```fortran
program calculo
        use mod_newton
        real::Rs!raiz de la ecuacion
        real::Rh,Rv,preci,pi,R12,R34,R21
        real::R43,R23,R41,R32,R14
        integer::niter
        real::Rs0!primera aproximacion
R12=3.91*10**3!Introducimos los valores medidos
R34=3.95*10**3
R21=4.51*10**3
R43=4.6*10**3
R23=3.99*10**3
R41=3.98*10**3
R32=4.13*10**3
R14=4.72*10**3
Rv=(R12+R34+R21+R43)/4.0
Rh=(R23+R41+R32+R14)/4.0
pi=acos(-1.0)
Rs0=pi*(Rh+Rv)/(2.0*log(2.0))
niter=1000000!Numero maximo de iteraciones
preci=0.00001
call newton(Rs0,niter,preci,Rs)
print*,"La raiz es Rs=", Rs, "ohm"
print*, "Rv=", Rv, "ohm"
print*,"Rh=", Rh, "ohm"
end program calculo
```