

```
! (FIRST) roots of a 2nd degree equation with real coefficients
program second_degree_eq
implicit none
real :: delta
real :: z1, z2
real :: a, b, c
print *, "Solving ax^2+bx+c=0, enter a, b, c:"
read (*,*) a, b, c
delta = sqrt(b**2 - 4.0*a*c) ! square root of discriminant
z1 = -b + delta
z2 = -b - delta
z1 = z1/(2.0*a)
z2 = z2/(2.0*a)
write(*,*) "Real roots: ", z1, z2
end program second_degree_eq
```