```
286 003A96I
                     KBC(III)=K
                                                                                                     489
                                                                                                             272
287
     1AAAEOC
                     IITY(III)=6
                                                                                                     490
                                                                                                             273
288
     OOJABAI
                     I1=I+1
                                                                                                     491
                                                                                                             274
289
     003AC8I
                     12=1-1
                                                                                                     492
                                                                                                             275
    0034061
290
                     J1=J+1
                                                                                                     493
                                                                                                             276
291
     003AE4I
                     J2=J-1
                                                                                                     494
                                                                                                             277
292 003AF2I
                     IF(I .EC. L1) I2=I
                                                                                                     495
                                                                                                             278
293 003810I
                     IF(I .EC. L2) I1=I
                                                                                                     496
                                                                                                             280
294 0038281
                     IF(J .EC. M1) J2=J
                                                                                                     497
                                                                                                             282
295 00384CI
                     IF(J .EC. M2) J1=J
                                                                                                     498
                                                                                                             284
296 00386AI
                     K1=K+1
                                                                                                     499
                                                                                                             286
297 003B78I
                     K2=K+2
                                                                                                     500
                                                                                                             287
                     P1=(Y(I1,J1,K)-Y(I1,J2,K))*(Z(I1,J2,K)-Z(I2,J,K))-
298 0038861
                                                                                                     501
                                                                                                             288
299
                    1 (Z(I1,J1,K)-Z(I1,J2,K))*(Y(I1,J2,K)-Y(I2,J,K))
                                                                                                     502
300
    0030021
                     P2=(Z(I1,J1,K)-Z(I1,J2,K))*(X(I1,J2,K)-X(I2,J,K))-
                                                                                                     503
                                                                                                             289
301
                    1 (X(I1,J1,K)-X(I1,J2,K))*(Z(I1,J2,K)-Z(I2,J,K))
                                                                                                     504
302 0030FEI
                     P3 = (X(I1,J1,K) - X(I1,J2,K)) + (Y(I1,J2,K) - Y(I2,J,K)) -
                                                                                                     505
                                                                                                             290
                    1 (Y(I1,J1,K)-Y(I1,J2,K))+(X(I1,J2,K)-X(I2,J,K))
303
                                                                                                     506
                     PG=SQRT(P1*P1+P2*P2+P3*P3)
304 003F3AT
                                                                                                     507
                                                                                                             291
305 003F86I
                     P1=P1/PC
                                                                                                     503
                                                                                                             292
306 003F98I
                     P2=P2/PC
                                                                                                     509
                                                                                                             293
307
    003FAAI
                     P3=P3/PC
                                                                                                     510
                                                                                                             294
308
    003FBCI
                     81=1.-21**2
                                                                                                     511
                                                                                                             295
309
    003F08I
                     92=1.-P2**2
                                                                                                     512
                                                                                                             296
310
    003FF4I
                     R3=1.-P3**2
                                                                                                     513
                                                                                                             297
311 0040101
                     SINX(III)=SGRT(R1)
                                                                                                     514
                                                                                                             298
312 0040361
                     SINY(III)=SCRT(R2)
                                                                                                     515
                                                                                                             299
313 00405AI
                     SINZ(III) = SGRT(R3)
                                                                                                     516
                                                                                                             300
314 00407EI
                     Q1 = X(I_2J_2K) - X(I_2J_2K1)
                                                                                                     517
                                                                                                             301
315 0040001
                     02=Y(I_2J_2K)-Y(I_2J_2K1)
                                                                                                     518
                                                                                                             302
316 0041221
                     Q3=Z(I)J/K)-Z(I)J/K1
                                                                                                     519
                                                                                                             303
317 0041741
                     AA=SQRT((Q1-P1)**2+(Q2-P2)**2+(Q3-P3)**2)
                                                                                                     520
                                                                                                             304
318 0041F2I
                     CC=1.0
                                                                                                     521
                                                                                                             305
319 0041FEI
                     88=SQRT(Q1*C1+Q2*Q2+Q3*C3)
                                                                                                     522
                                                                                                             306
320 00424AI
                     COTH=(BE*8B*CC*CC-AA*AA)/(2*8B*CC)
                                                                                                     523
                                                                                                             307
321 00428CI
                     YN(III)=58*ABS(COTH)
                                                                                                     524
                                                                                                             308
322 0042881
                     Q1=X(I,J,K)-X(I,J,K2)
                                                                                                     525
                                                                                                             309
323 00430AI
                     Q2=Y(I,J,K)-Y(I,J,K2)
                                                                                                     526
                                                                                                             310
324 00435CI
                     Q3=Z(I_{\ell}J_{\ell}K)-Z(I_{\ell}J_{\ell}K2)
                                                                                                     527
                                                                                                             311
325 0043AEI
                     BB=SQRT(Q1*Q1+Q2*Q2+Q3*Q3)
                                                                                                     528
                                                                                                             312
                     AA=SQRT((Q1-P1)**2+(Q2-P2)**2+(Q3-P3)**2)
326 0043FAI
                                                                                                     529
                                                                                                             313
                    COTH=(88*88+CC*CC-AA*AA)/(2*88*CC)
327 0044761
                                                                                                     530
                                                                                                             314
328 004498I
                     YN1(III)=(BB+ABS(COTH)+YN(III))+0.5
                                                                                                     531
                                                                                                             315
329 0044F8I
                     IJLC(I,J,K)=III
                                                                                                     532
                                                                                                             316
    0045241
330
                     III=III+1
                                                                                                     533
                                                                                                             317
331
    0045321
                 30 CONTINUE
                                                                                                     534
                                                                                                             318
332 0045801
                     IITC=III-1
                                                                                                     535
                                                                                                             319
333 00458EI
                     WRITE(6,100) L0,M0,N0,IITO
                                                                                                     535
                                                                                                             320
334 0045381
                100 FORMAT(415)
                                                                                                     537
335 0045C4I
                     RETLRN
                                                                                                     538
                                                                                                             321
336 0045CCI
                     END
                                                                                                     539
                                                                                                             322
```

NO ERRORS: F70 R05-01.0C SUBROUTINE CIRCCS 02/21/86 09:47:58 TABLE SPACE: 6 KB STATEMENT BUFFER: 20 LINES/1321 BYTES STACK SPACE: 203 WORDS SINGLE PRECISION FLOATING PT SUPPORT REQUIRED FOR EXECUTION