Integration Test Results

Results

Method	Romberg	Simpson	Lobatto	TanhSinh	G7K15	G15K31	G30K61
f1	2,3504	2,3504	2,3504	2,3504	2,3504	2,3504	2,3504
f2	1,6829	1,6829	1,6829	1,6829	1,6829	1,6829	1,6829
f3	-2,5182	-2,5182	-2,5182	-2,5182	-2,5182	-2,5182	-2,5182
f4	1,5708	1,5708	1,5708	1,5708	1,5709	1,5708	1,5708
f5	0,7349	0,7350	0,7350	0,0060	0,7298	0,7830	0,7571
f6	1,7854	1,7854	1,7854	1,7854	1,7855	1,7854	1,7854
f7	NaN	NaN	?	2,8284	2,7638	2,7973	2,8126
f8	6,072E+11	2,769E+09	48,3544	48,5144	8,3782	10,2330	11,9588

Error

Method	Romberg	Simpson	Lobatto	TanhSinh	G7K15	G15K31	G30K61
f1	1,512E-15	1,564E-11	0,000E+00	1,134E-15	1,889E-16	0,000E+00	0,000E+00
f2	9,368E-15	1,215E-13	1,319E-16	1,319E-16	1,319E-16	1,319E-16	0,000E+00
f3	2,469E-15	2,653E-09	3,527E-16	8,818E-16	1,882E-05	7,804E-10	0,000E+00
f4	1,665E-07	3,582E-11	3,110E-15	2,827E-16	6,859E-05	7,643E-06	9,978E-07
f5	7,921E-05	1,672E-07	2,657E-12	9,918E-01	7,054E-03	6,524E-02	3,009E-02
f6	7,324E-08	1,050E-09	1,368E-15	1,244E-16	3,017E-05	3,362E-06	4,389E-07
f7	NaN	NaN	?	3,647E-09	2,284E-02	1,102E-02	5,594E-03
f8	1,277E+10	5,825E+07	1,729E-02	2,066E-02	8,237E-01	7,847E-01	7,484E-01

Iteration count

Method	Romberg	Simpson	Lobatto	TanhSinh	G7K15	G15K31	G30K61
f1	14	7169	425	117	15	31	61
f2	14	7169	395	59	15	31	61
f3	14	29381	2075	117	15	31	61
f4	14	30861	2975	57	15	31	61
f5	14	201	455	73	15	31	61
f6	14	15513	1445	59	15	31	61
f7	14	39369	10085	7457	15	31	61
f8	14	64297	425	7457	15	31	61

Precision = 10^{-14}