```
      PROGRAM angle
C=====================================================================
C     THIS PROGRAM CALCULATES epsilon
C=====================================================================
      REAL wmn,wmx,w,gmx,gmn
     * ,epsinf,wp,gp,wto(12),wlo(12),g(12)
      COMPLEX eps
      INTEGER i,j,nw,nph
      read(*,*) epsinf,wp,gp
      READ(*,*) nph
      READ(*,*) (wto(i),i=1,nph)
      READ(*,*) (g(i),i=1,nph)
      READ(*,*) (wlo(i),i=1,nph)
      READ(*,*) wmn,wmx,nw
      gmx=alog10(wmx)
      gmn=alog10(wmn)
      DO 11 I=1,nw
         w=10**(gmn+(I-1)*(gmx-gmn)/nw)
         eps=epsinf
         DO 12 J=1,nph
            eps=eps*(wlo(j)**2-w*cmplx(w,g(j)))/
     *      (wto(j)**2-w*cmplx(w,g(j)))
12       CONTINUE
         eps=eps-wp**2/(w*(w+cmplx(0.,gp)))
         write(*,*) w,real(eps),aimag(eps)
11    CONTINUE
      END
```