TABLE II

Integration of a Single Gaussian in Nine Dimensions[a]

VEGAS					
	Per iteration		Cumulative		
Iteration	I_i	σ_i	I	σ_I	No. of integrand evaluations
1	0.007	0.005	0.007	0.005	10^4
3	0.643	0.070	0.612	0.064	3×10^4
5	1.009	0.041	0.963	0.034	5×10^4
10	1.003	0.008	1.001	0.005	10^5
Crude Monte Carlo			0.843	0.360	10^5

Gauss–Legendre Integration		
No. of points/axis	Integral	No. of integrand evaluations
5	71.364	2.0×10^6
6	0.017	1.0×10^7
10	0.774	10^9
15	1.002	3.8×10^{10}

[a] The exact result is 1.

TABLE III

Integration of a Double Gaussian in n Dimensions[a]

	VEGAS				
	$n = 2$	$n = 4$	$n = 7$	$n = 7$	$n = 9$
No. function evaluations/iteration	20,000	20,000	32,000	160,000	100,000
No. increments/axis	50	50	50	50	50
Optimal standard deviation	0.007	0.02	0.05	0.02	0.06
Cumulative result after 15 iterations	0.999	1.003	1.015	0.991	0.96
	±0.002	±0.006	±0.015	±0.007	±0.04
	SHEP				
	$n = 2$	$n = 4$	$n = 7$	$n = 7$	$n = 9$
No. function evaluations/iteration	20,000	20,000	32,768	170,000	3,906,250
No. increments/axis	100	10	4	5	5
Optimal standard deviation	0.0008	0.03	1.0[b]	0.25	**[c]
Cumulative result after 15 iterations	1.0001	1.004	*	0.90	**
	±0.0002	±0.008	*	±0.04	**

[a] The exact result is 1.
[b] Algorithm would not converge.
[c] Too large to be tried.