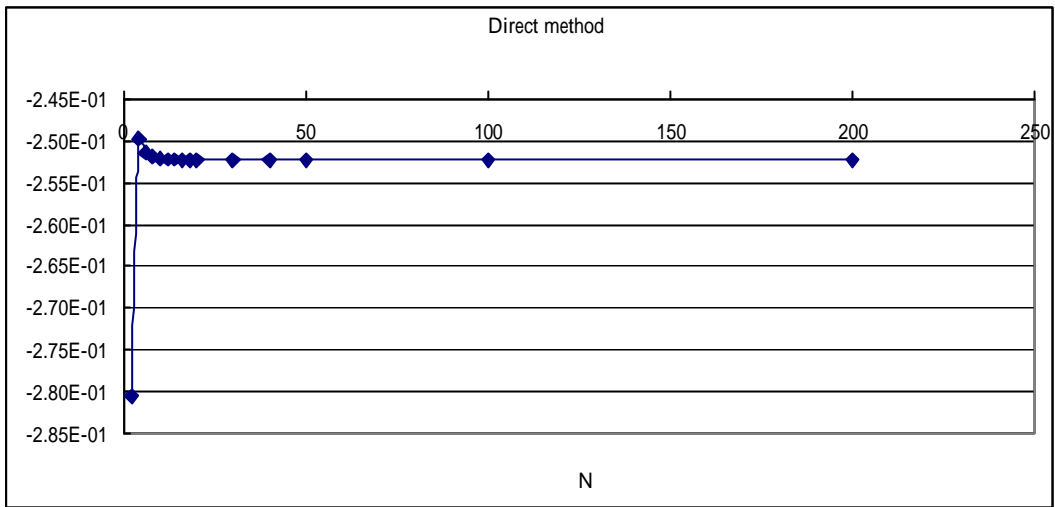


Direct method	
N	$\int_{-1}^1 \frac{\cos(x)\sqrt{1-x^3}}{x}$
odd	Run time error
2	-2.806184E-01
4	-2.497643E-01
6	-2.514189E-01
8	-2.519251E-01
10	-2.521223E-01
12	-2.522148E-01
14	-2.522638E-01
16	-2.522917E-01
18	-2.523091E-01
20	-2.523203E-01
30	-2.523423E-01
40	-2.523474E-01
50	-2.523498E-01
100	-2.523516E-01
200	-2.523512E-01

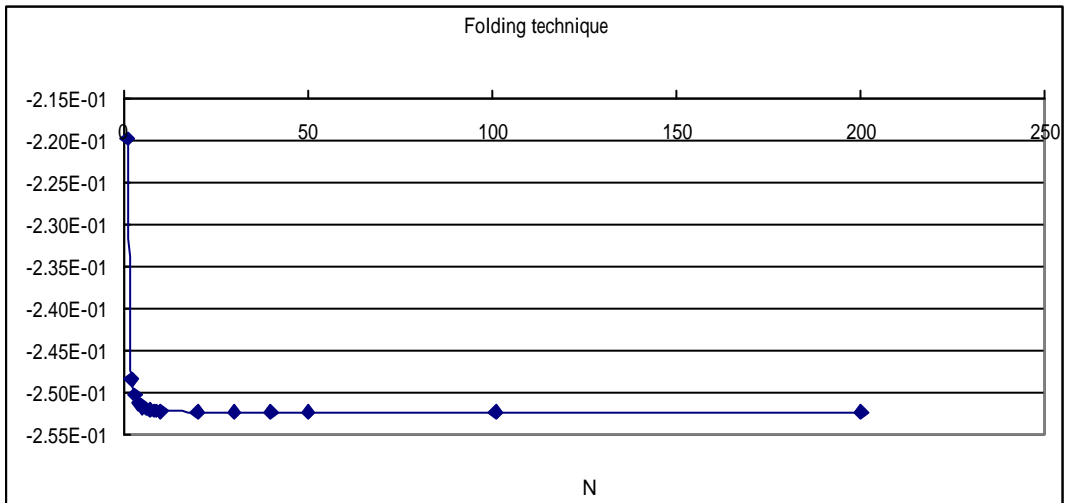
Folding technique	
N	$\int_{-1}^1 \frac{\cos(x)\sqrt{1-x^3}}{x}$
1	-2.198271E-01
2	-2.484298E-01
3	-2.503250E-01
4	-2.513582E-01
5	-2.517951E-01
6	-2.520105E-01
7	-2.521281E-01
8	-2.521974E-01
9	-2.522409E-01
10	-2.522694E-01
20	-2.523407E-01
30	-2.523485E-01
40	-2.523504E-01
50	-2.523512E-01
101	-2.523518E-01
200	-2.523519E-01

Addition and subtraction method	
N	$\int_{-1}^1 \frac{\cos(x)\sqrt{1-x^3}}{x}$
1	0.000000E+00
2	-2.806184E-01
3	-2.453655E-01
4	-2.497644E-01
5	-2.508990E-01
6	-2.514190E-01
7	-2.517384E-01
8	-2.519251E-01
9	-2.520438E-01
10	-2.521223E-01
20	-2.523204E-01
30	-2.523423E-01
40	-2.523477E-01
50	-2.523499E-01
101	-2.523515E-01
200	-2.523519E-01

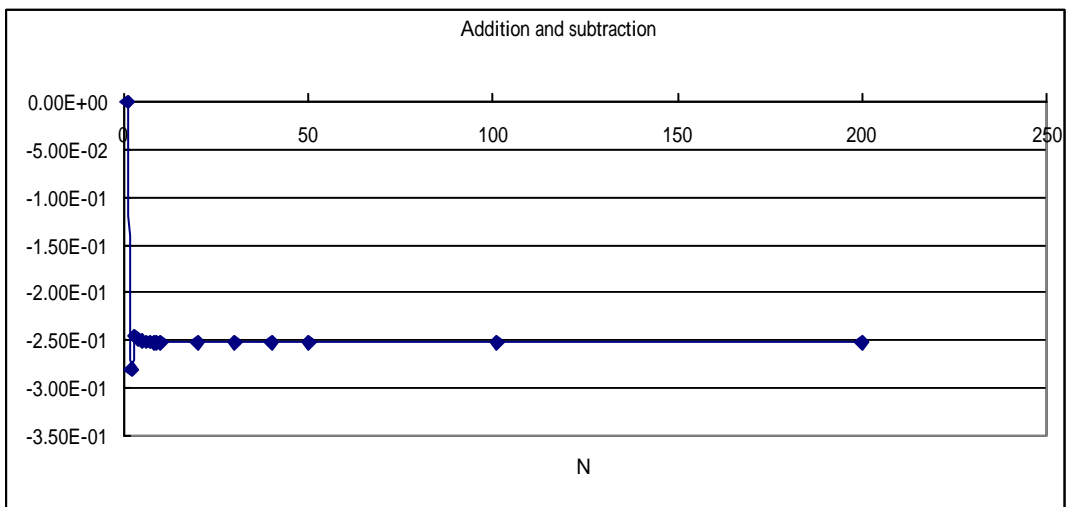
Direct method



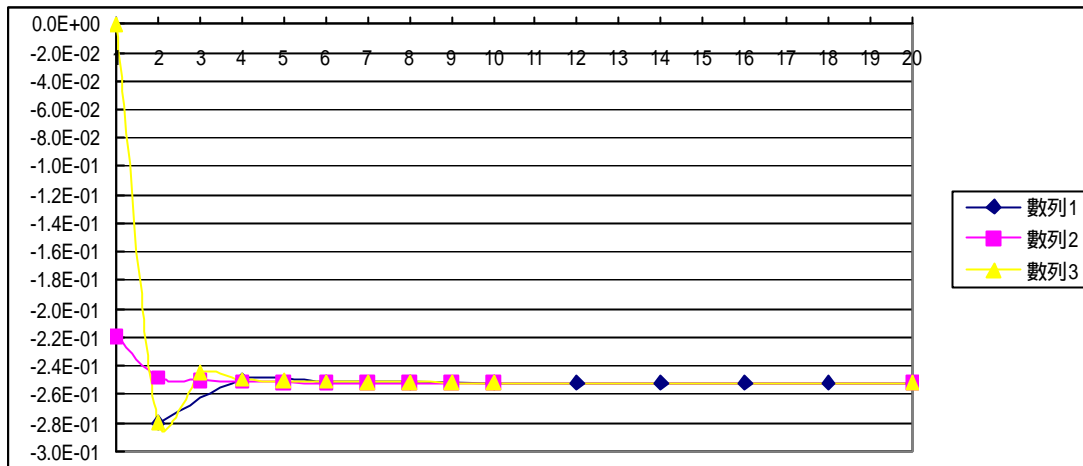
Folding technique



Addition and subtraction



Compare three methods when $n=1$ to $n=20$



數列 1 : Direct method

數列 2 : Folding technique

數列 3 : Addition and subtraction method

由圖形可知在 $n=3$ 時，Folding technique 就已非常接近-0.252，所以收斂速率最快者為數列 2， Folding technique。