

```
20 REM AMSCALC
21 REM PATRICIO Lagos M. /c/(Valenci
a 235 2,2'-#08007),Barcelona
30 REM *** PROGRAMA PRINCIPAL ***
40 ON BREAK CONT
50 MODE 2:CLER:clave$="xxx":mp$="V
":x=:y=:cc=:cl=:l=:lin=:col=:
60 DIM matriz$(27,27),r$(12)
70 GOSUB 490:GOSUB 130:GOSUB 820
80 IF flag=1 THEN GOSUB 800:GOTO 18
0
90 fr$="/ TITULO : ?":GOSUB 980
100 LOCATE #3,1,2:INPUT #3,titulo$
110 IF LEN(titulo$)>60 THEN 90
120 GOSUB 800:GOTO 180
130 fr$="/ ESPERE UN MOMENTO POR F
AVOR":GOSUB 980
140 FOR i=1 TO 26
150 FOR j=1 TO 26
160 matriz$(i,j)="DEN          G
170 NEXT:RETURN
180 fr$="/ COMANDO : ?":CLS #3:PRI
NT #3,fr$:ee=0:flag=0
190 a$=INKEY$:IF a$="" THEN 190
200 a$=LOWER$(a$)
210 IF ASC(a$)=248 THEN GOSUB 4320
220 IF ASC(a$)=249 THEN GOSUB 4390
230 IF ASC(a$)=251 THEN GOSUB 4450
240 IF ASC(a$)=250 THEN GOSUB 4510
250 IF ASC(a$)=240 THEN GOSUB 1210
260 IF ASC(a$)=241 THEN GOSUB 1060
270 IF ASC(a$)=242 THEN GOSUB 1500
280 IF ASC(a$)=243 THEN GOSUB 1350
290 IF ASC(a$)=101 THEN GOSUB 1650
300 IF ASC(a$)=109 THEN GOSUB 2110
310 IF ASC(a$)=112 THEN GOSUB 2920
320 IF ASC(a$)=98 THEN GOSUB 2170
330 IF ASC(a$)=114 THEN GOSUB 3430
340 IF ASC(a$)=97 THEN GOSUB 3040
350 IF ASC(a$)=116 THEN GOSUB 4060
360 IF ASC(a$)=115 THEN GOSUB 3490
370 IF ASC(a$)=3 THEN GOSUB 4620
380 IF ee=0 THEN 180
390 IF ee=3 THEN fr$="/ OPERANDO C
ON ETIQUETAS !"
400 IF ee=5 THEN fr$="/ OPERAND I
NEXISTENTE !"
410 IF ee=6 THEN fr$="/ CELDA INEX
ISTENTE EN FORMULA !"
420 IF ee=7 THEN fr$="/ INTENTO DE
ENTRADA ILEGAL !"
430 IF ee=8 THEN fr$="/ FORMULA MU
Y LARGA !"
440 IF ee=9 THEN fr$="/ CELDA SIN
CARACTER DE PROTECCION !"
450 IF ee=10 THEN fr$="/ CELDA CON
CARACTER DE PROTECCION MALO !"
460 IF ee=13 THEN fr$="/ CELDA PRO
TEGIDA !"
470 GOSUB 980:FOR i=200 TO 0 STEP
-1:NEXT
480 GOTO 180
490 REM ***** PANTALLA PRINCIPAL **
***
500 INK 0,0:INK 1,26:BORDER 0:GRAPH
ICS PEN 1:CLG
510 MOVE 3,7:DRAW 599,7:DRAW 599,36
:DRAW 3,36:DRAW 3,7
520 MOVE 3,42:DRAW 91,42:DRAW 91,84
:DRAW 3,84:DRAW 3,42
530 MOVE 19,103:DRAW 635,103:DRAW 6
35,308:DRAW 19,308:DRAW 19,103
540 MOVE 499,45:DRAW 587,45:DRAW 58
7,100:DRAW 499,100:DRAW 499,45
550 MOVE 599,103:DRAW 599,42:DRAW 9
9,42:DRAW 99,103
560 MOVE 99,308:DRAW 99,314
570 MOVE 99,340:DRAW 99,378:DRAW 59
9,378:DRAW 599,340
580 MOVE 599,314:DRAW 599,308
590 MOVE 19,314:DRAW 635,314:DRAW 6
35,340:DRAW 19,340:DRAW 19,314
600 MOVE 91,103:DRAW 91,90:DRAW 3,9
0:DRAW 3,351:DRAW 91,351:DRAW 91,34
0
610 MOVE 91,314:DRAW 91,308
620 MOVE 19,104:DRAW 633,104:DRAW 6
33,307
630 MOVE 0,0:DRAW 639,0:DRAW 639,38
0:DRAW 0,380:DRAW 0,0
635 MOVE 620,10:FILL 1
640 WINDOW #0,4,79,12,18:WINDOW #1,
4,79,5,5:WINDOW #2,2,2,7,19
650 WINDOW #3,16,61,20,22:WINDOW #4
,2,11,21,22:WINDOW #5,4,79,7,18
660 WINDOW #6,14,74,3,3:WINDOW #7,1
,80,1,25
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670 PEN #3,1:PAPER #3,1:CLS #3
680 FOR i=1 TO 61:LOCATE #7,13+i,3:
PRINT #7,CHR$(207):NEXT
690 PEN #7,0:PAPER #7,1:LOCATE #7,2
,24:PRINT #7,"E":LOCATE #7,16,24:PR
INT #7,"M":LOCATE #7,21,24:PRINT #7
,"P":LOCATE #7,30,24:PRINT #7,"B"
700 LOCATE #7,37,24:PRINT #7,"R":LO
CATE #7,46,24:PRINT #7,"A":LOCATE #
7,52,24:PRINT #7,"T":LOCATE #7,68,2
4:PRINT #7,"SALIDA"
710 PEN #7,1:PAPER #7,0:LOCATE #7,3
,24:PRINT #7,"ntada datos":LOCATE
#7,17,24:PRINT #7,"odo":LOCATE #7,2
2,24:PRINT #7,"roteger"
720 LOCATE #7,31,24:PRINT #7,"orrar
":LOCATE #7,38,24:PRINT #7,"Einicia
":LOCATE #7,47,24:PRINT #7,"yuda":L
OCATE #7,53,24:PRINT #7,"ransferenc
ia"
730 LOCATE #7,65,20:PRINT #7,CHR$(2
40);" ";CHR$(241);" ";CHR$(242);" "
:CHR$(243);
740 LOCATE #7,64,21:PRINT #7,"MOVIM
IENTO":LOCATE #7,64,22:PRINT #7,"PO
R CURSOR";
750 PAPER #7,1:PEN #7,0:LOCATE #7,2
,1:PRINT #7,"**KHQJA DE CALCULO**A
MSCALC**MATRIZ DE 26 POR 26 ELEMEN
TOS***(c)FILM-SOFT**"
760 PAPER #7,0:PEN #7,1:FOR i=j TO
12:LOCATE #7,2,1+6:PRINT #7,CHR$(64
+i):NEXT
770 PAPER #1,0:PEN #1,1:PRINT #1,"A
      B      C      D
      E      F      G"
780 PAPER #4,0:PEN #4,1:PRINT #4,"M
O D O:"
790 RETURN
800 LOCATE #6,INT((62-LEN(titulo$))
/2),1:PRINT #6,UPPER$(titulo$)
810 RETURN
820 REM ***** INICIO *****
830 fr$="/ RECUPERA ARCHIVO s/n ?":
GOSUB 980
840 re$=INKEY$:IF re$="" THEN 840
850 IF re$="s" OR re$="S" THEN GOSU
B 870
860 RETURN
870 fr$="/ NOMBRE DEL ARCHIVO m/B
":GOSUB 980
880 LOCATE #3,1,2:INPUT #3,nom$:IF
nom$="" THEN RETURN
890 lar=LEN(nom$):IF lar>8 THEN fr$
="/ NOMBRE MUY LARGO ":GOSUB 980:
GOTO 870
900 OPENIN nom$
910 INPUT #9,titulo$,a,b,c,d
920 FOR i=a TO b
930 FOR j=c TO d
940 INPUT #9,matriz$(i,j)
950 NEXT j:NEXT i:CLOSEIN
960 fr$="/ ARCHIVO CARGADO":GOSUB
980:FOR i=200 TO 0 STEP -1:NEXT i:f
lag=1
970 RETURN
980 REM ***** IMPRESION *****
990 PAPER #3,1:PEN #3,0:CLS #3:LOCA
TE #3,1,1
1000 FOR i=1 TO LEN(fr$)
1010 SOUND 1,65,3
1020 FOR j=20 TO 0 STEP -1:NEXT
1030 PRINT #3,MID$(fr$,i,1);
1040 NEXT i
1050 RETURN
1060 REM ***** SCROLL ABAJO *****
1070 IF cl<>12 THEN RETURN
1080 IF x<2 THEN RETURN
1090 LOCATE #2,1,12:PRINT #2," "
1100 LOCATE #2,1,1:PRINT #2,CHR$(11
)
1110 LOCATE #2,1,1:PRINT #2,CHR$(x+
63)
1120 LOCATE #5,1,1:PRINT #5,CHR$(11
)
1130 FOR i=0 TO 6
1140 k$=MID$(matriz$(x-1,y+i),2,1)
1150 m$=MID$(matriz$(x-1,y+i),4,9)
1160 LOCATE #5,i*11+1,1
1170 GOSUB 4600
1180 NEXT i
1190 x=x-1:y=y
1200 RETURN
1210 REM ***** SCROLL ARRIBA *****
1220 IF cl<>1 THEN RETURN
1230 IF x>14 THEN RETURN
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1240 LOCATE #2,1,13:PRINT #2,CHR$(1
0)
1250 LOCATE #2,1,12:PRINT #2,CHR$(x
+76)
1260 LOCATE #5,1,12:PRINT #5,CHR$(1
0)
1270 FOR i=0 TO 6
1280 k$=MID$(matriz$(x+12,y+i),2,1)
1290 m$=MID$(matriz$(x+12,y+i),4,9)
1300 LOCATE #5,i*11+1,12
1310 GOSUB 4600
1320 NEXT
1330 x=x+1:y=y
1340 RETURN
1350 REM ***** SCROLL DERECHA *****
1360 IF cc<>6 THEN RETURN
1370 IF y<2 THEN RETURN
1380 FOR i=0 TO 6
1390 LOCATE #1,i*11+1,1:PRINT #1,CH
R$(y+i-1+64)
1400 NEXT
1410 FOR i=0 TO 6
1420 FOR j=0 TO 11
1430 k$=MID$(matriz$(x+j,y+i-1),2,1
)
1440 m$=MID$(matriz$(x+j,y+i-1),4,9
)
1450 LOCATE #5,i*11+1,j+1
1460 GOSUB 4600
1470 NEXT:NEXT
1480 y=y-1:x=x
1490 RETURN
1500 REM ***** SCROLL IZQUIERDA ***
**
1510 IF cc<>0 THEN RETURN
1520 IF y>19 THEN RETURN
1530 FOR i=6 TO 0 STEP -1
1540 LOCATE #1,i*11+1,1:PRINT #1,CH
R$(y+i+1+64)
1550 NEXT
1560 FOR i=6 TO 0 STEP -1
1570 FOR j=0 TO 11
1580 k$=MID$(matriz$(x+j,y+i+1),2,1
)
1590 m$=MID$(matriz$(x+j,y+i+1),4,9
)
1600 LOCATE #5,i*11+1,j+1
1610 GOSUB 4600
1620 NEXT:NEXT
1630 y=y+1:x=x
1640 RETURN
1650 REM ***** INTRO.DATOS *****
1660 pro$=LEFT$(matriz$(lin,col),1)
1670 IF pro$="P" THEN fr$="/ CELDA
PROTEGIDA, ESPERE...":GOSUB 980:FO
R i=1000 TO 0 STEP -1:NEXT i:GOSUB
1710:RETURN
1680 IF pro$="D" THEN GOSUB 1750:RE
TURN
1690 IF pro$="" THEN ee=9:RETURN
1700 ee=10:RETURN
1710 fr$="/ CLAVE DE ENTRADA : ?":
GOSUB 980
1720 LOCATE #3,1,2:INPUT #3,entr$
1730 IF entr$="" THEN RETURN
1740 IF entr$>clave$ THEN ee=7:RET
URN
1750 IF mp$="V" THEN GOSUB 1860:RET
URN
1760 IF mp$="E" THEN GOSUB 1790:RET
URN
1770 IF mp$="F" THEN GOSUB 1950:RET
URN
1780 ee=11:RETURN
1790 fr$="/ ETIQUETA m/9 : ?":GOSU
B 980
1800 LOCATE #3,1,2:INPUT #3,eti$:IF
LEN(eti$)>9 THEN 1790
1810 eti$=eti$+SPACE$(10)
1820 MID$(matriz$(lin,col),4,10)=LE
FT$(eti$,10)
1830 MID$(matriz$(lin,col),2,1)="E"
1840 GOSUB 2800
1850 RETURN
1860 fr$="/ VARIABLE 6/e;2/d : ?":
GOSUB 980
1870 LOCATE #3,1,2:INPUT #3,var$:IF
var$="" THEN RETURN
1880 var=ROUND(VAL(var$),2)
1890 IF var>999999.9 THEN 1860
1900 IF var<-999999.9 THEN 1860
1910 IF var=0 THEN RETURN
1920 MID$(matriz$(lin,col),2,1)="V"
1930 MID$(matriz$(lin,col),4,10)=SP
ACE$(10):MID$(matriz$(lin,col),4,10
)=LEFT$(STR$(var),10)
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1940 GOSUB 2860:RETURN
1950 REM ***** FORMULAS *****
1960 fr$="/ FORMULA m/11/g m/9/p
: ?":GOSUB 980
1970 LOCATE #3,1,2:INPUT #3,form$:I
F form$="" THEN RETURN
1980 IF LEN(form$)<5 THEN 1960
1990 IF MID$(form$,4,1)=",." THEN ti
p$="P" ELSE tip$="G"
2000 IF tip$="P" AND LEN(form$)>9 T
HEN ee=8:RETURN
2010 IF tip$="G" AND LEN(form$)>11
THEN ee=8:RETURN
2020 MID$(matriz$(lin,col),14,1)=ti
p$
2030 MID$(matriz$(lin,col),2,1)="F"
2040 MID$(matriz$(lin,col),15,LEN(f
orm$)+1)=form$+"&"
2050 IF tip$="G" THEN GOTO 2080
2060 IF tip$="P" THEN GOSUB 3540:IF
n(1)=0 THEN GOTO 2100
2070 n(1)=ROUND(n(1),2):GOTO 2090
2080 GOSUB 2380:n(1)=ROUND(n(1),2)
2090 MID$(matriz$(lin,col),4,10)=SP
ACE$(10):MID$(matriz$(lin,col),4,10
)=RIGHT$(STR$(n(1)),10)
2100 GOSUB 2860:RETURN
2110 REM ***** MODD PRINCIPAL *****
2120 IF mp$="V" THEN mm$="ETIQUETA"
2130 IF mp$="E" THEN mm$="FORMULA"
2140 IF mp$="F" THEN mm$="VARIABLE"
2150 LOCATE #4,1,2:PRINT #4,mm$
2160 mp$=LEFT$(mm$,1):mm$="" :RETURN
2170 REM ***** BORRADO *****
2180 fr$="/ ENTRE QUE LINEAS m/a-
z : ?":GOSUB 980
2190 LOCATE #3,1,2:INPUT #3,linea$:
linea$=LOWER$(linea$)
2200 IF linea$="" THEN RETURN
2210 IF LEN(linea$)>2 THEN 2180
2220 linea1$=LEFT$(linea$,1):linea2
$=RIGHT$(linea$,1)
2230 linea1=ASC(linea1$)-96:linea2=
ASC(linea2$)-96
2240 IF linea1<1 OR linea1>26 OR li
nea2<1 OR linea2>26 THEN GOTO 2180
2250 fr$="/ ENTRE QUE COLUMNAS m/a
-z : ?":GOSUB 980
2260 LOCATE #3,1,2:INPUT #3,colum$:
colum$=LOWER$(colum$)
2270 IF colum$="" THEN RETURN
2280 IF LEN(colum$)>2 THEN 2250
2290 colum1$=LEFT$(colum$,1):colum2
$=RIGHT$(colum$,1)
2300 colum1=ASC(colum1$)-96:colum2=
ASC(colum2$)-96
2310 IF colum1<1 OR colum1>26 OR co
lum2<1 OR colum2>26 THEN GOTO 2250
2320 FOR i=linea1 TO linea2
2330 FOR j=colum1 TO colum2
2340 IF LEFT$(matriz$(i,j),1)="P" T
HEN 2360
2350 matriz$(i,j)="DEN G
"
2360 lin=i:col=j:GOSUB 2800
2370 NEXT j:NEXT i:RETURN
2380 REM ***** CALCULO FORMULA *****
*
2390 modo$=MID$(matriz$(lin,col),2,
1)
2400 IF modo$<>"F" THEN RETURN
2410 h=INSTR(matriz$(lin,col),"&"):
IF h=0 THEN RETURN
2420 long=h-15
2430 cadena$=UPPER$(MID$(matriz$(li
n,col),15,long))
2440 cadena=LEN(cadena$)
2450 comando=(cadena+1)/3-1:i=1
2460 FOR b=1 TO comando+1:n$(b)=MID
$(cadena$,i,2):i=i+3:NEXT
2470 i=3
2480 FOR b=1 TO comando
2490 c$(b)=MID$(cadena$,i,1):p$=c$(
b)
2500 IF p$="*" OR p$="/" OR p$="^"
OR p$="+" OR p$="-" OR p$="%" THEN
2510 ELSE ee=5:RETURN
2510 i=i+3
2520 NEXT b
2530 FOR b=1 TO comando+1
2540 aa=ASC(LEFT$(n$(b),1))-64
2550 bb=ASC(RIGHT$(n$(b),1))-64
2560 IF aa<1 OR aa>26 OR bb<1 OR bb
>26 THEN ee=6:RETURN
2570 IF MID$(matriz$(aa,bb),2,1)="V
" OR MID$(matriz$(aa,bb),2,1)="F" T
HEN 2580 ELSE ee=3:RETURN
2580 n(b)=VAL(MID$(matriz$(aa,bb),4
,10))
2590 NEXT b
2600 h=1:i=1
2610 IF comando=0 THEN RETURN
2620 IF c$(i)="+ " THEN w=1
2630 IF c$(i)="- " THEN w=2
2640 IF c$(i)="*" THEN w=3
2650 IF c$(i)="/" THEN w=4
2660 IF c$(i)="% " THEN w=5
2670 IF c$(i)="^ " THEN w=6
2680 ON w GOSUB 2700,2710,2720,2730
,2740,2750
2690 GOTO 2610
2700 n(h)=n(h)+n(h+1):GOSUB 2790:RE
TURN
2710 n(h)=n(h)-n(h+1):GOSUB 2790:RE
TURN
2720 n(h)=n(h)*n(h+1):GOSUB 2790:RE
TURN
2730 n(h)=n(h)/n(h+1):GOSUB 2790:RE
TURN
2740 n(h)=(n(h)*n(h+1))/100:GOSUB 2
790:RETURN
2750 n(h)=n(h)^n(h+1):GOSUB 2790:RE
TURN
2760 IF comando<>0 THEN n(1)=n(1):n
(2)=n(3):n(3)=n(4):n(4)=n(5)
2770 RETURN
2780 i=i+1:comando=comando-1:(coma
ndo+3)=0:RETURN
2790 GOSUB 2780:GOSUB 2760:RETURN
2800 REM ***** IMPRESION (etiqueta)
*****
2810 IF lin>x-1 AND lin<x+12 THEN 2
820 ELSE RETURN
2820 IF col>y-1 AND col<y+7 THEN 28
30 ELSE RETURN
2830 c=col-y:1=lin-x+1:m$=MID$(matr
iz$(lin,col),4,9)
2840 LOCATE #5,c*11+1,1:PRINT #5,US
ING "&";m$
2850 RETURN
2860 REM ***** IMPRESION (variable)
*****
2870 IF lin>x-1 OR lin<x+1 THEN 288
0 ELSE RETURN
2880 IF col>y-1 OR col<y+1 THEN 289
0 ELSE RETURN
2890 c=col-y:1=lin-x+1:u=VAL(MID$(m
atriz$(lin,col),4,9))
2900 LOCATE #5,c*11+1,1:PRINT #5,US
ING "#####";u
2910 RETURN
2920 REM ***** PROTECCION *****
2930 fr$="/ CELDA : ?":GOSUB 980
2940 LOCATE #3,1,2:INPUT #3,nu$
2950 nu$=UPPER$(nu$)
2960 IF nu$="" THEN RETURN
2970 IF LEN(nu$)>2 THEN 2920
2980 a=ASC(LEFT$(nu$,1))-64
2990 b=ASC(RIGHT$(nu$,1))-64
3000 IF a<1 OR a>26 OR b<1 OR b>26
THEN ee=6:RETURN
3010 IF LEFT$(matriz$(a,b),1)="P" T
HEN ee=13:RETURN
3020 MID$(matriz$(a,b),1,1)="P"
3030 RETURN
3040 REM ***** AYUDA *****
3050 WINDOW 10,30,8,18
3060 PAPER 1:PEN 0:GRAPHICS PEN 0:C
LS
3070 MOVE 74,120:DRAW 236,120:DRAW
236,280:DRAW 74,280:DRAW 74,120
3080 PAPER 0:PEN 1:LOCATE 2,2:PRINT
"OPERADORES 01"
3090 PAPER 1:PEN 0:LOCATE 2,3:PRINT
" XY=1'CELDA"
3100 LOCATE 2,4:PRINT"SEN.XY
COS.XY"
3110 LOCATE 2,5:PRINT"TAN.XY
LOG.XY"
3120 LOCATE 2,6:PRINT"LON.XY
PII.XY"
3130 LOCATE 2,7:PRINT"LOG=(Log base
10)"
3140 LOCATE 2,8:PRINT"LON=(Log Natu
ral)"
3150 LOCATE 2,9:PRINT"PII=(PI * Cel
da )"
3160 PAPER 0:PEN 1:LOCATE 2,10:PRIN
T" SPACE para seguir "
3170 IF INKEY(47)<>0 THEN 3170
3180 WINDOW 15,35,7,17
3190 PAPER 1:PEN 0:CLS
3200 MOVE 114,136:DRAW 276,136:DRAW
276,296:DRAW 114,296:DRAW 114,136
3210 PAPER 0:PEN 1:LOCATE 2,2:PRINT
"OPERADORES 02"
3220 PAPER 1:PEN 0:LOCATE 2,3:PRINT
" XY =1'CELDA"
3230 LOCATE 2,4:PRINT" X1Y1=2
'CELDA"
3240 LOCATE 2,5:PRINT"RAZ.XY (cuadr
ada)"
3250 LOCATE 2,6:PRINT"PRO.XY.X1Y1"
3260 LOCATE 2,7:PRINT"SUM.XY.X1Y1"
3270 LOCATE 2,8:PRINT"REP.XY.(xx)o(
yy)"
3280 LOCATE 2,9:PRINT"xx:hor. yy:
ver."
3290 PAPER 0:PEN 1:LOCATE 2,10:PRIN
T" SPACE para seguir "
3300 IF INKEY(47)<>0 THEN 3300
3310 WINDOW 26,63,9,16
3320 PAPER 1:PEN 0:CLS
3330 MOVE 204,152:DRAW 499,152:DRAW
499,264:DRAW 204,264:DRAW 204,152
3340 PAPER 0:PEN 1:LOCATE 2,2:PRINT
"OPERADORES 03"
3350 PAPER 1:PEN 0:LOCATE 2,3:PRINT
"+,-,*,/):Suma,resta,multiplicaci
on"
3360 LOCATE 2,4:PRINT"vide la 1' Ce
lda con la 2' Celda"
3370 LOCATE 2,5:PRINT"(%):1' Celda
* 100 de la 2' Celda"
3380 LOCATE 2,6:PRINT"^(^):1' Celda
a la potencia de la 2'"
3390 PAPER 0:PEN 1:LOCATE 2,7:PRINT
" SPACE para PANTALLA PRINCIPAL
"
3400 IF INKEY(47)<>0 THEN 3400
3410 CLS #5:RETURN
3420 REM ***** RE-INICIO *****
3430 fr$="/ ESTA SEGURO : ?":GOSUB
980
3440 LOCATE #3,1,2:INPUT #3,se$
3450 se$=UPPER$(se$)
3460 IF LEFT$(se$,1)<>"S" THEN RETU
RN
3470 RUN
3480 REM ***** SALIDA *****
3490 fr$="/ ESTA SEGURO : ?":GOSUB
980
3500 LOCATE #3,1,2:INPUT #3,se$
3510 se$=UPPER$(se$)
3520 IF LEFT$(se$,1)<>"S" THEN RETU
RN
3530 CLEAR:WINDOW 1,80,1,25:CLS:NEW
:END
3540 REM ***** CALCULO FORMULAS ***
**
3550 form$=UPPER$(MID$(matriz$(lin,
col),15,LEN(form$)))
3560 IF LEN(form$)=9 THEN GOSUB 371
0
3570 IF LEN(form$)=6 THEN GOTO 3580
ELSE RETURN
3580 oper$=LEFT$(form$,3):cd$=RIGHT
$(form$,3)
3590 a=ASC(LEFT$(cd$,1))-64:b=ASC(R
IGHT$(cd$,1))-64
3600 IF a<1 OR a>26 OR b<1 OR b>26
THEN ee=6:RETURN
3610 IF MID$(matriz$(a,b),2,1)="E"
THEN ee=3:RETURN
3620 a=VAL(MID$(matriz$(a,b),4,10))
3630 IF oper$="SEN" THEN n(1)=SIN(a
)
3640 IF oper$="COS" THEN n(1)=COS(a
)
3650 IF oper$="TAN" THEN n(1)=TAN(a
)
3660 IF oper$="LOG" THEN n(1)=LOG10
(ABS(a))

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3670 IF oper$="LON" THEN n(1)=LOG(A
BS(a))
3680 IF oper$="PII" THEN n(1)=PI*a
3690 IF oper$="RAZ" THEN n(1)=SOR(a
)
3700 RETURN
3710 oper$=LEFT$(form$,3):cd1$=MID$
(form$,5,2):cd2$=RIGHT$(form$,2)
3720 a1=ASC(LEFT$(cd1$,1))-64:a2=AS
C(LEFT$(cd2$,1))-64:b1=ASC(RIGHT$(c
d1$,1))-64:b2=ASC(RIGHT$(cd2$,1))-6
4
3730 IF a1<1 OR a2<1 OR a1>26 OR a2
>26 OR b1<1 OR b2<1 OR b1>26 OR b2>
26 THEN ee=6:RETURN
3740 j=0:n(1)=0
3750 IF oper$="SUM" THEN GOSUB 3790
3760 IF oper$="PRO" THEN GOSUB 3830
3770 IF oper$="REP" THEN GOSUB 3850
3780 RETURN
3790 GOSUB 3800:RETURN
3800 IF a1=a2 THEN j=0:FOR i=b1 TO
b2:n(1)=n(1)+VAL(MID$(matriz$(a1,i)
,4,10)):j=j+1:NEXT:RETURN
3810 IF b1=b2 THEN i=0:FOR i=a1 TO
a2:n(1)=n(1)+VAL(MID$(matriz$(i,b1)
,4,10)):i=i+1:NEXT:RETURN
3820 RETURN
3830 GOSUB 3800:IF j=0 THEN RETURN
3840 n(1)=n(1)/j:RETURN
3850 IF MID$(matriz$(a1,b1),14,1)="
F" THEN RETURN
3860 q=INSTR(matriz$(a1,b1),"&")
3870 long=q-15:com=((long+1)/3)-1
3880 FOR i=1 TO long:r$(i)=MID$(mat
riz$(a1,b1),i+14,1):NEXT
3890 IF a2+b2=48 THEN GOSUB 3990
3900 IF a2+b2=50 THEN GOSUB 3920
3910 RETURN
3920 FOR j=2 TO long STEP 3:r$(i)=C
HR$(ASC(r$(i))+1):NEXT
3930 r$(long+1)="&":nf$=""
3940 FOR i=1 TO long+1:nf$=nf$+r$(i
):NEXT
3950 MID$(matriz$(lin,col),15,10)=S
FACE$(10)
3960 MID$(matriz$(lin,col),15,long+
1)=nf$
3970 MID$(matriz$(lin,col),14,1)="G
"
3980 GOSUB 2080:RETURN
3990 FOR i=1 TO long-1 STEP 3:r$(i)
=CHR$(ASC(r$(i))+1):NEXT
4000 r$(long+1)="&":nf$=""
4010 FOR i=1 TO long+1:nf$=nf$+r$(i
):NEXT
4020 MID$(matriz$(lin,col),15,10)=S
FACE$(10)
4030 MID$(matriz$(lin,col),15,long+
1)=nf$
4040 MID$(matriz$(lin,col),14,1)="G
"
4050 GOSUB 2080:RETURN
4060 REM ***** TRANSFERENCIA *****
4070 WINDOW #0,48,62,14,24:PAPER 1:
PEN 0:GRAPHICS PEN 0:CLS
4080 MOVE 380,24:DRAW 491,24:DRAW 4
91,184:DRAW 380,184:DRAW 380,24
4090 PAPER 0:PEN 1:LOCATE 2,2:PRINT
"TRANSFERENCIA"
4100 PAPER 1:PEN 0:LOCATE 2,3:PRINT
"Lineas :"
4110 LOCATE 2,5:PRINT "Columnas :"
4120 LOCATE 2,7:PRINT "Nombre :"
4130 PAPER 0:PEN 1:LOCATE 2,9:PRINT
"CONFIRMACION "
4140 LOCATE 2,10:PRINT " (s/
n)"
4150 PAPER 1:PEN 0
4160 LOCATE 2,4:INPUT #0,lineas$:li
neas$=UPPER$(lineas$)
4170 LOCATE 2,6:INPUT #0,columnas$:
columnas$=UPPER$(columnas$)
4180 LOCATE 2,8:INPUT #0,nombre$
4190 PAPER 0:PEN 1
4200 a$=INKEY$:IF a$="" THEN 4200
4210 IF a$="e" OR a$="s" THEN 4230
4220 x=1:y=1:GOSUB 490:RETURN
4230 a=ASC(MID$(lineas$,1,1))-64:b=
ASC(MID$(lineas$,2,1))-64:c=ASC(MID
$(columnas$,1,1))-64:d=ASC(MID$(col
umnas$,2,1))-64
4240 OPENOUT nombre$
4250 WRITE #9,titulo$,a,b,c,d
4260 FOR i=a TO b
4270 FOR j=c TO d
4280 WRITE #9,matriz$(i,j)
4290 NEXT:NEXT
4300 CLOSEOUT
4310 x=1:y=1:GOSUB 490:RETURN
4320 REM ***** CURSOR ARRIBA *****
4330 IF CL<2 THEN RETURN
4340 GOSUB 4570:LOCATE #5,cc*11+1,c
1:PAPER #5,0:PEN #5,1
4350 GOSUB 4600:c1=c1-1:GOSUB 4570:
PAPER #5,1:PEN #5,0
4360 LOCATE #5,cc*11+1,CL:GOSUB 460
0:PAPER #5,0:PEN #5,1
4370 lin=x+c1-1:RETURN
4380 RETURN
4390 REM ***** CURSOR ABAJO *****
4400 IF c1>11 THEN RETURN
4410 GOSUB 4570:LOCATE #5,cc*11+1,c
1:PAPER #5,0:PEN #5,1
4420 GOSUB 4600:c1=c1+1:GOSUB 4570:
PAPER #5,1:PEN #5,0
4430 LOCATE #5,cc*11+1,c1:GOSUB 460
0:PAPER #5,0:PEN #5,1
4440 lin=x+c1-1:RETURN
4450 REM ***** CURSOR DERECHA *****
4460 IF cc>5 THEN RETURN
4470 GOSUB 4570:LOCATE #5,cc*11+1,c
1:PAPER #5,0:PEN #5,1
4480 GOSUB 4600:cc=cc+1:GOSUB 4570:
PAPER #5,1:PEN #5,0
4490 LOCATE #5,cc*11+1,c1:GOSUB 460
0:PAPER #5,0:PEN #5,1
4500 col=y+cc:RETURN
4510 REM ***** CURSOR IZQUIERDA ***
**
4520 IF cc<1 THEN RETURN
4530 GOSUB 4570:LOCATE #5,cc*11+1,c
1:PAPER #5,0:PEN #5,1
4540 GOSUB 4600:cc=cc-1:GOSUB 4570:
PAPER #5,1:PEN #5,0
4550 LOCATE #5,cc*11+1,c1:GOSUB 460
0:PAPER #5,0:PEN #5,1
4560 col=y+cc:RETURN
4570 k$=MID$(matriz$(c1+x-1,cc+y),2
,1)
4580 m$=MID$(matriz$(c1+x-1,cc+y),4
,9)
4590 RETURN
4600 IF k$="E" THEN PRINT #5,USING
"&":m$ ELSE PRINT #5,USING "#####
.":VAL(m$)
4610 RETURN
4620 REM ***** CALCULO PLANILLA ***
**
4630 WINDOW #0,47,61,20,22
4640 IF x<>1 OR y<>1 THEN RETURN
4650 IF cc<0 OR c1<>1 THEN RETURN
4660 fr$="./ ESPERE, CALCULANDO PLA
NILLA !!!":GOSUB 980
4670 FOR ii=1 TO 26
4680 FOR jj=1 TO 26
4690 lin=ii:col=jj
4700 IF MID$(matriz$(ii,jj),2,1)<>"
F" THEN 4810
4710 w=INSTR(matriz$(lin,col),"&")
4720 form$=MID$(matriz$(lin,col),15
,w-15)
4730 IF MID$(matriz$(ii,jj),14,1)="
P" THEN GOSUB 3540
4740 IF MID$(matriz$(ii,jj),14,1)="
G" THEN GOSUB 2380
4750 n(1)=ROUND(n(1),2)
4760 MID$(matriz$(ii,jj),4,10)=SPAC
E$(10)
4770 MID$(matriz$(ii,jj),4,10)=RIGH
T$(STR$(n(1)),10)
4780 IF ii>12 OR jj>7 THEN GOTO 481
0
4790 c=jj-1:ii=u=VAL(MID$(matriz$(
ii,jj),4,9))
4800 LOCATE #5,c*11+1,1:PRINT #5,US
ING "#####.":u
4810 NEXT:NEXT:cc=0:c1=1:lin=1:col=
1:RETURN

```