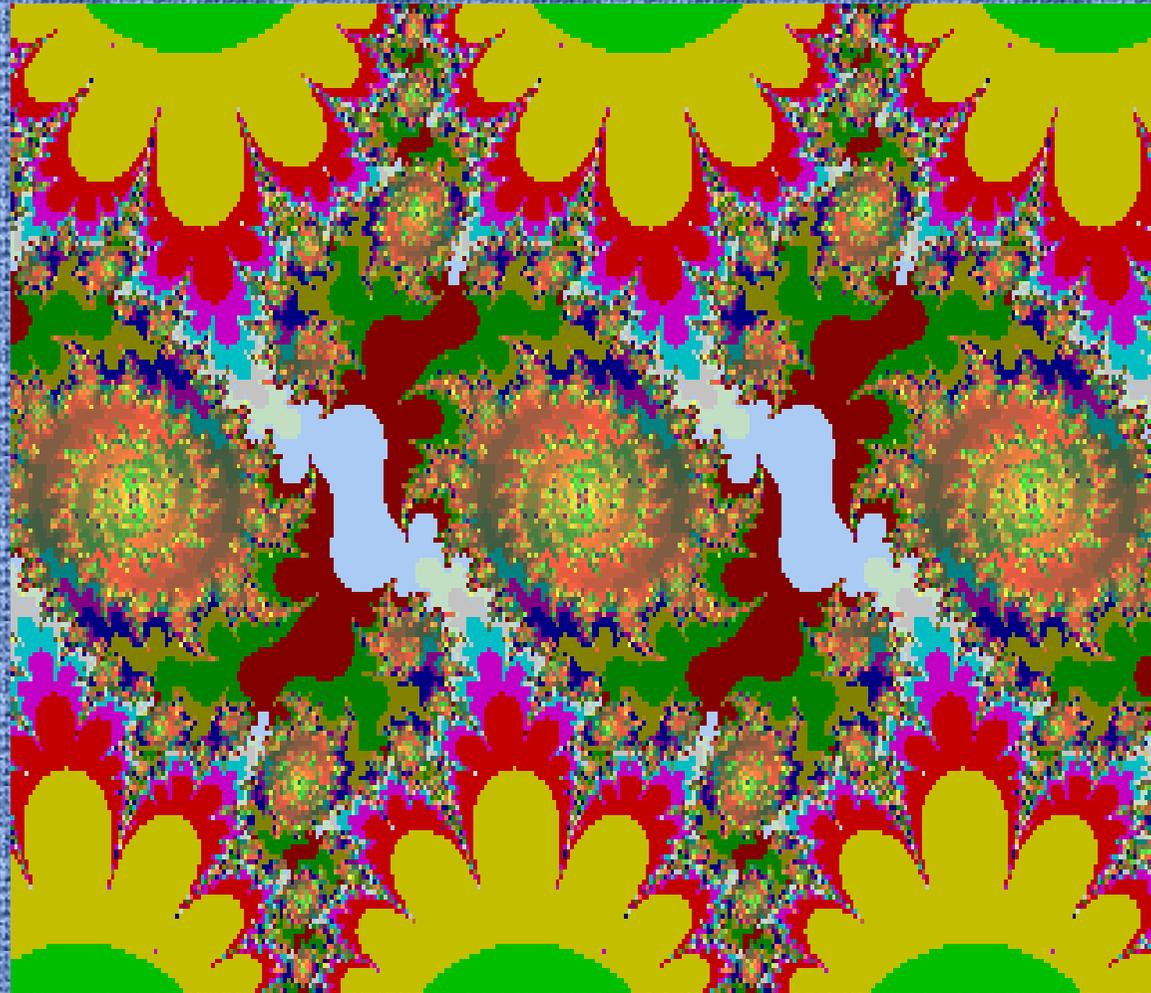
Navigation icons: a pencil, a lightbulb, a grid, a list, and a square.

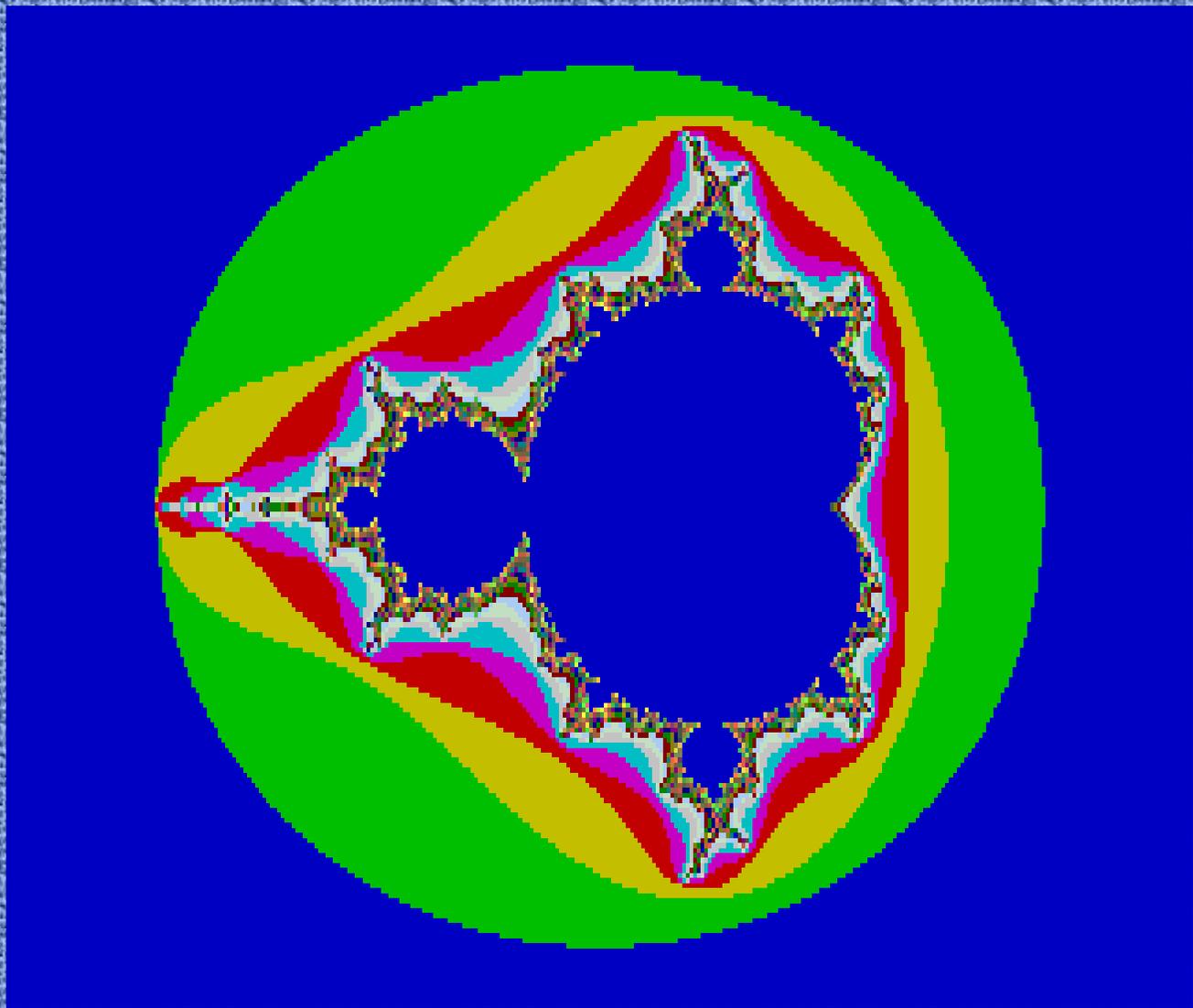
$f(x)$	$x+y$	$-x$	$x=y$	$x<y$	$x>y$	$\partial_y x$	$/x$	$\sin(x)$
	$x-y$	\sqrt{x}	$x \neq y$	$x \leq y$	$x \geq y$	Σx	$f_y^2 x$	$\cos(x)$
	$x \times y$	x^y	$\vec{x} \times \vec{y}$	$x!$	x^+	Πx	$\xi[x]$	$\log(x)$
	x/y	x_y	$\vec{x} \cdot \vec{y}$	$ x $	$x \dots y$	\int	$\{y\}$	

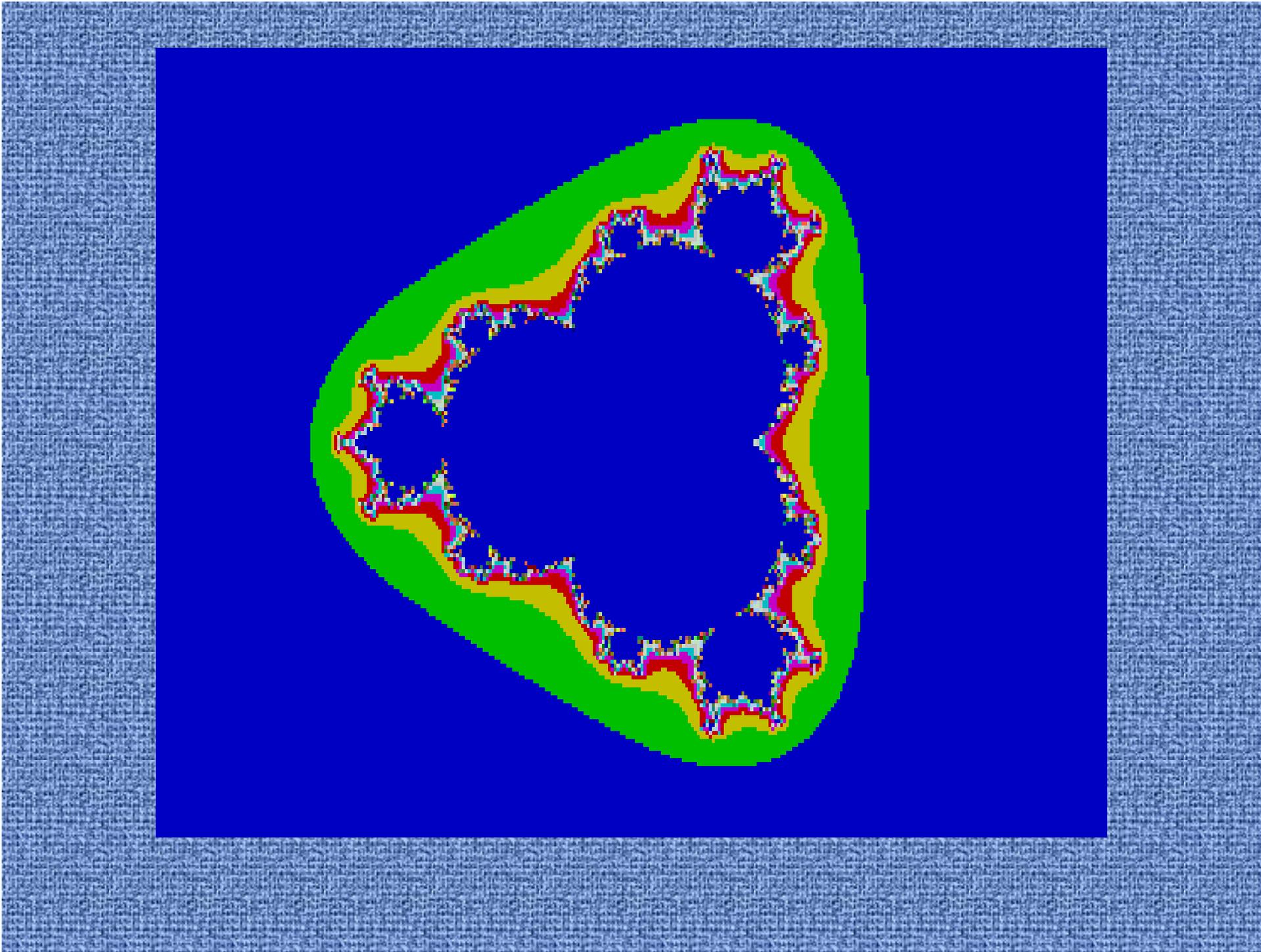


Grafica con
Geofract
su mac





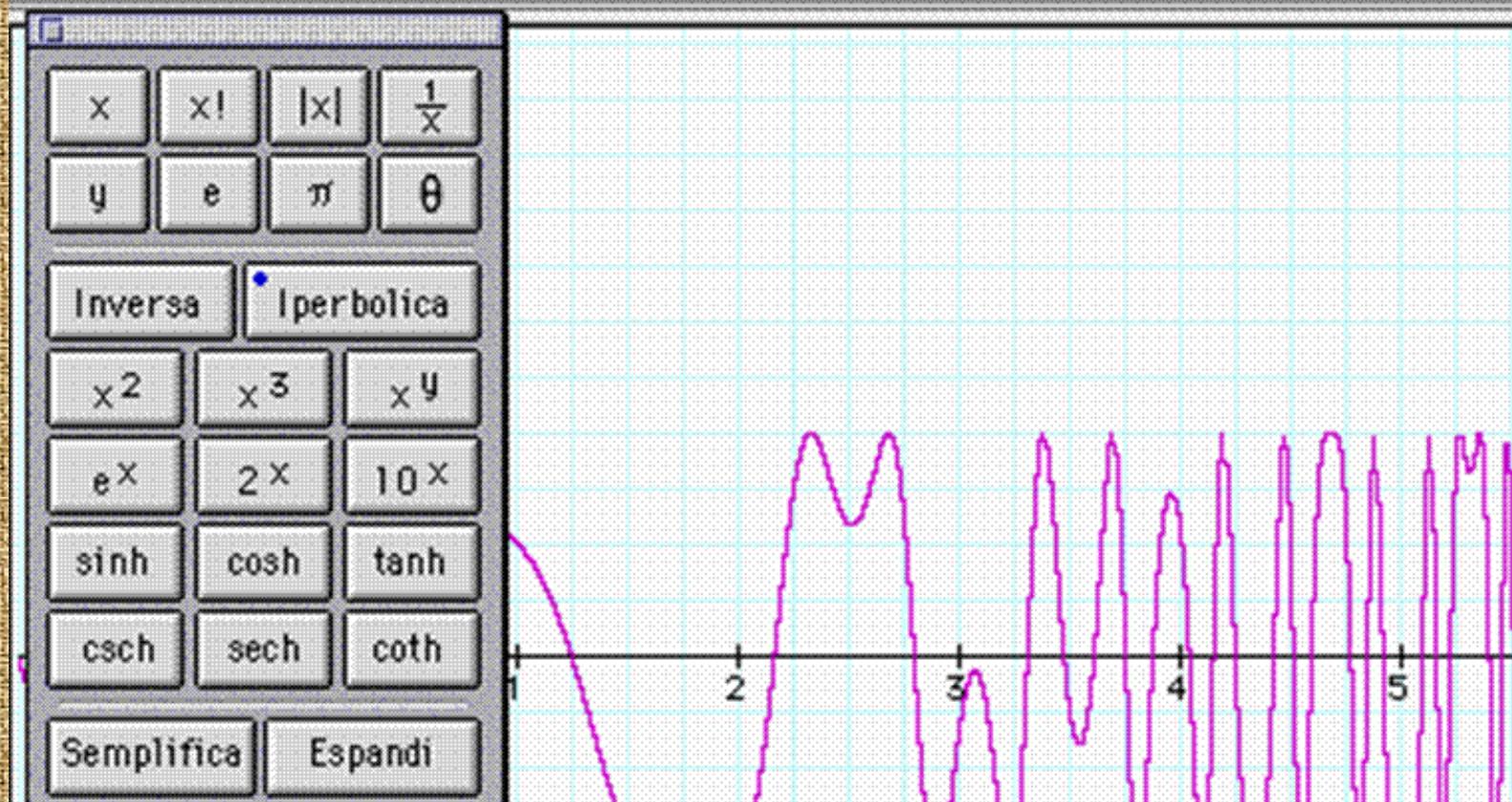


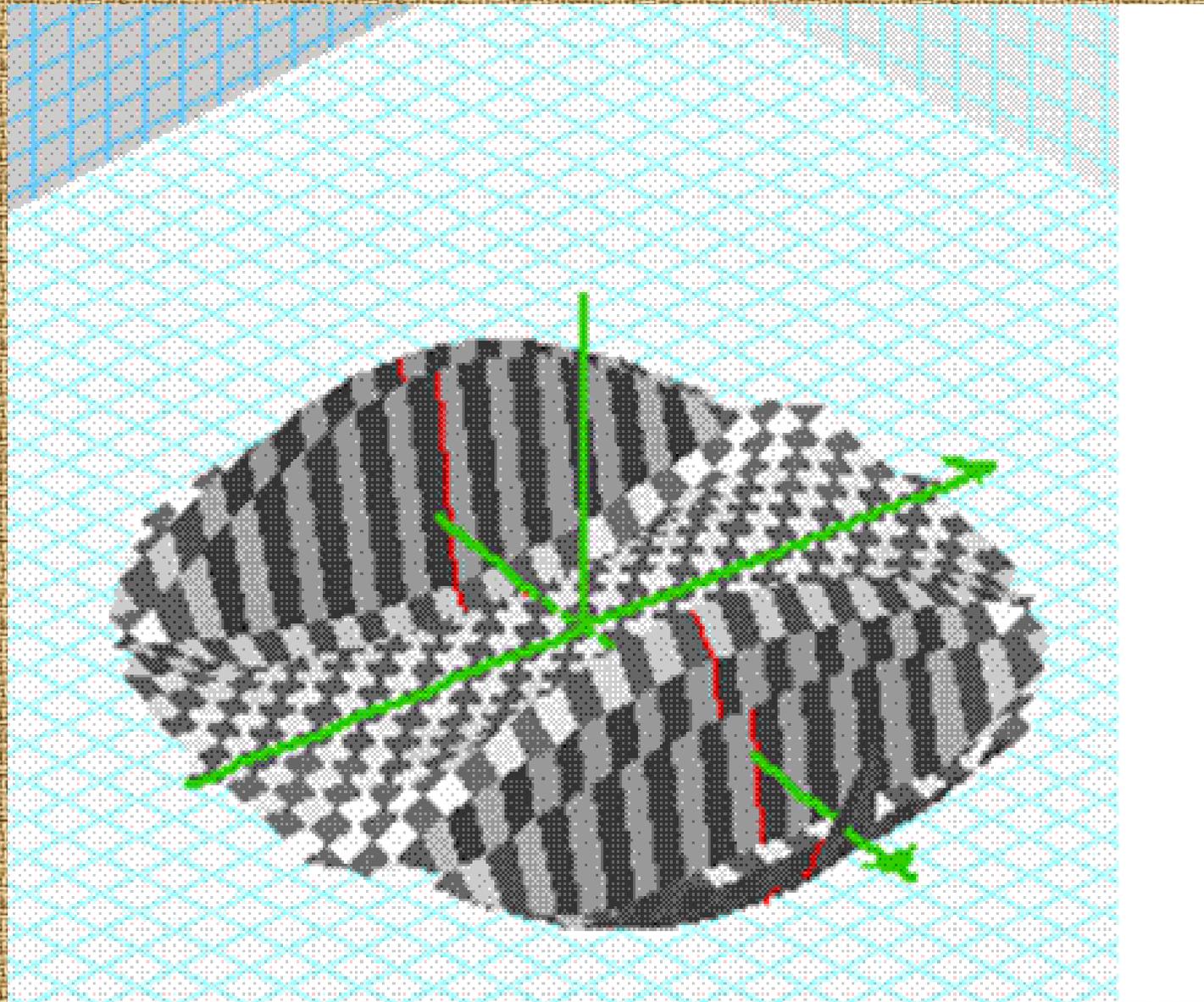


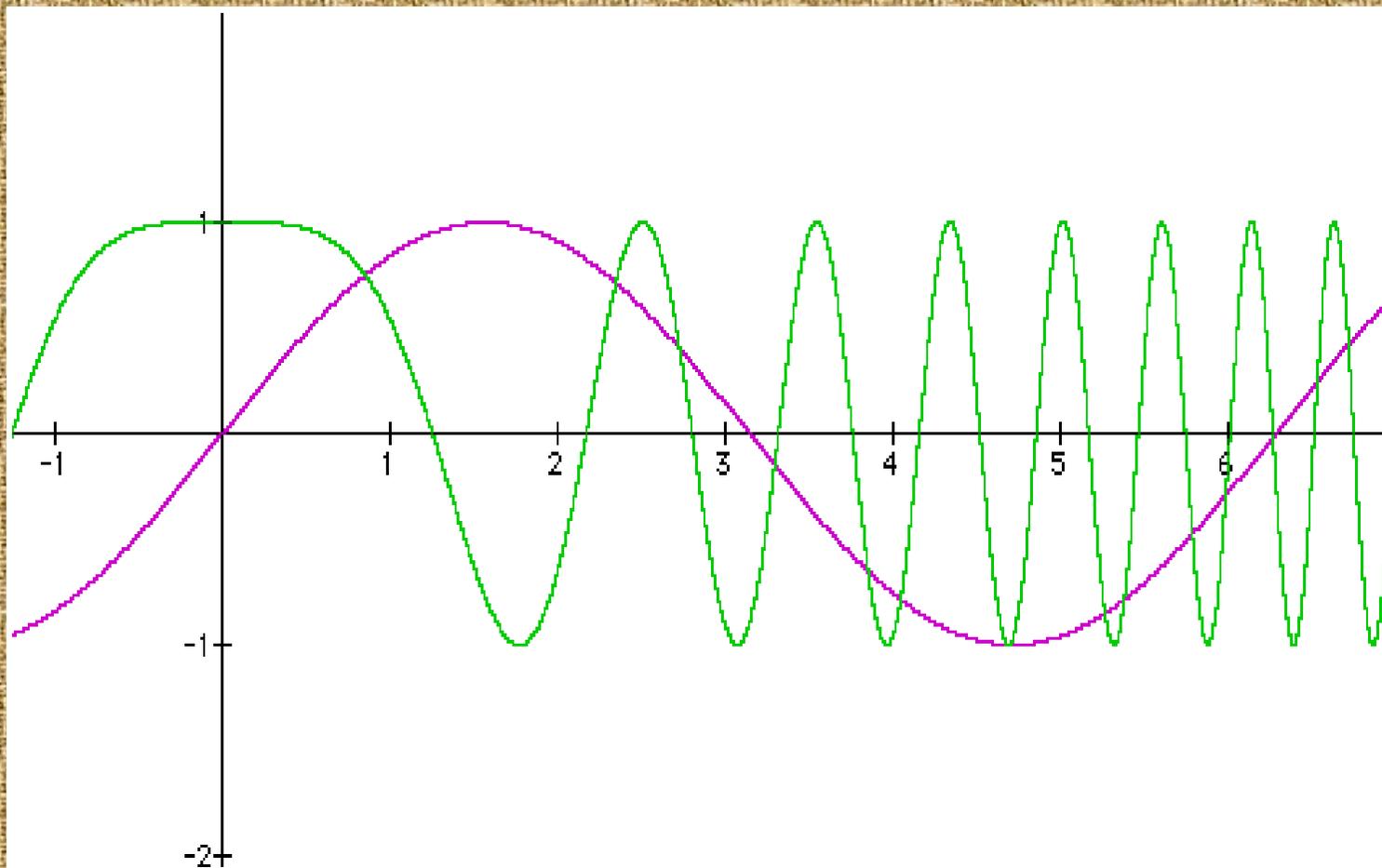
**Grafica con
Calcolatrice
grafica
Su mac**

$$\sin(x \cos x^2)$$

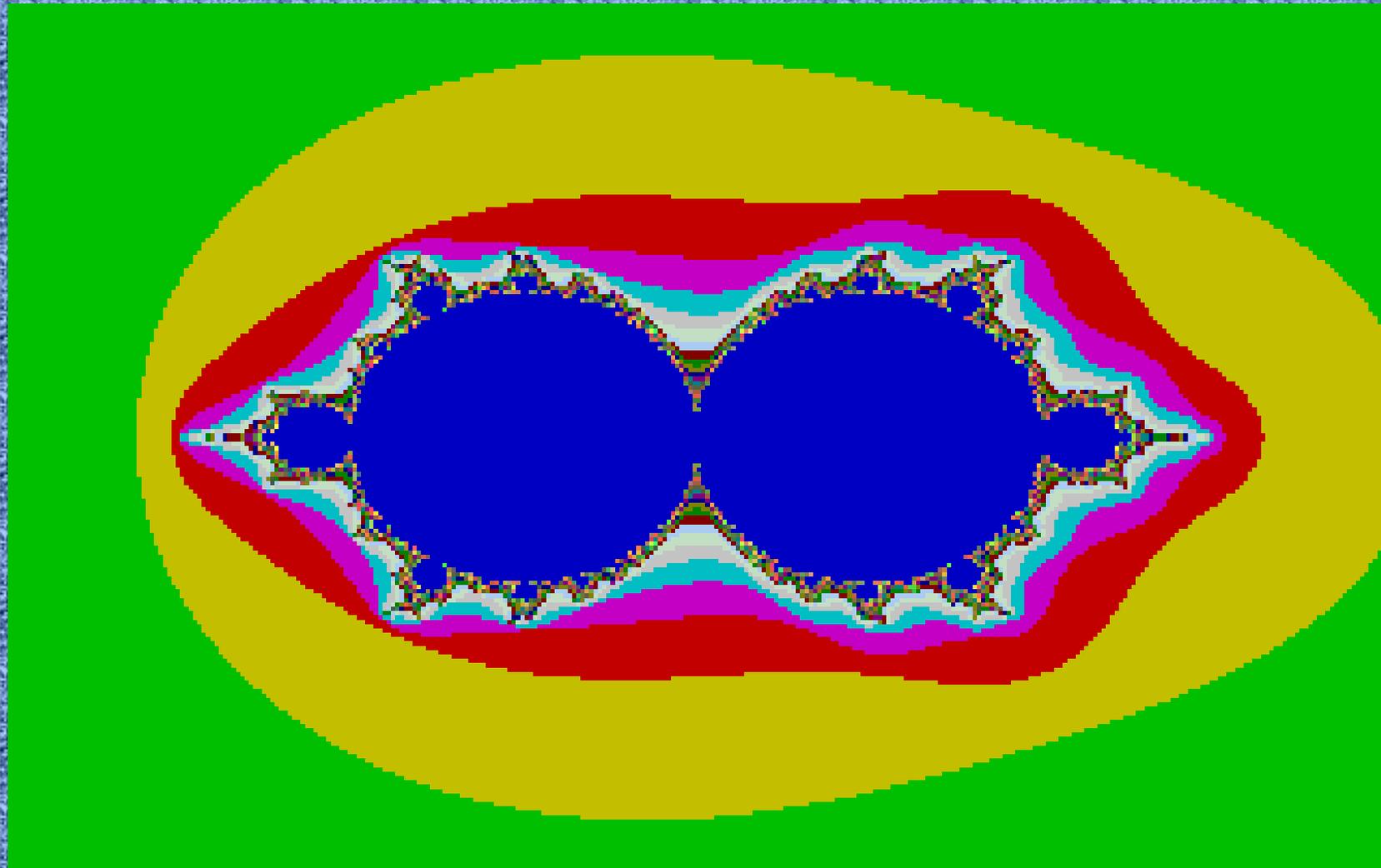
Grafico di y in funzione di x .

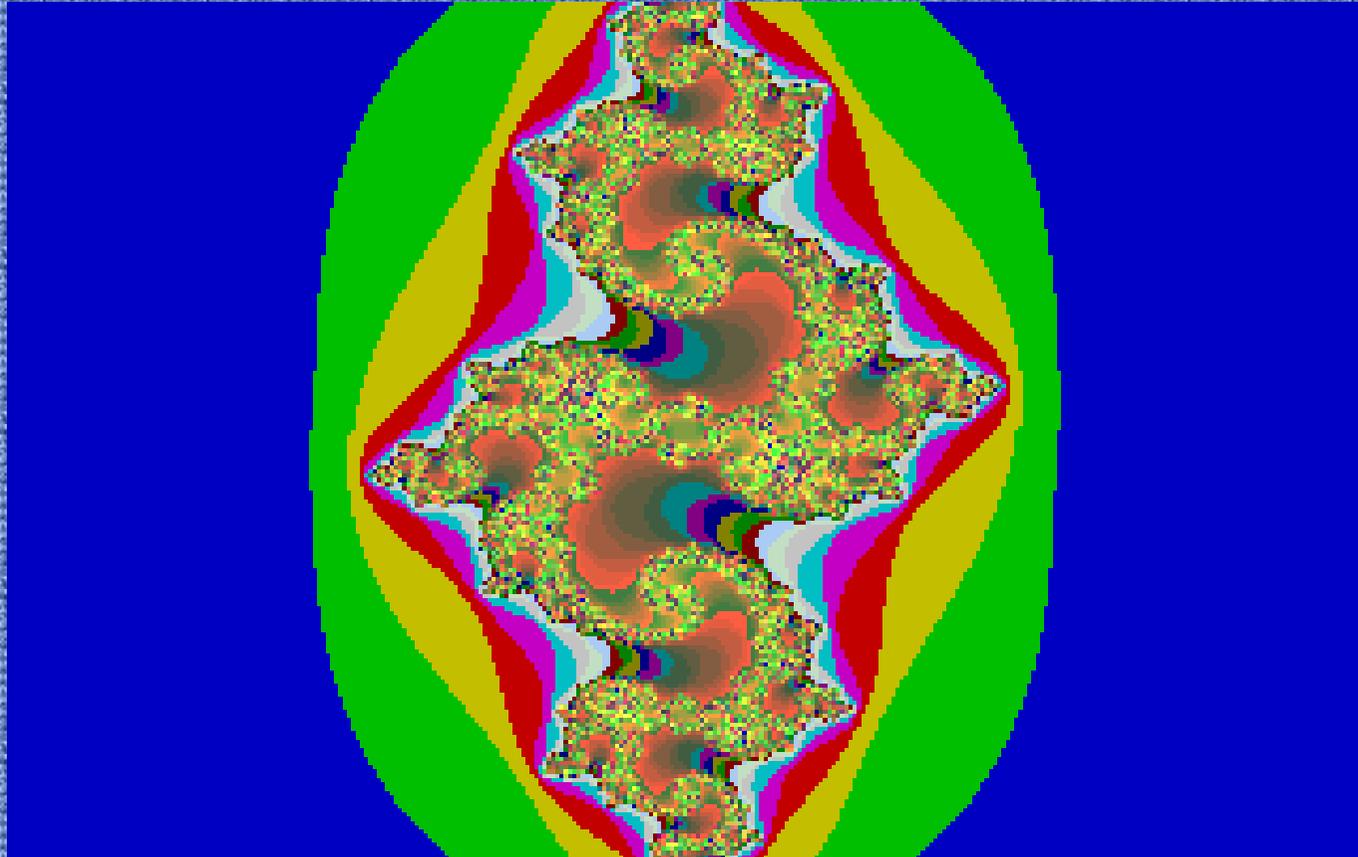


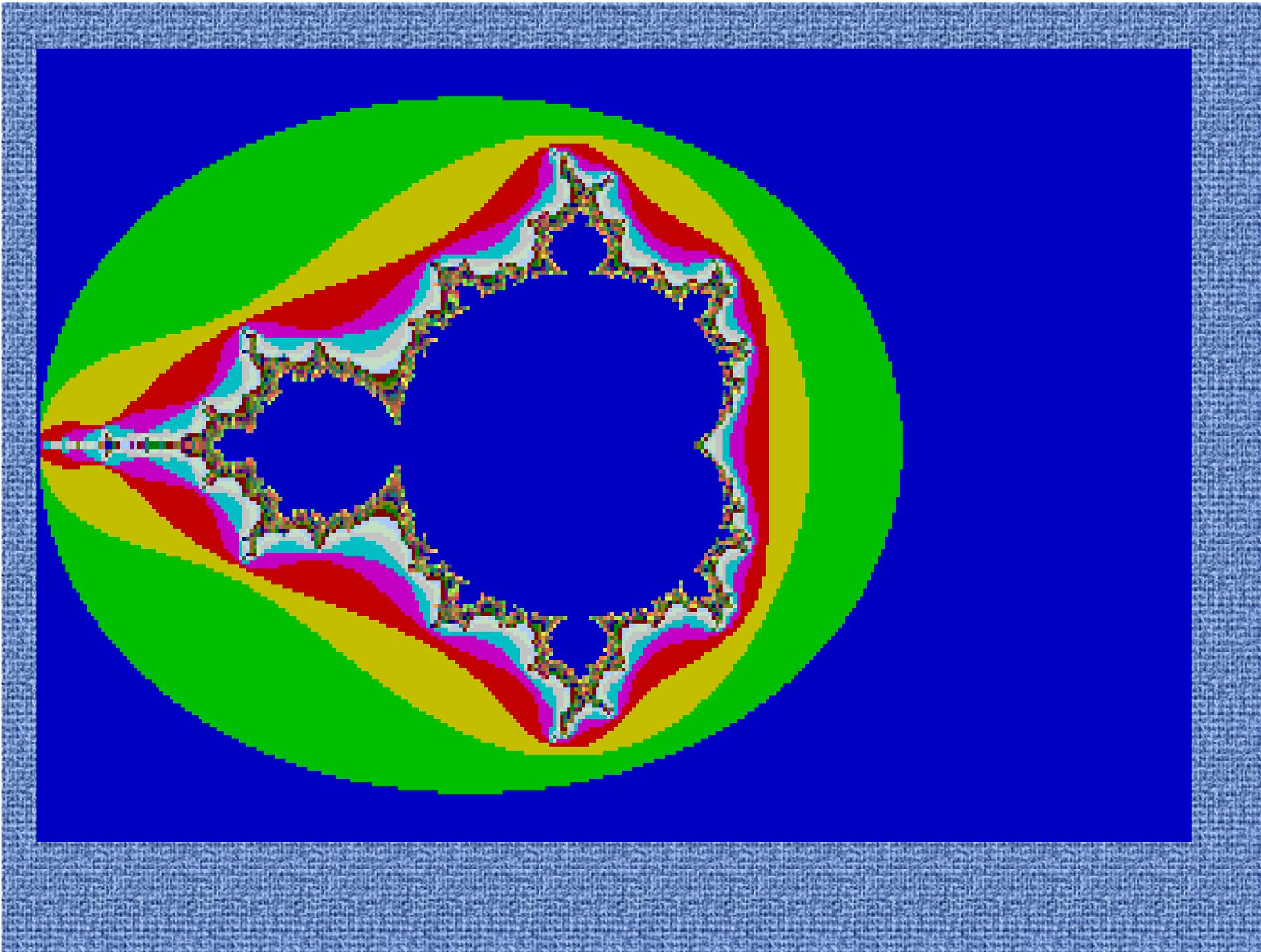


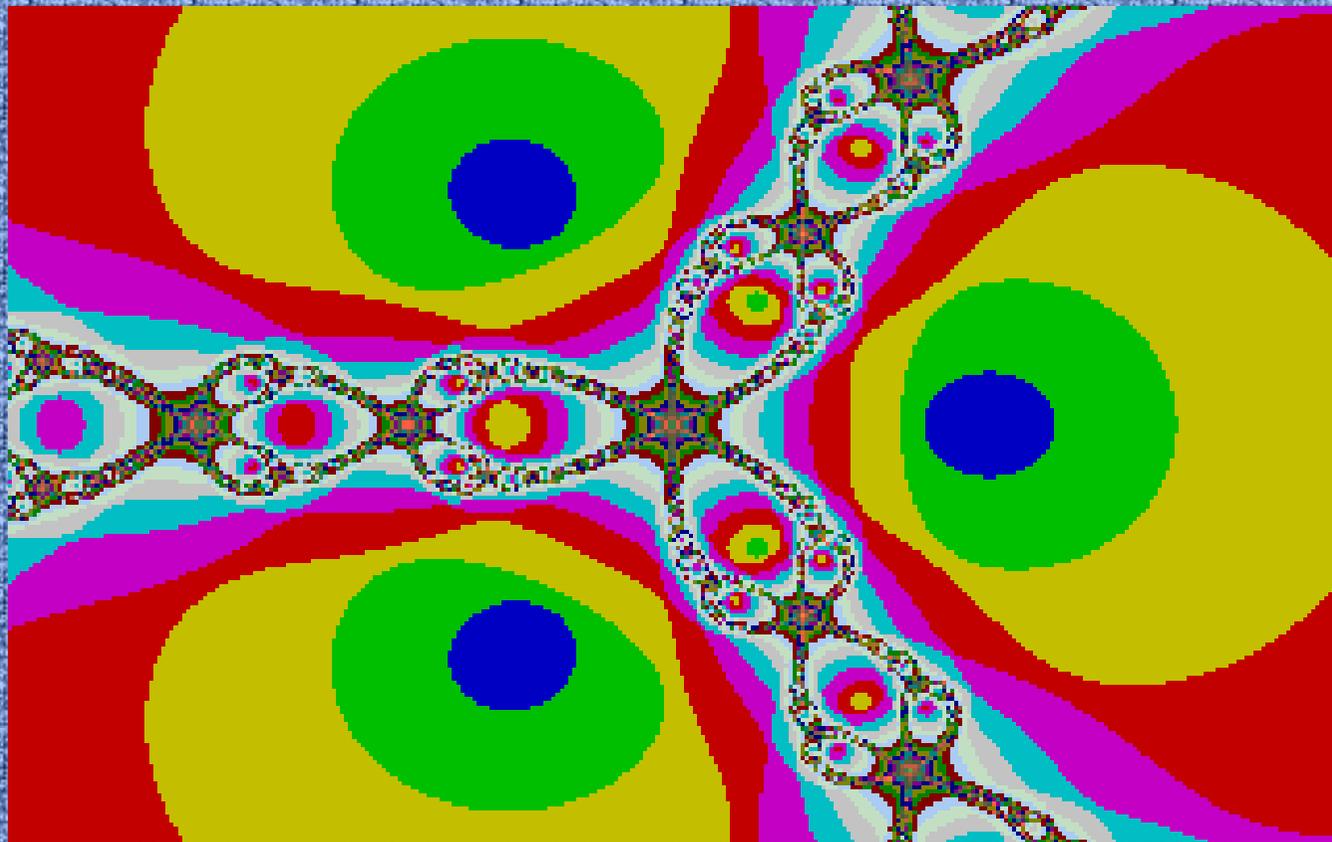


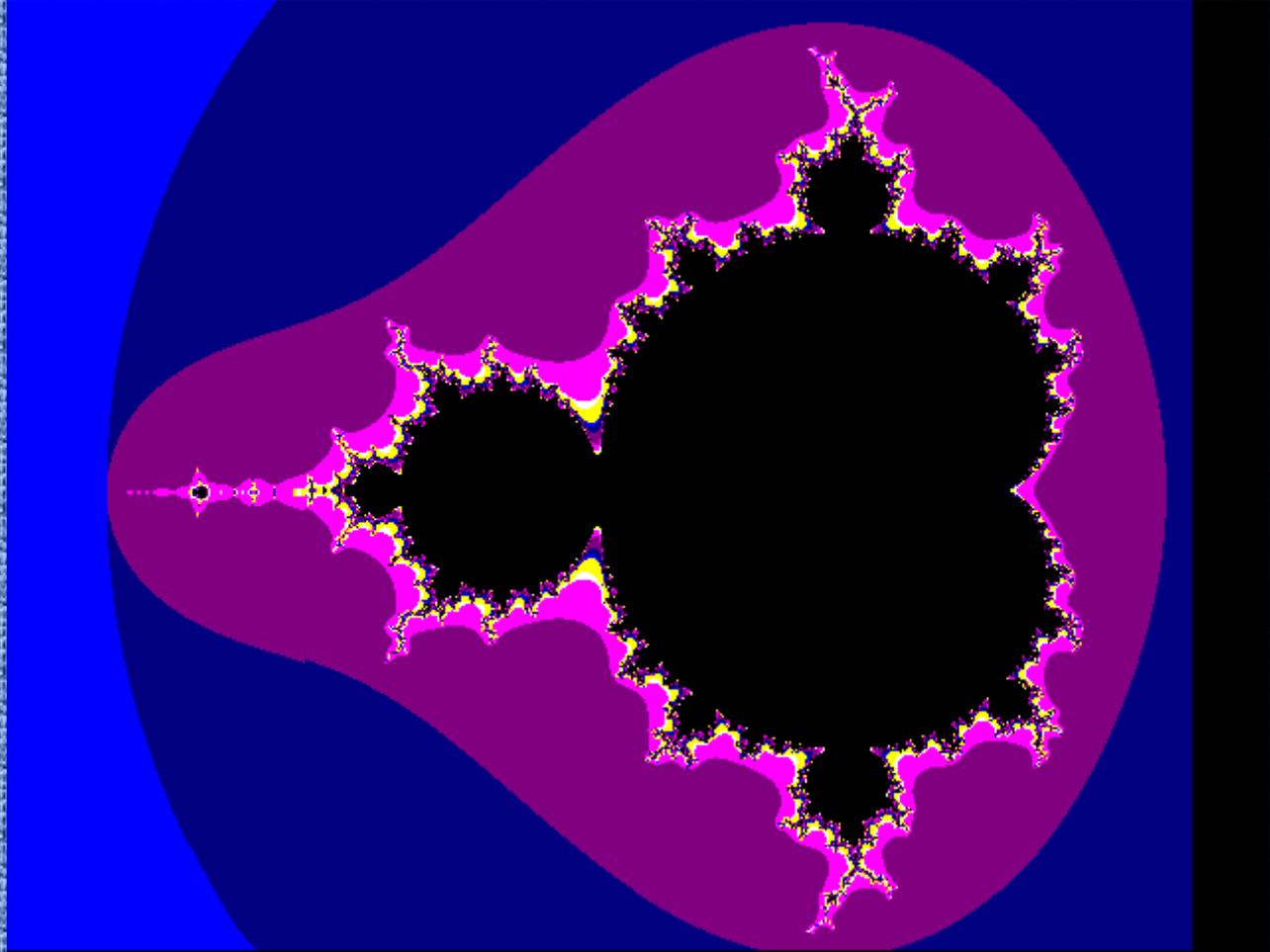
Grafica con windfract



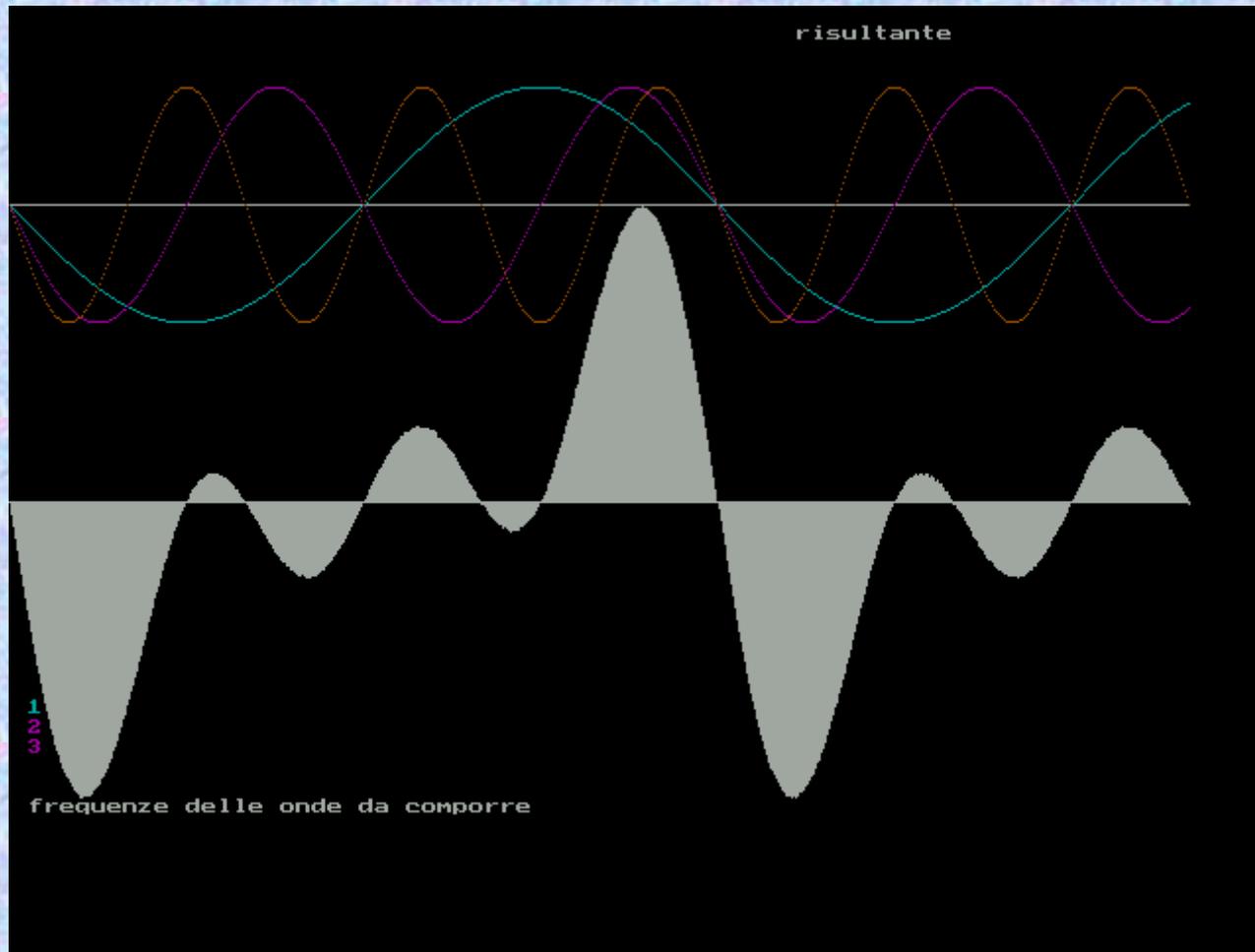


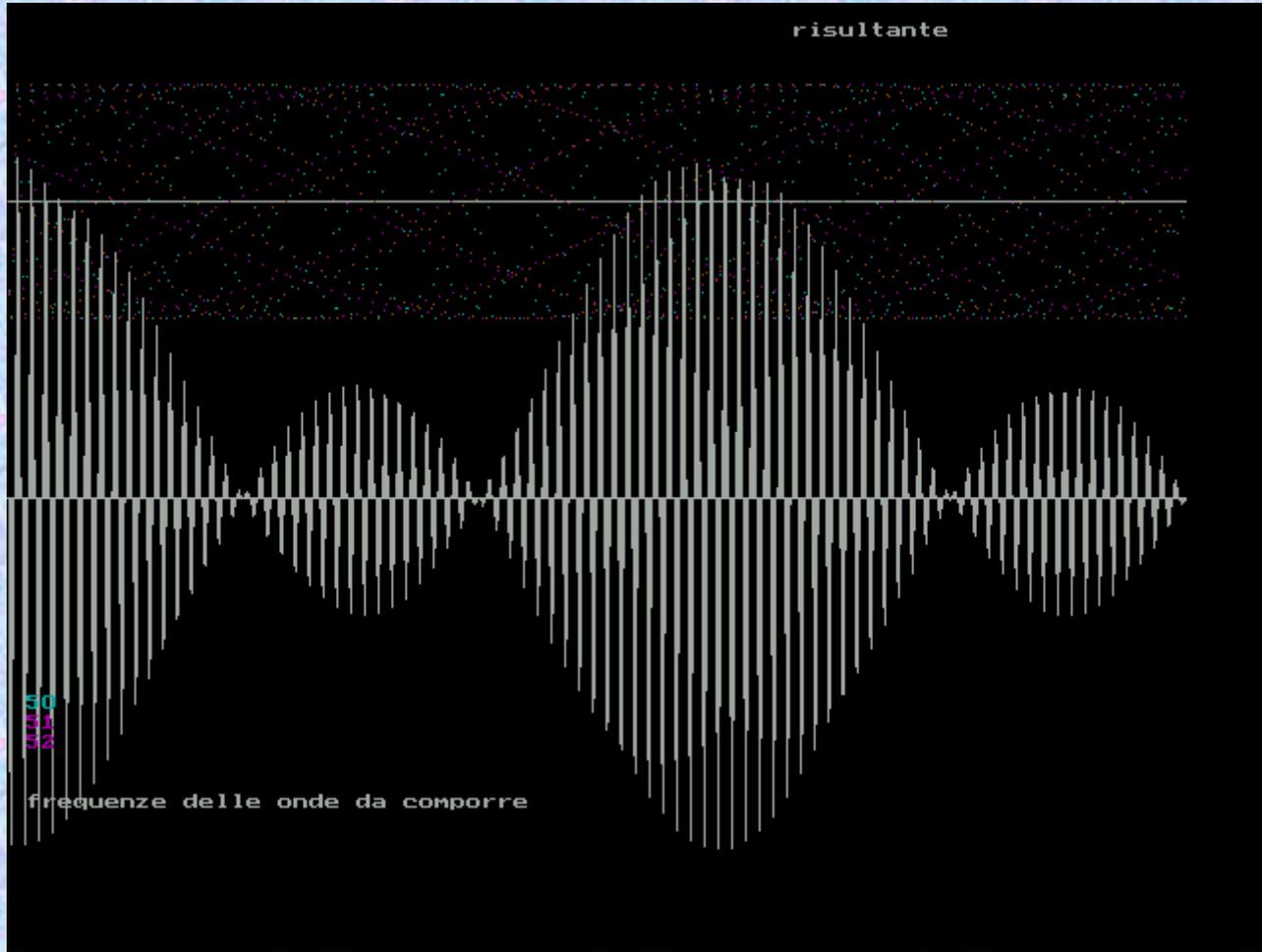


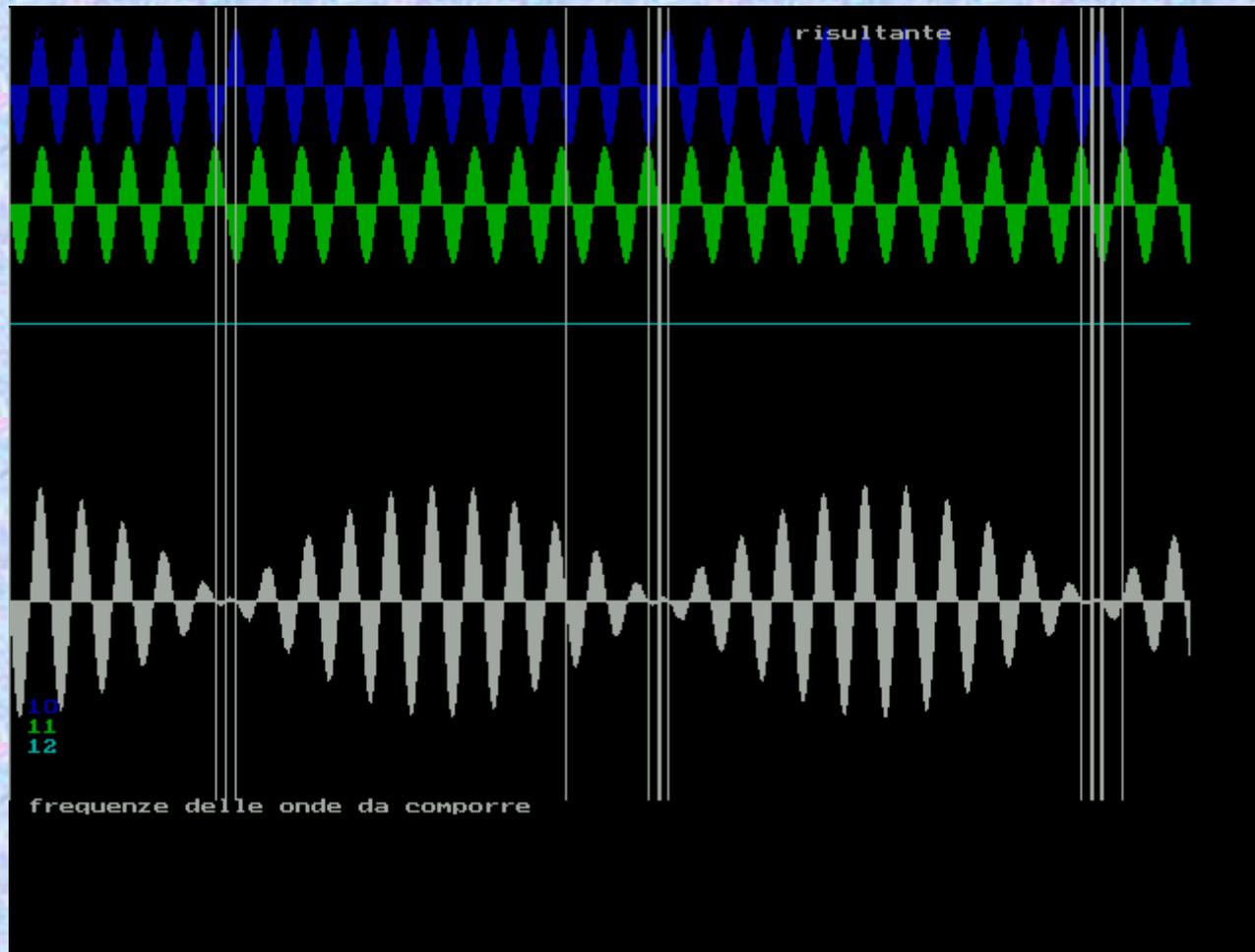


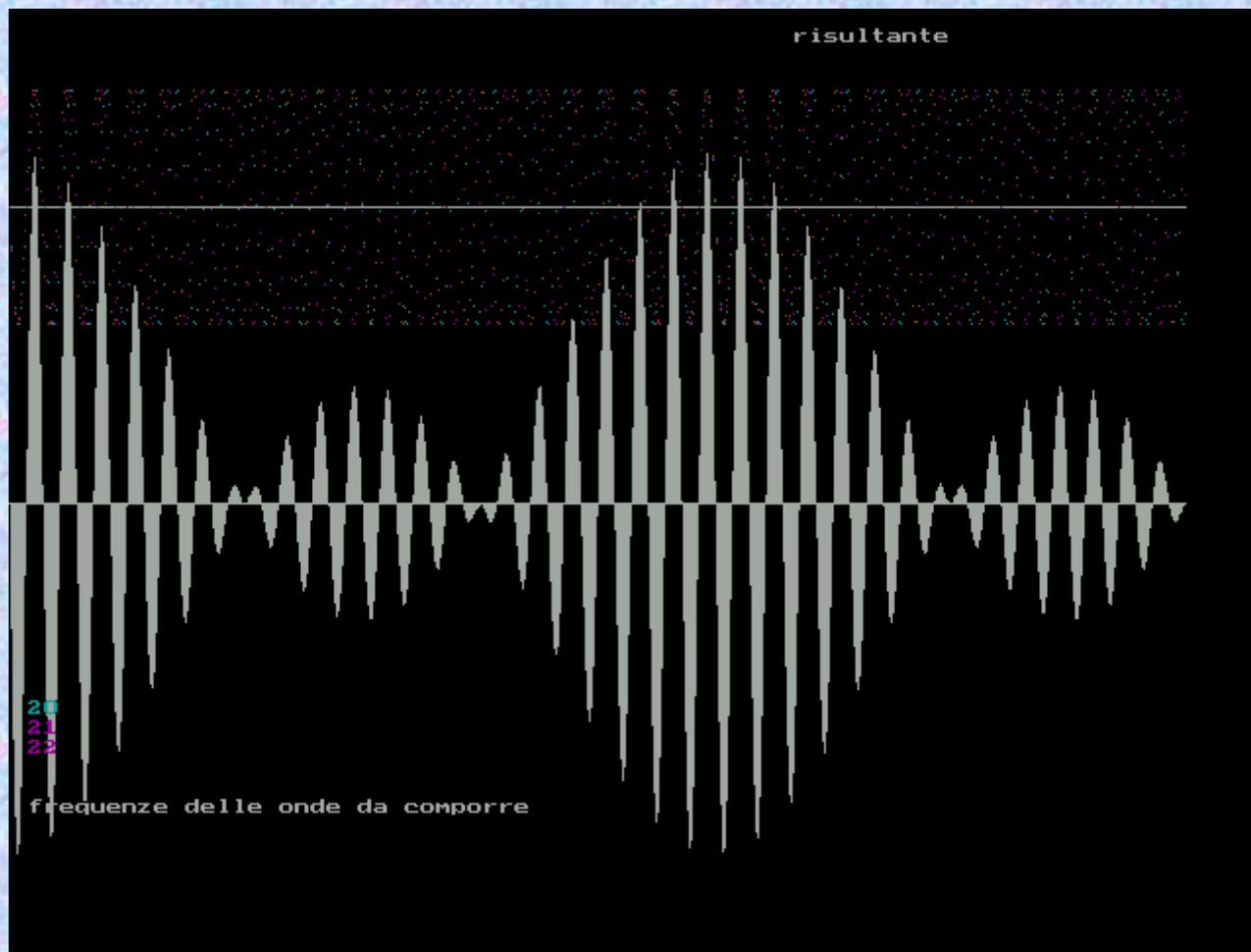


grafica
con
turbo pascal

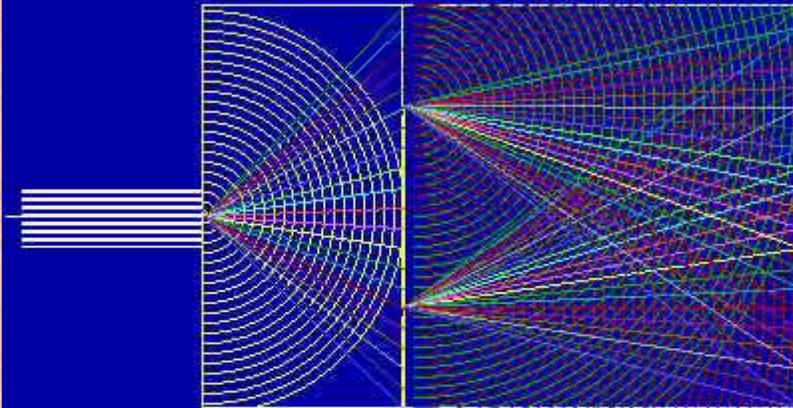








interpretazione ondulatoria



diaframma singolo..diaframma doppio:circolari

immagine di interferenza

luce bianca

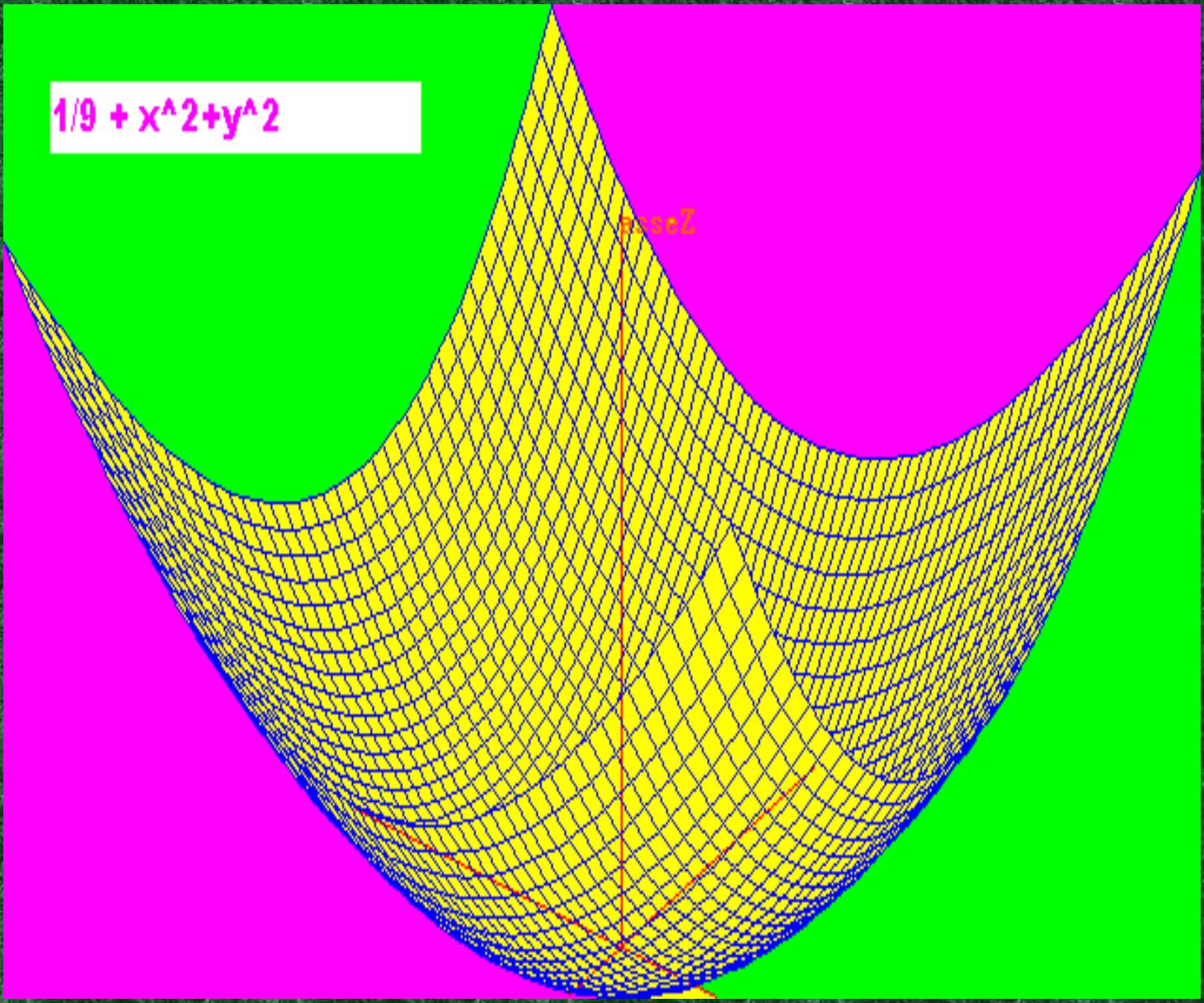
grafica

con

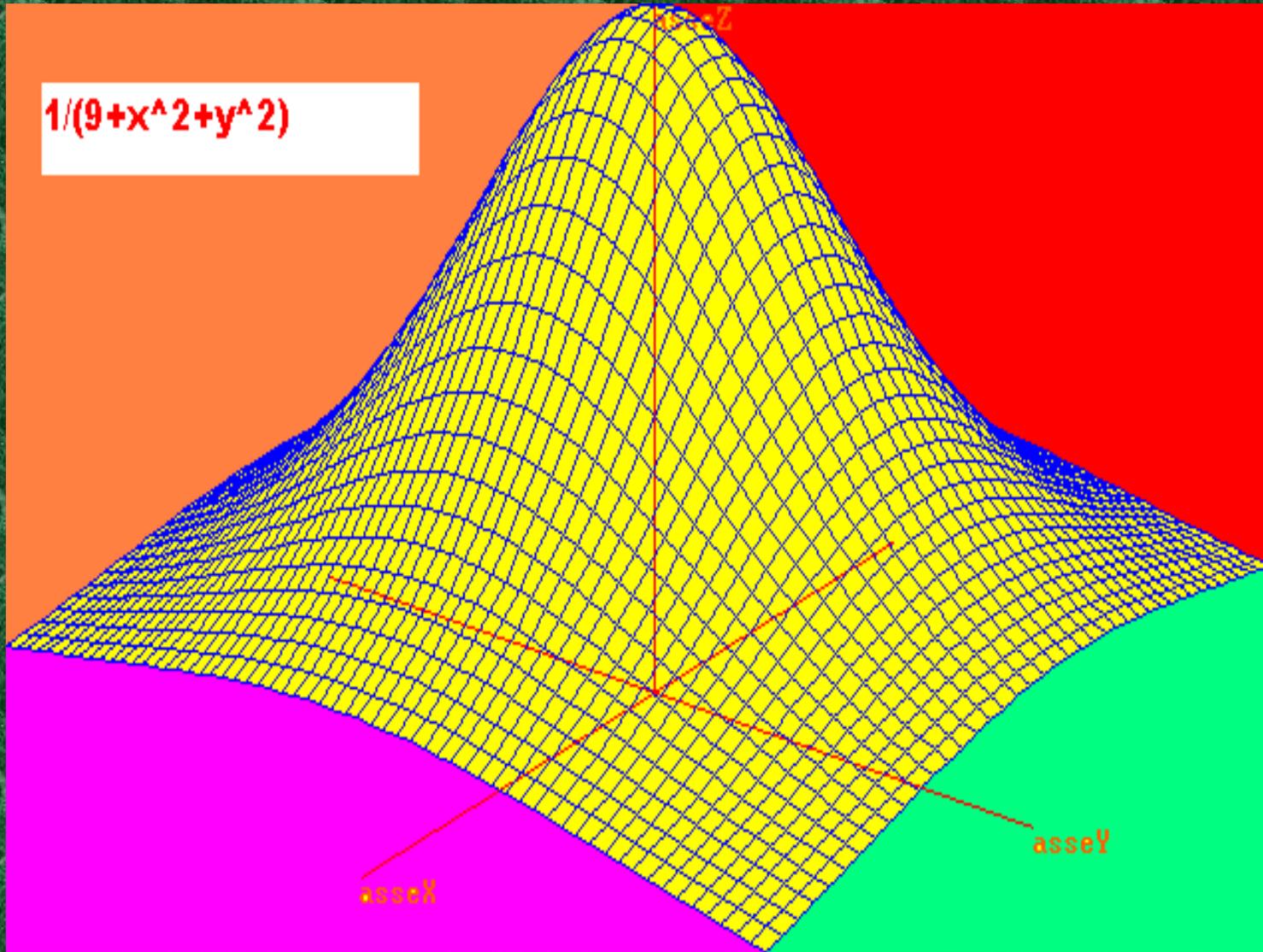
derivate

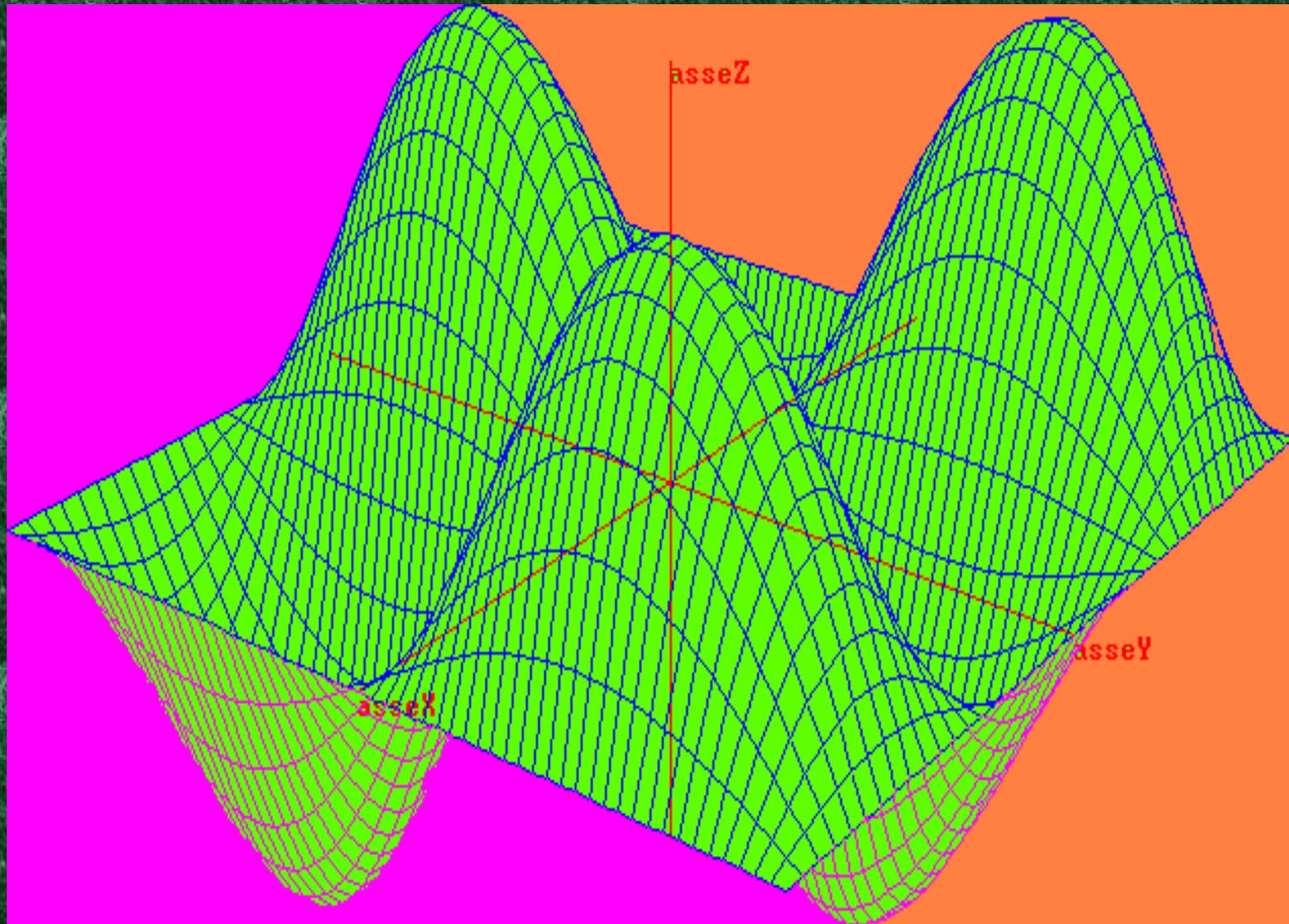
$$1/9 + x^2 + y^2$$

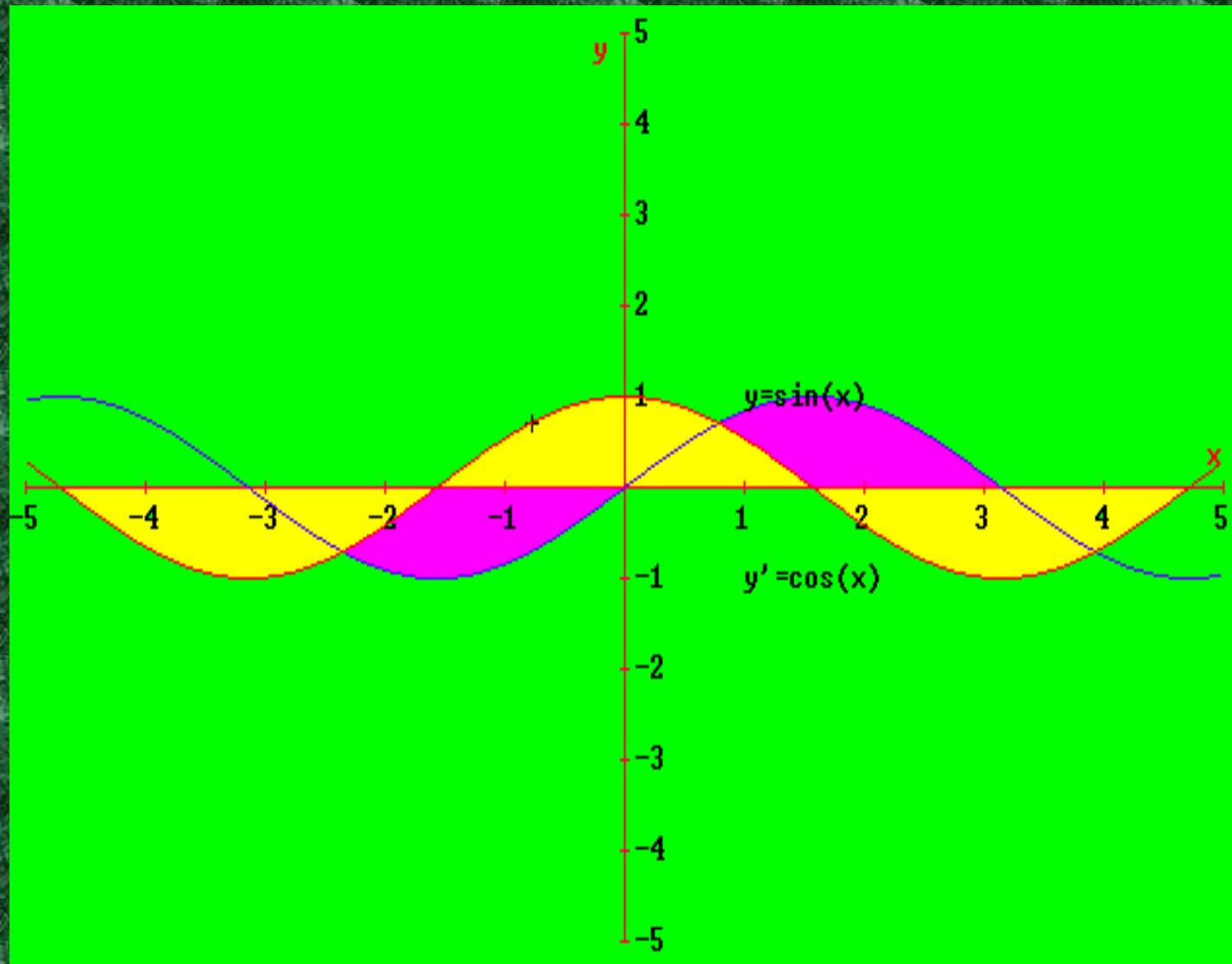
useZ



$$1/(9+x^2+y^2)$$



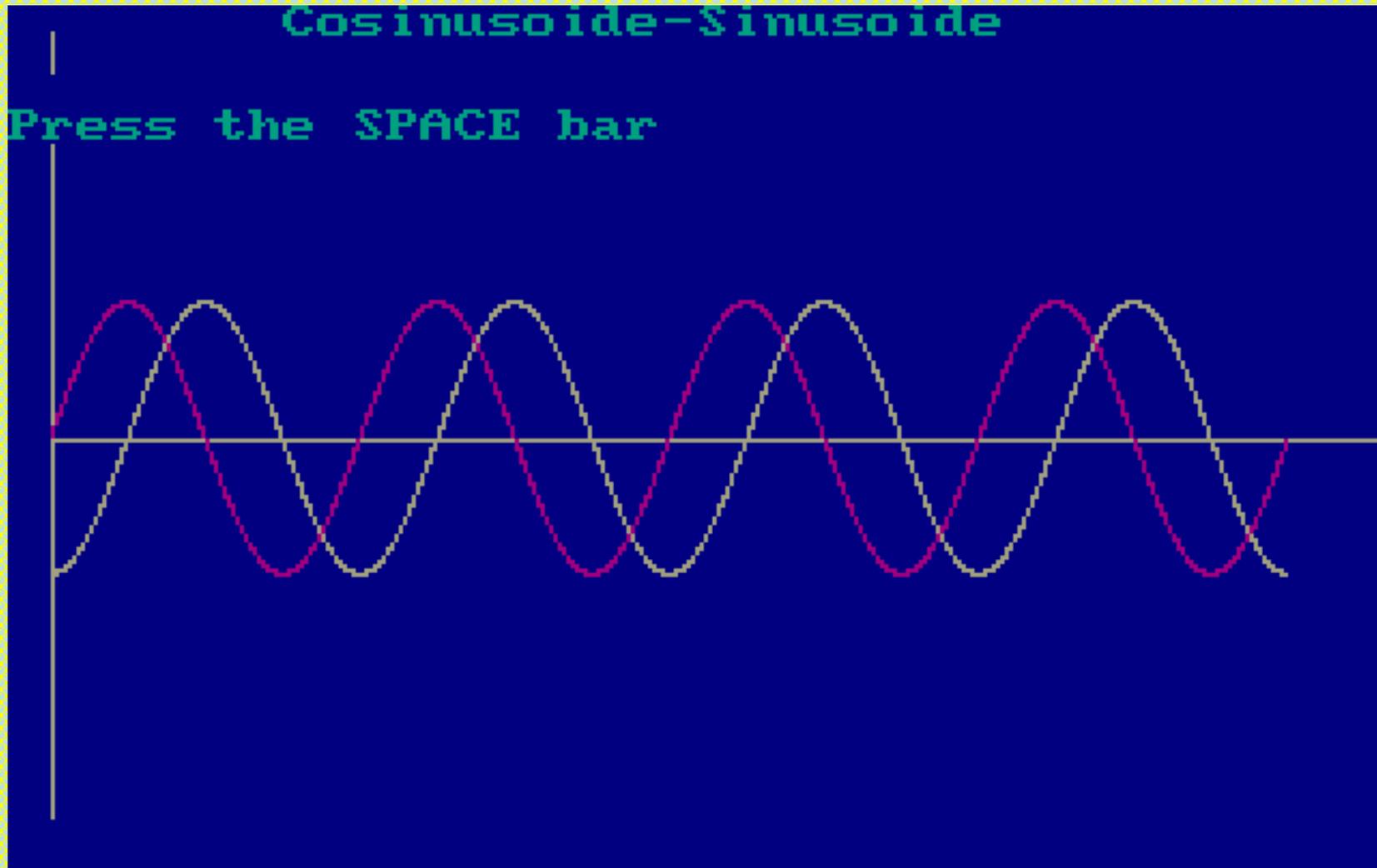




Grafica con prolog

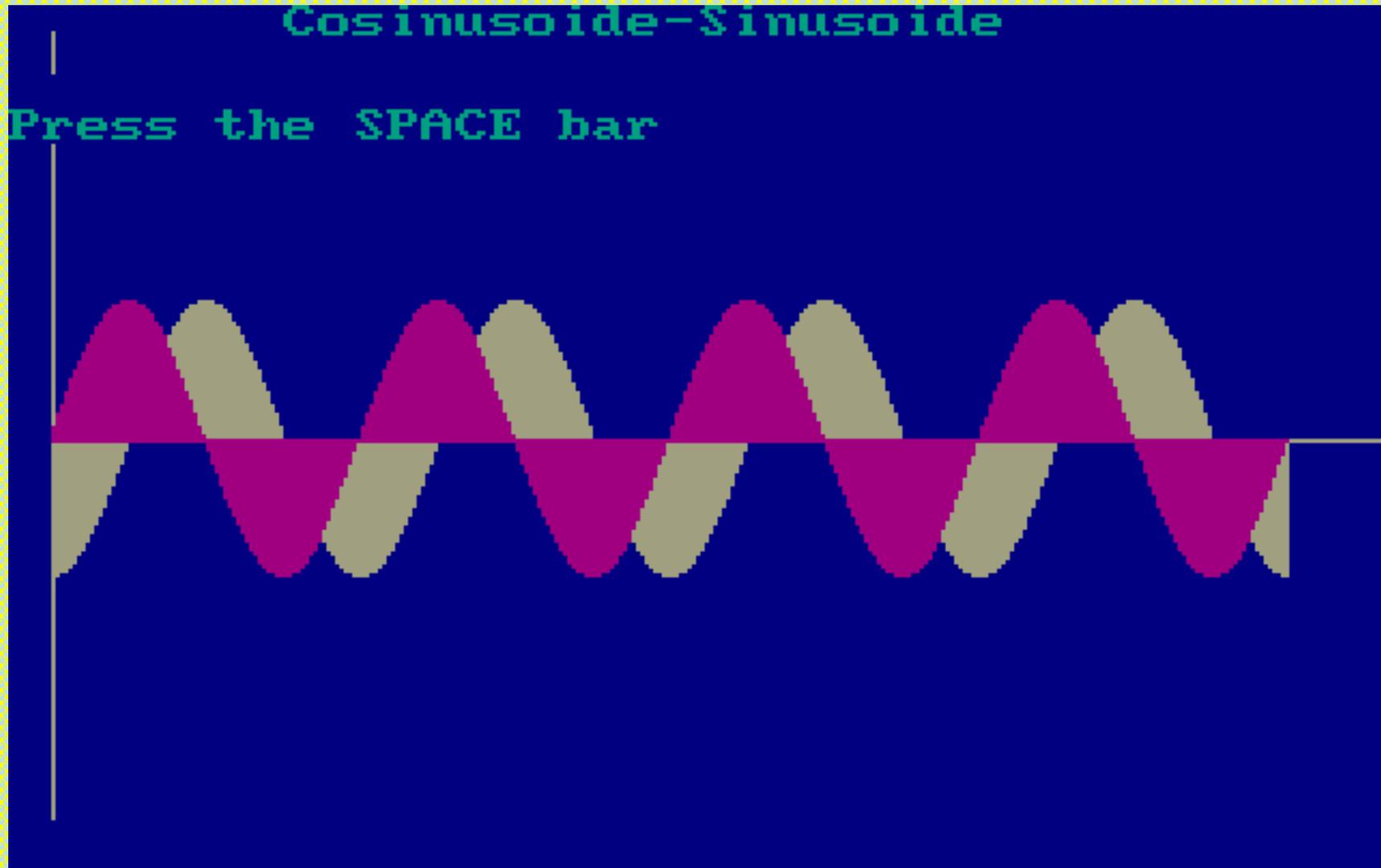
Cosinusoide-Sinusoide

Press the SPACE bar

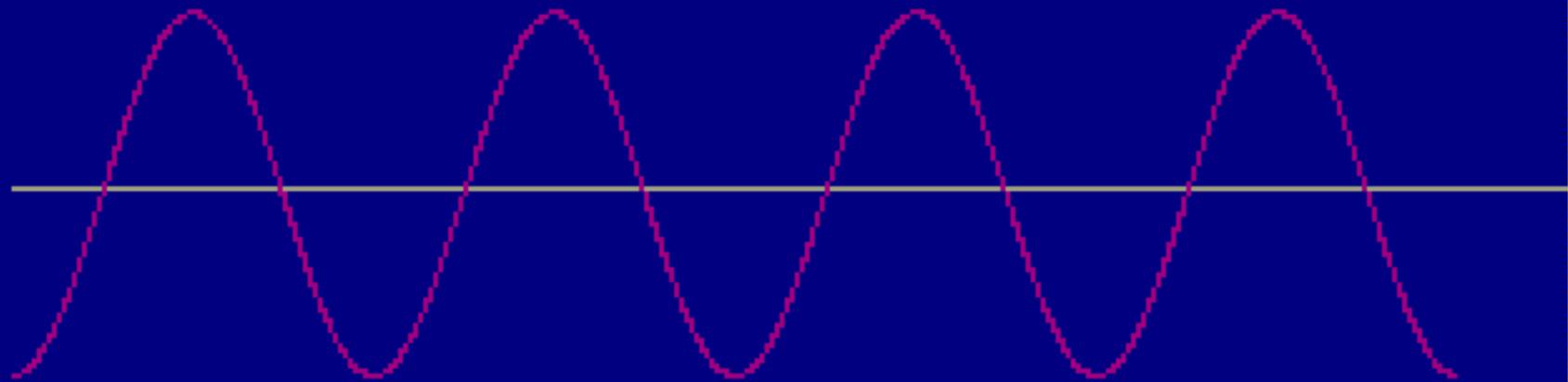


Cosinusoide-Sinusoide

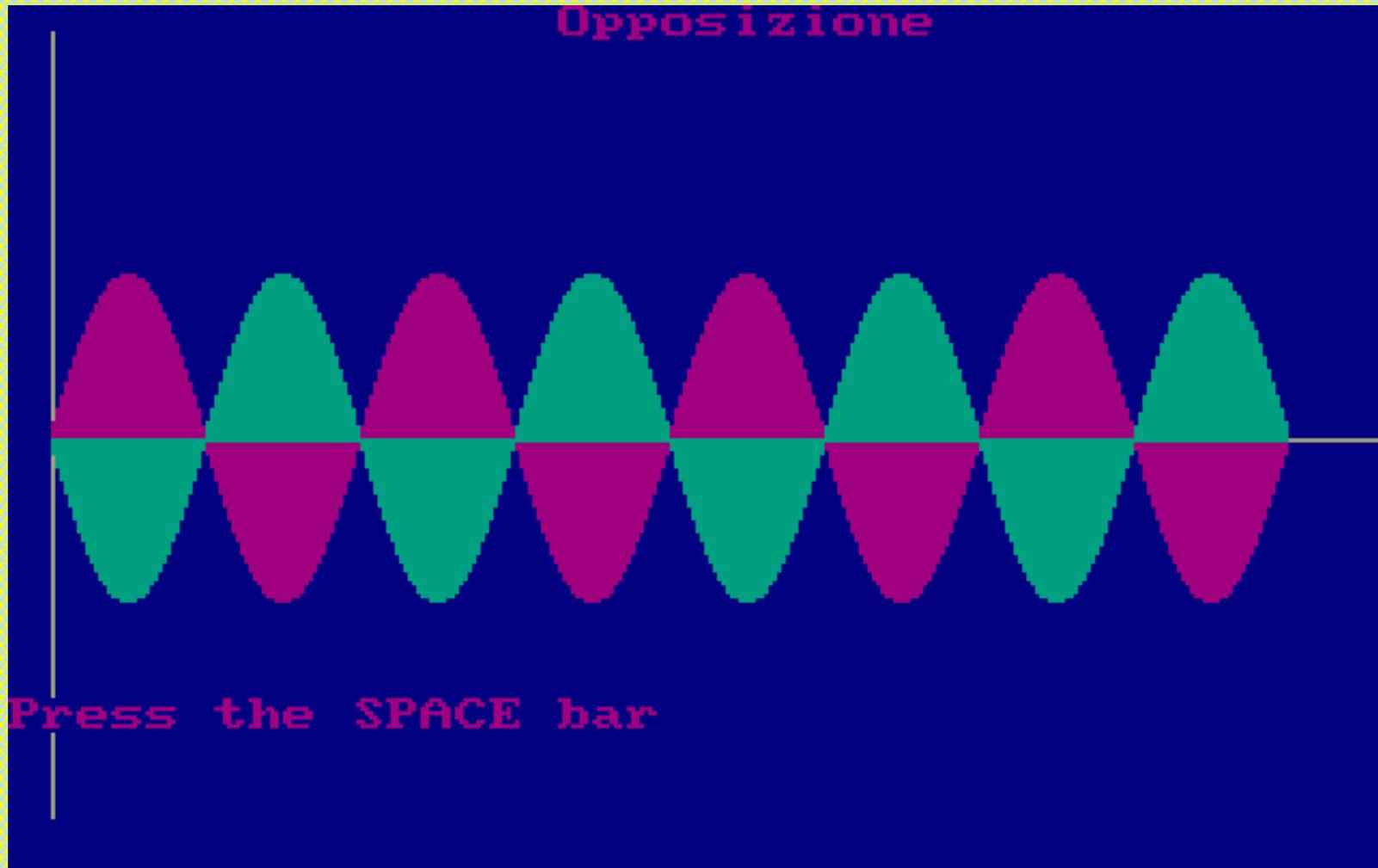
Press the SPACE bar



Press the SPACE bar



Opposizione



Grafica

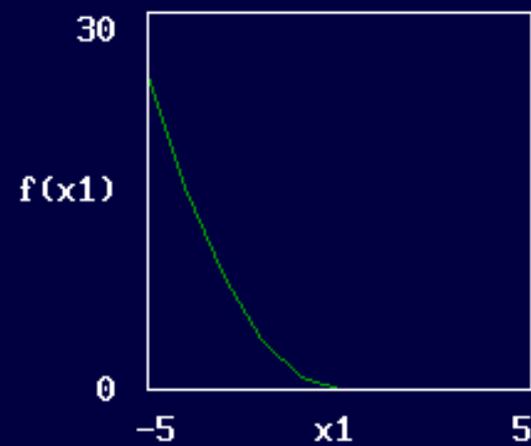
Con

mathcad

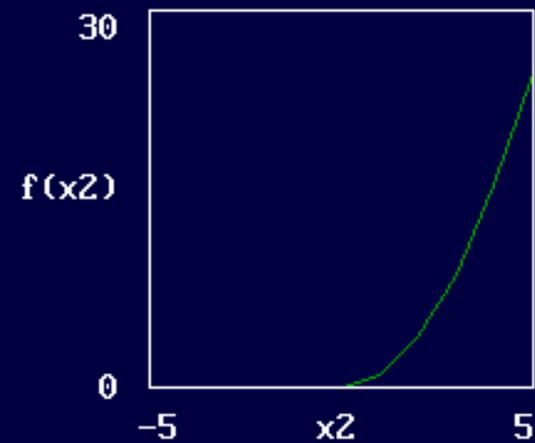
gestione funzioni grafiche

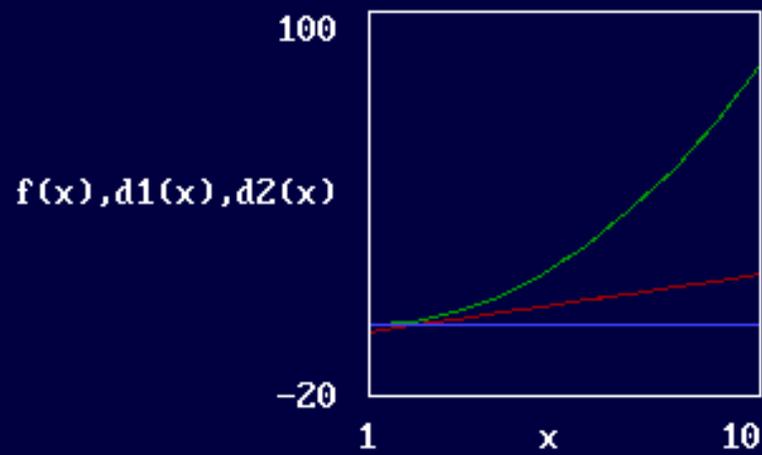
 $x_1 := 0, (-1) \dots (-5)$ $x_2 := 0, 1 \dots 5$ $f(x_1) := x_1^2$

f(x1)	x1
0	0
1	-1
4	-2
9	-3
16	-4
25	-5

 $f(x_2) := x_2^2$

f(x2)	x2
0	0
1	1
4	2
9	3
16	4
25	5

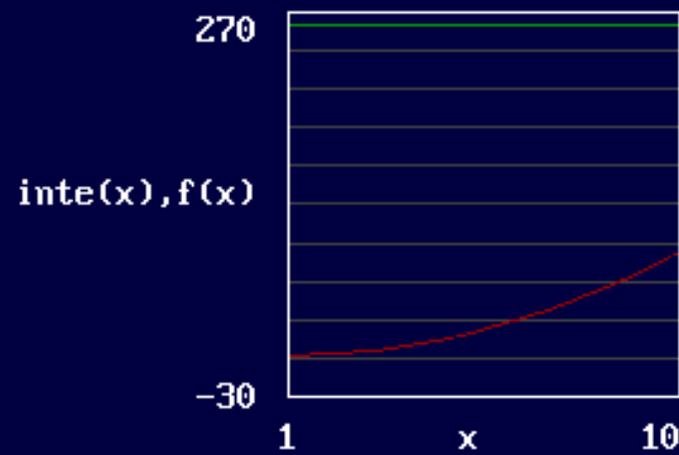




funzione

derivata prima

derivata seconda



integrale

funzione

↓DEFDOC.MCD↓

0 0 auto

x := 0,10 ..450 g := 0.001 r := 300 E := 200000 s := 25

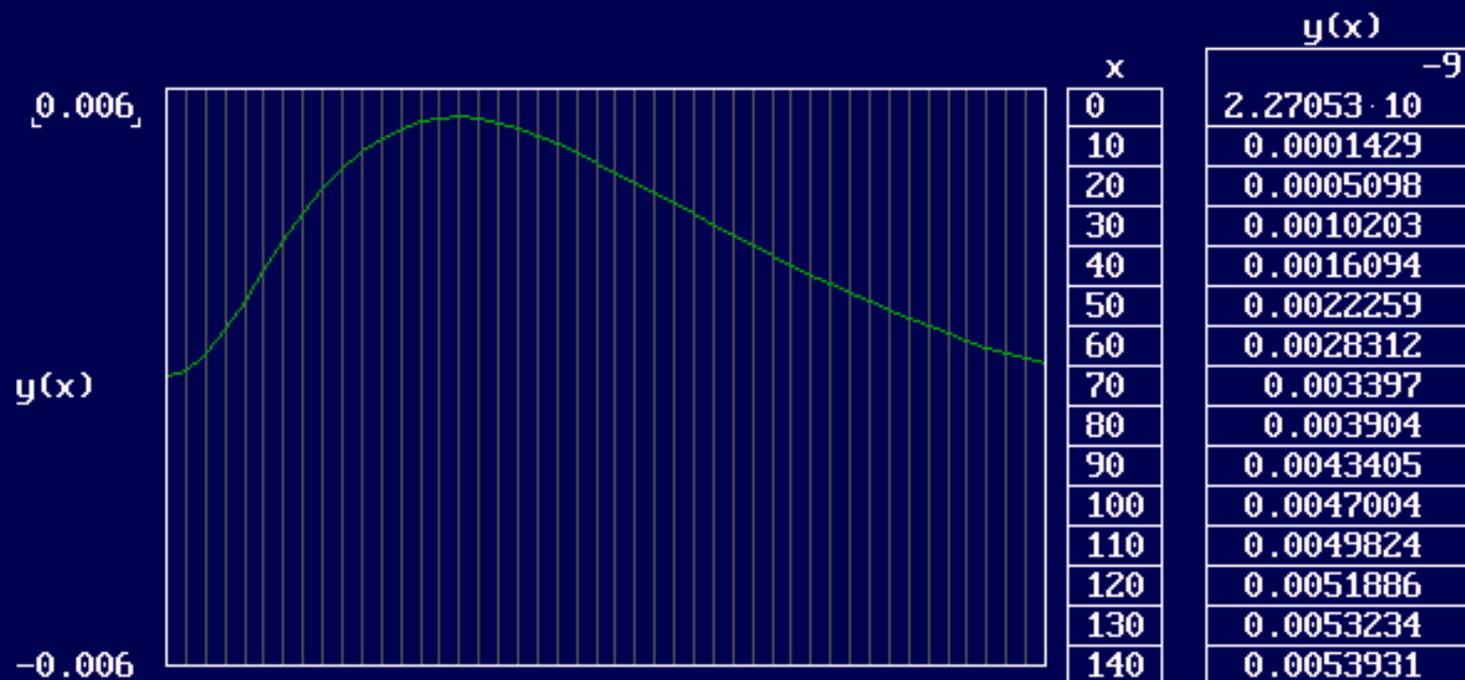
a := 0.015197 c2 := -0.0081001 -7

c4 := 1.0227053 · 10⁻⁷

c1 := -0.0069162

c3 := 4.3691767 · 10⁻⁷

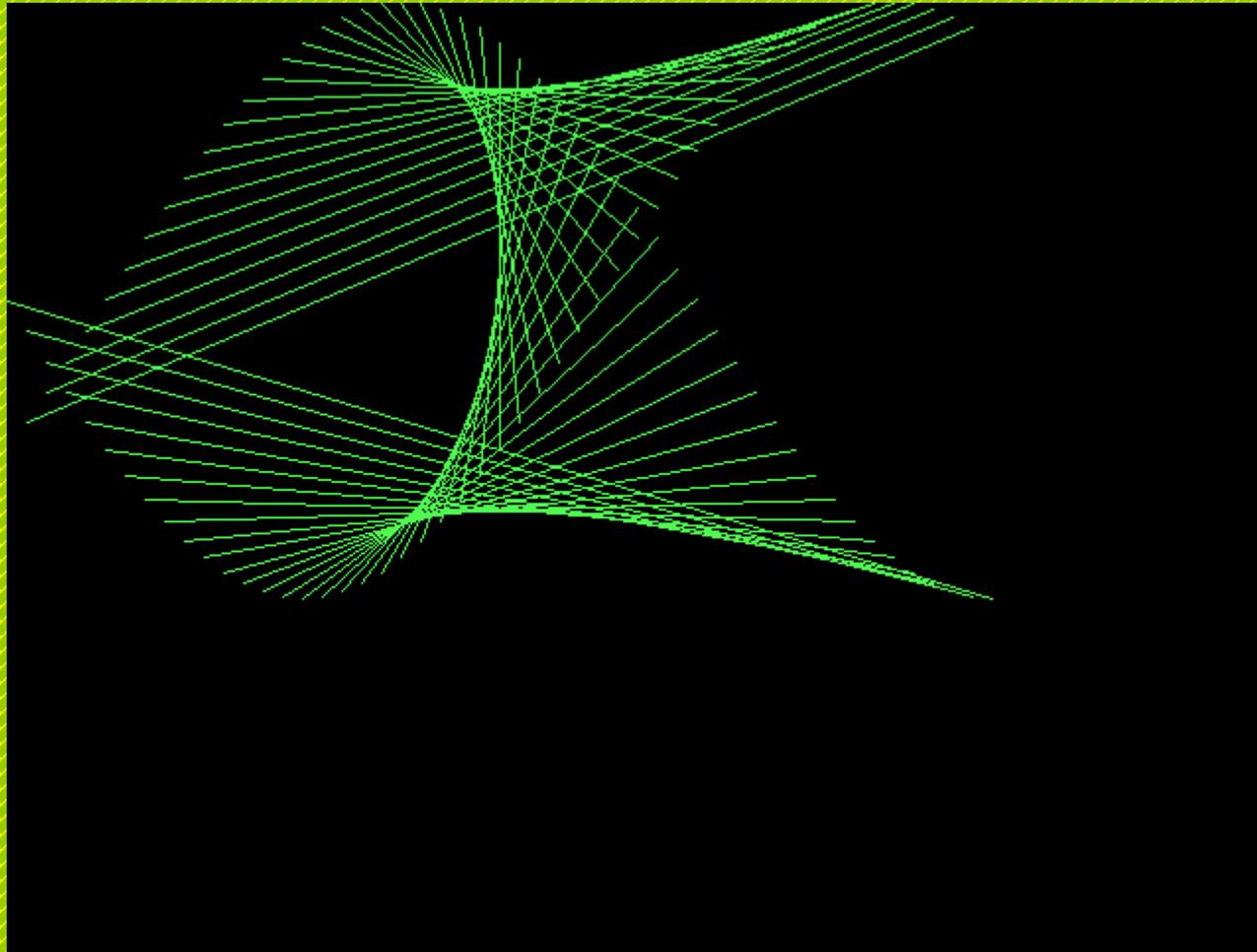
$$y(x) := \left[\begin{array}{c} 2 \\ r \ 1 \\ g \frac{1}{E \ s} \end{array} \right] \cdot (450 - x) + e^{-a \cdot x} \cdot (c1 \cdot \sin(a \cdot x) + c2 \cdot \cos(a \cdot x)) + e^{a \cdot x} \cdot (c3 \cdot \sin(a \cdot x) + c4 \cdot \cos(a \cdot x))$$

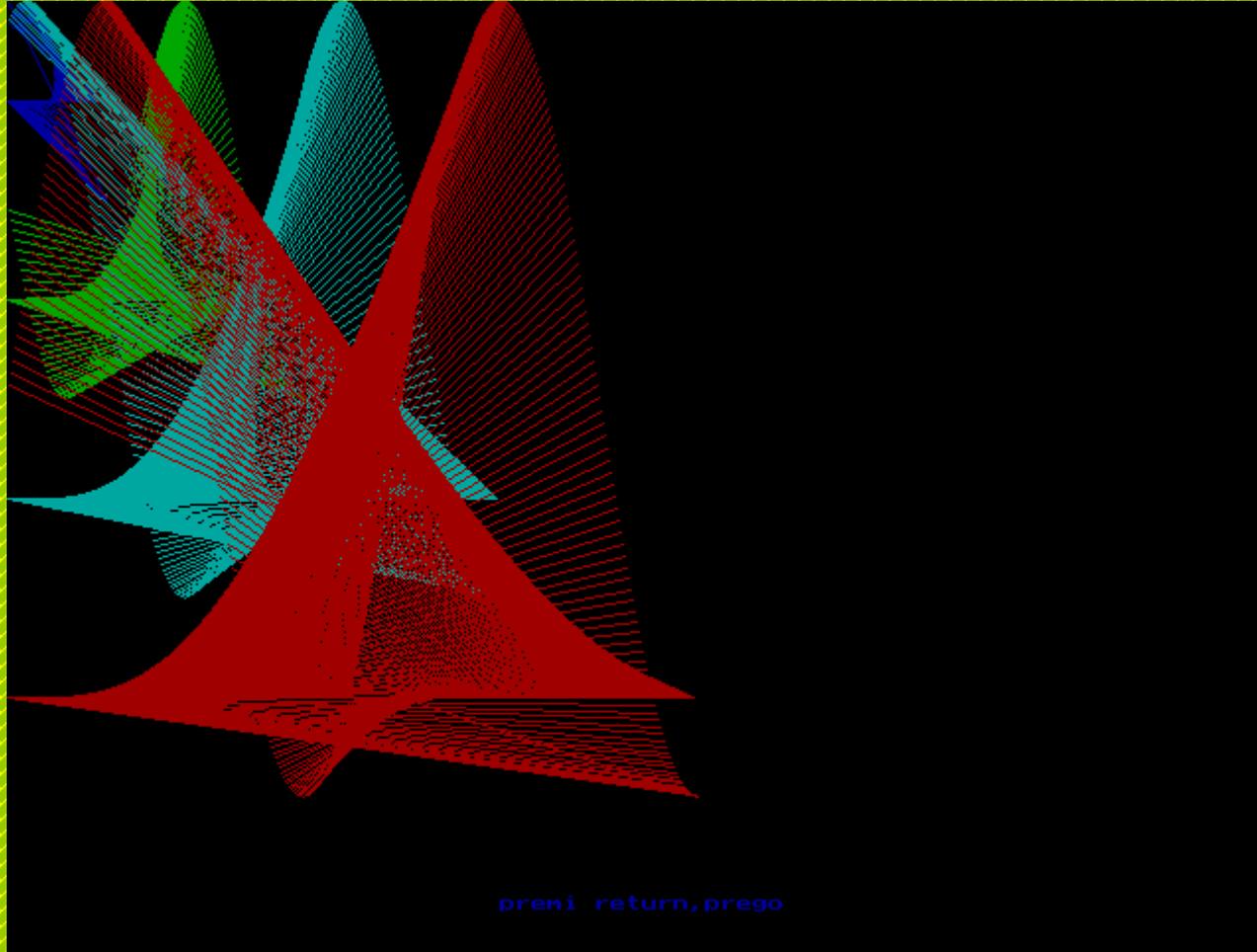


Grafica

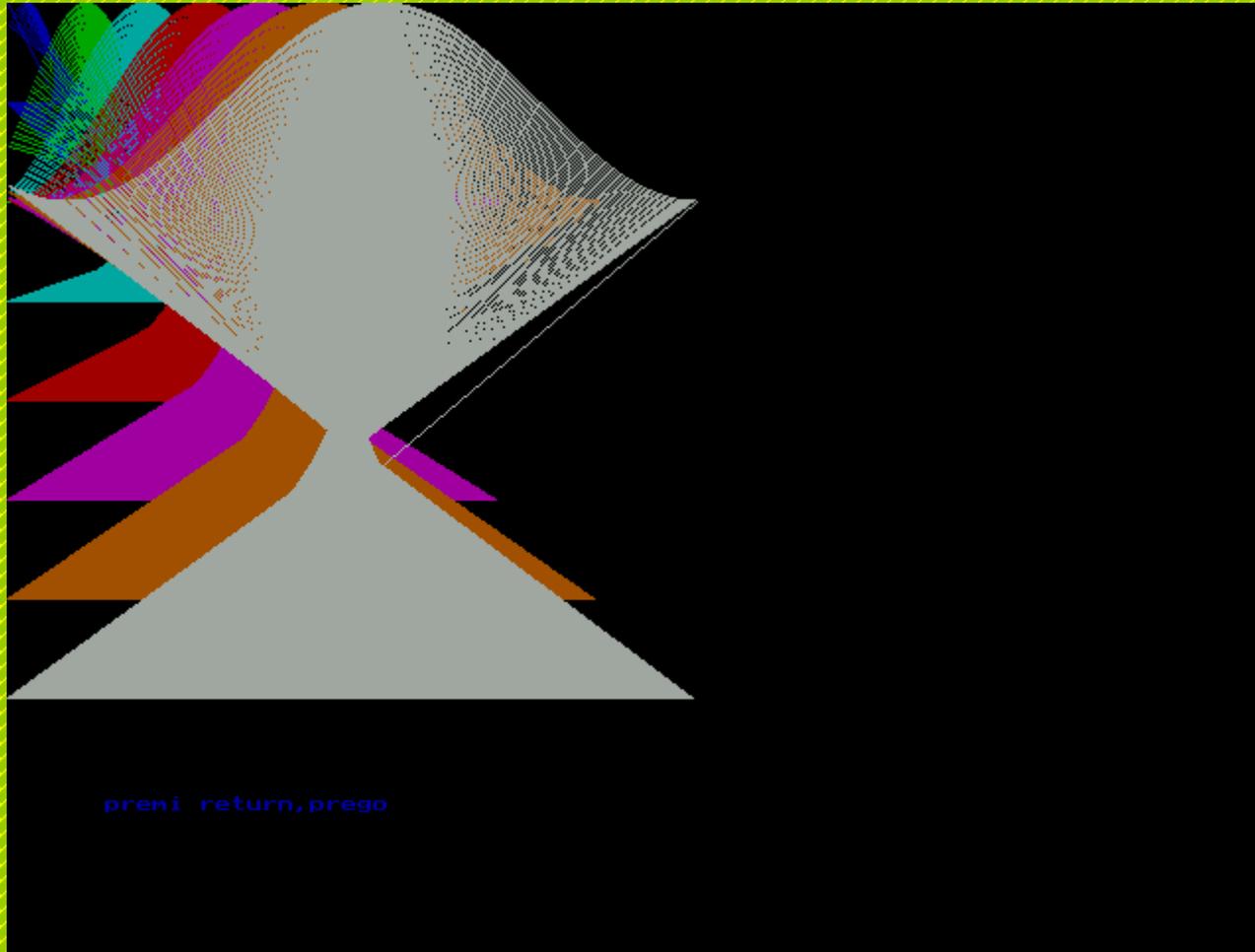
con

C++



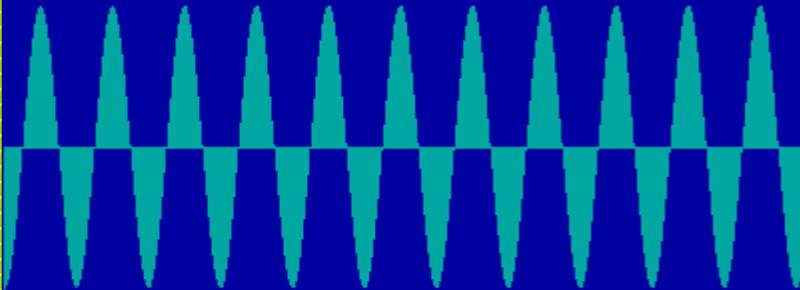
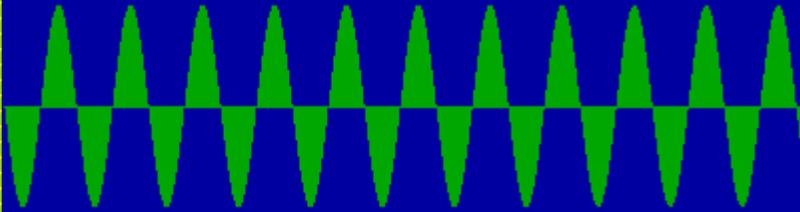


premi return, prego

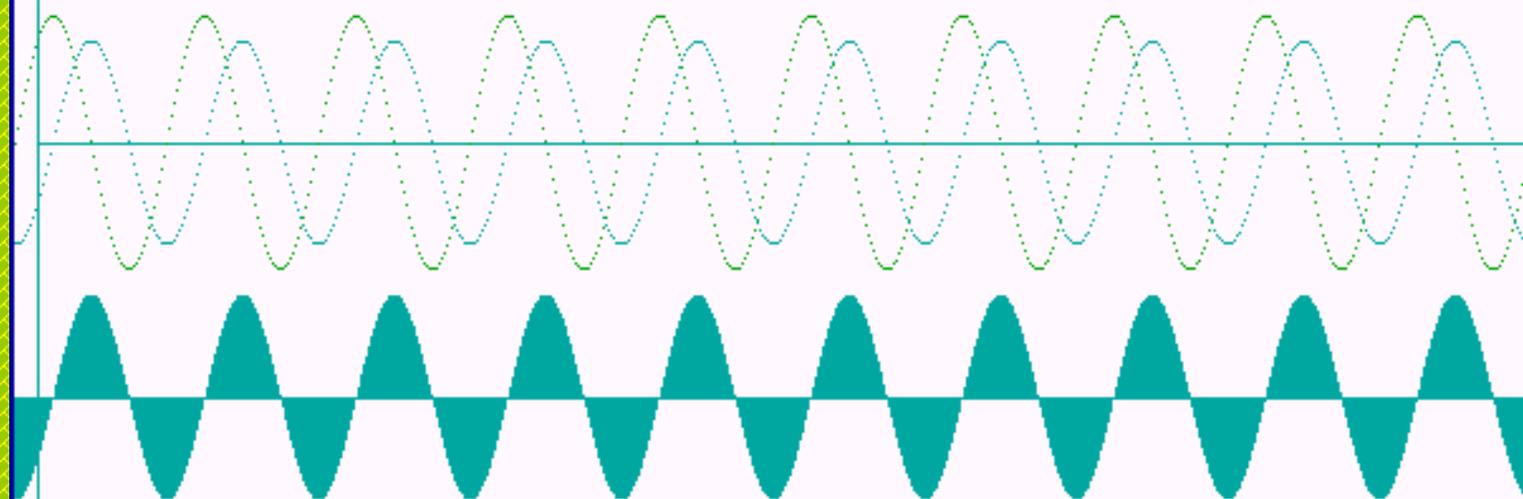


premi return,prego

sinusoide e cosinusoide



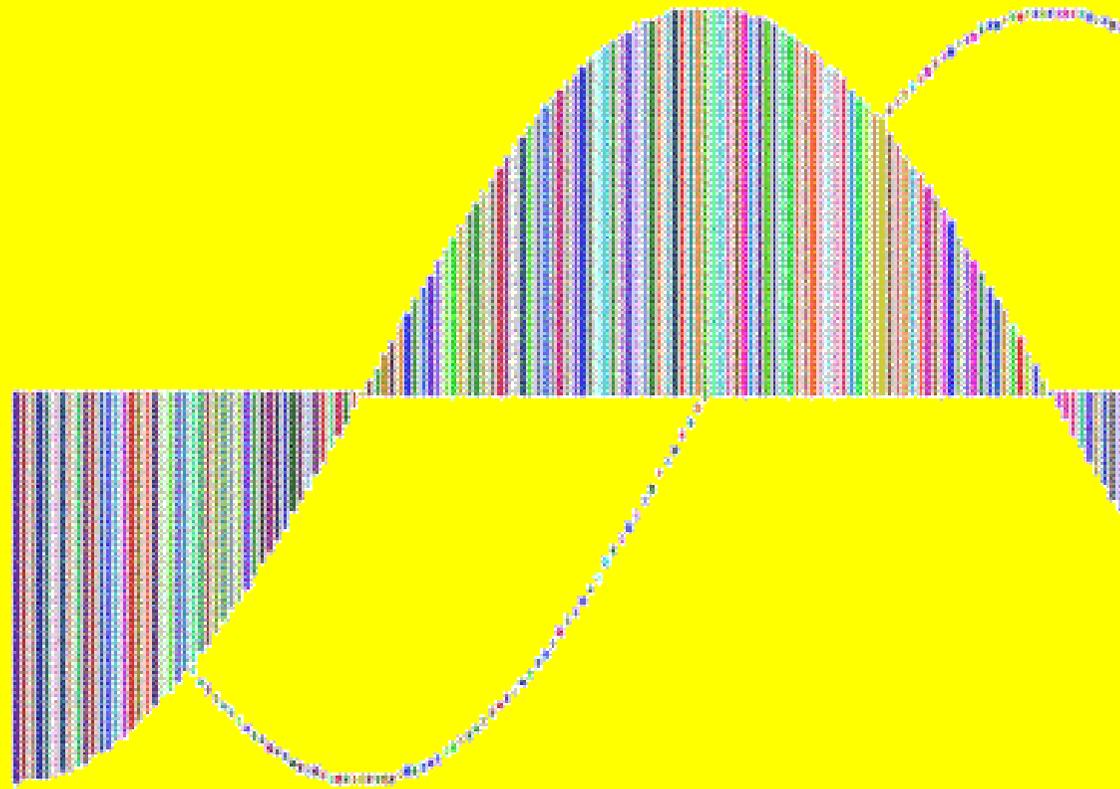
```
sinusoide e cosinusoide con putpixel(x,y,n)
sinusoide con line(x1,y1,x2,y2))
```



Grafica con LISP

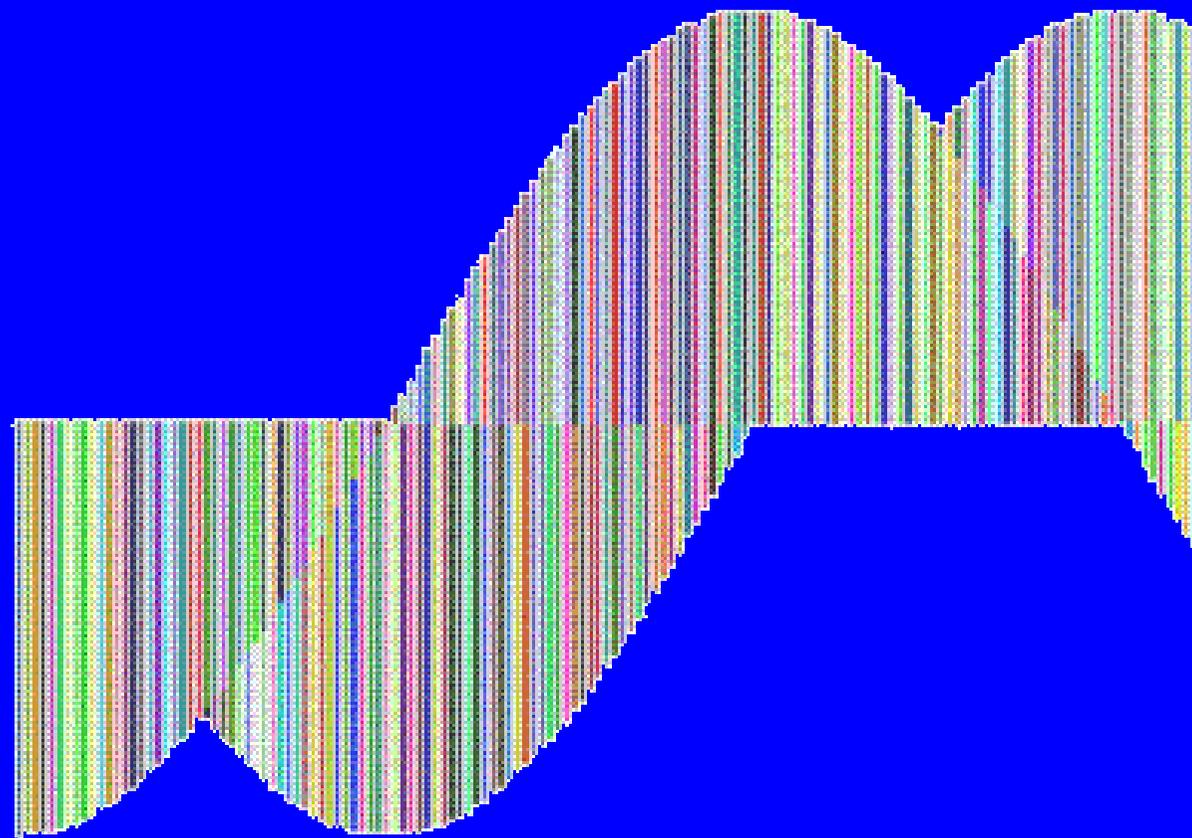
senocoseno.col

Color Window



sincos.col

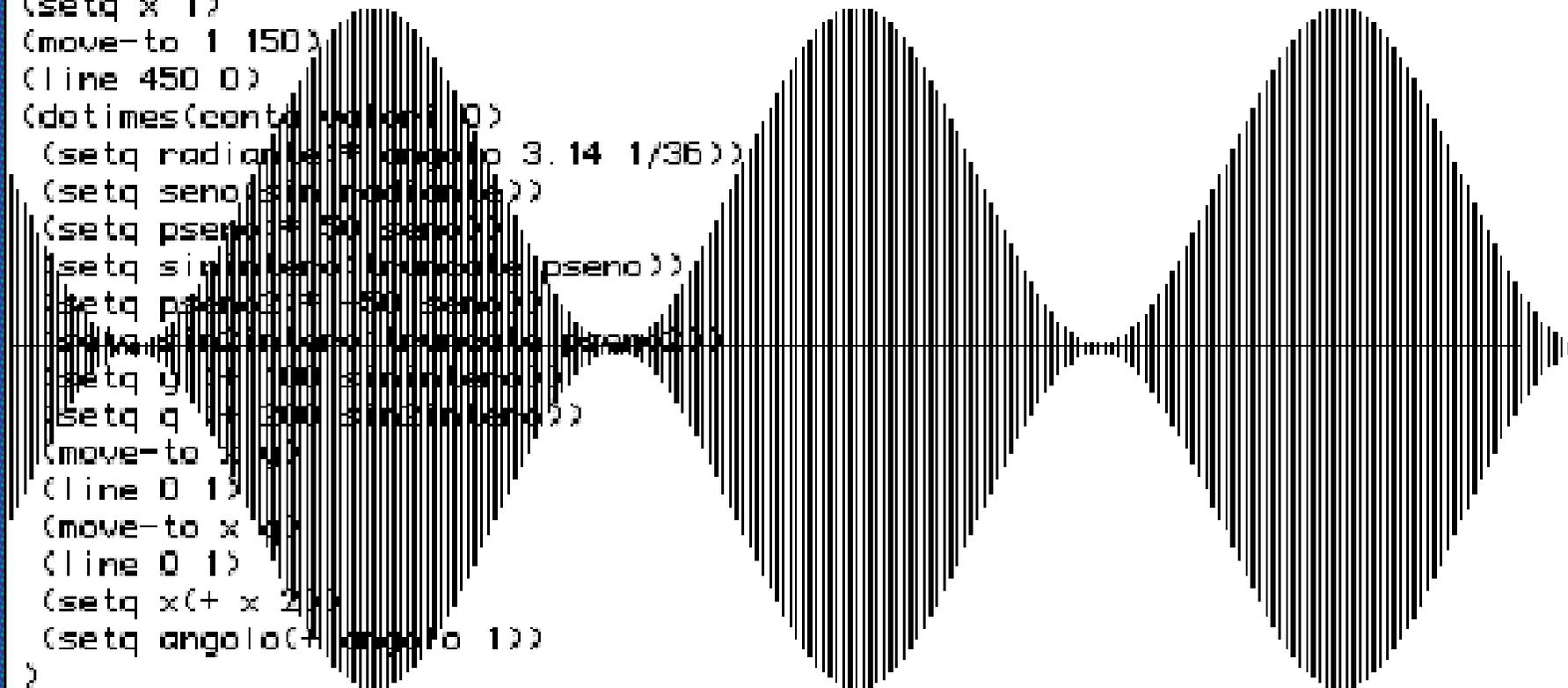
Color Window

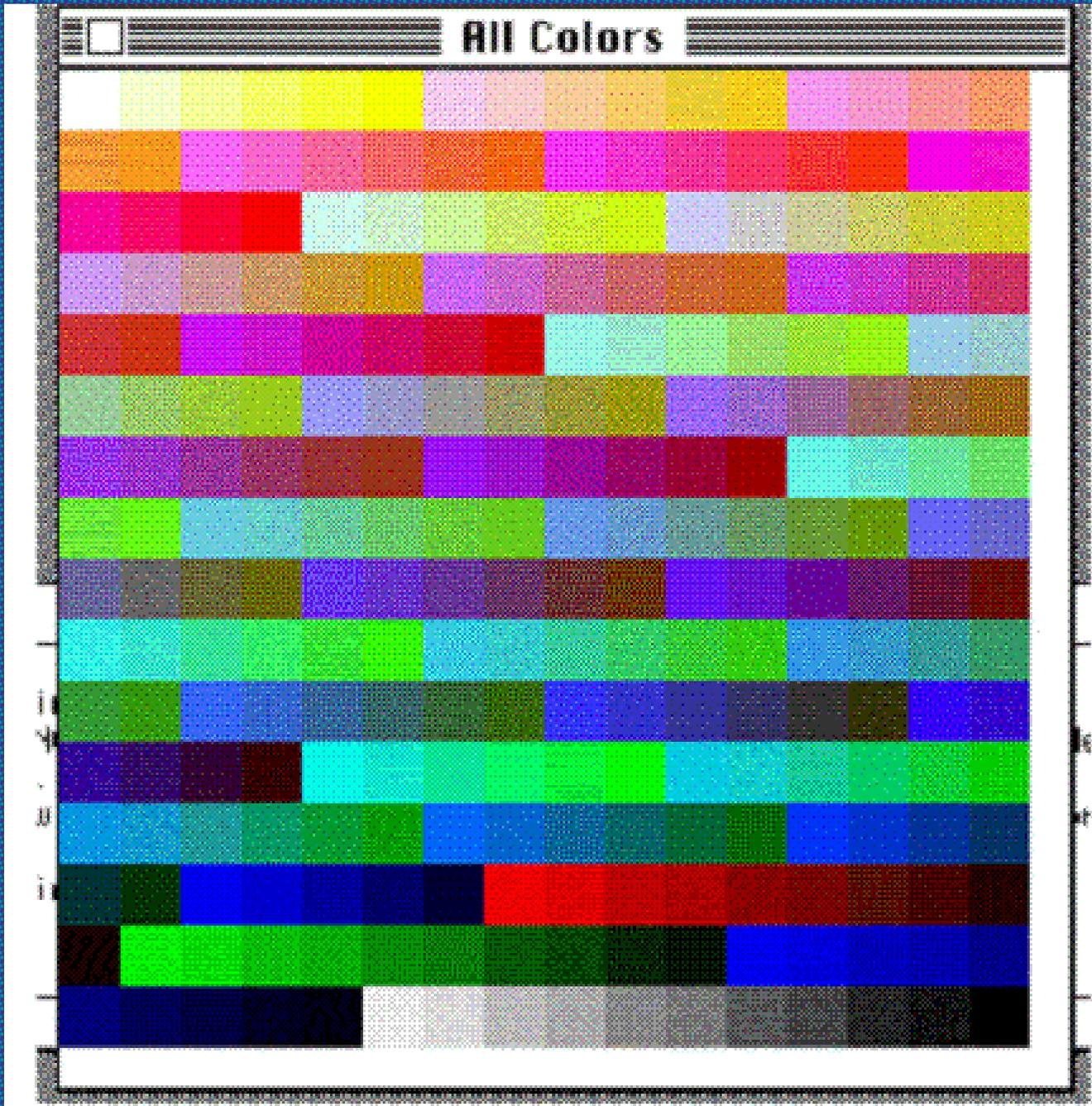


```

(prog1
  (ask(front-window)
    (setq angolo 0)
    (setq valori 240)
    (setq x 1)
    (move-to 1 150)
    (line 450 0)
    (dotimes(conta valori 0)
      (setq radiante(* angolo 3.14 1/36))
      (setq seno(sin radiante))
      (setq pseno(* 50 seno))
      (setq sininverso(1/radiante pseno))
      (setq pseno2(* -50 seno))
      (setq pseno3(* 50 seno))
      (setq pseno4(* -50 seno))
      (setq y (+ 100 sininverso))
      (setq q (+ 300 sininverso))
      (move-to x q)
      (line 0 1)
      (move-to x q)
      (line 0 1)
      (setq x(+ x 2))
      (setq angolo(+ angolo 1))
    )
    (setq angolo 0)
    (setq valori 240)
    (setq x 1)
    (move-to 1 150)
    (line 450 0)
    (dotimes(conta valori 0)
      (setq radiante(* angolo 3.14 1/36))

```



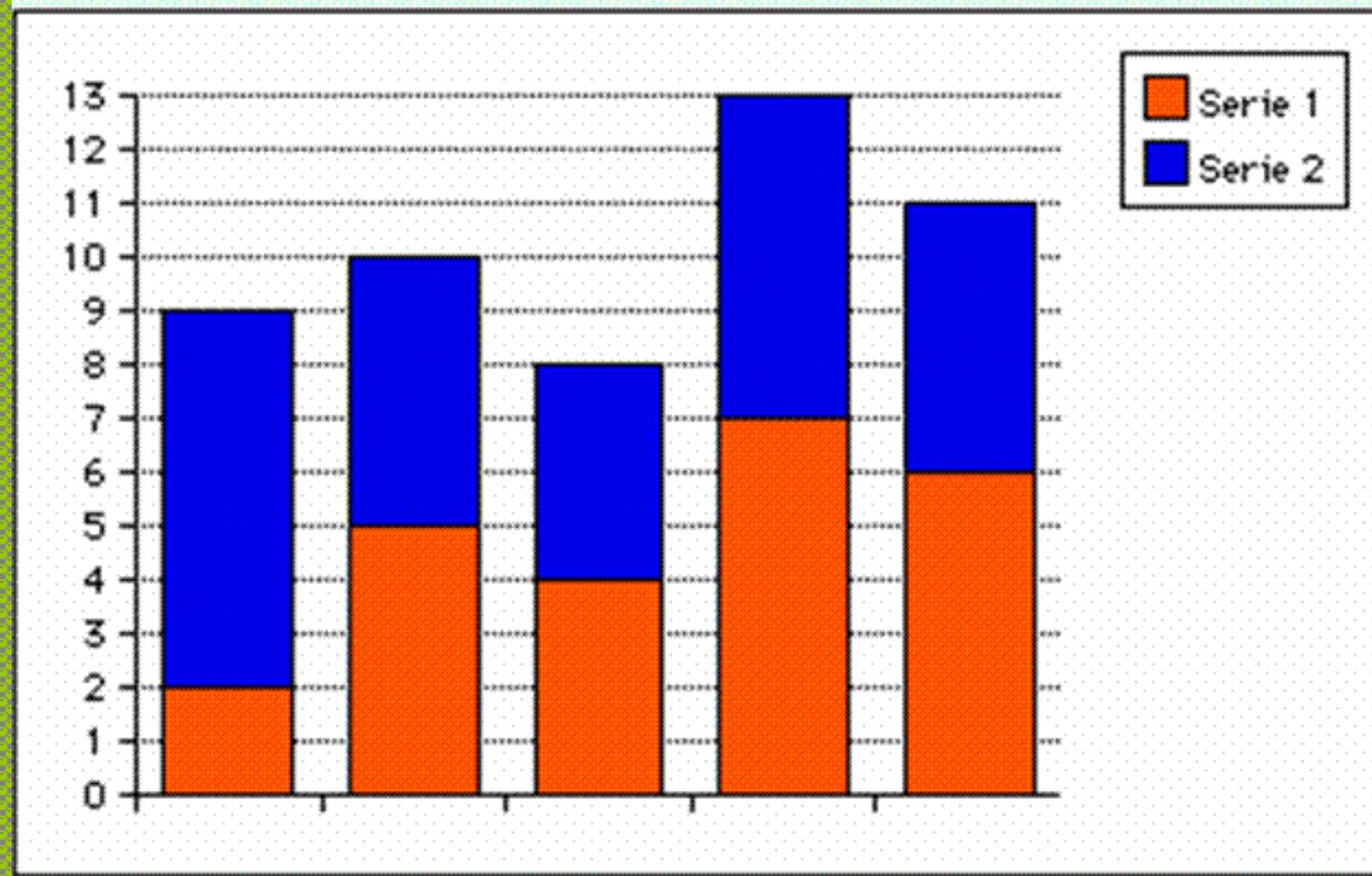


**Grafica
con**

Hypercard

Su mac

FINESTRA 1



inizio

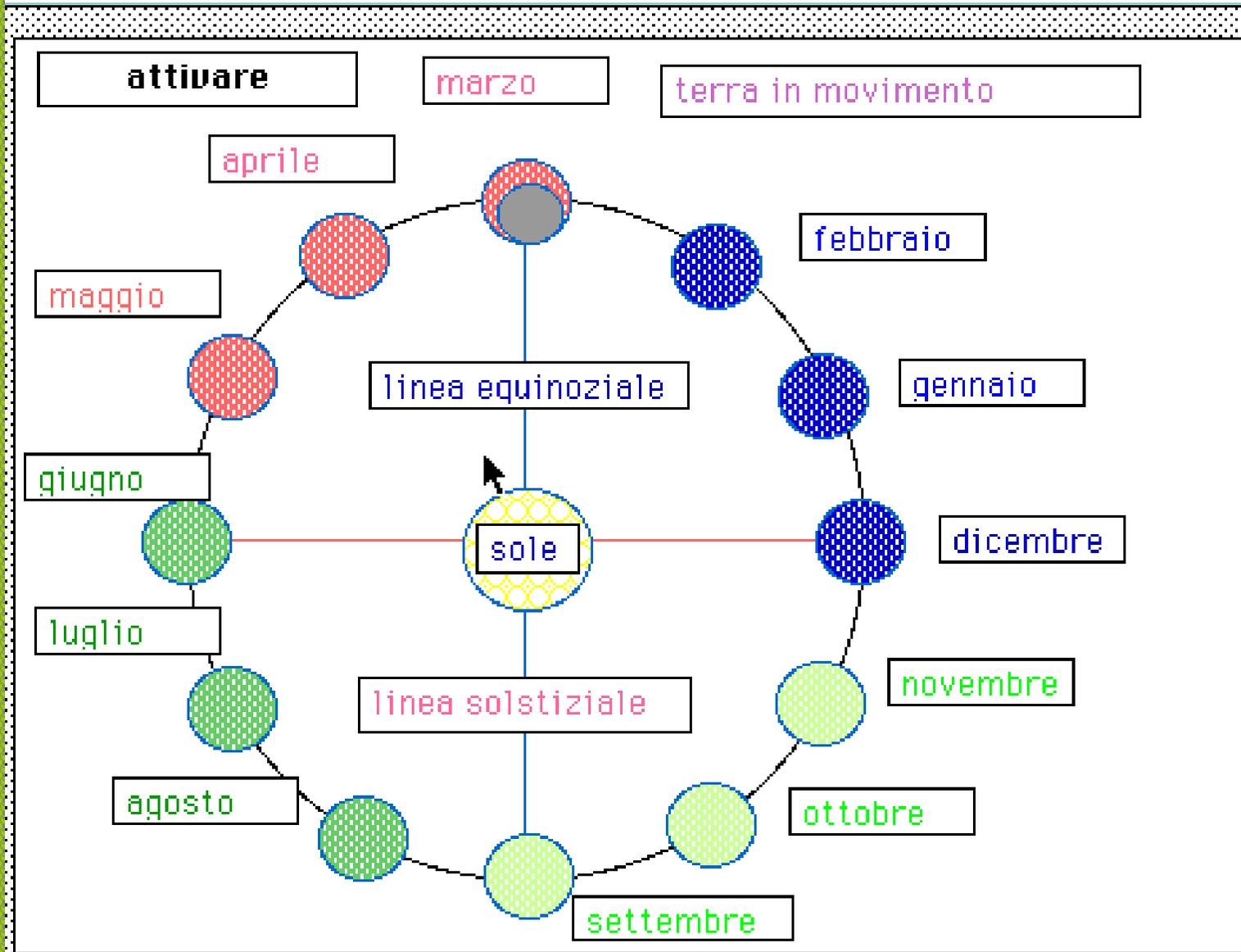


uscita

spiega

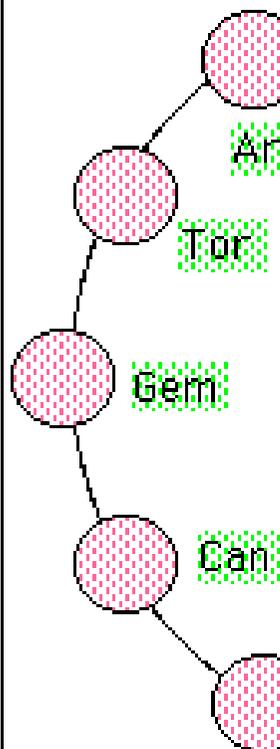
card3 su 5

Card "eliocentric" ID = 103



ZODIACO

marzo
aprile
maggio
giugno
luglio
agosto
settembre
ottobre
novembre
dicembre
gennaio
febbraio
mesi



Ipotesi sistema eliocentrico
la terra si muove in un anno attorno al sole sul piano della eclittica.
Ogni mese il sole sembra spostarsi rispetto allo sfondo delle costellazioni:
in particolare, ogni mese il sole sorge avendo sullo sfondo una delle 12 costellazioni zodiacali
Viene indicato il mese a sinistra e la costellazione zodiacale a destra
la costellazione di sfondo non risulta visibile
risulterà visibile al massimo sei mesi più tardi

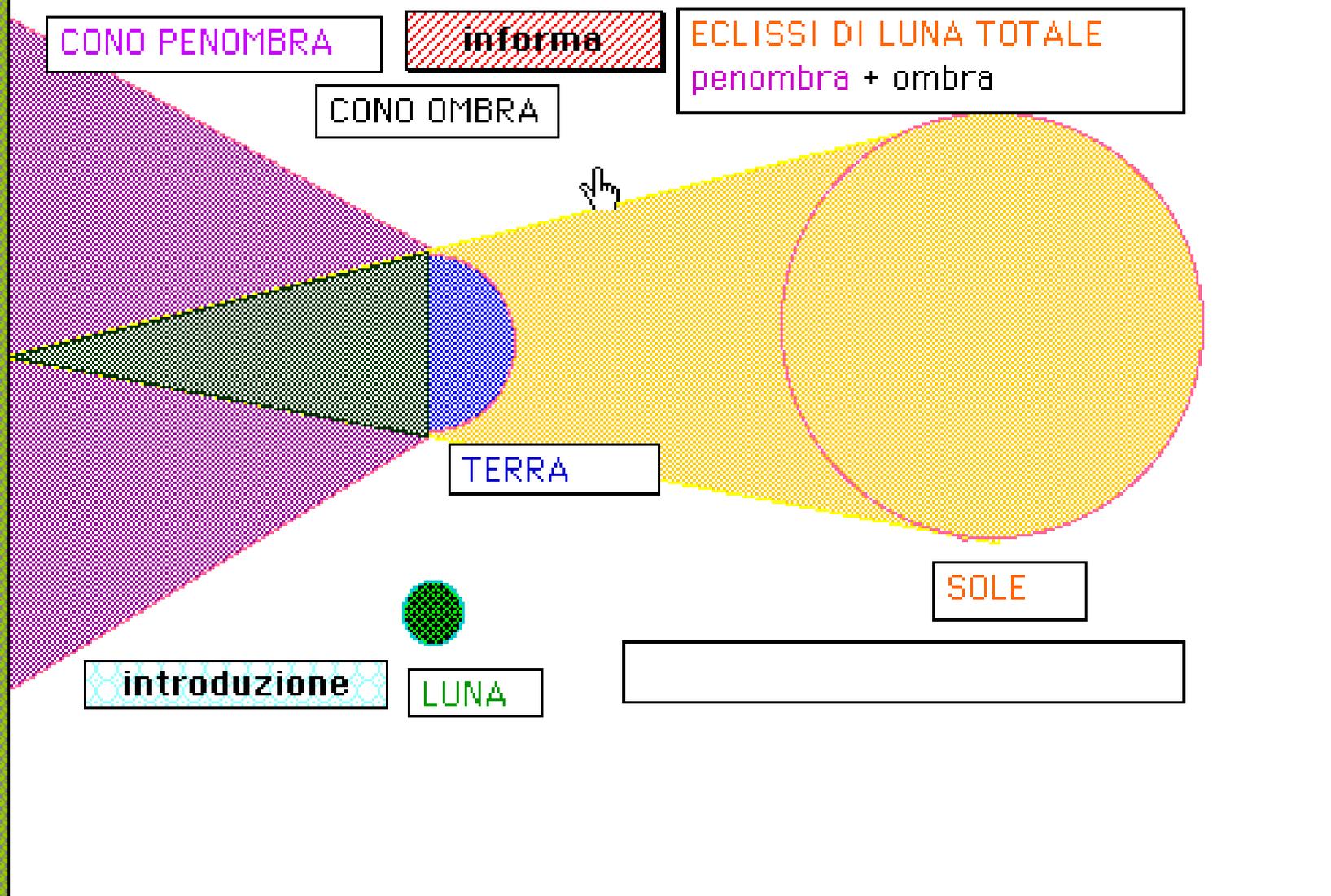
INFORMA per spiegazioni, INIZIO per tornare a menu principale

inizio

clic per attivare

informa

ECLISSI



CONO PENOMBRA

informa

ECLISSI DI LUNA TOTALE
penombra + ombra

CONO OMBRA

TERRA

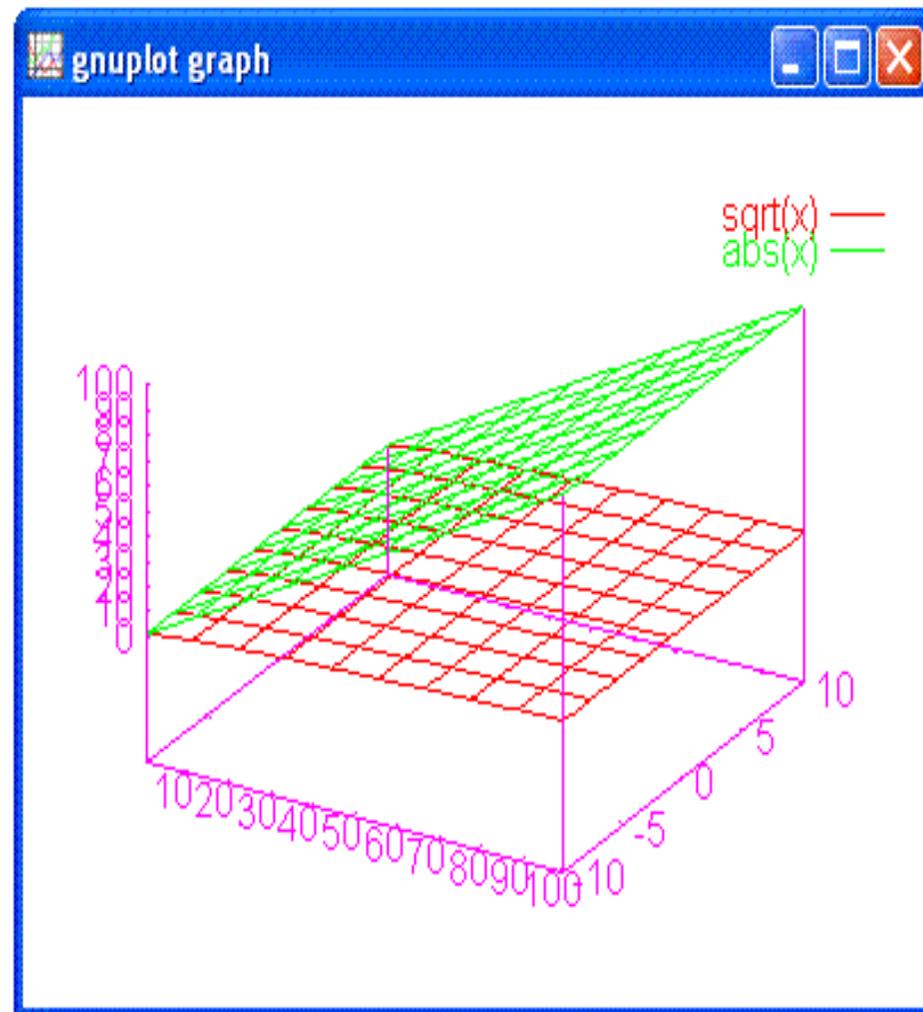
SOLE

introduzione

LUNA

Grafica con gnuplot

```
set xrange [1:100]  
splot sqrt(x),abs(x)
```



```
replot
```

```
set xrange [-1:1]
plot cosh(x)/sinh(x)
```

