```fortran
 1: program raizes
 2: open(15,file="raizesresultado.txt")
 3: TOLX = 1.E-6
 4: X = 1.
 5: FOLD = func(x)
 6: DX = .5
 7: ITER = 0
 8: EXATA = sqrt(5.0)
 9: 10 continue
10:    ITER = ITER + 1
11:    X = X + DX
12:    ERROR = ABS(EXATA-X)/EXATA *100
13:    write(15,*)ITER, X, ERROR,"%"
14:    if ((FOLD*FUNC(X)) .LT. 0) then
15:       X = X - DX
16:       DX = DX/2
17:    END IF
18:    if (ABS(DX) .GT. TOLX) GOTO 10
19: STOP
20: END
21:
22: real function func(x)
23: func = x**2 - 5
24: end
```