

1>

simple trapeziodal rule

6.378800000000000e-01

simpson 1/3rd rule

1.321278333333333e+00

the simpson 3/8th rule

1.641933750000000e+00

2>

newtoncotes for n=1

2.776801836348979e-01

error in newton-cotes for n=1

-1.521303636510213e-02

newton-cotes for n=2

2.929326378397480e-01

error in newton-cotes for n=2

3.941783974803492e-05

newton-cotes for n=3

2.929107025491715e-01

error in newton-cotes for n=3

1.748254917144365e-05

newton-cotes for n=4

2.353572391275280e-01

error in newton-cotes for n=4

-5.753598087247203e-02

3>

Integration by Guass-Legender

1.090909090909091e+00

newton-cotes for n=1

1.333333333333333e+00

newton-cotes for n=2

1.111111111111111e+00

on coamparing Gauss-Legender with newton-cotes for n=1

-2.424242424242424e-01

on coamparing Gauss-Legender with newton-cotes for n=2

-2.020202020202033e-02

4>

guass 2 point integration

1.094002611975542e-01

guass 3 point integration

2.850061099984277e-01

by composite trapeziodal rule n=2

4.462507200177512e-01

error in guass 2 point comparision with composite trapeziodal rule for n=2

-3.368504588201970e-01

error of guass 3 point in comparision with composite trapeziodal rule n=2

-1.612446100193235e-01

by tarapeziodal rule n=4

8.792910901674812e-01

error in guass 2 point comparision with composite trapeziodal rule for n=4

-7.698908289699270e-01

error of guass 3 point in comparision with composite trapeziodal rule n=4

-5.942849801690535e-01

by simpson rule n=2

8.748876402114742e-01

error in guass 2 point comparision with simpson rule for n=2

-7.654873790139201e-01

error of guass 3 point in comparision with simpson rule for n=2

-5.898815302130466e-01

by simpson rule n=4

1.850476496919173e+00

error in guass 2 point comparision with simpson rule for n=4

-1.741076235721619e+00

error of guass 3 point in comparision with simpson rule for n=4

-1.565470386920746e+00

5>(a)3.412211416986809e-01

(b)9.324306192447216e-01

(c) 6.361965649627966e-0

