```
c     computes pixel coordinates on images
c     source=locate.f
c     compile with: f77 -o locate locate.f
c
      rad=57.2958
      write(6,'(" enter flim, isize(1024,2048,4096)")')
      read(5,*) flim,isize
      write(6,'(" enter pole (1=north, -1=south)")')
      read(5,*) ipole
    1 write(6,'(" enter pixel (ix,iy): ix<0 = stop")')
      read(5,*) ix,iy
      if(ix.lt.0) go to 2
      ixp=isize/2-1
      iyp=isize/2
      dist=sqrt(float((ix-ixp)**2+(iy-iyp)**2))
      arg=dist/(float(isize/2-1)/flim)
      colat=rad*asin(arg)
      flat=90.-colat
      x=ipole*(ixp-ix)
      y=iy-iyp
      flon=rad*atan2(x,y)
      if(flon.lt.0.) flon=flon+360.
      write(6,'(" long=",f8.2,5x,"lat=",f8.2)') flon,flat
      go to 1
    2 continue
      end
```