```
      SUBROUTINE DISPL (W,FXX,FYY,V,F,U,IB)                      Q001
      IMPLICIT REAL * 8 (A-H,O-Z)                                Q002
      COMMON /B1/ NUM                                            Q003
      COMMON /B3/ TH,RC,SOVERD,TOVERD,EHX4,Q(8),ELAS             Q004
      DIMENSION W(1),FXX(1),FYY(1),V(1),U(1),F(1),IB(1)          Q005
C                                                                Q006
C                                                                Q007
CCCCCC      SUBROUTINE DERW1  IS REFERRED TO AS AN               Q008
C           ENTRY POINT WITHIN SUBROUTINE DERW2.                 Q009
C                                                                Q010
C                                                                Q011
      CALL DERW1 (W,V,F,U,1)                                     Q012
C                                                                Q013
C                                                                Q014
CCCCCC      FIGUREOUT THE IN-PLANE DISPLACEMENTS:                Q015
C              U IN X-DIRECTION;                                 Q016
C              V IN Y-DIRECTION;                                 Q017
C              W IN Z-DIRECTION (ALREADY CALCULATED).            Q018
C                                                                Q019
C                                                                Q020
      DO 20 I = 1 , NUM                                          Q021
         V(I) = (FYY(I)-PR*FXX(I))/ELAS - V(I)                   Q022
         F(I) = (FXX(I)-PR*FYY(I))/ELAS - F(I)                   Q023
   20 CONTINUE                                                   Q024
C                                                                Q025
C                                                                Q026
      CALL INTEGR (V,F,U)                                        Q027
C                                                                Q028
C                                                                Q029
      LC = 0                                                     Q030
      WRITE (6,900)                                              Q031
      DO 50 I = 1 , NUM                                          Q032
         IF (LC .NE. 53) GO TO 40                                Q033
         LC = 0                                                  Q034
         WRITE (6,910)                                           Q035
         WRITE (6,900)                                           Q036
   40    LC = LC + 1                                             Q037
         WRITE (6,920) I,IB(I),U(I),V(I),W(I)                    Q038
   50 CONTINUE                                                   Q039
C                                                                Q040
C                                                                Q041
  100 RETURN                                                     Q042
C                                                                Q043
C                                                                Q044
  900 FORMAT (1H1,1X,'(NOTE:   *-BOUNDARY POINTS',               Q045
     1 ', **-CORNER POINT)'///1X,                                Q046
     2 'NODE',12X,'DISPLACEMENTS AND DEFLECTIONS'/10X,           Q047
     3 'X-DIRECTION     Y-DIRECTION     Z-DIRECTION'/)           Q048
  910 FORMAT (1H0,30X,'(CONTINUED)')                             Q049
  920 FORMAT (I5,A4,3(E13.6,3X))                                 Q050
      END                                                        Q051
```

```
      SUBROUTINE INTEGR (V,P,U)                            R001
      IMPLICIT REAL * 8 (A-H,O-Z)                          R002
      COMMON /B0/ AL,BL,HX2,HY2,HXY,HX,HY,HXT2,HYT2        R003
      COMMON /B1/ NUM,NX4,NX3,NX2,NX1,NY3,NY2,NY1          R004
      DIMENSION P(NX1,1),U(NX1,1),V(NX1,1)                 R005
C                                                          R006
CCCCCC        INTEGRATION BY SIMPSON'S RULE.               R007
C                                                          R008
C             DISPLACEMENTS ALONG X-DIRECTION.             R009
C                                                          R010
      DO 50 I = 2 , NX1                                    R011
         C = MOD(I,2)                                      R012
         IF (C .EQ. 0.0) C = 2.0                           R013
         M = (I-1) / 2                                     R014
         DO 40 J = 1 , NY1                                 R015
            U(I,J) = V(I,J) + C*V(1,J)                     R016
            IF (I .EQ. 2) GO TO 30                         R017
            N = I + 1                                      R018
            DO 10 K = 1 , M                                R019
               U(I,J) = U(I,J) + 4.*V(N-2*K,J)             R020
 10         CONTINUE                                       R021
            IF (I .EQ. 3) GO TO 35                         R022
            N = I - M - 2                                  R023
            DO 20 K = 1 , N                                R024
               U(I,J) = U(I,J) + 2.*V(I-2*K,J)             R025
 20         CONTINUE                                       R026
            GO TO 35                                       R027
 30         U(1,J) = 0.0                                   R028
 35         U(I,J) = HX * U(I,J)                           R029
 40      CONTINUE                                          R030
 50   CONTINUE                                             R031
C                                                          R032
C                                                          R033
CCCCCC        DISPLACEMENTS ALONG Y-DIRECTION.             R034
C                                                          R035
C                                                          R036
      DO 150 J = 2 , NY1                                   R037
         C = MOD(J,2)                                      R038
         IF (C .EQ. 0.0) C = 2.0                           R039
         M = (J-1) / 2                                     R040
         DO 140 I = 1 , NX1                                R041
            V(I,J) = P(I,J) + C*P(I,1)                     R042
            IF (J .EQ. 2) GO TO 130                        R043
            N = J + 1                                      R044
            DO 110 K = 1 , M                               R045
               V(I,J) = V(I,J) + 4.*P(I,N-2*K)             R046
 110        CONTINUE                                       R047
            IF (J .EQ. 3) GO TO 135                        R048
            N = J - M - 2                                  R049
            DO 120 K = 1 , N                               R050
               V(I,J) = V(I,J) + 2.*P(I,J-2*K)             R051
 120        CONTINUE                                       R052
```

```
                GO TO 135                                    R 053
130      V(I, 1) = 0.0                                       R 054
135      V(I, J) = HY * V(I, J)                              R C 55
140      CONTINUE                                            R 056
150 CONTINUE                                                 R 057
C                                                            R 058
    RETURN                                                   R 059
    END                                                      R 060
```