

```

1 '##      Z - G R A P H      ##
2 '## Por: MARIZE BENAYAS PAZOS ##
3 MODE 1:BORDER 16:PAPER 1:CLS:men=
1:hy=380
4 soni=100:inso=16:color=0:rho=100:
rve=rho/2:res=50:incr=hy+res:sw=0
5 bo=16:pa=1:x=320:y=200:ti0=0:ti1=
26:ti2=0:ti3=16:c0=0:c1=1:c2=2:c3=3
:INK 0,0:INK 1,26:INK 2,0:INK 3,16:
BORDER bo:PAPER pa
6 '
7 GOSUB 387:GOSUB 244:GOSUB 276:GOS
UB 282
8 ON BREAK GOSUB 284:ON ERROR GOTO
285
9 ' << I N I C I A L I Z A >>
10 GOSUB 387:ON men GOSUB 115,117,1
19,121
11 GOSUB 17
12 WHILE -1:CLEAR INPUT:FOR p=1 TO
140:NEXT
13 IF INKEY(2)<>-1 THEN hy=hy-res:s
oni=soni+inso:incr=hy+res:GOSUB 17
14 IF INKEY(0)<>-1 THEN hy=hy+res:s
oni=soni-inso:incr=hy-res:GOSUB 17
15 IF INKEY(9)<>-1 THEN GOSUB 29:GOS
UB 34
16 WEND:END
17 ' << SITUA CURSOR ELECCIONES MEN
U >>
18 IF soni>260 THEN soni=260 ELSE I
F soni<100 THEN soni=100
19 IF hy>400 THEN hy=380:res=50:sw
=0
20 IF hy<8 THEN hy=14:res=18
21 IF sw=1 THEN 23
22 IF hy<75 THEN hy=50:res=18:sw=1:
GOTO 24
23 IF hy=50+res THEN hy=80:res=50:s
w=0
24 ORIGIN 0,0,0,639,399,0:PLOT 1,1,
c0:DRAW 639,1
25 PLOT -10,-10,c1
26 TAG:MOVE 560,incr:PRINT CHR$(254
):;SOUND 2,soni,4,7
27 MOVE 560,hy:PRINT CHR$(255):;SOU
ND 2,soni,4,7

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28 TAGOFF:PLOT 1,1,c0:DRAW 639,1:RE
TURN
29 ' << ELECCIONES MENU 4 >>
30 IF hy=14 THEN hy1=11:GOTO 99
31 IF hy=32 THEN hy1=10:GOSUB 105
32 IF hy=50 THEN hy1=8:GOSUB 113:CL
EAR INPUT:GOSUB 387
33 RETURN
34 ' << MENU 1 >>
35 IF men=1 THEN 36 ELSE 44
36 IF hy=380 THEN c0=2:GOSUB 132:c0
=0:INK 2,0,26:GOSUB 288:GOSUB 82:IN
K 2,ti2:GOSUB 132:RETURN
37 IF hy=330 THEN c0=2:GOSUB 135:c0
=0:INK 2,0,26:GOSUB 288:GOSUB 84:IN
K 2,ti2:GOSUB 135:RETURN
38 IF hy=280 THEN c0=2:GOSUB 138:c0
=0:INK 2,0,26:GOSUB 288:GOSUB 86:IN
K 2,ti2:GOSUB 138:RETURN
39 IF hy=230 THEN c0=2:GOSUB 141:c0
=0:INK 2,0,26:GOSUB 288:GOSUB 88:IN
K 2,ti2:GOSUB 141:RETURN
40 IF hy=180 THEN c0=2:GOSUB 144:c0
=0:INK 2,0,26:GOSUB 288:GOSUB 90:IN
K 2,ti2:GOSUB 144:RETURN
41 IF hy=130 THEN c0=2:GOSUB 147:c0
=0:INK 2,0,26:GOSUB 288:GOSUB 92:IN
K 2,ti2:GOSUB 147:RETURN
42 IF hy=80 THEN c0=2:GOSUB 150:c0=
0:INK 2,0,26:GOSUB 288:GOSUB 94:INK
2,ti2:GOSUB 150:RETURN
43 GOTO 29
44 ' << MENU 2 >>
45 IF men=2 THEN 46 ELSE 54
46 IF hy=380 THEN c0=2:GOSUB 161:c0
=0:INK 2,0,26:GOSUB 288:GOSUB 97:IN
K 2,ti2:GOSUB 161:RETURN
47 IF hy=330 THEN c0=2:GOSUB 164:c0
=0:INK 2,0,26:GOSUB 288:GOSUB 99:IN
K 2,ti2:GOSUB 164:RETURN
48 IF hy=280 THEN c0=2:GOSUB 167:c0
=0:INK 2,0,26:GOSUB 288:GOSUB 101:IN
K 2,ti2:GOSUB 167:RETURN
49 IF hy=230 THEN c0=2:GOSUB 170:c0
=0:INK 2,0,26:GOSUB 288:GOSUB 103:IN
K 2,ti2:GOSUB 170:RETURN
50 IF hy=180 THEN c0=2:GOSUB 173:c0
=0:INK 2,0,26:GOSUB 288:GOSUB 105:IN
K 2,ti2:GOSUB 173:RETURN
51 IF hy=130 THEN c0=2:GOSUB 176:c0
=0:INK 2,0,26:GOSUB 288:GOSUB 107:IN
K 2,ti2:GOSUB 176:RETURN
52 IF hy=80 THEN c0=2:GOSUB 179:c0=
0:INK 2,0,26:GOSUB 288:GOSUB 109:IN
K 2,ti2:GOSUB 179:RETURN
53 GOTO 29
54 ' << MENU 3 >>
55 IF men=3 THEN 56 ELSE 67
56 IF hy=380 THEN c0=2:GOSUB 185:c0
=0:INK 2,0,26:GOSUB 288:GOSUB 111:IN
K 2,ti2:GOSUB 185:RETURN
57 IF hy=330 THEN c0=2:GOSUB 188:c0
=0:INK 2,0,26:GOSUB 288:GOSUB 113:IN
K 2,ti2:GOSUB 188:RETURN
58 IF hy=280 THEN c0=2:GOSUB 191:c0
=0:INK 2,0,26:GOSUB 288:GOSUB 115:IN
K 2,ti2:GOSUB 191:RETURN
59 IF hy=230 THEN c0=2:GOSUB 194:c0
=0:INK 2,0,26:GOSUB 288:GOSUB 117:IN
K 2,ti2:GOSUB 194:RETURN
60 IF hy=180 THEN c0=2:GOSUB 197:c0
=0:INK 2,0,26:GOSUB 288:GOSUB 119:IN
K 2,ti2:GOSUB 197:RETURN
61 IF hy=130 THEN c0=2:GOSUB 200:c0
=0:INK 2,0,26:GOSUB 288:GOSUB 121:IN
K 2,ti2:GOSUB 200:RETURN
62 IF hy=80 THEN c0=2:GOSUB 203:c0=
0:INK 2,0,26:GOSUB 288:GOSUB 123:IN
K 2,ti2:GOSUB 203:RETURN
63 GOTO 29
64 LOCATE 1,1:PRINT CHR$(23):FOR i=
a TO b STEP 2:PLOT 580,i,c0:DRAW 63
9,i:NEXT:LOCATE 1,1:PRINT CHR$(23):C
HR$(0):RETURN
65 ORIGIN 0,0:PLOT 580,a,c0:DRAW 63

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i2:GOSUB 176:RETURN
52 IF hy=80 THEN c0=2:GOSUB 179:c0=
0:INK 2,0,26:GOSUB 288:GOSUB 111:IN
K 2,ti2:GOSUB 179:RETURN
53 GOTO 29
54 ' << MENU 3 >>
55 IF men=3 THEN 56 ELSE 67
56 IF hy=380 THEN c0=2:GOSUB 185:c0
=0:INK 2,0,26:GOSUB 288:GOSUB 111:IN
K 2,ti2:GOSUB 185:RETURN
57 IF hy=330 THEN c0=2:GOSUB 188:c0
=0:INK 2,0,26:GOSUB 288:GOSUB 113:IN
K 2,ti2:GOSUB 188:RETURN
58 IF hy=280 THEN c0=2:GOSUB 191:c0
=0:INK 2,0,26:GOSUB 288:GOSUB 115:IN
K 2,ti2:GOSUB 191:RETURN
59 IF hy=230 THEN c0=2:GOSUB 194:c0
=0:INK 2,0,26:GOSUB 288:GOSUB 117:IN
K 2,ti2:GOSUB 194:RETURN
60 IF hy=180 THEN c0=2:GOSUB 197:c0
=0:INK 2,0,26:GOSUB 288:GOSUB 119:IN
K 2,ti2:GOSUB 197:RETURN
61 IF hy=130 THEN c0=2:GOSUB 200:c0
=0:INK 2,0,26:GOSUB 288:GOSUB 121:IN
K 2,ti2:GOSUB 200:RETURN
62 IF hy=80 THEN c0=2:GOSUB 203:c0=
0:INK 2,0,26:GOSUB 288:GOSUB 123:IN
K 2,ti2:GOSUB 203:RETURN
63 GOTO 29
64 LOCATE 1,1:PRINT CHR$(23):FOR i=
a TO b STEP 2:PLOT 580,i,c0:DRAW 63
9,i:NEXT:LOCATE 1,1:PRINT CHR$(23):C
HR$(0):RETURN
65 ORIGIN 0,0:PLOT 580,a,c0:DRAW 63

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9,a,c0:DRAW 639,b,c0:DRAW 580,b,c0:
DRAW 580,a,c0:RETURN
66 GOTO 29
67 ' << MENU 4 >>
68 IF men=4 THEN 69 ELSE 12
69 IF hy=380 THEN 70 ELSE 74
70 c0=2:LOCATE 1,1:PRINT CHR$(23):F
OR jas=366 TO 380 STEP 2:PLOT 580,j
as,c0:DRAW 639,jas:NEXT:LOCATE 1,1:
PRINT CHR$(23)CHR$(0)
71 INK 2,0,26:GOSUB 288:c0=0:ORIGIN
0,0,0,554,398,0:GRAPHICS PEN c0:MO
VE x,y:FILL color:ORIGIN 0,0,0,639,
399,0
72 c0=2:LOCATE 1,1:PRINT CHR$(23):F
OR mur=366 TO 380 STEP 2:PLOT 580,m
ur,c0:DRAW 639,mur:NEXT:LOCATE 1,1:
PRINT CHR$(23)CHR$(0)
73 ORIGIN 0,0,0,639,399,0:c0=0:INK
2,ti2:RETURN
74 IF hy=330 THEN c0=2:a=318:b=330:
GOSUB 64:INK 2,0,26:GOSUB 390:c0=2:
a=318:b=330:GOSUB 64:c0=ti0:RETURN
75 IF hy=280 THEN c0=2:a=268:b=280:
GOSUB 64:INK 2,0,26:GOSUB 420:c0=2:
a=268:b=280:GOSUB 64:c0=ti0:RETURN
76 IF hy=230 THEN preg$="SALVAR":GO
SUB 232:IEN,a$,"pppppppp.bin":GOSU
B 241:GOSUB 287:GOSUB 25:RETURN
77 IF hy=180 THEN preg$="LEER":GOSU
B 235:GOSUB 241:GOSUB 287:GOSUB 25:
RETURN
78 IF hy=130 THEN SAVE"PPPPPPPP",b,
&C000,&4000:preg$="BORRAR":GOSUB 23
5:IERA,a$a$="pppppppp":GOSUB 241:I
ERA,"pppppppp.bin":RETURN
79 IF hy=80 THEN GOSUB 280:a=68:b=6
9:c=70:d=71:e=72:f=73:c1=3:GOSUB 20
5:a=62:b=74:c0=2:GOSUB 64:INK 2,0,2
6:GOSUB 440:a=62:b=74:c0=2:GOSUB 64
:GOSUB 276:a=68:b=69:c=70:d=71:e=72
:f=73:c1=3:GOSUB 205:GOSUB 287:RETU
RN
80 GOTO 12
81 ' << DIBUJA PANTALLA ELECCIONES
MENU 1 >>
82 ' << DIBUJA CIRCULO >>
83 ORIGIN 0,0,0,554,398,0:DEG:FOR v
u=0 TO 360 STEP 6:PLOT rho*SIN(vu)+

```

```

x,rho*COS(vu)+y,c0:DRAW rho*SIN(vu+
6)+x,rho*COS(vu+6)+y:NEXT:ORIGIN 0,
0,0,639,399,0:RETURN
84 ' << DIBUJA OVALO VERTICAL >>
85 ORIGIN 0,0,0,554,398,0:DEG:FOR v
u=0 TO 360 STEP 6:PLOT rve*SIN(vu)+
x,rho*COS(vu)+y,c0:DRAW rve*SIN(vu+
6)+x,rho*COS(vu+6)+y:NEXT:ORIGIN 0,
0,0,639,399,0:RETURN
86 ' << DIBUJA OVALO HORIZONTAL >>
87 ORIGIN 0,0,0,554,398,0:DEG:FOR v
u=0 TO 360 STEP 6:PLOT rho*SIN(vu)+
x,rve*COS(vu)+y,c0:DRAW rho*SIN(vu+
6)+x,rve*COS(vu+6)+y:NEXT:ORIGIN 0,
0,0,639,399,0:RETURN
88 ' << DIBUJA CURVA >>
89 ORIGIN 0,0,0,554,398,0:DEG:FOR v
u=270 TO 360 STEP 6:PLOT rho*SIN(vu
)+x,rho*COS(vu)+y,c0:DRAW rho*SIN(v
u+6)+x,rho*COS(vu+6)+y:NEXT:ORIGIN
0,0,0,639,399,0:RETURN
90 ' << DIBUJA ROMBO >>
91 ORIGIN 0,0,0,554,398,0:DEG:FOR v
u=0 TO 360 STEP 90:PLOT rho*SIN(vu)
+x,rho*COS(vu)+y,c0:DRAW rho*SIN(vu
+90)+x,rho*COS(vu+90)+y:NEXT:ORIGIN
0,0,0,639,399,0:RETURN
92 ' << DIBUJA CUADRADO >>
93 ORIGIN 0,0,0,554,398,0:DEG:FOR v
u=45 TO 405 STEP 90:PLOT rho*SIN(vu
)+x,rho*COS(vu)+y,c0:DRAW rho*SIN(v
u+90)+x,rho*COS(vu+90)+y:NEXT:ORIGI
N 0,0,0,639,399,0:RETURN
94 ' << DIBUJA RECTANGULO HORIZONTA
L >>
95 ORIGIN 0,0,0,554,398,0:DEG:FOR v
u=45 TO 405 STEP 90:PLOT rho*SIN(vu
)+x,rve*COS(vu)+y,c0:DRAW rho*SIN(v
u+90)+x,rve*COS(vu+90)+y:NEXT:ORIGI
N 0,0,0,639,399,0:RETURN
96 ' << DIBUJA ELECCIONES MENU 2 >>
97 ' << DIBUJA RECTANGULO VERTICAL
>>
98 ORIGIN 0,0,0,554,398,0:DEG:FOR v
u=45 TO 405 STEP 90:PLOT rve*SIN(vu
)+x,rho*COS(vu)+y,c0:DRAW rve*SIN(v
u+90)+x,rho*COS(vu+90)+y:NEXT:ORIGI
N 0,0,0,639,399,0:RETURN
99 ' << CAMBIO A MENU SIGUIENTE >>
100 IF hy<8 THEN RETURN
101 IF hy=11 AND men=1 THEN men=2:
GOTO 10
102 IF hy=11 AND men=2 THEN men=3:
GOTO 10
103 IF hy=11 AND men=3 THEN men=4:
GOTO 10
104 IF hy=11 AND men=4 THEN men=1:
GOTO 10
105 ' << CAMBIO A MENU ANTERIOR >>
106 IF hy<8 THEN 111

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107 IF hy=10 AND men=1 THEN men=4:
GOTO 10
108 IF hy=10 AND men=2 THEN men=1:
GOTO 10
109 IF hy=10 AND men=3 THEN men=2:
GOTO 10
110 IF hy=10 AND men=4 THEN men=3:
GOTO 10
111 RETURN
112 ' << BORRA PANTALLA >>
113 IF hy=8 THEN CLS#2:GOSUB 130:G
OSUB 17:RETURN
114 ' << DIBUJA MENU 1 >>
115 CLS#1:GOSUB 122:GOSUB 132:GOSUB
135:GOSUB 138:GOSUB 141:GOSUB 144:
GOSUB 147:GOSUB 150:GOSUB 153:RETUR
N
116 ' << DIBUJA MENU 2 >>
117 CLS#1:GOSUB 122:GOSUB 161:GOSUB
164:GOSUB 167:GOSUB 170:GOSUB 173:
GOSUB 176:GOSUB 179:GOSUB 182:RETUR
N
118 ' << DIBUJA MENU 3 >>
119 CLS#1:GOSUB 122:GOSUB 185:GOSUB
188:GOSUB 191:GOSUB 194:GOSUB 196:
GOSUB 198:GOSUB 201:GOSUB 209:RETUR
N
120 ' << DIBUJA MENU 4 >>
121 CLS#1:GOSUB 122:GOSUB 213:GOSUB
215:GOSUB 217:GOSUB 219:GOSUB 221:
GOSUB 223:GOSUB 225:GOSUB 228:RETUR
N
122 ' << CUADRICULA >>
123 FOR d=580 TO 639:MOVE d,c1:DRAW
d,399,c3:NEXT
124 FOR a=0 TO 399 STEP 50:MOVE 580
,a:DRAW 639,a,c0:NEXT
125 MOVE 1,1:DRAW 639,c0:DRAW 639,3
99:DRAW 1,399:DRAW 1,1
126 MOVE 580,1:DRAW 580,399
127 FOR x=580 TO 639 STEP 2:MOVE x,
1:DRAW x,50,c0:NEXT
128 FOR v=576 TO 580:MOVE v,1:DRAW
v,399,c0:NEXT
129 RETURN

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130 MOVE 1,1:DRAW 576,1,c0:DRAW 576
,399:DRAW 1,399:DRAW 1,1:RETURN
131 ' << MENU 1 >>
132 ' << CIRCULO MUESTRA >>
133 ORIGIN 609.5,375:DEG
134 FOR x=0 TO 360 STEP 45:PLOT 20*
SIN(x),20*COS(x),c0:DRAW 20*SIN(x+4
5),20*COS(x+45):NEXT:GOSUB 159:RETU
RN
135 ' << OVALO HORIZONTAL MUESTRA >
>
136 ORIGIN 609.5,325:DEG
137 FOR x=0 TO 360 STEP 20:PLOT 16*
SIN(x),22*COS(x),c0:DRAW 16*SIN(x+2
0),22*COS(x+20):NEXT:GOSUB 159:RETU
RN
138 ' << OVALO VERTICAL MUESTRA >>
139 ORIGIN 609.5,275:DEG
140 FOR x=0 TO 360 STEP 20:PLOT 25*
SIN(x),16*COS(x),c0:DRAW 25*SIN(x+2
0),16*COS(x+20):NEXT:GOSUB 159:RETU
RN
141 ' << CURVA MUESTRA >>
142 ORIGIN 639,198:DEG
143 FOR x=290 TO 350 STEP 8:PLOT 50
*SIN(x),50*COS(x),c0:DRAW 50*SIN(x+
8),50*COS(x+8):NEXT:RETURN
144 ' << ROMBO MUESTRA >>
145 ORIGIN 0,0
146 PLOT 609.5,152:DRAW 636,175,c0:
DRAW 609.5,196:DRAW 584,175:DRAW 60
9.5,152:ORIGIN 609.5,175:GOSUB 159:
RETURN
147 ' << CUADRAO MUESTRA >>
148 ORIGIN 0,0
149 PLOT 594,110,c0:DRAW 625,110:DR
AW 625,140:DRAW 594,140:DRAW 594,11
0:ORIGIN 609.5,125:GOSUB 159:RETURN
150 ' << RECTANGULO HORIZONTAL MUES
TRA >>
151 ORIGIN 0,0
152 PLOT 584,60,c0:DRAW 635,60:DRAW
635,90:DRAW 584,90:DRAW 584,60:DR
GIN 609.5,75:GOSUB 159:ORIGIN 0,0:R
ETURN

```

```

153 ' << DECISIONES MENU 1 >>
154 GOSUB 251
155 PLOT -10,-10,c1:TAG:MOVE 586,48
:PRINT CHR$(33)+CHR$(34)+CHR$(35);
156 MOVE 586,32:PRINT CHR$(36)+CHR$
(37)+CHR$(38);
157 MOVE 586,16:PRINT CHR$(39)+CHR$
(40)+CHR$(41);TAGOFF
158 RETURN
159 MOVE 1,1:FILL c1:RETURN
160 ' << MENU 2 >>
161 ' << RECTANGULO VERTICAL MUESTR
A >>
162 ORIGIN 0,0
163 PLOT 594,354,c0:DRAW 624,354:DR
AW 624,394:DRAW 594,394:DRAW 594,35
4:ORIGIN 609.5,375:GOSUB 159:ORIGIN
0,0:GOSUB 253:RETURN
164 ' << LINEA FINA MUESTRA >>
165 ORIGIN 0,0
166 PLOT 590,325,c0:DRAW 629,325:RE
TURN
167 ' << LINEA GRUESA MUESTRA >>
168 ORIGIN 0,0
169 FOR l=274 TO 276 STEP 2:PLOT 59
0,l,c0:DRAW 629,l:NEXT:RETURN
170 ' << LINEA TRAZOS MUESTRA >>
171 ORIGIN 0,0
172 FOR l=588 TO 632 STEP 10:PLOT 1
,225:DRAW 1+6,225,c0:NEXT:RETURN
173 ' << LINEA PUNTOS MUESTRA >>
174 ORIGIN 0,0
175 FOR l=588 TO 632 STEP 4:PLOT 1,
175,c0:NEXT:RETURN
176 ' << LINEA DOBLE MUESTRA >>
177 ORIGIN 0,0
178 PLOT 590,128,c0:DRAW 629,128:PL
OT 590,122:DRAW 629,122:RETURN
179 ' << LINEA ZIG-ZAG MUESTRA >>
180 ORIGIN 0,0
181 FOR l=588 TO 624 STEP 8:PLOT 1,
72,c0:DRAW 1+4,76:DRAW 1+8,72:NEXT:
RETURN
182 ' << DECISIONES MENU 2 >>
183 GOSUB 253:GOSUB 155:RETURN
184 ' << MENU 3 >>
185 ' << LINEA EJES MUESTRA >>
186 ORIGIN 0,0
187 FOR l=588 TO 618 STEP 14:PLOT 1
,375,c0:PLOT 1+4,375:DRAW 1+10,375:
NEXT:PLOT 630,375:RETURN
188 ' << LINEA INCLINADA MUESTRA >>
189 ORIGIN 0,0
190 PLOT 590,310,c0:DRAW 629,340:RE
TURN
191 ' << PUNTO MUESTRA >>
192 ORIGIN 0,0
193 PLOT 609.5,275,c0:RETURN
194 ' << COLOR 1 MUESTRA >>
195 ORIGIN 609.5,225:c1=1:GOSUB 159
:GOSUB 200:RETURN

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196 ' << COLOR 2 MUESTRA >>
197 ORIGIN 609.5,175:c1=3:GOSUB 159
:GOSUB 200:RETURN
198 ' << COLOR 3 MUESTRA >>
199 ORIGIN 609.5,125:c1=0:GOSUB 159
:GOSUB 200:RETURN
200 c1=1:c3=3:c0=0:RETURN
201 ' << VARIA COLOR MUESTRA >>
202 GOSUB 258
203 ORIGIN 0,0
204 FOR t=580 TO 639:MOVE t,50:DRAW
t,100,c0:NEXT:MOVE 580,52:DRAW 639
,52,c1:DRAW 639,250:DRAW 580,250:DR
AW 580,52:PLOT 580,150:DRAW 639,150
:PLOT 580,200:DRAW 639,200:PLOT 580
,100:DRAW 639,100:PLOT 580,252:DRAW
639,252,c0:a=42:b=43:c=44:d=45:e=4
6:f=47
205 TAG:PLOT -10,-10,c1
206 MOVE 588,91:PRINT CHR$(a)+CHR$(
b)+CHR$(c);
207 MOVE 586,75:PRINT CHR$(d)+CHR$(
e)+CHR$(f);
208 TAGOFF:RETURN
209 ' << DECISIONES MENU 3 >>
210 ORIGIN 0,0
211 GOSUB 254:GOSUB 155:RETURN
212 ' << MENU 4 >>
213 ' << FILL MUESTRA >>
214 ORIGIN 0,0:GOSUB 260:l0=590:ha=
380:s1=48:s2=49:s3=50:GOSUB 229:RET
URN
215 ' << ZOOM+ MUESTRA >>
216 ORIGIN 0,0:GOSUB 262:l0=586:ha=
330:s1=51:s2=52:s3=53:GOSUB 229:RET
URN
217 ' << COPIA MUESTRA >>

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218 ORIGIN 0,0:GOSUB 264:lo=586:ha=
280:s1=65:s2=66:s3=67:GOSUB 229:RET
URN
219 ' << SAVE MUESTRA >>
220 ORIGIN 0,0:GOSUB 268:lo=586:ha=
230:s1=54:s2=55:s3=56:GOSUB 229:RET
URN
221 ' << LOAD MUESTRA >>
222 ORIGIN 0,0:GOSUB 272:lo=588:ha=
180:s1=57:s2=58:s3=59:GOSUB 229:RET
URN
223 ' << ERA MUESTRA >>
224 ORIGIN 0,0:GOSUB 274:lo=590:ha=
132:s1=60:s2=61:s3=62:GOSUB 229:RET
URN
225 ' << MAYOR / MENOR MUESTRA >>
226 ORIGIN 0,0:GOSUB 276:a=68:b=69:
c=70:d=71:e=72:f=73:c1=3:GOSUB 205:
c1=1:RETURN
227 ' << DECISIONES MENU 4 >>
228 GOSUB 257:GOSUB 155:RETURN
229 '
230 TAG:PLOT -10,-10,c3
231 MOVE lo,ha:PRINT CHR$(s1)+CHR$(
s2)+CHR$(s3):TAGOFF:RETURN
232 ' << EJECUTA SAVE >>
233 PLOT -10,-10,c1:TAG:MOVE 560,hy
:PRINT CHR$(&FE);
234 GOSUB 287:SAVE"PPPPPPPP",B,&C00
0,&4000
235 MODE 2:PAPER 0:PEN 1:BORDER 0:C
LEAR INPUT
236 SYMBOL AFTER 32:IDIR,"DIB*.bin
237 LOCATE 60,24:PRINT FRE("");" By
tes libres.":LOCATE 1,24:PRINT CHR$
(2):PRINT"-NUMERO DEL DIBUJO A "ip
reg$;" ???":INPUT num
238 b$=MID$(STR$(num),2,LEN(STR$(nu
m)))
239 a$="dib"+b$+".BIN"
240 RETURN
241 ' << EJECUTA LOAD >>
242 MODE 1:INK 0,0:INK 1,0:INK 2,0:
INK 3,0:LOAD a$
243 GOSUB 287:GOSUB 244:GOSUB 282:G
OSUB 387:RETURN
244 ' << DECISIONES SIMBOLOS >>

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```

245 SYMBOL AFTER 32
246 SYMBOL 33,&X0,&X11100111,&X1001
0101,&X11110101,&X10010101,&X111001
11,&X0,&X0:SYMBOL 34,&X0,&X11110111,
&X1001010,&X11110111,&X1010010,&X100
1010,&X0,&X0:SYMBOL 35,&X0,&X110011
00,&X1010010,&X11010010,&X10011110,
&X1010010,&X0,&X0
247 SYMBOL 36,&X0,&X1100100,&X10010
110,&X10010101,&X11110100,&X1001010
0,&X0,&X0:SYMBOL 37,&X0,&X1011101,&
X1001001,&X1001001,&X11001001,&X100
1001,&X0,&X0:SYMBOL 38,&X0,&X110111
10,&X10010,&X10011110,&X10100,&X110
10010,&X0,&X0
248 SYMBOL 39,&X0,&X0,&X10001011,&X
11011010,&X10101011,&X10001010,&X10
001011:SYMBOL 40,&X0,&X0,&X10100010
,&X110010,&X101010,&X100110,&X10100
010:RETURN
249 PEN 0
250 '
251 SYMBOL 41,&X0,&X0,&X10100110,&X
10101001,&X10100010,&X10100100,&X11
101111:RETURN
252 '
253 SYMBOL 41,&X0,&X0,&X10101111,&X
10100001,&X10100110,&X10100001,&X11
101111,&X0:RETURN
254 '
255 SYMBOL 41,&X0,&X0,&X10100001,&X
10100011,&X10100101,&X10101111,&X11
100001,&X0:RETURN
256 '
257 SYMBOL &29,&0,&0,&A6,&A2,&A2,&A
2,&E7:RETURN
258 ' << VARIA COLOR SIMBOLOS >>
259 SYMBOL &2A,&0,&89,&8A,&8A,&53,&
52,&22:SYMBOL &2B,&0,&9C,&52,&52,&0
C,&52,&52:SYMBOL &2C,&0,&98,&A4,&A4
,&BC,&A4,&A4:SYMBOL &2D,&0,&71,&82,
&8A,&82,&8A,&71:SYMBOL &2E,&0,&90,&
51,&51,&51,&51,&9C:SYMBOL &2F,&0,&C
E,&29,&29,&2E,&2A,&C9:RETURN
260 ' << FILL SIMBOLOS >>
261 SYMBOL &30,&FF,&E,&7E,&7E,&E,&7
E,&7E,&FF:SYMBOL &31,&FF,&DF,&DF,&D
F,&DF,&DF,&C3,&FF:SYMBOL &32,&FF,&7
F,&7F,&7F,&7F,&7F,&F,&FF:RETURN
262 ' << ZOOM+ SIMBOLOS >>
263 SYMBOL &33,&FF,&C,&EB,&DB,&BB,&
C,&FF,&FF:SYMBOL &34,&FF,&E6,&5A,&5
A,&5A,&E6,&FF,&FF:SYMBOL &35,&FF,&E
F,&4D,&A8,&ED,&EF,&FF,&FF:RETURN
264 ' << COPIA SIMBOLOS >>
265 SYMBOL 65,&X11111111,&X10001100
,&X11110111,&X11110111,&X11110111,&X10
001100,&X11111111,&X11111111
266 SYMBOL 66,&X11111111,&X11000010
,&X1011010,&X1000010,&X1011110,&X11
011110,&X11111111,&X11111111

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267 SYMBOL 67,&X11111111,&X11001111
,&X10110111,&X10110111,&X10000111,&
X10110101,&X11111111,&X11111111:RET
URN
268 ' << SAVE SIMBOLOS >>
269 SYMBOL 54,&X11111111,&X1110,&X1
111101,&X11101,&X11101100,&X11101,&X1
11111111,&X11111111:SYMBOL 55,&X1111
1111,&X1110111,&X10110111,&X1011101
0,&X111010,&X10111101,&X11111111,&X
11111111
270 SYMBOL 56,&X11111111,&X1100001,
&X1101111,&X11100011,&X11101111,&X1
1100001,&X11111111,&X11111111:RETUR
N
271 RETURN
272 ' << LOAD SIMBOLOS >>
273 SYMBOL &39,&FF,&7E,&7D,&7D,&7D,
&E,&FF,&FF:SYMBOL &3A,&FF,&79,&B6,&
B6,&B0,&76,&FF,&FF:SYMBOL &3B,&FF,&
C7,&DB,&DB,&DB,&C7,&FF,&FF:RETURN
274 ' << ERA SIMBOLOS >>
275 SYMBOL &3C,&FF,&E,&7E,&7E,&E,&7
E,&B6,&FF:SYMBOL &3D,&FF,&1E,&ED,&ED
,&1C,&ED,&ED,&FF:SYMBOL &3E,&FF,&3F
,&DF,&DF,&1F,&DF,&DF,&FF:RETURN
276 ' << MAYOR/MENOR SIMBOLOS >>
277 SYMBOL 68,&X11111111,&X1110100,
&X100101,&X1010100,&X1110101,&X1110
101,&X11111111,&X11111111:SYMBOL 69
,&X11111111,&X1010110,&X1010101,&X1
101101,&X1101101,&X1101110,&X111111
11,&X11111111
278 SYMBOL 70,&X11111111,&X1100001,
&X10101101,&X10100001,&X10101011,&X
1101101,&X11111111,&X11111111:SYMBOL
L 71,&X11111111,&X1110100,&X100101,
&X1010100,&X1110101,&X1110100,&X111
11111,&X11111111
279 SYMBOL 72,&X11111111,&X10110111,
&X11001010,&X11010010,&X11011010,&X
10110111,&X11111111,&X11111111:SYMBOL
L 73,&X11111111,&X110000,&X11010110
,&X11010000,&X11010101,&X110110,&X1
11111111,&X11111111:RETURN
280 SYMBOL 71,&X11111111,&X1011,&X1
111111,&X1011,&X11101011,&X1011,&X1
11111111,&X11111111:SYMBOL 72,&X1110
1111,&X11011110,&X11111110,&X100011

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10,&X10101110,&X10001110,&X11111111
,&X11111111
281 SYMBOL 73,&X11111111,&X11011111
,&X1011111,&X10010001,&X11010101,&X
11010001,&X11111111,&X11111111:RETU
RN
282 ' << CURSOR ELECCIONES SIMBOLOS
>>
283 SYMBOL 255,&X111111,&X1100111,&X
11111001,&X11111110,&X11111001,&X11001
11,&X111111,&X11111111:SYMBOL &FE,&F
F,&FF,&FF,&FF,&FF,&FF,&FF,&FF:RETUR
N
284 SYMBOL AFTER 32:PAPER 0:PEN 1:E
ND
285 IF ERR=7 OR ERR=6 THEN GOTO 428
ELSE SYMBOL AFTER 32:INK 0,0:INK 1
,26:PAPER 0:PEN 1:PRINT"ERROR ";ERR
;"EL LA LINEA ";ERL:STOP
286 ' << SITUA LAPIZ >>
287 c0=0:c1=1:c2=2:c3=3:INK c0,t10:
INK c1,t11:INK c2,t12:INK c3,t13:BO
RDER t13:RETURN
288 '
289 '
290 CLEAR INPUT:ORIGIN 0,0:x=320:y=
200:c0=2:INK c2,0,26:FOR t=1 TO 100
:CLEAR INPUT:NEXT
291 WHILE NOT INKEY(47)<>-1
292 IF INKEY(0)<>-1 THEN yp=y:y+y+6
:GOSUB 305:GOSUB 299:GOTO 297
293 IF INKEY(2)<>-1 THEN yp=y:y-y-6
:GOSUB 305:GOSUB 299:GOTO 297
294 IF INKEY(1)<>-1 THEN xp=x:x+x+6
:GOSUB 305:GOSUB 299:GOTO 297
295 IF INKEY(8)<>-1 THEN xp=x:x-x-6
:GOSUB 305:GOSUB 299:GOTO 297
296 a=TEST(x,y):WHILE INKEY$="" :PLO
T x,y,c0:WEND:PLOT x,y,a
297 WEND
298 c0=0:GOSUB 287:INK c2,0,26:RETU
RN
299 ' << DIBUJA LAPIZ >>
300 byte=TEST(x,y):bytes=TEST(xp,yp
)
301 PLOT xp,yp,bytes
302 PLOT x,y,c0
303 FOR p=1 TO 40:NEXT:PLOT x,y,byt
e
304 RETURN
305 ' << TOPES >>
306 IF y=398 OR y<=0 OR x=554 OR
x<=0 THEN LOCATE 1,1:PRINT CHR$(7)
307 IF y=398 THEN y=396
308 IF y<=0 THEN y=2
309 IF x=554 THEN x=552
310 IF x<=0 THEN x=2
311 RETURN
312 ' << EJECUTA LINEAS >>
313 ORIGIN 0,0:x=x1:y=y1:PLOT x,y,c
0:CLEAR INPUT

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```

314 WHILE NOT INKEY(47)<>-1
315 IF INKEY(0)<>-1 THEN y=y+32:GOS
UB 305:GOSUB 320:GOTO 319
316 IF INKEY(2)<>-1 THEN y=y-32:GOS
UB 305:GOSUB 320:GOTO 319
317 IF INKEY(1)<>-1 THEN x=x+32:GOS
UB 305:GOSUB 320:GOTO 319
318 IF INKEY(8)<>-1 THEN x=x-32:GOS
UB 305:GOSUB 320
319 FOR t=1 TO 100:NEXT:WEND:RETURN
320 DRAW x,y,c0:RETURN
321 ' << EJECUTA LINEAS DOBLES >>
322 ORIGIN 0,0:x=x1:y=y1:PLOT x,y,c
0:PLOT x+se,y,c0:CLEAR INPUT
323 WHILE NOT INKEY(47)<>-1
324 a=x:b=y
325 IF INKEY(0)<>-1 THEN y=y+16:GOS
UB 305:GOSUB 330:GOTO 329
326 IF INKEY(2)<>-1 THEN y=y-16:GOS
UB 305:GOSUB 330:GOTO 329
327 IF INKEY(1)<>-1 THEN x=x+16:GOS
UB 305:GOSUB 331:GOTO 329
328 IF INKEY(8)<>-1 THEN x=x-16:GOS
UB 305:GOSUB 331:GOTO 329
329 FOR t=1 TO 100:NEXT:WEND:RETURN

```

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330 PLOT a,b,c0:DRAW x,y,c0:PLOT a+
se,b,c0:DRAW x+se,y,c0:RETURN
331 PLOT a,b,c0:DRAW x,y,c0:PLOT a,
b-se,c0:DRAW x,y-se,c0:RETURN
332 ' << EJECUTA LINEAS A TRAZOS >>
333 ORIGIN 0,0:x=x1:y=y1:PLOT x,y,c
0:CLEAR INPUT
334 WHILE NOT INKEY(47)<>-1
335 IF INKEY(0)<>-1 THEN y=y+ic:GOS
UB 305:GOSUB 340:GOTO 339
336 IF INKEY(2)<>-1 THEN y=y-ic:GOS
UB 305:GOSUB 341:GOTO 339
337 IF INKEY(1)<>-1 THEN x=x+ic:GOS
UB 305:GOSUB 342:GOTO 339
338 IF INKEY(8)<>-1 THEN x=x-ic:GOS

```

```

UB 305:GOSUB 343
339 FOR t=1 TO 100:NEXT:WEND:RETURN
340 PLOT x,y-(ic/2),c0:DRAW x,y:RET
URN
341 PLOT x,y+(ic/2),c0:DRAW x,y:RET
URN
342 PLOT x-(ic/2),y,c0:DRAW x,y:RET
URN
343 PLOT x+(ic/2),y,c0:DRAW x,y:RET
URN
344 ' << EJECUTA LINEAS A PUNTOS >>
345 ORIGIN 0,0:x=x1:y=y1:PLOT x,y,c
0:CLEAR INPUT
346 WHILE NOT INKEY(47)<>-1
347 IF INKEY(0)<>-1 THEN y=y+6:GOSU
B 305:GOSUB 352:GOTO 351
348 IF INKEY(2)<>-1 THEN y=y-6:GOSU
B 305:GOSUB 352:GOTO 351
349 IF INKEY(1)<>-1 THEN x=x+6:GOSU
B 305:GOSUB 352:GOTO 351
350 IF INKEY(8)<>-1 THEN x=x-6:GOSU
B 305:GOSUB 352
351 FOR t=1 TO 75:NEXT:WEND:RETURN
352 PLOT x,y,c0:RETURN
353 ' << EJECUTA LINEAS A ZIG-ZAG >
>
354 ORIGIN 0,0:x=x1:y=y1:PLOT x,y,c
0:CLEAR INPUT
355 WHILE NOT INKEY(47)<>-1
356 IF INKEY(0)<>-1 THEN y=y+12:GOS
UB 305:GOSUB 361:GOTO 360
357 IF INKEY(2)<>-1 THEN y=y-12:GOS
UB 305:GOSUB 362:GOTO 360
358 IF INKEY(1)<>-1 THEN x=x+12:GOS
UB 305:GOSUB 363:GOTO 360
359 IF INKEY(8)<>-1 THEN x=x-12:GOS
UB 305:GOSUB 364
360 FOR t=1 TO 75:NEXT:WEND:RETURN
361 PLOT x,y-12,c0:DRAW x-6,y-6:DRA

```

```

W x,y:RETURN
362 PLOT x,y+12,c0:DRAW x-6,y+6:DRA
W x,y:RETURN
363 PLOT x-12,y,c0:DRAW x-6,y-6:DRA
W x,y:RETURN
364 PLOT x+12,y,c0:DRAW x+6,y-6:DRA
W x,y:RETURN
365 ' << EJECUTA LINEAS A EJES >>
366 ORIGIN 0,0:x=320:y=200:PLOT x,y,c
0:CLEAR INPUT
367 WHILE NOT INKEY(47)<>-1
368 IF INKEY(0)<>-1 THEN y=y+16:GOS
UB 305:GOSUB 373:GOTO 372
369 IF INKEY(2)<>-1 THEN y=y-16:GOS
UB 305:GOSUB 374:GOTO 372
370 IF INKEY(1)<>-1 THEN x=x+16:GOS
UB 305:GOSUB 375:GOTO 372
371 IF INKEY(8)<>-1 THEN x=x-16:GOS
UB 305:GOSUB 376
372 FOR t=1 TO 75:NEXT:WEND:RETURN
373 PLOT x,y-16,c0:PLOT x,y-12:DRAW
x,y-4:PLOT x,y:RETURN
374 PLOT x,y+16,c0:PLOT x,y+12:DRAW
x,y+4:PLOT x,y:RETURN
375 PLOT x-16,y,c0:PLOT x-12,y:DRAW
x-4,y:PLOT x,y:RETURN
376 PLOT x+16,y,c0:PLOT x+12,y:DRAW
x+4,y:PLOT x,y:RETURN
377 ' << EJECUTA LINEAS INCLINADAS
>>
378 ORIGIN 0,0:x=320:y=200:PLOT x,y
,c0:CLEAR INPUT
379 WHILE NOT INKEY(47)<>-1
380 ' << EJECUTA VARIACION DE COLOR
>>
381 CALL &BB18:CLEAR INPUT
382 WHILE NOT INKEY(47)<>-1
383 t1=INT(RND*26):INK c1,t1:ti1=t1
384 t2=INT(RND*26):INK c0,t2:ti0=t2
385 t3=INT(RND*26):INK c3,t3:ti3=t3
:BORDER ti3:bo=ti3
386 CALL &BB18:WEND:RETURN
387 WINDOW#1,37,40,1,25:PAPER#1,c3:
PEN#1,c0:WINDOW#2,1,36,1,25:PAPER#2
,c1:PEN#2,c0:RETURN
388 IF rho>=200 THEN rho=200 ELSE I
F rho<=10 THEN rho=10

```

```

389 rve=rho/2:RETURN
390 ' << EJECUTA ZOOM >>
391 ORIGIN 0,0:x=320:y=200:CLEAR IN
PUT:GOSUB 393:GOSUB 400:GOSUB 402:G
OSUB 403
392 RETURN
393 WHILE NOT INKEY(47)<>-1
394 IF INKEY(0)<>-1 THEN yp=y:y=y+6
:GOSUB 413:GOSUB 299:GOTO 399
395 IF INKEY(2)<>-1 THEN yp=y:y=y-6
:GOSUB 413:GOSUB 299:GOTO 399
396 IF INKEY(1)<>-1 THEN xp=x:x=x+6
:GOSUB 413:GOSUB 299:GOTO 399
397 IF INKEY(8)<>-1 THEN xp=x:x=x-6
:GOSUB 413:GOSUB 299:GOTO 399
398 a=TEST(x,y):WHILE INKEY$="" :PLO
T x,y,c0:WEND:PLOT x,y,a
399 WEND:RETURN
400 ' << VENTANA >>
401 PLOT x-68,y-49,c0:DRAW x+72,y-4
9:DRAW x+72,y+54:DRAW x-68,y+54:DRA
W x-68,y-49:RETURN
402 ch=0:DIM pis$(70):ORIGIN x-66,y
-46:FOR h=0 TO 137 STEP 2:ch=ch+1:F
OR v=0 TO 101 :pis$(ch)=pis$(ch)+ST
R$(TEST(h,v)):NEXT v,h:RETURN
403 '
404 ORIGIN 0,0:h=0
405 FOR ch=1 TO 69
406 FOR gm=1 TO 8 STEP 2:h=h+2
407 v=2
408 FOR l=2 TO LEN(pis$(ch)) STEP 2
409 FOR cad=1 TO 4 STEP 2
410 PLOT h,v,VAL(MID$(pis$(ch),l,1)
)
411 v=v+2
412 NEXT cad,l,gm,ch:ERASE pis$:GOS
UB 287:PLOT 2,398:DRAW 639,398,c0:R
ETURN
413 '
414 IF y>=344 OR y<=49 OR x>=482 OR
x<=68 THEN LOCATE 1,1:PRINT CHR$(7
)
415 IF y>=344 THEN y=342
416 IF y<=49 THEN y=51
417 IF x>=482 THEN x=480
418 IF x<=68 THEN x=70

```

```

419 RETURN
420 ' << DUPLICA DIBUJO >>
421 ORIGIN 0,0:x=320:y=200:CLEAR IN
PUT:GOSUB 393
422 ORIGIN x-68,y-49:FOR h=0 TO 134
STEP 2
423 FOR v=0 TO 103
424 IF h+140>=552-(x-68) THEN 426
425 PLOT h+140,v,TEST(h,v)
426 PLOT h,v+102,TEST(h,v):PLOT h,v
-103,TEST(h,v):PLOT h-140,v,TEST(h,
v):NEXT v,h:ORIGIN 0,0:RETURN
427 ' << TRATAMIENTO DE ERRORES >>
428 POKE 124,men:POKE 125,bo:POKE 1
26,pa:POKE 127,ti0:POKE 128,ti1:POK
E 129,ti2:POKE 130,ti3:POKE 131,c0:
POKE 132,c1:POKE 133,c2:POKE 134,c3
:POKE 135,inso:POKE 136,color:POKE
137,rho:POKE 138,rve:POKE 139,res:P
OKE 140,sw
429 IF y>=255 THEN y=y-255:POKE 143
,y:POKE 144,255:GOTO 431
430 POKE 143,y:POKE 144,0
431 IF soni>=255 THEN soni=soni-255
:POKE 145,soni:POKE 146,255:GOTO 43
3
432 POKE 145,soni:POKE 146,0
433 IF incr>=255 THEN incr=incr-255
:POKE 147,incr:POKE 148,255:GOTO 43
5
434 POKE 147,incr:POKE 148,0
435 IF hy>255 THEN hy=hy-255:POKE 1
49,hy:POKE 150,255:GOTO 437
436 POKE 149,hy:POKE 150,0
437 CLEAR
438 men=PEEK(124):bo=PEEK(125):pa=P
EEK(126):ti0=PEEK(127):ti1=PEEK(128
):ti2=PEEK(129):ti3=PEEK(130):c0=PE
EK(131):c1=PEEK(132):c2=PEEK(133):c
3=PEEK(134):inso=PEEK(135):color=PE
EK(136):rho=PEEK(137):rve=PEEK(138)
:res=PEEK(139):sw=PEEK(140)
439 y=PEEK(143)+PEEK(144):soni=PEEK
(145)+PEEK(146):incr=PEEK(147)+PEEK
(148):hy=PEEK(149)+PEEK(150):FOR p=
124 TO 150:POKE p,0:NEXT:x=320:c0=0
:INK 0,0:GOTO 7
440 ' << MAYOR / MENOR >>
441 PEN 0
442 v$=INKEY$:IF UPPER$(v$)<>"S" AN
D UPPER$(v$)<>"N" OR v$="" THEN 442
443 IF UPPER$(v$)="S" THEN rho=rho+
20:rve=rho/2:GOSUB 446:RETURN
444 IF UPPER$(v$)="N" THEN rho=rho-
20:rve=rho/2:GOSUB 446:RETURN
445 ' << TOPES MAYOR/MENOR >>
446 IF rho>=200 THEN rho=200:rve=rh
o/2:RETURN
447 IF rho<=10 THEN rho=10:rve=rho/
2:RETURN
448 RETURN

```