

Hw4_5

Numerical result :

(1)Midpoint:

n =	17 , h=	0.0625000 , p1 =	1.4156585
n =	33 , h=	0.0312500 , p1 =	1.4430462
n =	65 , h=	0.0156250 , p1 =	1.4610153
n =	129 , h=	0.0078125 , p1 =	1.4730512
n =	257 , h=	0.0039063 , p1 =	1.4812428
n =	361 , h=	0.0027778 , p1 =	1.4842759
n =	1025 , h=	0.0009766 , p1 =	1.4907957
n =	4001 , h=	0.0002500 , p1 =	1.4953854
n =	40001 , h=	0.0000250 , p1 =	1.4985500
n =	400001 , h=	0.0000025 , p1 =	1.4995298

(2) Trapezoidal:

n =	17 , h=	0.0625000 , p1 =	1.4681452
n =	33 , h=	0.0312500 , p1 =	1.4778834
n =	65 , h=	0.0156250 , p1 =	1.4845618
n =	129 , h=	0.0078125 , p1 =	1.4891821
n =	257 , h=	0.0039063 , p1 =	1.4923992
n =	361 , h=	0.0027778 , p1 =	1.4936058
n =	1025 , h=	0.0009766 , p1 =	1.4962286
n =	4001 , h=	0.0002500 , p1 =	1.4980989
n =	40001 , h=	0.0000250 , p1 =	1.4994005
n =	400001 , h=	0.0000025 , p1 =	1.4998026