

TEST RUN OUTPUT

```

          2 -2
weight W(x)=(1 + x )
          x
argument z(x)=-----
          2
          Sqrt[1 + x ]
integration region {a,b}={1, Infinity}
Degree of formula
n=4
Precision
moment Nm=50
Jacobi Nz=25
final Na=17
MachinePrecision=16
FORTRAN file
gqxw.f
Evaluating moment zi W[x]...
Orthogonal polynomial and Jacobi matrix ...
...50%
...75%
...100%
abscissas {0.7256104344253013423139944,
0.7958055094055824274365386,
0.8903722295270473536795167, 0.9694266243792582481606508}
weights
{0.03195637520929926237416762, 0.05374487069221355129581688,
0.04253315530115163329036328, 0.014464680496059707847482635}
Check results
    exact moment,          moment by GQ,      (relative error)
m0: 0.142699081698724155, 0.142699081698724155, (0.e-18)
m1: 0.117851130197757921, 0.117851130197757921, (0.e-18)
m2: 0.098174770424681039, 0.098174770424681039, (0.e-18)
m3: 0.082495791138430545, 0.082495791138430545, (0.e-18)
m4: 0.069920718545673853, 0.069920718545673853, (0.e-18)
m5: 0.059767358886005803, 0.059767358886005803, (0.e-18)
m6: 0.051512949091046158, 0.051512949091046158, (0.e-18)
m7: 0.044755369682243782, 0.044755369682243782, (0.e-18)
*** computation time=1[sec]
```